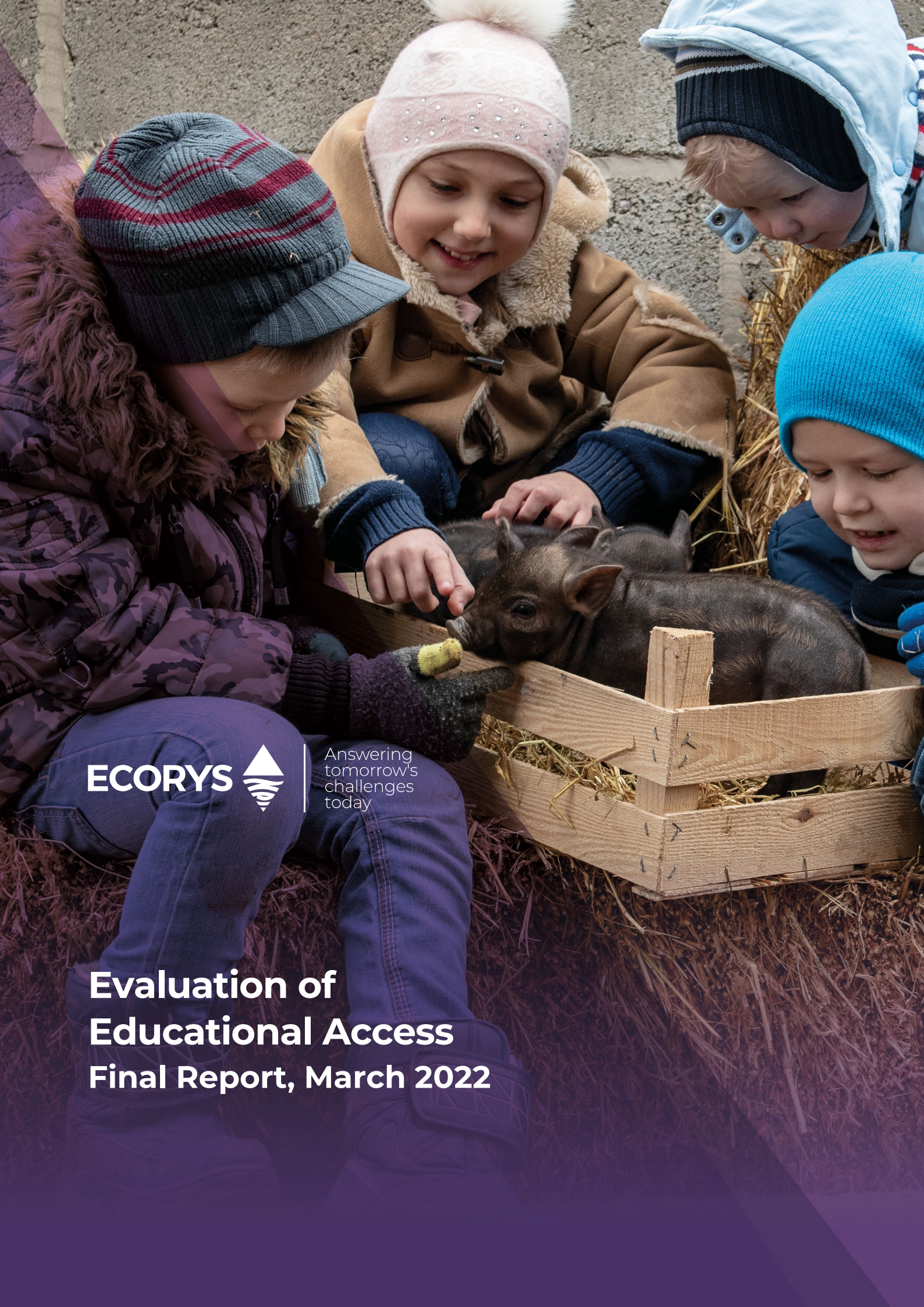

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Evaluation of Educational Access

Final Report, March 2022

Prepared for Natural England, March 2022

Authors:

- Rhiannon Cottrill
- Jenny Molyneux
- Valdeep Gill
- Mariya Yanishevskaya
- Helen Main
- Beki Van Zanten
- Samuel Greet
- Mark Leather

Contents

List of Figures

List of Tables

Executive summary

Executive Summary

An evaluation of Defra's *Educational Access* option.

Background

The educational access option provides opportunities for school pupils to visit farm and wildlife sites to learn, understand and become engaged with farming and the environment. During visits, educational groups can learn about the links between farming, food production, conservation, landscape, and historical features whilst developing field study, research, and other curricular skills.

Available as part of Defra's agri-environment schemes, the educational access option offers payment to scheme participants ('providers') who host school visits on their farms and or wildlife sites.

The Evaluation

In October 2021, Ecorys was commissioned by Natural England to evaluate the current delivery of educational access and draw comparisons with best practice in outdoor learning as explored in literature. Specifically, the evaluation aimed to answer the following questions:

1. What curriculum subjects and topics and pedagogical approaches can be delivered within (non-residential) outdoor learning?
2. What curriculum subjects and topics and pedagogical approaches are currently being delivered on educational access sites?
3. How does the current approach to educational access compare to optimal approaches within (non-residential) outdoor learning?
4. What are the facilitators and barriers towards the implementation of optimal approaches within (non-residential) outdoor learning?

The mixed-method approach consisted of: (a) a literature review which examined best practice of curriculum content and pedagogy within outdoor learning, (b) a survey of existing educational access providers to understand how visits are currently delivered, and (c) in-depth interviews to explore examples of how providers tailored teaching and learning to their farm or wildlife site. Findings from each work package were triangulated in order to answer the research questions.

Key Findings

Optimal approaches to outdoor learning

- Outdoor learning should not be seen as standalone but linked to classroom learning. There is potential to cover a wide range of curriculum subjects and topics in an outdoor learning environment.
- Co-planning and co-delivery between providers and teachers are important and enable visits to be tailored to both the place and pupils visiting. Visits should be planned to link to learning outcomes, with pre-visits from teachers helping to ensure that learning is tailored to the specific outdoor setting.
- Pupil-led activities and group work are particularly effective ways of encouraging pupil engagement and the development of soft skills such as teamwork and communication.
- Outdoor learning has a range of other mental and physical health benefits for pupils. It also helps to bring curriculum subjects to life, and in some cases improves pupils' learning recall and academic achievement.

How visits are currently delivered

- **Providers often led on planning and delivery of educational access visits**. Visits tended to work well if teachers engaged with planning and facilitating the visit.
- Some teachers had a fixed idea of learning goals or curriculum areas they wanted to cover during visits, but others didn't. **In reality, activities often related to a range of curriculum topics**.
- With careful and imaginative planning from providers and teachers, **there is great potential to cover a wide range of curriculum subjects during educational access visits.** By visiting the site in advance, teachers can get a better feel for how they could link the visit to activities in the classroom.
- **Short, practical activities engaged pupils across all age groups and brought curriculum subjects to life**. In some cases, this helped to engage pupils who might struggle in a classroom-based environment.
- Providers' main motivations for taking part in educational access were to facilitate a connection between pupils, farming, and the environment. **They considered visits successful if pupils were engaged and had fun.**

Addressing the gaps

- **Overall, providers communicated well with teachers** and delivered activities in a range of ways to suit different types and ages of pupils, which brought about a range of learning benefits.
- However, **co-planning and co-delivery was limited** and teachers did not always visit the site in advance, mainly reflecting capacity constraints. **Visits were not always linked to curriculum subjects**, particularly for younger pupils. This was because providers did not have time, knowledge, or confidence to plan place-based activities which linked to the curriculum.
- Instead, **providers took the lead in planning and delivering visits** to minimise the burden on teachers, drawing on their knowledge of the site and experience of what works well.
- This meant that **providers relied on their own knowledge of the national curriculum, which could be limited or out-of-date.** Working with teachers to understand how visits could link to classroom-based activities would help make visits even more valuable.

Overcoming potential barriers

- A lack of knowledge about the educational access option and **a lack of confidence in engaging with a school audience could put off potential new providers**, who might be concerned by safety or behaviour management.
- **Current providers encountered difficulties in engaging with schools**. It was therefore important to maintain strong relationships with schools and offer repeat visits to overcome barriers around initiating engagement with schools which could be time-consuming.
- Providers were told that **transport costs were a main barrier preventing schools from taking up visits**. Other hurdles included teacher capacity, including staffing, time, and curriculum pressures.
- **Certain structural barriers were reported around funding and engagement with Natural England**. Some providers suggested that the educational access option should remove restrictions around age and number of visits to enable providers to expand their offer if they wished to.
- In order to provide more relevant learning opportunities, **providers could be better equipped with information on the national curriculum and ideas on how coverage can be supported** in different settings.

01

Context

1.0 Context

This report discusses the key findings of an evaluation of the educational access option, carried out by Ecorys. Available as part of Defra's agri-environment schemes, the educational access option offers payment to providers who host school visits on their farms or wildlife sites. In October 2021, Ecorys was commissioned by Natural England to evaluate current delivery and draw comparisons with best practice in outdoor learning as explored in literature. This final report presents the evidence collected during the evaluation and uses it to answer the evaluation research questions and provide recommendations for future delivery. This chapter presents an overview of the educational access option and approach to the evaluation.

1.1 Educational access option

The educational access option provides opportunities for school pupils to visit farm and wildlife sites to learn, understand and become engaged with farming and the environment. During visits, educational groups can learn about the links between farming, food production, conservation, landscape, and historical features whilst developing field study, research, and other curricular skills. Educational access is one way in which schools can incorporate outdoor learning into their teaching, alongside a range of other on-site and off-site options.

Educational access was first made available via the Countryside Stewardship Scheme (CSS), then facilitated through Higher Level Environmental Stewardship (HLS) via the HN9 option, where each visit was funded at £100 and a minimum of four visits had to be undertaken before an annual claim could be made. More recently, the educational access option (referred to as ED1)[1] has been made available via the Mid-Tier and Higher Tier Countryside Stewardship (CS) which funds farmers ('providers') £309 per school group visit, for up to a maximum of twenty-five visits per year. Providers who currently offer educational access visits participate in either HLS or CS and so the number of visits they host and the renumeration they receive for hosting visits will depend on which scheme they are participating in.

The scheme is open to farmers, woodland owners, foresters, and other land managers and is suitable for a range of land use types, including conventional and organic farmland, coastal areas, uplands, and woodlands. Providers now require Countryside Educational Visits Accreditation Scheme (CEVAS) training which involves two days' attendance at a farm or countryside location or, alternatively, is delivered through six online sessions. The training covers practicalities involved in hosting visits such as preparing health and

[1] Rural Payments Agency & Natural England (2015). *ED1: Educational access*. [online] https://www.gov.uk/countryside-stewardship-grants/educational-access-ed1

safety measures, communicating effectively with teachers and pupils, and integrating farming into the school curriculum.

Educational access is open to participating groups of children under 18 years old. Whilst not a focus for this evaluation, the option is also open to visitors from a care farm setting, with no age limit in place for this part of the scheme. The focus of the educational access option is to facilitate access to farm settings for mainstream school groups, rather than wider interest groups (youth clubs, toddler groups, respite care and extra-curricular tasks). The educational access option does not determine a maximum party size for visits, and a claim can be made for one group visiting a holding at any one time. Site visits usually take place in the school day and last at least two hours. At the end of each visit claimed, an evaluation form is completed by participating teachers.

The educational access option provides the opportunity for educational groups to learn about a range of subjects, not limited to those subjects such as geography and science which might be most conventionally associated with farms. The option allows for wider aspects of the curriculum to be delivered on a farm visit, ranging from history and maths to design and technology and ICT. Under the option, the provider (which might also be a designated farm employee) often accompanies school groups on the visit in order to provide information about the farm and the environmental benefits arising through its taking part in an agri-environment scheme. Providers are encouraged to self-publicise and organise school visits themselves, and so the number of visits, types of schools, and ages of pupils varies. For example, some providers have close relationships with schools who they host frequently, whereas others might welcome schools occasionally.

The educational access option facilitates access to farms and other natural environments for educational groups. These programmes provide benefits to all involved, including providers, teachers, and school children. Children benefit from developing curricular skills and learning through practical demonstrations about various topics such as the landscape, farming practices, and food production. The programmes also benefit providers as they help raise the profile of their farm, share what they do and raise awareness of important issues, including sustainability and conservation. While the key objectives of the agri-environmental schemes are to promote more sustainable farming practices, a significant priority is ensuring that school children develop an awareness of the issues and current practices farmer's use. Research by Marchant, et al (2019)[2] shows that non-traditional learning, while not widely adopted, affords multiple benefits to children. According to Lovell (2016),[3] there is a link between being in natural environments and positive impacts on mental health, and more specifically for children, being in the outdoors supports their cognitive, emotional, and behavioural functioning. Outdoor learning also enriches children's education by providing a tangible link between what they are learning in the classroom and the natural environment. Despite several studies demonstrating the value of outdoor learning, there is limited evidence around best practice of non-residential outdoor learning and its benefits. Previous reviews of the educational access option identified better ways for information to be shared to teachers about the visits, and that teachers explored limited areas of the curriculum during farm visits, meaning that school children did not get the most out of the visits.[4] This evaluation will add to the evidence base by developing robust

[2] Marchant et al. (2019) *Curriculum-based outdoor learning for children aged 9-11: A qualitative analysis of pupils' and teachers' views*. [online] https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0212242
[3] Lovell, R. (2016) *Links between natural environments and mental health: evidence briefing*. [online] http://publications.naturalengland.org.uk/publication/5748047200387072
[4] Bowden et al. (2007). *Evaluation of Educational Access under Defra Agri-Environment Schemes.* [online] http://sciencesearch.defra.gov.uk/Default.aspx?Menu=Menu&Module=More&Location=None&Completed=0&ProjectID=14342

insights about the best practices in non-residential outdoor learning, making comparisons to the current provision of educational access in order to make key recommendations for the scheme.

1.2 Aims of the evaluation

Ecorys was commissioned in October 2021 by Natural England and the Department for Environment, Food and Rural Affairs (Defra) to conduct an evaluation of the Educational Access option.

The overarching aim of the 2021/22 evaluation is to develop insights about the best practices in non-residential outdoor learning, in comparison to the current provision of educational access. Specifically, the evaluation objectives were:

1. To understand the optimal content and delivery of environmental/food production and other areas of the curriculum that can be delivered outdoors on educational access sites and develop a list of most relevant curriculum topics and a summary of successful pedagogical approaches that could be utilised at such sites.
2. To record, review and summarise the content and pedagogical approaches of environmental education provision funded by the current stewardship scheme and the factors that may affect delivery (including characteristics of the provider and the site).
3. To analyse current content and pedagogical approaches with respect to optimal approaches and the characteristics of providers and their farms.
4. To develop recommendations that support improvements to educational access to improve value such as:
    a. To identify the characteristics, qualifications, and aptitudes of land managers (providers) who provide educational access that delivers high quality experiences,
    b. the content of the Environmental Land Management Scheme (ELMS) and guidance for land managers (providers) providing educational access and teachers who wish to visit educational access sites.

Therefore, the evaluation will provide crucial insights about what the best practices are, and how barriers to outdoor learning can be overcome, to ensure that school children, providers and schools get the most out of these opportunities. The evaluation scope includes visits to farms and wildlife sites from children and young people from Key Stages 1 -4. It does not include an assessment of care farming or special needs provision, except where pupils with particular needs are included within mainstream education.

This evaluation builds on a 2002-2003 review of access in agri-environment schemes by Defra and a 2007 study by Bowden et al (2007)[5] on the potential of farm visits for education, although this did not specifically address the topics of content or teaching approaches appropriate for outdoor learning settings. The focus of this evaluation is somewhat different to this previous work as it seeks to review current best practice in non-residential outdoor learning, then compare this with what is currently being delivered through the Educational Access option.

The methodological approach for the evaluation (outlined in more detail in chapter 2) involves fieldwork with educational access providers to understand how the existing Educational Access option is being

[5] Bowden et al (2007). *Evaluation of Educational Access under Defra Agri-Environment Schemes.* [online] http://sciencesearch.defra.gov.uk/Default.aspx?Menu=Menu&Module=More&Location=None&Completed=0&ProjectID=14342

delivered, and a literature review to understand best practice in outdoor learning more generally. In comparing the two, the evaluation will identify the extent to which current delivery reflects optimum delivery, as identified in the literature. The findings of the evaluation will inform how to improve practices and the quality of non-residential outdoor learning. It is expected that this will enable children to get the most out of their experience, and providers and teachers will have a better understanding about how to provide the most effective outdoor learning. This supports Defra's ambitions to expand educational access provision as part of its 25 Year Environment Plan goals.[6]

1.3 Report outline

This report summarises the results of the evaluation fieldwork and draws upon findings on best practice from the literature to identify recommendations for stakeholders that could increase the value gained from visits to educational access sites.

The following chapter sets out the methodological approach to the evaluation and summary findings from each task. In chapter three, the findings are discussed thematically, focusing on how educational access is currently delivered (drawing upon the survey and interviews with providers) and comparing current delivery to evidence on optimal approaches to outdoor learning (identified during the literature review). Finally, chapter three identifies success factors and barriers to delivering educational access before chapter four sets out the evaluation's key findings and makes recommendations for Defra, providers, trainers, and teachers that support improvements to the educational access option. The annexes of the report include the evaluation framework, survey questionnaire, online interview topic guide and literature review that was conducted as part of the evaluation.

[6] Defra (2020). *The Path to Sustainable Farming: An Agricultural Transition Plan 2021 to 2024.* [online] https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/954283/agricultural-transition-plan.pdf

02

Methodology

2.0 Methodology

The overall methodological approach to the evaluation was informed by the specifications in the Invitation to Tender (ITT) and consisted of (a) a review of programme documentation to inform the development of research questions and evaluation framework, (b) a literature review of best practice in outdoor learning, focusing on curriculum and pedagogy, (c) an online survey and in-depth interviews with educational access providers to understand current practice, (d) analysis comparing current delivery to best practice in outdoor learning, so to inform recommendations for future developments. As requested by Natural England, this chapter outlines the methodology used in the evaluation and presents overview findings from each research task.

2.1 Research design

Following the project kick-off meeting where the context of the evaluation of Educational Access was discussed in more detail, Ecorys reviewed a number of key background sources of information to help inform the design of the evaluation framework. These included key sources of literature such as *"Agri-environment schemes in England 2009,"*[7] *"Links between natural environments and mental health: evidence briefing",*[8] and *"Evaluation of Educational Access under Defra Agri-Environment Schemes"*[9] which provided an overview of why outdoor learning, and specifically educational access, was beneficial for children and young people, including a previous evaluation of the educational access option. Ecorys also reviewed key programme documents such as published information on Countryside Stewardship,[10] Educational Access[11] and details around training which providers complete to support the delivery of the educational access option.[12] These highlighted the eligibility criteria for providers wishing to offer educational access as well as some of the guidance available to support them with the planning and delivery of visits.

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[7] Natural England (2009). *Agri-environment schemes in England 2009.* [online] http://publications.naturalengland.org.uk/publication/46002

[8] Lovell, R (2016). *Links between natural environments and mental health: evidence briefing.* [online] http://publications.naturalengland.org.uk/publication/5748047200387072

[9] Bowden, C and Drew, B., et al (2007). *Evaluation of Educational Access under Defra Agri-Environment Schemes.* [online] http://sciencesearch.defra.gov.uk/Default.aspx?Menu=Menu&Module=More&Location=None&Completed=0&ProjectID=14342

[10] Rural Payments Agency (2020). *Countryside Stewardship.* [online] https://www.gov.uk/government/collections/countryside-stewardship

[11] Rural Payments Agency & Natural England (2015). *ED1: Educational Access.* [online] https://www.gov.uk/countryside-stewardship-grants/educational-access-ed1

[12] Access to Farms (2021). *What are CEVAS Courses?* [online] https://leaf.eco/access-to-farms/courses

Based on this document review, research objectives outlined by Natural England in the ITT (see section 1.2), and at inception stage, Ecorys designed a set of evaluation questions to underpin the delivery of the work. The evaluation questions reflect the particular focus and remit for the research as articulated by Natural England at the outset, and the associated budgetary allocation available for the work. The brief for the work was to focus particularly on the curriculum subjects that can be supported on farm settings, and the teaching approaches (pedagogical approaches) that can be effective in supporting learning as part of visits to farms.

These questions, presented below, then formed the basis of the analytical framework (see annex 1) which in-turn presented a structure through which the evidence from each evaluation task could be analysed.

What curriculum subjects and topics and pedagogical approaches can be delivered within (non-residential) outdoor learning?

What curriculum subjects and topics and pedagogical approaches are currently being delivered on educational access sites?

How does the current approach to educational access compare to optimal approaches within (non-residential) outdoor learning?

What are the facilitators and barriers towards the implementation of optimal approaches within (non-residential) outdoor learning?

These research questions focused on optimal and current practice with regards to curriculum and pedagogy, as emphasised in the ITT. Whilst the aim of the evaluation was to focus on facilitators and barriers around the effective delivery of curriculum and pedagogy during educational access visits, it is recognised that more general facilitators and barriers could have indirect effects on effective delivery of curriculum and pedagogy and so the framing of the questions ensured the scope was wide enough to capture all relevant facilitators and barriers.

Whilst there are a range of issues that are interesting to explore when considering 'what works' in the context of the visits facilitated through the educational access option, it should be noted that this evaluation reflects its overarching brief to focus in on the curriculum coverage and pedagogical approaches specifically – understanding what currently is delivered in practice and the opportunities to align more closely with best practice in this area according to literature. The discreet focus of the work in part reflects the timescales and budget for the evaluation, as defined by Natural England. Reflecting the clear delineation of the brief, the evaluation questions were developed to align closely with the overarching objectives for the evaluation, as outlined by Natural England at the outset of the work. These research questions therefore struck a balance between keeping the scope of the evaluation focused on its core objectives without being too narrow, to ensure that contextual factors could also be captured.

In terms of limiting factors, it should be noted that limited programme documentation was available as part of the evaluation, and the definition of the research questions and evaluation framework was therefore based on the requirements of the evaluation as outlined by Natural England, the context for the scheme made available at the outset of the work and the information in the public domain. The evaluation timescales established by Natural England at the outset of the work also dictated that the research questions should closely reflect the aims of the work at outlined by Natural England, rather than being derived as part of a broader process of document review and contextual research as might have been the case for a project with a longer lead-in time, and where there was less clarity in the overall aims for the research. The evaluation scope and timelines also meant there was no opportunity to observe educational

access visits, or talk to schools/teachers/pupils, in order to triangulate the findings and recommendations, which are solely based on provider feedback.

2.2 Literature review

The evaluation's first task consisted of a literature review into outdoor learning for Key Stages 1-4,[13] specifically considering day visits (rather than residential visits) to farms and wildlife sites. The literature review examined best practice of curriculum content and pedagogy[14] within outdoor learning as part of mainstream education. It outlined the benefits and drawbacks of learning content delivered outdoors and away from the school site; the advantages and disadvantages of different pedagogical approaches for different curriculum topics; and the outcomes associated with these approaches. Ecorys also undertook a scoping review of the current curriculum to identify subjects and topics where there would be the greatest benefits of including these as a focus for visits to educational access sites.

The strategy and methodology for identifying, screening, and reviewing literature was based on the evaluation framework (described in section 2.1). A Rapid Evidence Assessment (REA) approach[15] was adopted for the literature review. This approach was selected as it is appropriate for providing an overview of key and most relevant sources within literature within a short space of time, as an effective means of capturing overarching messages within a body of evidence.

The REA consisted of identifying a wide range of literature sources then selecting the most relevant literature through appraising it according to several key metrics. The metrics were established by the research team to determine a set of parameters by which the most relevant, and highest quality literature could be identified, bearing in mind the focus and research questions guiding the evaluation. The metrics for identifying the most relevant and highest quality literature included; level of rigour of the publication (considering the independence and nature of the source), the quality of the evidence (considering the quality of the design and research robustness), the relevance to Educational Access (the degree to which outdoor learning, and educational visits to farms and wildlife sites in particular are covered), and the relevance to research aims (the degree to which curriculum subjects/ topics and/or teaching/ learning approaches and their associated benefits are covered).

Literature was found by searching relevant databases and search engines,[16] publications pages of relevant organisations,[17] and through an internal call for evidence with project stakeholders.[18] In total, 136 pieces

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[13] Department for Education (2021). *The national curriculum*. [online] https://www.gov.uk/national-curriculum

[14] Pedagogy literally translates as the art or science of teaching children, though is often used as a synonym for "teaching" or "education". New World Encyclopaedia (2021). *Pedagogy*. Available at: https://www.newworldencyclopedia.org/entry/Pedagogy [accessed 10th January 2022]

[15] CEBMA (2022). *What is a Rapid Evidence Assessment (REA)?* [online] https://cebma.org/faq/what-is-an-rea/

[16] Key search terms ("Outdoor education"; "Outdoor learning"; "Nature learning"; "Learning outside"; "Udeskole" (Danish); "Friluftsliv (Scandinavian)"; "Froebelian'", "Forest School"; "Bush School"; "Beach school"; "Field Trip"; "Fieldwork"; "Farm visit") were combined with the following qualifiers: ("pedagogy" / "curriculum" / "teaching" / "learning" / "benefits"). As well as Google Scholar, the following databases were included in the desk research: Academic Search Complete, Education Research Complete, PsychArticles, PsychTest, Science Direct Journals, Freedom Collection, Scopus, SocIndex, SportDiscus.

[17] Websites of 25 organisations were consulted, including organisations focusing on outdoor education (e.g. Institute for Outdoor Learning, Council for Learning Outside the Classroom, Field Studies Council), wildlife organisations (e.g. National Trust, Forestry Commission, The Wildlife Trusts) and organisations who conduct activities with young people (e.g. Outward Bound Trust, Scout Association, Girl Guide Association).

[18] Based on the limited available time for searching the literature, this call for evidence was extended to a subject matter expert and the evaluation's Project Steering Group

of literature were found to be potentially relevant and screened by the project team. Each piece of identified literature was assigned a score for relevance against each of the quality metrics. The highest overall scoring literature was prioritised for review as part of the evaluation, and a double score rating applied to the research aims relevance metric to ensure that those sources with the highest relevance were prioritised. This approach meant that the most relevant literature (including grey literature) was prioritised for review across the limited timescales for the evaluation. Out of the total of 136 pieces of literature identified initially, 74 were reviewed in depth within the timeframes identified at the outset.

Literature was prioritised on its relevance to the evaluation questions and therefore not scored on the basis of its age. This decision was based on consultation with subject matter experts who advised that a reasonable proportion of the relevant literature was published in the not so recent past. Still, a balanced proportion of recent literature was included in the review, with 29 pieces of literature published in the past five years (2017-2021). The majority of literature (72% n=53) was published in or since 2010 or later . Coverage of examples from England and within the UK were included, whilst also taking into consideration relevant global literature, recognising that certain countries have a richly developed body of research in outdoor learning, or "Udeskole" (Danish) and "Friluftsliv" (Nordic). In total, over half (58% n=42) of the sources had a focus on the UK, whilst a large minority 42% (n=31) was framed in an international context.

The literature review was subject to several caveats and limitations. Firstly, the review was commissioned as part of a wider evaluation which was subject to a ringfenced budget and a particular remit or focus for the work. The most relevant literature sourced within a particular time period has been reviewed as part of the REA approach, and reflective of this, it should be noted that the number and range of sources reviewed are not exhaustive. Rather, the focus was on identifying and reviewing the most relevant sources of literature, guided by the remit and resource associated with the evaluation. Reflecting the brief for the work, as defined by Natural England, the literature review focused specifically on relevant curriculum content and pedagogical approaches, rather than a wider set of related issues.

The nature of literature sourced for review as part of the evaluation reflected gaps in coverage within the overall evidence base. Whilst a thorough review of relevant literature was undertaken it should be highlighted that limited sources of literature were identified which had a discrete focus on visits to farms and wildlife sites specifically. A large minority of the literature sources (42% n=31) did refer to educational visits to farms or wildlife sites, however these settings were often briefly mentioned as suggestions for where outdoor learning could take place with fewer articles focusing on the specificities of delivering education in these particular settings. Lessons and examples were therefore drawn from the overall body of literature concerning non-residential outdoor learning in order to identify gaps in coverage but also to consider effective practice which can be compared to existing practice on Educational Access sites, where relevant parallels can be drawn.

The literature review did not set out to specifically review barriers amongst particular groups (e.g. geographic areas or socioeconomic groups), reflecting the focus and remit for the work. However, where relevant, it captured facilitators and barriers relating to underrepresented groups (such as pupils from urban schools or those for whom English is a second or other language) where they affect successful delivery of curriculum subjects and pedagogical approaches either directly or indirectly.

The following points offer a summary overview of the key findings from the literature review, which are also discussed thematically in Chapter 3. The full literature review report is available to read in annex 4.

Benefits

- The literature focused on benefits of outdoor learning experiences to pupils, though some wider benefits for schools and teachers were referenced. The literature showed a gap in terms of coverage and consideration of the benefits of visits to farmers or outdoor learning providers.
- Providing new and different experiences outside the classroom was found to engage pupils with a range of learning styles, improving their engagement, focus and enthusiasm.
- Outdoor learning was associated with a wide range of positive benefits in terms of the learning experiences and outcomes that can be supported. Bringing curriculum subjects to life in an outdoor setting was found to improve pupils' learning recall and academic attainment. Outdoor learning was also linked to pupils' development of 'soft skills' supported within the national curriculum such as critical thinking, problem solving, social skills, and self-esteem.
- For teachers, outdoor learning provided an opportunity to trial alternative teaching approaches in a more relaxed environment, increase their skills and confidence in teaching in this setting, and build relationships more informally with their pupils.

Facilitators and Barriers in Delivering Outdoor Learning

- Good planning was key to ensuring that outdoor visits maximised potential links to the curriculum, particularly amongst secondary school groups. A consistent message across the reviewed literature was the importance of schools planning off-site visits in advance to maximise their value both in terms of providing learning opportunities for pupils and linking activities to the national curriculum.
- The literature highlighted mechanisms for effective planning, namely: co-planning between teachers, providers, and pupils; the development of lesson plans; and teacher training and support to use appropriate pedagogical approaches. Plans should be communicated to all stakeholders involved in visits to ensure shared understanding of the purpose of visits and learning outcomes, and teachers should be careful to ensure that activities are tailored to the outdoor setting, rather than simply representing classroom activities redeployed in an outdoor setting.
- The literature advocated for co-delivery between teachers and providers to maximise their combined knowledge of the pupils (teachers) and place (providers).
- Pupil-led activities were most commonly suggested and were perceived to encourage pupil agency and engagement. Group work was also cited as important in helping pupils to develop soft skills (e.g. teamwork and communication) and join forces with peers they might not usually work with in the classroom.
- The literature recommended that pupils should develop learning outputs to reflect upon what they learnt during the visit, such as a creative output, diary, presentation, or discussion.
- Notable barriers included limited time and resources amongst teachers and providers, and a lack of confidence, experience, and information about what works. More widely, schools often struggled with limited funding to facilitate outdoor learning visits, as well as limited buy-in from stakeholders such as parents/carers and school governors.

Curriculum Coverage and Opportunities

- There was limited coverage on how specific subjects may lend themselves to being delivered as part of outdoor learning or farm visits. This likely reflects that the available literature and research on this topic tended to provide more coverage of the benefits associated with outdoor learning in general.

- There was an overarching appreciation that a wide range of subjects and topics within the curriculum could potentially be supported through outdoor settings. There was a focus on the capacity of outdoor learning to facilitate learning about 'conventional' options (e.g. geography and science) reflecting the explicit opportunities to learn about natural world phenomena on farm settings.
- However, the curriculum scoping review pointed to a wide range of other curriculum subjects, for which opportunities exist to generate meaningful experiences and learning outcomes for young people, including history, design & technology, and English. There were only a small number of subjects for which a farm setting may not lend itself easily for effective outdoor learning visits, such as languages and music.
- However the apparent relevance of a subject/ topic to delivery in an outdoor or farm setting was often of secondary importance to the skills and engagement of the teachers and providers, and the communication between them. It is these factors that primarily act to make subjects and visits effective, relevant, and likely to result in positive outcomes.
- Thorough lesson plans with clear learning goals were important in ensuring curriculum objectives could be incorporated into outdoor learning visits, especially amongst secondary school groups. Planning lessons collaboratively with providers was considered beneficial, with pre-visits thought to be the most effective way to tailor lessons to the outdoor setting and provide teachers with confidence to focus on curriculum subjects.
- Importantly, outdoor learning should not be seen as standalone, but should be directly linked to classroom-based learning, ideally as part of an integrated project. However, for this to happen teachers need to be convinced of the value of outdoor learning and how it can be linked across the curriculum.
- Success is also dependent on buy-in from senior leaders who recognise the academic and non-academic benefits it can bring pupils and support their teaching staff in facilitating and delivering these visits.
- Some of the barriers to the successful integration of curriculum subjects related to the extent to which teachers considered the possibilities associated with outdoor learning (through teacher training and continuing professional development). This suggested that stakeholders and providers could further be supported to overcome the difficulties of integrating visits across different curriculum subject opportunities, particularly for Key Stages 3 and 4.

2.3 Survey

An online survey undertaken with providers aimed to build on the literature review by providing a detailed understanding of how educational access visits are delivered in different settings and to different age groups, taking into account barriers to delivery. In line with the evaluation questions, the survey consisted of:

- Initial screening questions that identified key information about providers, the sites they worked on, and their experience of facilitating outdoor learning including what training and guidance they used.
- How providers currently delivered educational access programmes, including how often they welcomed school groups, the range of schools and age groups they worked with, what curriculum topics were covered, and the teaching approaches providers used to engage pupils during the visits.
- Communication with teachers, including content and frequency of pre-visit communication, and how providers worked with teachers whilst pupils are on-site.

- Providers' perception of the educational access option, and any areas for improvement relevant to them, to teachers, or to the scheme in general.

As well as the evaluation's Project Steering Group, we sought feedback on the survey questionnaire from four providers who piloted the survey prior to its launch. They provided written or verbal feedback on the terminology used and relevance of answer options provided, as well as feedback on the user experience of completing the survey, which was taken into account during the design phase. The survey questions were refined on the basis of this feedback. The full questionnaire can be found in annex 2.

The survey was scripted and managed by Ecorys' in-house survey team, using dedicated online software platform, Confirmit. A total of 345 respondents, representing 40% of educational access providers, were invited to complete the survey[19] and received up to three reminder emails, sent once a week. The survey invitations clearly explained the research aims and included a privacy notice which detailed the legal basis for sharing their data and how Ecorys would store and use their personal data. The survey was in-field for three and a half weeks (4th – 30th January 2022). A total of 94 respondents started the survey, and 86 completed it, equating to a 25% response rate. The drop-off and overall response rate were consistent with other electronic surveys of this type undertaken by Ecorys' survey function.

As part of the survey analysis, individual responses were matched to information in the sample data which included organisation name and address and farm size in hectares. Individuals' addresses were aggregated up to region-level at analysis stage, and survey data tables were produced for each question (certain open-ended questions were coded) which segmented responses by region, farm size, farm type, agri-scheme, number of visits a provider host in a typical year, and length of time hosting educational access visits. Responses from large organisations who oversaw multiple sites (such as Councils, Wildlife Sites, and the National Trust) were also identified in the data tables. Any instances of where these sub-groups' responses were statistically significant were highlighted to demonstrate cases where responses varied by key provider characteristics.

Whilst a 25% completion rate was consistent with what we would typically expect from an online survey of this audience, a total of 86 responses limits the extent to which statistically significant assumptions that can be drawn from the quantitative data – particularly when looking at sub-groups such as comparing wildlife sites to farms. It was therefore sometimes difficult to make sound assertions from the data based on differences in responses between the various sub-groups, particularly for questions with smaller base sizes. Natural England was unable to share a complete overview of educational access providers' key characteristics with Ecorys reflecting available programme data. This meant that whilst certain information such as region, farm size, and agri-scheme was available within the sample data, we did not know the proportion of those characteristics within the total population. We therefore set soft quotas based on the proportion of these characteristics within the sample population, so as not to impact overall response rate.

Another key limitation of the survey was the questionnaire design, which had to be conducted in a two-week window before the literature review took place. This meant that the questions were largely informed by the ITT and document review (described in section 2.1) rather than grounded in evidence from the literature. Still, the questions asked were considered to be extremely relevant to the evaluation and its aims, and they were piloted with providers who had minimal comments. If launching the questionnaire

[19] Natural England provided Ecorys with contact details for half of their agreement holders (435), however some contact information was duplicated, missing, or invalid which resulted in 345 individuals who received the survey invitation.

again, any revisions would be minor and largely relate to language, such as making language less farmer-centric and more applicable to different educational access sites such as wildlife sites.

Responses to the survey questions are summarised below and analysed thematically in section three:

Respondent Characteristics

- The most common type of farms amongst respondents were lowland grazing livestock (55%), mixed (37%) and cereals (34%), and the most common farm sizes were less than 50 hectares (HA) (26%) and 500-999 HA (28%).
- Almost two thirds of respondents (63%) take part in educational access via the ED1 option, and most (63%) had been hosting educational access visits for 'over 10 years'.

Current Delivery

- The most common motivations for delivering educational access amongst providers were being interested in helping children and young people about nature/and or the environment (95%) and being interested in helping children and young people learn about farming (78%). Although a less common response, two thirds (67%) said it provides an additional stream of revenue, though this tended to be less of a motivation for bigger sites than smaller sites
- In a typical year, 35% of respondents hosted 20 or more school visits, 10% hosted between 15-19 visits, 11% hosted 10-14, 18% hosted 5-9 and 27% hosted fewer than 5 visits.
- The most common number of students of a single class visit was between 20-29 (43%), and half of respondents hosted fewer than 5 different schools in a typical year (51%). Over a tenth (11%) hosted 20 or more different schools in a typical year.
- The most common type of school to host was primary (93%), whilst 40% of providers hosted visits from secondary schools. The most common Key Stage (KS) that respondents hosted was KS2 (88%), followed by KS1 (77%). Providers were less likely to host school groups from KS3 (41%) and KS4 (34%).
- Across all KS, science was the curriculum subject most addressed during visits, followed by geography, history, and maths. These subjects were seen to be engaging by almost all providers. In contrast, computing, languages, music, and religious education were not addressed by more than 2 respondents for any KS.
- For all four Key Stages, the two most popular teaching approaches were consistently farmer-led (91% to 97%) and group activities (67% to 81%), followed by a mixture of individual activities (44% to 61%) and free exploration (50% to 60%), with teacher-led approaches far less prevalent (30 to 35%). Almost all respondents thought that the teaching approaches they used for each age group were engaging.
- Providers were much more likely to lead the delivery of educational access visits (83%) than teachers (14%).

Training and Guidance

- The most common training qualification that providers have completed was CEVAS (45%), followed by LEAF (Linking Environment and Farming) Education (29%). Over a quarter (28%) of respondents completed 'other' training.

- Of the 87 total respondents, the most popular source of guidance was LEAF Education (47%), followed by Countryside Classroom (32%) and Defra/Natural England (26%). A quarter of respondents (25%) did not refer to any guidance, with similar numbers citing 'other' sources (22%). Less common were Visit My Farm (16%) and the Gov.uk website (14%).
- When aggregated together, all six potential sources of guidance that providers used were reported as being either 'very' or 'somewhat' helpful for a majority of respondents (ranging 86% to 100%).
- Almost three quarters (74%) of those who used 'other' sources of guidance reported that they were 'very helpful', suggesting there are alternative resources and support that providers access and value beyond those listed.

Communicating with Schools

- All but one provider said they communicated with schools in advance of visits. The most common communication method was directly with teachers over email or telephone (89%). Teachers were less likely to conduct a pre-visit to the site (49%) in advance of educational access visits, though providers on the newer version of the agri-scheme (ED1) were more likely to hold pre-visits (61%) than those on the older version (HN9, 30%).
- Providers outlined that conversations with teachers in advance of visits covered a range of topics. Health and safety (98%), farm facilities (94%), visit logistics (93%), visit learning topics (93%), the farmer's role (90%) and student benefits (86%) all were topics discussed by a considerable majority of respondents as part of pre-visit communication.
- Providers were asked about their role in preparing and selecting the topic for visits. The most common response was that providers chose the curriculum subject (40%), the teaching approach (47%) and prepared lessons (50%) with teacher input. It was much less common for providers to carry out this preparation without teacher input, or for teachers to do so without provider input.

Suggested Improvements

- When asked what could be improved to support providers, the most popular answers referenced curriculum guidance (10%), financial incentives that reflect group size (7%), training or guidance on session delivery (7%) and providing free learning materials to aid delivery (6%).
- Regarding how teachers could be better supported, answers included the provision of more succinct information on educational access visits (such as online resources or starter packs) (16%), resources linking farming with the curriculum (8%), a directory of all farms offering visits across the country (8%) and better communication channels between teachers and providers pre-visit (7%). A small proportion were already happy with teachers' level of preparedness (6%).
- The most common responses when providers were asked about how the educational access option could be improved referred to widening eligibility criteria (26%), improving payment promptness (15%), support for school transport costs (13%), removing the 25-visit cap (11%), building on and off-site curriculum links to farms (11%) and support to connect farmers to local schools/teachers (11%).

2.4 Interviews

At the end of the survey, all respondents were asked if they wanted to opt-in and take part in a follow-up interview to discuss their experiences in more depth. The majority (72% n=62) of respondents opted into taking part in an interview, which offered a sufficient pool of providers from which to achieve the 20

provider interviews during January 2022 as specified in the ITT. Interviews lasted for around 45 minutes and were conducted over the telephone or via videoconference, depending on the interviewee's preference. Interview participants were reminded of the project scope and privacy notice, and interviewers made it clear that their participation was voluntary, and any feedback would remain anonymous. We sent up to two reminders to selected participants, and in case of non-response invited a different participant with similar characteristics. A range of providers were consulted, reflecting the spread of characteristics (farm size, region, agri-scheme) from the sample data. We also ensured that we interviewed participants with a range of experience hosting educational access visits and with a variation in the number of visits they hosted per year.

Ecorys developed a semi-structured topic guide to use during the interviews, informed by the evaluation framework. Questions were straightforward and open to encourage free-flowing discussion, though a series of prompts ensured the discussion centred around the research questions. The topic guide (see annex 3) built on the information which respondents had already provided in the survey, and covered:

- A background to the participant, including their experience of delivering educational access visits, perception of training and guidance they consulted and if/how they use these to inform visits
- How they communicate with schools in advance of visits and work with schools to plan visits
- What teaching approaches and subjects/topics they cover during visits, and the extent to which these are linked to the curriculum
- What makes a visit successful, and reflections on how the educational access option could be improved

A small team of researchers conducted interviews to fit all 20 into the timeframe available. Researchers were well-briefed to ensure that information was captured and written up consistently. With interviewees' permission we recorded interviews and wrote up interview notes in a template which aligned with the evaluation framework. This ensured interview notes were organised thematically in parallel to the survey and literature review to support with synthesis. We used a Framework Analysis[20] approach to codify and analyse the write-ups, assigning key characteristics to each interviewee (i.e. type and size of setting, geographic location, and experience of educational access delivery) to match the literature review analysis. This enabled us to look for trends in responses based on key provider characteristics.

Interviews successfully brought to life the survey findings and provided rich and detailed information and examples on the ways in which providers tailored curriculum subjects/topics and different teaching approaches to their settings. As with all qualitative research undertaken with a small sample, findings are illustrative, and caution should be taken when generalising these to the wider population of interest. As such, the discussion of findings in the report are careful not to make assumptions that key themes arising from the qualitative interviews apply to all educational access providers.

It is also worth noting that while we tried to achieve a mixture of key provider characteristics in the interviews, the majority of providers interviewed were experienced at delivering educational access visits and had done so for over 10 years. This reflects the characteristics of the survey population. Therefore, we have not been able to capture insights from many 'new' educational access providers; a limitation further exacerbated by the covid-19 pandemic which has delayed the ability to host school groups and meant that any new providers were less likely to start hosting visits during this timeframe.

The key findings from the qualitative interviews are summarised below:

[20] For example, see: https://projects.iq.harvard.edu/files/qualitative/files/Framework_an_introduction_v2.pdf

Background Information

- Interviewees hosted visits on various farm types/sizes, although most included some livestock. One hosted visits on a parish owned common, highlighting that not all educational visits are hosted on farms.
- The majority of interviewees had considerable experience in delivering educational access visits (>10 years). Most interviewees originally joined through the Higher-Level Stewardship scheme. A key motivation to host visits was to educate the public about where food comes from and what farms do.
- Most interviewees felt very confident in hosting visits. Their confidence was linked to their level of experience, particularly their experience in presenting to a school audience and creating connections with schools. Some of the interviewees had pedagogical backgrounds which boosted their confidence.
- Due to their level of experience, most interviewees did not regularly consult additional guidance to support them with visits. Many also felt that communication with schools and adapting the visit to specific school and pupil needs was more important in their preparation.
- When interviewees spoke about helpful guidance, LEAF education emerged as a key source. CEVAS was the most commonly discussed training. Views on its relevance and helpfulness were mixed, although many saw it as an important way of gaining a basic, general understanding of how to structure visits and anticipate essential school needs.

Planning Visits

- The majority of interviewees found initial contact and engagement with schools to be very challenging. Most interviewees initiated and maintained contact with their local schools through personal and community networks.
- Providers tended to correspond directly with class teachers, whether via email, phone, or in-person. Teachers often wanted to know about practicalities of the visit, such as facilities, timings, parking, appropriate clothing and health and safety.
- The level of input from teachers in planning visits varied, though providers often led on planning the activities they would cover during the visit. This ensured activities could be tailored to the site and time of year. How providers planned visits with schools was largely dependent on teacher preferences and whether the school group had visited before. Regular communication was seen as crucial.
- Pre-visits were seen as important, particularly in terms of discussing the practicalities of the site and potential risks. Not all providers required pre-visits due to time pressure or if the teacher was already familiar with the site.
- Covid-19 significantly reduced the number of educational access visits for the majority of providers in the last two years. However, for most, the visits have started to increase again more recently. Providers did not require major adaptations to plan and deliver visits during the pandemic.

Delivering Visits

- Toilets, handwashing facilities, sheltered spaces and parking spaces were among the most important facilities in enabling providers to host school visits. Interviewees also highlighted the importance of the site's natural features (including existing buildings and working equipment) and seasonal features in structuring visits.
- Providers tended to lead the delivery of visits, while teachers/schools tended to be more involved in advising on the subject choice and connected learning goals. Teaching staff tended to help providers

facilitate visits which was perceived as helpful, especially as providers often preferred to split larger school groups into smaller groups.

- Teaching approaches varied between providers and included group, individual, and child-led tasks. Most interviewees highlighted the importance of adapting approaches to different age groups and abilities. Hands-on, tactile approaches were recommended as best practice for engaging pupils across age groups. Many interviewees highlighted the value of practical exercises on site which brought subjects to life and engaged pupils differently in comparison to classroom-based learning.
- The degree to which visits were linked to specific learning goals and planned outcomes varied and was based on the school or teacher in question. Many interviewees highlighted the success of less structured and more child-led approaches, and some felt that tying visits too closely to the curriculum structure could be restrictive. However, the importance of linking the visit to what was being taught to the class at school before and/or after the visit was highlighted, as was the opportunity to cover different curriculum subjects. Secondary school visits tended to be more closely linked to the curriculum and specific learning goals as compared to primary school visits.
- STEM subjects tended to be covered most, although interviewees were open to facilitating other subjects including Art, English, History, Music, amongst others. Interviewees suggested that almost any subject can be covered on a farm site depending on whether the facilitator had the confidence and expertise to deliver it. However, in cases where the teacher dictated the subject area, providers were more limited in scope to try new or different subjects.

Future Delivery

- Interviewees recounted numerous benefits of educational access for pupils as well as teachers, largely stemming from interacting and learning in a different environment. They were passionate about educating the public and enjoyed hosting visits. This was a key reason why many interviewees wished to continue hosting educational access visits.
- However, some expressed concerns around continuing to host educational access visits in the long-term, mainly due to time and workload constraints, lack of funding, and various barriers constraining schools from taking up visits.
- The interviewees' suggestions for improving the educational access option revolved around the issue of transport cost for schools, funding issues experienced by providers, the challenges of initiating engagement with schools, lack of curriculum-specific resources tailored to providers, and some interviewees' wish to expand educational access to encompass different groups and more visits.

2.5 Analysis and reporting

Evidence generated through each strand of the evaluation (literature review, surveys, and interviews) was analysed according to the evaluation framework, as described in the sections above. The various strands of evidence emerging from each evaluation task were triangulated rather than being analysed as isolated or stand-alone findings drawing from each evaluation task in turn.

Having a thematic analysis of each task structured around the research questions ensured that the overall evidence could be reviewed to identify good practice and gaps in curriculum content and pedagogical approaches. Since analysis within each Work Package was broken down by key provider characteristics, synthesis was able to unpick optimal and current practice by providers from different settings, sizes, geographic location, and experiences of offering the educational access option. This enabled us to draw comparisons between the ways in which different types of providers could or should offer quality

educational access experiences. The survey and interviews also examined providers' views on what works well and what could be improved in relation to delivery, communication, and support from the educational access options for both themselves and for schools/teachers; areas which the literature review report also focused on. These insights informed our recommendations and ensured they are grounded in evidence.

By structuring analysis and reporting around the evaluation framework, we have ensured that the findings reflect and align with the research questions. Structuring the report in this way has enabled us to triangulate the evidence collected across all research tasks and give them equal weight. It is worth noting that triangulation and reporting were conducted within four weeks, as required by the schedule of work laid out in the ITT. As a result, we adopted a narrower focus during the research (and subsequent analysis and reporting) around curriculum subjects/topics (as outlined in the evaluation framework). Therefore our focus was driven by the specific questions we had to answer and meant we were unable to give much consideration to wider issues which arose about the educational access option or outdoor learning more generally, which were not in scope.

Another key limitation is that in many cases, results did not vary between different provider characteristics (such as farm type and region) which limited the extent to which we could draw comparisons between different sub-groups in the analysis. This was exacerbated by the fact that 86 survey responses and 20 interviews are not enough to draw statistically significant conclusions, despite the fact that findings were detailed and key themes evident. Whilst there appeared to be some differences amongst more experienced providers, these formed the majority of the sample and so it was challenging to draw comparisons with less experienced providers.

As specified in the ITT, Ecorys produced a number of interim outputs as part of the project, including a survey interim report (outlining the proposed approach to the survey and analysis) and a literature review report (highlighting optimal approaches to outdoor learning). This output is the final report and has been reviewed by the project steering group and two independent peer reviewers. In addition to the main report, Ecorys will produce a number of outputs to facilitate dissemination to wider stakeholders such as a policy audience and educational access providers. These outputs include: a two-page summary of the report, a summary infographic, a summary slide deck, a blog, and a summary of survey findings which will be sent to providers who completed the survey.

03

Discussion of Findings

3.0 Discussion of findings

This chapter draws on relevant evidence from each research task to answer the research questions. Findings are explored in four distinct sections in line with the evaluation framework. The first section explores how educational access visits are currently delivered, and the second section describes optimal approaches to outdoor learning as highlighted in the literature. The third section analyses the extent to which current delivery reflects optimal delivery, before the final section outlines the barriers and facilitating factors which affect current educational access providers' ability to host visits in an optimal way. A summary box provides an overview of the main points at the start of each sub-section.

3.1 How educational access visits are currently delivered

This section will expand upon how educational access visits are currently carried out on a range of provider sites, based upon the findings from the survey and in-depth interviews with providers. It will start by examining how providers plan and prepare for visits before assessing how they are delivered in practice, with a focus on what teaching approaches are used and the extent to which school visits are linked to the national curriculum. Finally, this section will focus on what makes a successful visit, according to providers.

Key Findings: How educational access visits are currently delivered

- Most educational access providers have attended training, though they did not always consult guidance prior to each visit. Some would value more tailored resources or best practice examples.
- Whilst learning outcomes were more likely to be suggested by teachers, providers often planned the way in which visits would be carried out with teacher input. Pre-visits were perceived as successful in facilitating co-planning.
- The extent to which visits were linked to curriculum subjects varied and could depend on the age group or the frequency of visits for a particular group of pupils.
- Science, geography, history, and maths were the subject areas covered most during visits, and providers addressed these in a variety of ways, depending on their site and the time of year.
- Practical, 'hands-on' activities were unanimously felt to successfully engage pupils. Child-led approaches such as free exploration were often used with younger age groups, whilst group activities were felt to work better with older pupils.

- Providers measured success based on whether pupils had enjoyed the visit and engaged with the activities, though they also received positive feedback from teachers and pupils.
- More widely, they aspired to facilitate a connection between pupils, farming, and the environment.

3.1.1 Planning for visits

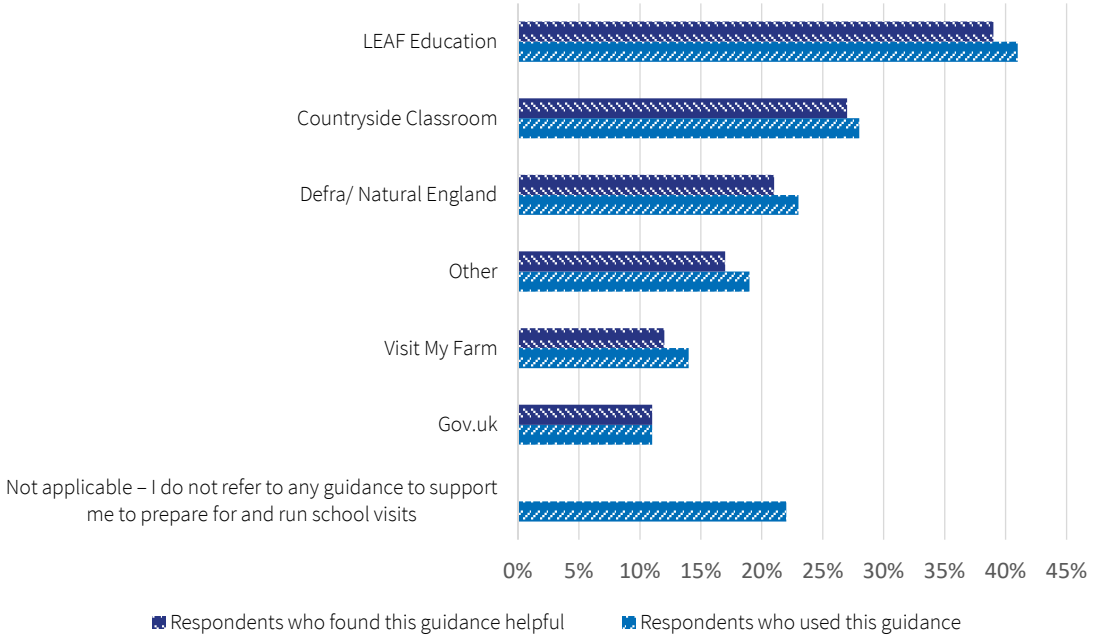
This sub-section explores the way in which providers plan for visits. Firstly, it discusses whether providers have taken part in any training or consult guidance to support them with planning educational access visits, generally or in advance of specific visits. It then examines how providers communicate with schools in advance of visits, their role in planning activities, and the extent to which curriculum objectives are factored into these.

Consulting training and guidance

The majority of respondents consulted as part of this research were experienced at hosting educational access visits and felt confident in their ability to plan and host visits. Most (80% n=75) had been delivering the educational access option for six years or more, with nearly two thirds (63% n=59) having hosted visits for over 10 years. Interviewees reflected that they had grown in confidence over the years as they had become more experienced at hosting visits, which some felt extended to confidence in tailoring visits between different groups of pupils. Interviews also showed that a number of respondents had some prior experience or connection to education; for example, some had previous teaching experience or links to schools via their own personal connections. These interviewees reported that their prior experience has helped them to feel comfortable interacting with children and confident speaking out in front of others.

Even though providers generally felt confident in delivering educational access visits, most (80% n=75) had attended some form of training, with providers who have hosted visits for over 10 years more likely to have completed some form of training. Survey responses indicated that nearly half (45% n=42) have completed their Countryside Educational Visits Accreditation Scheme (CEVAS) accreditation, which some interviewees reported was a useful starting point in learning how to structure visits, getting a basic understanding of what schools are looking for during visits, and a wider understanding of the curriculum, which providers might not otherwise be familiar with. LEAF (Linking Environment and Farming) Education training (27% n=29) and guidance (47% n=41) were also widely consulted and felt to be somewhat or very helpful by most, as shown in Figure 1 below.

Figure 1 Number of survey respondents who consulted different sources of guidance, and how useful they found these.



Base = 87 Total Respondents

Although most providers found the guidance they consulted helpful (see figure 1) feedback from interviews suggested that many do not routinely refer to guidance before visits. This was reflected in the survey, where a quarter of respondents (25% n=22) said they did not refer to any guidance to support them in preparing for and running school visits. Some interviewees reported that consulting guidance was just not something they considered whilst planning visits because they relied on their previous experiences of what has worked well. Others struggled to find appropriate resources which were relevant to their setting or the age group visiting; a view that was more prevalent amongst providers based on smaller sites. Instead, if they wanted ideas they contacted people they know directly, adapted existing teaching resources they were familiar with, or even in a couple of instances created their own resources.

Still, interviewees said they would value resources which are tailored to (different) educational access settings and best practice examples of resources which have worked well. Some also mentioned they would welcome the opportunity to share ideas, information, and tips with others, and even visit other farms to learn ideas on engaging school children. Those who have been able to do this reported it was a valuable opportunity.

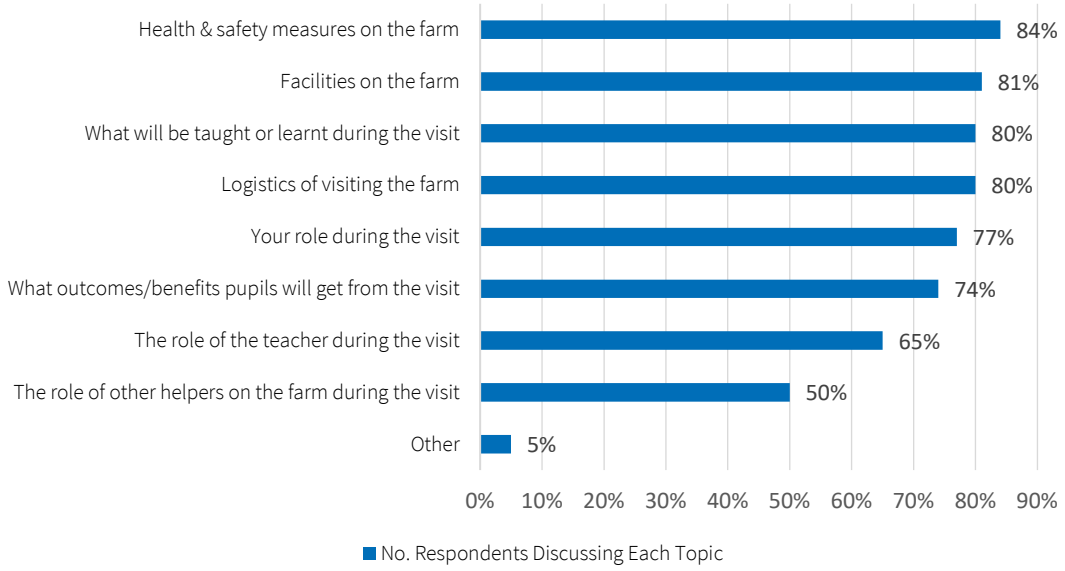
> *"It would be good if you had a Defra website to get tailored lesson plans for hill farmers etc, cattle, dairy. Hard if not in education setting to do that and have that confidence"*

Communicating with schools

Almost all providers (99% n=86) communicated with schools prior to their visit, with the most common communication methods being directly with the class teacher over email or the telephone (89% n=77). Survey responses suggested that prior conversations between providers and schools were comprehensive

across a range of topics, as shown in Figure 2 below. Health and safety measures and facilities on the farm were most commonly discussed, followed by what will be taught or learnt during the visit and the logistics of visiting the farm. This was reflected by interviewees, who suggested that teachers often wanted to know about the practicalities of the visit (e.g. toilets, lunch, clothing, and transport), whilst providers considered it important to be made aware of any health or behavioural issues amongst visiting groups. Pre-communication also allowed providers to set clear expectations around what school groups should expect during their visit and how pupils should be prepared in order to adapt to emerging factors such as the weather.

Figure 2 Number of survey respondents who discussed certain topics with schools prior to their visit



Base = 86 Total Respondents

Speaking to a class teacher in advance of visits was also thought to be an important opportunity to talk about what the school wanted to get out of the visit so that the provider could better understand their aims and factor these into their planning. Around half of providers (49% n=43) conducted these conversations via an in-person visit with the class teacher. Some interviewees discussed the benefits of having a pre-visit with schools, whether that involved the provider visiting the school or the teacher visiting the educational access site. Whilst pre-visits were considered important, they were not widely conducted and often depended on how much time teachers had available and whether that particular teacher or school had visited the site before.

> *"If I haven't met the teacher before and I don't know what their aim is because I've just had a few emails that doesn't work so well. It works far better if you've met the teacher and have shared what the possibilities of the site are."*

Certainly, pre-visits were seen to be particularly important for schools who had not visited the site before, as they were viewed as an important opportunity to discuss health and safety measures and risk assessments. Additionally, pre-visits provided a useful opportunity for providers to show teachers around the site and discuss the possibilities of what could be covered during the visit. This was seen to be mutually beneficial as teachers could familiarise themselves with the site, and providers could better understand their aims for the visit. The open-ended survey responses supported this, with some providers mentioning

they wanted more effective channels of communication between teachers and providers in advance of the visit and for teachers to visit the site in advance.

Example 1: Mandatory pre-visits

One respondent required a pre-visit from all teachers as a prerequisite. *"We prepare a full teachers pack and will not accept a visit without a pre-visit from the teacher who will be coming on the day."*

During the pre-visit, the provider tended to take the teacher around the parts of the farm they were likely to visit and they discussed and planned out activities. It was felt to be "absolutely vital" that before a visit they discussed the outcomes that teacher wanted from the visit, so that the provider could tie in what students will learn on the farm with what they were doing at school: *"I need this to be a two-way street. I need to be getting information from them as well as giving them information."*

During the pre-visit, the respondent also discussed safety and specific children's needs, as during the visit they feel that children are under their care, and the provider needs to know how any individual child may react in a situation or if any child has any specific health issues. Whilst this particular provider sends a form where such issues can be raised by the teacher before the pre-visit, they found the form was not always filled in properly by the teacher, so a conversation is important to gather these details.

Lesson planning

Feedback from the interviews was somewhat mixed as to whether educational access visits tended to be linked to specific learning goals or curriculum outcomes. Some school groups viewed the visit as extracurricular and did not necessarily expect particular learning goals to be addressed. Instead, these schools were reportedly pleased if their pupils were generally learning in some way, and any incidental links to curriculum subjects were thought to be a way of adding value to a visit rather than the primary aim. This was particularly evident amongst school groups who visit infrequently or amongst younger students for whom the main motivation for teachers is to build a connection with farming and food. In these cases, interviewees indicated that subject-specific, curriculum-based learning is something which can be addressed in follow-up classroom learning or during repeat visits to the educational access site where possible. Interestingly, providers seemed unaware that the national curriculum also supports the development of 'soft skills' such as teamwork and problem solving, and feedback suggested that this was not something explicitly acknowledged by schools either.

"The school are very relaxed really because they see that just being out and about and having a trudge through the countryside and looking at whatever you come to is useful in its own right."

Still, a number of interviewees reported that teachers often did have a specific idea of what learning goals they wanted to cover, especially for older age groups where visits were often more closely linked to specific curriculum subjects. Certainly, more providers reported that what will be taught and learnt (29% n=25) was more important than how it will be taught (13% n=11), although most thought both were equally important (56% n=49). Interestingly, the more experienced the educational access provider, the more likely they were to prioritise curriculum content as solely most important, which could be a reflection of the fact that they were confident in facilitating visits and working with children and young people due to their experience.

"The schools want more than just that turning up at the farm, doing a day, leaving again…they actually want to base it in something that is happening in the school already."

These mixed experiences were reflected in the survey too, where providers tended to share responsibility with teachers in terms of leading on the choice of curriculum subjects, with either the farmer leading with input from the teacher (40% n=34) or the teacher leading with input from the farmer (27% n=23) - although teacher-led sessions were still somewhat common as well (26% n=22). It was rarely the provider who solely led on the choice of curriculum subjects (7% n=6) though providers were most likely to lead on small sites (50-99HA). One of the main reasons why teachers sought providers' input when choosing curriculum subjects is because the content of visits was often dictated by what facilities are on the farm and the time of year that schools visit, because much of what is available on site will depend on the season. Still, a few interviewees noted that because educational access sites are so versatile, they were often able to relate visits to different learning goals or curriculum outcomes organically without having to make them overly structured.

"Often times on the farm you can take any subject and apply it to pretty much anything... You can take any topic from the farm and adapt it to whatever the primary school is actually teaching at that instance."

The responsibility for planning lesson content was often shared between providers and teachers to some extent, with half of all survey respondents reporting that this was farmer-led with teacher support (50% n=43) or teacher-led with farmer support (17% n=15). Certainly, a number of interviewees described how they tended to take a lead in planning the structure and content of the day, tailoring it to their site and based on what has worked well in the past. The teacher was more likely to input into planning by dictating the overall learning goals and curriculum, and sometimes worked closely with providers to link activities to the curriculum; something which was felt to be well-facilitated by a pre-visit.

Views on the extent to which educational access visits should be linked to curriculum subjets were mixed. Some stressed that it was important to focus on aspects which go beyond the curriculum – or at least cannot be covered in a classroom – during the visit. Others saw value in linking visits to classroom activities. A minority reported that pupils might learn about the site or what they will be doing on site in advance of a visit, whilst others said teachers conducted follow-up lessons based on what pupils learnt, saw, or took home from the day which added value to the visit.

"It doesn't have to tick certain boxes in the curriculum because they're doing all that at school."

"They [teachers] have said that it has much, much more value than just the one visit. They can refer to it through other parts of the curriculum later in the year."

"Farms are just brilliant learning environments, 'cause you can just look at the national curriculum, you can look at the specific goals that a teacher has, what have they been doing in school, what are they going to do in school afterwards...so the farm visit is in the middle, it's the filling in the sandwich, and it's completely relatable to what they are doing before and afterwards."

Whilst a few providers reported that teachers did link back to visits in the classroom, they were sometimes unsure exactly how teachers followed-up in the classroom after visits, suggesting communication with teachers sometimes dwindles after visits. However, some interviewees did provide examples of where visits were linked to classroom activities, as illustrated below.

Example 2: Linking educational access visits to the classroom

One farmer conducted repeat visits with school groups, whose teachers told them about the follow-up lessons they did based on the farm visit and how those activities helped them to meet the broader curriculum. For example, during one visit the farmer took pupils on a foraging walk to work on plant identification. Their collection of berries was thought to be so pretty that the class used them as a basis for a follow-up art lesson in the classroom where were used as models for drawing and/or painting. This particular class also wrote recipe for nettle crisps using the nettles they had gathered and wrote about how they could be cooked and eaten, and so were able to link the visit to multiple subject areas.

"The plethora of different subjects we cover often goes back into different directions into the classroom. The outcome is often that you have given them an enriching experience across all the spectrums of the curriculum."

Another provider described how they would personally like the opportunity to go into schools following educational access visits to conduct their own follow-up session in the classroom, but that a lack of time and educational access funding meant this was not a viable option. However, this was reported to have been successful for others who had managed to achieve this in the past.

Example 3: Provider visits to the classroom

One farmer used to conduct pre-visits in schools to excite the class ahead of their visit. They went into the class and did a 20-minute talk about the farm, building up to what they would see and do during their visit, which also helped to establish a rapport with the farmer. They left behind incubators containing chicken eggs in the classroom for the children to look after. When the eggs hatched, the schools would bring them out to farm and see how they would live as they grew bigger. The class would be invested in the chicks, which helped to bring the subject matter to life. It also meant that their educational access visit was not standalone but a direct continuation of something they had done in the classroom with clear links to relevant curriculum subject areas.

3.1.2 Delivery on site

This section will examine the extent to which curriculum subjects and topics are covered during educational access visits, including how these are adapted to educational access sites. It will also explore the teaching approaches which were used during visits, again assessing providers' perceptions as to which approaches worked well across the different groups they hosted via the educational access option.

Curriculum coverage

As discussed above in section 3.1.1.3, the extent to which educational access visits were linked to curriculum subjects varied and was often dictated by the teacher. Feedback from interviews suggested that many providers naturally incorporated a range of curriculum subjects within a visit, whether this was planned or happened organically. This could have also been because certain curriculum topics cut across different subject areas, particularly at primary school level. Some explained how the activities they conducted during visits addressed different subjects in parallel, as illustrated in the example below.

Example 4: Cross-curricular coverage

One provider explained that during visits they took school groups for a walk around the farm, which enabled them to address a range of curriculum subject areas. For example, during the walk they got pupils to estimate heights of trees (maths) or stop and draw a map based on what they see around them (geography). The provider encouraged pupils to pick things off the ground (such as twigs, fir cones, lichen, leaves) so that teachers could use them for collages and drawings in follow-up lessons (art). Sometimes they also encouraged pupils to write a story based on their walk around the farm (English). In this way, it was thought to be easy – and to some extent unavoidable – to cover multiple subject areas during the same activity.

Interviews with providers revealed that, by and large, they saw many opportunities for different subjects to be taught on a farm setting. Interviews also suggested that providers are in many cases taking their initiative and using their own creativity to provide opportunities for visitors to learn about a range of subjects and topics. When it comes to the coverage of specific subjects and topics, providers often relied on their own assessment of what learning is relevant for pupils, building on the particular opportunities available on their site at a given time. However, at times it seemed that providers were needing to rely on their own understanding of the curriculum to identify how certain activities on site linked to various subject areas, which was often limited, especially where there was a lack of pre-visit communication with the teacher and/or the chance to discuss and formulate a lesson plan in advance. For some providers, therefore, their assessment of the extent to which activities linked to specific curriculum subjects and topics tended to rely on their own awareness of the curriculum, which may not necessarily be up to date. For example, there was little mention of the food component of Design and Technology which would have been an important link to many visits. Instead, references to the curriculum mainly concerned general subject areas that providers were familiar with, perhaps from their own school days.

Providers were not always able to accurately distinguish which curriculum subject a particular topic or activity belonged to or identify which Key Stage of the curriculum it was appropriate for, reflecting the information and knowledge they had access to or had been offered by the teacher. This was particularly the case with younger age groups, where visits were more likely to be cross-curricular and teaching approaches were less likely to be structured (as discussed below in section 3.1.2.2). For older age groups, visits were more likely to be linked to specific curriculum subjects, reflected in the survey responses where almost all respondents said they covered at least one curriculum subject area for Key Stages 3 (92% n=36) and 4 (94% n=30) compared to Key Stages 1 (89% n=64) and 2 (87% n=72), where curriculum subject areas were covered slightly less.

Example 5: Curriculum specific activities

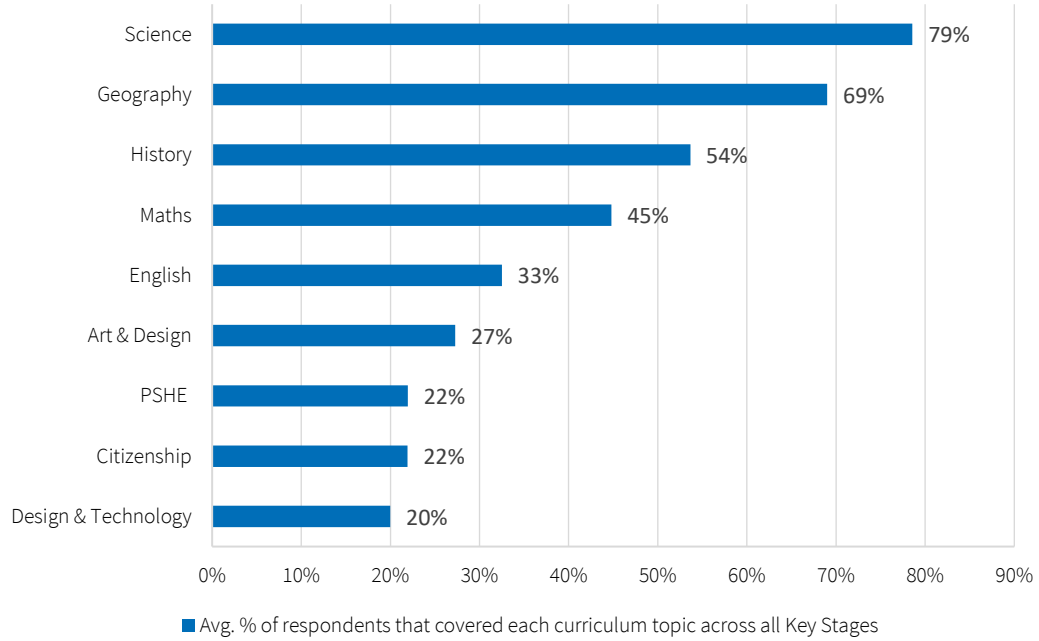
One provider described a biology visit which involved a school group monitoring nutrients in the wetland by looking for mushrooms and potassium levels in the water. They were taking samples and doing quantifiable tests on the water. Although this was science heavy, the provider said the pupils enjoyed being outside doing 'something that didn't feel like school'.

Their visit was linked to the curriculum, by facilitating data collection that they could take back to the classroom. *"Because it was physical, and because there was a real outcome [e.g. taking samples, testing the water]…that fitted exactly with their science curriculum that they were on….That linking of fieldwork with written work, that seems to be a real winner."*

This combination of theory and practice was felt to be successful by making for an engaging visit which is anchored in specific learning outcomes. By analysing the data collected on site later on, the visit became more memorable and successfully brought the science they were learning to life.

Where visits were linked to specific curriculum subject areas, science, geography, history, and maths were covered most across all four Key Stages, as shown below in Figure 3. Respondents were asked which curriculum subjects they covered during visits for each respective Key Stage, and Figure 3 shows the average percentage of respondents who said they covered each particular subject across the different education phases. Only subjects with 20% or higher coverage are included in the chart. Coverage across other curriculum subjects tended to be much less, though providers who hosted more visits in a typical year tended to cover a larger variety of curriculum subjects than providers who hosted fewer visits. Although this data does not take into account repeat visits from particular school groups, this finding could support the premise from the literature review that the more visits a group is able to participate in, the more scope there is to cover curriculum subjects. In contrast, if schools participate in infrequent, 'one-off' visits, they are perhaps more likely to focus on a narrower range of topics, such as food and farming. This observation could also be supported by the interview feedback, moreover, that the more experienced a provider is at hosting educational access visits, the more confident they are at incorporating different curriculum subjects into the visit. However, providers' reporting of the range of curriculum subjects they covered was again likely to be impacted by their detailed knowledge of the curriculum beyond traditional subject generalisations.

Figure 3. The average percentage of respondents who covered each different curriculum subject area during their visits, across all Key Stages



Bases = Total respondents for KS1 (72), KS2 (83), KS3 (39) and KS4 (32).

Table 1 below outlines the most common curriculum topics covered under each subject area, based on survey responses, and provides examples from the interviews to highlight how these topics were applied in practice.

Table 1 List of curriculum topics covered with illustrative examples. All subject areas with at least 20% coverage are included in the table.

Curriculum subject	Curriculum topics	Example activities highlighted by providers
Science	▶ Planting and growing ▶ Botany, trees, and plants ▶ Animal-related science ▶ Farming systems, inc. organic	A number of providers mentioned species identification. For example one school group counted different species in a hedgerow whilst the farmer asked them to identify particular flowers and plants e.g. clover, or animals such as types of butterflies. One provider helped pupils to learn about worm habitats through finding worms on the site, then supported young people to create their own wormery so to understand the conditions and nutrients that worms need for life. One farmer went even brought each member of the group their own (dead) pigeon which they gutted, breasted, and cooked on the fire. This brought the biology lesson to life as they were able to identify organs and understand the journey of how meat which they ate was produced.
English	▶ Expanding vocabulary ▶ Language use and skills	Some providers integrated English by encouraging pupils to learn and use new vocabulary specific to the site. One provider, inspired by an historic feature on her site, facilitated a story time session through which pupils developed their own story inspired by the landscape and conditions of the site.
Maths	▶ Counting ▶ Weighing ▶ Arithmetic (e.g. multiplication) ▶ Calculation (e.g. yield, storage)	One sheep farmer would often open a bag a wool, weigh it, then ask pupils to work out how much the farmer gets paid for wool per kilo once the sheep shearer is paid. A similar exercise was undertaken with potatoes in the market garden. Another farmer encouraged pupils to calculate how much food was produced per square metre, and they also practiced their times tables by counting bags of grain. A number of providers described how they would incorporate measuring into visits, by asking pupils to estimate the heights of trees, and size of fields or hay bales.

Art & Design	▶ Painting and drawing ▶ Crafts using nature ▶ Architecture	A primary teacher encouraged pupils to experiment with different art styles using natural materials they gathered on the farm (e.g. portraitures made out of fruit and vegetables). Other providers emphasised the importance of creating sculptures or artistic creations, either using, or inspired by aspects of the natural world. Some school groups produced art on site, by drawing objects around them such as trees or tractors.
Design & Technology	▶ Machinery and its evolution ▶ Food technology/production ▶ Construction using nature	One school visit focused on bread making and the provider showed pupils the different stages in the process and explained what the process would look like in other seasons (e.g. showed photographs of machinery sowing seeds for crops during planting season). A few other providers also explained or showed how food is produced, such as bread or honey. Many providers reported providing opportunities for pupils to see and understand farm machinery, in particular demonstrating how pressure and hydraulics work in practice to enable certain jobs around the farm to be done effectively.
Geography	▶ Landscapes/ Topography ▶ Environmental issues and climate change ▶ Land use and management ▶ Map reading and navigation ▶ Weather systems ▶ Soils and soil health	A number of providers with rivers on site used these as a focal point for learning about geography. For example, one provider facilitated a range of activities in the river such as river dipping for bugs. Elsewhere pupils worked to measure velocity by floating apples down the river and followed the course of the river to identify its features, such as meanders. The same provider also described how they took groups up a hill to see the typography of the farm and looked at where the school was in relation to farm. They also examined trees and how they vary, identifying branches and leaves to understand how different trees adapt to their environment.

History	▶ History of the farm/ History of farming (e.g. Medieval farming) ▶ Local History (e.g. culture, tradition, land use) ▶ Ancient landscape (e.g. monuments, woodlands) ▶ Historic buildings and equipment ▶ Ancient history (e.g. Stone Age, Iron Age, Vikings)	A provider provided an example of burying something interesting for pupils to find whilst metal detecting, which helped illustrate how people worked on the land in previous eras. Another provider discussed the history of the farm, and one farmer was able to show pupils around the site of an historic castle which is situated on the farm.
PSHE & Citizenship	▶ Environmental protection, care, and awareness ▶ Societal roles and responsibilities	A local council hosted visits on a wildlife site, where they discuss how the land is managed and protected, drawing their attention to issues such as camping and litter.

Teaching approaches

A key focus of the evaluation was to understand what pedagogical approaches were being used on educational access sites. Pedagogy is defined as the method and practice of teaching. Theory categorises pedagogical approaches in different ways, with a common approach to consider four broad categories as follows:[21]

- Behaviourism: Learning is structured, teacher-centred and focuses on teaching subjects in isolation. Techniques involve lecturing, rote learning, and choral repetition.
- Constructivism: Child-centred learning where pupils learn from experiences and reflection. This approach would often include project work or inquiry-based learning.
- Social constructivism: A blend of teacher-guided and pupil-centred which ensures learning is a collaborative process between teachers and pupils. Teachers often use group work, teacher modelling and questioning.
- Liberationism: Student voice and democracy is placed at the centre. The teacher is also a learner and the class discovers subjects together.

This section will highlight how most visits were led by providers, therefore teaching approaches were not discussed in relation to specific pedagogical theory; rather described in the context of activities which were delivered. These included a range of group and individual activities which were delivered in a structured or unstructured way according to provider preference. Many providers planned in flexibility to respond to

[21] TES Magazine (2018). *What is pedagogy?* [online] https://www.tes.com/magazine/archive/what-pedagogy

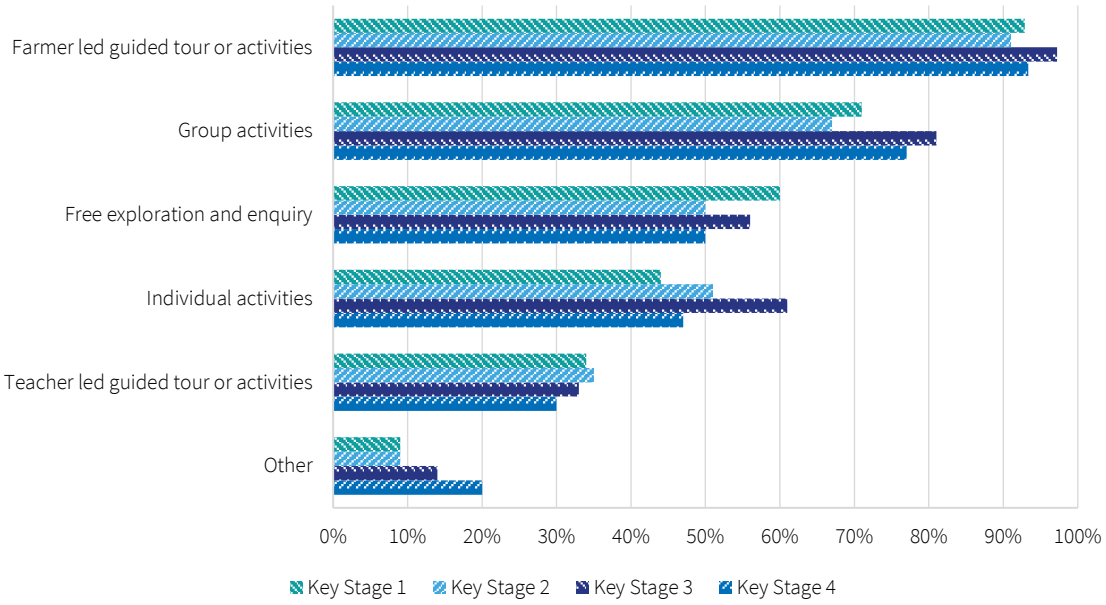
pupils' questions and as such activities were often child-led or enquiry-based, in line with constructivist and social constructivist approaches. In some cases the teacher learnt alongside the class. In contrast, outdoor learning did not tend to incorporate behaviourist approaches given its cross-curricular nature, focus on knowledge application and on ensuring the provision of child-centred learning experiences.

A considerable majority (84% n=73) of providers said that they lead the delivery of educational access visits, compared to just 14% (n=12) who reported that teachers take a lead. Exceptions to this involved older age groups whose visits were intended to fulfil a specific purpose such as data collection, in which case the teacher took more of a lead. Interviewees reported that they prefer to lead because they are familiar with the site and feel it is their responsibility to keep school groups safe, which was relevant to most interviewees who hosted visits on working farms. An exception to this was a council-owned wildlife site, where teachers could have more autonomy to take groups around the site.

> *"From a safety point of view I would never let children go off. We always give the teachers chapter and verse about how dangerous it is and they do as they told or they go away. Whatever happens here, the responsibility stops with me."*

Levels of engagement amongst teaching staff were reported as varying, but overall teachers did play an active role in facilitating visits alongside the provider. Sometimes this reflected a lack of emphasis on pre-visit communication and planning. However, by and large, providers tended to think that it was most effective for them to lead visits in the capacity as host, given their knowledge and confidence in the setting. Interviewees particularly valued teachers' input in managing the behaviour and engagement of pupils, for example by encouraging questions. Support from teachers who were more confident – often because they had conducted previous educational access visits – was particularly valued. In contrast, some providers said that teachers who were less familiar or confident in farm settings could be reticent to help if they were concerned about not knowing the answer or 'looking stupid' in front of their class. One provider helped to navigate this by providing teachers with resources prior to the visit that would help them to facilitate activities. In this case, one of the exercises involved pupils finding different types of grass on an arable farm, and teachers were given an identification card to enable them to moderate the activity with confidence.

Figure 4. The percentage of respondents who used each different type of teaching or learning approaches, per Key Stage



Bases = Total respondents for KS1 (70), KS2 (78), KS3 (36) and KS4 (30).

Providers often worked together with the teacher to choose the teaching approaches used during visits, with most taking the lead on deciding the approach (47% n=40) or letting the teacher lead on what approach to use in some cases (27% n=23). This was often because a farmer-led teaching approach was most commonly used across all Key Stages, as illustrated in Figure 4 above. As described earlier, providers were more likely to take a lead in planning activities structured around what is available on site. For example, many interviewees mentioned they would take school groups on a guided walk around the site, or where relevant, tour of the farm's main features such as crops or livestock, factoring in a number of activities along the way. Overall, it appears that providers were generally content that they should lead the visit, although positive engagement from teachers was highlighted as important (and sometimes variable in practice). Ideally, the visit would be based around initial communication and planning between the farmer and teacher around the learning aims of the visit, even where the host was then solely responsible for delivering the visit based around the opportunities on site at a particular time.

Example 6: Provider-led activities

An arable farmer took pupils to the grain shed to show them the process of making bread from start to finish. The pupils were able to run their hand through the different types of grain, learning more about the differences between them and what each is used for. Next, they watched the farmer grind wheat to make flour which they put in the bread machine to make bread, enabling them to see first-hand the process of making bread from start to finish.

The farmer then put some cream in jam jars which the children ran around with to shake up and make butter, and at lunchtime they spread this on the bread they had made earlier in the day.

Whilst providers tended to incorporate the same core components of a visit for all school groups they hosted, they did tailor activities to the visiting group to some extent, mainly in relation to their ages. For example, free exploration was most commonly used for very young children (Key Stage 1 – 60% n=42), whose visits were less likely to be fixed to set learning objectives and whose attention span is also likely to be shorter. Some interviewees acknowledged that younger groups tended to arrive with high energy and excitement levels, and felt the best approach was to let them run around and explore rather than expect them to engage in structured activities or tasks which required concentration.

"They are learning all the time. It's a mistake to think if children are having fun they're not learning."

Certainly, a number of providers stressed the value of child-led approaches. Whilst they did prepare a loose plan for the day, they acknowledged that it was better to 'go with the flow' and be led by what pupils engaged with. If a certain aspect of the visit captured pupils' attention, it was seen as better to adjust the course of the rest of the day and spend longer answering their questions rather than rushing them onto something different. This enabled providers to be adaptable and respond to teachable moments that were not or could not be predicted.

"Hopefully we teach them indirectly. Not that you're teaching them, but you're just chatting away and they're learning as you go."

"The whole thing is preparation and planning…if you've prepared and have an outline, then you don't have to stick rigidly to a plan, but if you have prepared, you can adapt given circumstances."

Interviewees outlined that they tended to engage younger pupils by planning short, practical activities which involved them using their different senses to experience their surroundings. These 'hands-on' approaches were thought to be successful in capturing children's interest and were mentioned much more often than activities requiring pre-prepared resources such as worksheets. Providers were able to build-in practical activities in a range of ways particular to their site, from planting seeds, handling crops, digging up plants, pond dipping, feeding animals or even lighting fires. By incorporating a range of activities, providers ensured that there would be something that appealed to everyone throughout the day, and switching between activities prevented younger children from becoming bored, distracted, or cold.

"For the younger children we try to make things as hands on as we can. We don't just sort of do a walk and stand in a field….we'll try and have some sort of activity [e.g. pulling out wheat in a wheat field]….It is providing a sequence but it is equally not having too few topics ….there is a chance you would've caught everybody's imagination at some point in the day."

"As long as you get them interested and they're practically doing things or looking at landscape or digging and getting soil samples and looking at different crops…you can approach whatever comes up."

Example 6: Practical activities

One provider said that, often, the most successful ways of engaging pupils are also the simplest ways. They gave the example of rolling square straw bales down a field, which was reported to effectively engage pupils across all age groups. The children work either alone or in groups, and start off by rolling one or two, before adding more in. It is reportedly unanimously popular, which the provider believes is

because it is a physical activity with a tangible outcome. It provides *"a huge sense of achievement"* when they can move something by themselves, and encourages problem solving and teamwork, too.

Activities such as these are physically challenging and help provide children with an opportunity to 'let off steam' and an outlet to express their excitement. *"'it is absolutely vital that you do not stand up and spend your whole time talking…they have to be completely engaged physically as well."*

In contrast, group activities tended to be more widely used amongst older age groups, i.e. Key Stage 3 (81% n=29) and 4 (77% n=23) who were able to take part in activities more independently. A number of interviewees endorsed working with smaller groups (e.g. 8-10 pupils); an approach which was felt to be successful in keeping pupils engaged. By splitting responsibility between different helpers and teachers, providers could cover a greater range of activities during the visit, as illustrated in the example below. Working in small groups also allowed the group leader to keep a close eye on everyone, which was felt to be important for providers who are less familiar with the children or who had safety concerns.

Example 7: Group activities

One provider gave an example of how they would structure a visit made up of 30 pupils. They would typically start the day as a whole group and provide a demonstration of hydraulics and oil works using the teleporter. They would then split into three groups of 10 and move around the farm. One group would look at machinery, led by the teacher, and the other two groups would be farmer-led, looking around the yard and looking at the livestock. Having smaller groups was thought to be safer, more manageable for staff and helpers, and supported pupil engagement as it provided them with an opportunity to ask more questions about each aspect of the visit.

3.1.3 Success factors

This sub-section explores providers' perceptions of what makes an educational access visit successful, and the ways in which they measure success of different curriculum subjects and teaching approaches. It also looks at their motivations for taking part in the educational access option, and how the visits they host fit in with their overarching goals.

Measuring success

The term success has been used quite broadly in the report to capture whether visits and activities were effective in engaging pupils, as perceived by providers. Measuring success in terms of achieving formal learning outcomes is an issue that would require further engagement with the education sector to define and explore. Overall, the vast majority of survey respondents thought that the subjects they taught during visits were successful in engaging pupils. A couple of exceptions to this were for Languages and Computing, though these subject areas had extremely low base response sizes (1-2 respondents). Similarly, they reported that the teaching approaches used were almost always successful in engaging the relevant age group. Findings from the interviews suggested that providers tended to stick to the same teaching approaches and conducted similar activities across different school visits, tailoring these slightly depending on the ages and number of pupils visiting. Generally, however, these were felt to be 'one-size-fits all' approaches which have been tested and developed over many years of delivering educational access visits. Because the activities cut across so many areas of the curriculum, providers were confident they could incorporate teachers' learning goals into their 'usual offer' to some extent. Furthermore, school groups often visited infrequently, allowing them to repeat similar activities e.g. on an annual basis. In fact, one

provider described how they were concerned about repeating content with the same school group from previous visits until the school told them that repetition would work well in this setting. In contrast, activities were tailored more often towards older age groups who had narrower curriculum goals, or towards school groups who conducted repeat visits on a more frequent basis, amongst whom there was an opportunity to build on recent visits.

When asked how they knew that educational access visits they hosted were successful, most interviewees referred to pupils' engagement with the activities and the extent to which they seemed to enjoy themselves during the visit. Many said they could tell this intuitively, through receiving formal and informal feedback from the school, teachers, and pupils also helped to reaffirm their assumptions. A minority of interviewees did consider the extent to which they could bring curriculum topics to life or help pupils to meet their curriculum outcomes as indicators of success, but for the majority, success was not generally measured by learning outcomes. Providers who had a positive and flexible approach to learning thought that helped to facilitate successful visits, and positive attitudes amongst teachers were also felt to be beneficial.

"I would say it's probably my attitude towards learning that makes it successful."

"Originally I thought they had to learn loads on visits... Actually I think it's more about positive interaction with the farmer so they feel engaged."

Wider benefits

More widely, most interviewees described how their main motivation to take part in the educational access option was to help children engage with farming, learn where their food comes from, and feel some sort of connection with or curiosity towards the natural environment. This was reflected in the survey responses, where the most common motivations for participating in the educational access option were being interested in helping children and young people learn about nature/and or the environment (95% n=89) and learn about farming (78% n=73). In contrast, providers were financially motivated (bearing in mind they receive payments for visits) to a lesser degree (67% n=63), which was particularly the case for larger sites where profit margins tended to be higher and opportunities for generating extra revenue was less of a motivation. Educational access visits were also viewed as an important opportunity for providers to engage with their local community (61% n=57) and raise awareness about their site (64% n=60). Therefore, providers also gauged success in terms of whether school groups had the opportunity to develop their curiosity about the outdoors and to forge a connection to the site or the outdoors more generally.

"I do think it is our corporate responsibility to show people where their food comes from. I hate farmers complaining that people don't know where their food comes from and then don't show anyone. It's our job."

"There have been lots of stories where individuals have come back to me and said, you know, this place was something that meant a great deal to me.... there is a sense of continuity, because they can trust the farm is a welcoming place to be and where they are nourished, whether that is a sandwich, or knowledge or sympathy."

In some cases, educational access visits provided pupils with an opportunity to visit the countryside (or a farm) they might not have otherwise had. Some providers who hosted school visits from urban locations remarked that some of the pupils had not seen a farm before, or in one case they had not even left their city before and were 'dumbfounded' by what they saw on site. Being in a natural environment was a notably new and different experience for these pupils who were less comfortable in a rural setting. Whilst one provider said this meant they were sometimes more difficult to engage, others found they were excited to

be outdoors. One provider gave an example of a boy who was living in a small urban flat with a difficult home situation. His class visits their farm frequently, which for this particular pupil is his release, where he is able to run and let off steam in a safe environment with more freedom than he would otherwise have.

"It can be on such a...for me...small scale cause I'm so used to it. But trying to imagine never having been to the countryside before. It is just sort of mind-blowing to think how different it could be for a child who's never seen it."

Example 8: New outdoor experiences

A farmer from the South-East observed how unused to the countryside and disconnected to nature certain groups of pupils were, particularly those who came from urban areas. They remarked that pupils *"have no idea that things grow in soil. They see it as dirt and I think they see a bit of soil as contamination".*

"When they come to the farm they have never smelt sheep or cows and they find that quite overpowering. They grow up in a very scented, or quite scent-neutral environment".

This was also noticeable in their fitness and ability to move around the site: *"You can see (from walking around the farm) that children are not used to walking on uneven ground".*

Despite the fact the majority of visits were provider-led, they did not see themselves as teachers, nor were they perceived to be by the visiting group, who regarded them as a different kind of authority figure. Where schools ran repeated visits over time or facilitated virtual contact with the provider from the classroom (e.g. via zoom), providers spoke about the benefits of building a relationship with young people over time. In particular, providers felt there were benefits to the farming community (in terms of profile and understanding) and also the schools themselves (learning outcomes, establishing role models) where pupils can begin to 'know and understand' the provider him or herself in terms of their personality and motivations.

This, along with the fact that pupils were learning outdoors in a very different environment to normal, reportedly helped to include and engage pupils who might otherwise struggle or be disengaged in a classroom setting, as some teachers told providers. A new environment and different educator provided pupils with a chance to learn in a different style and be 'freer' or 'uninhibited'. Providers often incorporated different types of activities into educational access visits which promoted inclusion across different learning styles and groups of pupils. This was described by one provider who conducted repeat visits with the same school group. They got to know the children quite well and saw an improvement in their behaviour, their ability to problem solve, and do subjects in a completely different way. For example, learning maths in a practical way by measuring fields and weighing grain helped to engage one pupil who reportedly often struggled with maths in the classroom.

"Different pupils were able to shine that would never perhaps otherwise shine."

Providers also observed a number of additional benefits associated with educational access visits, such as a positive impact on mental and physical health by being outside in nature for prolonged periods of time.

"You can't get any better impact on health and wellbeing than by actually bringing children (or anybody) out onto a farm."

The observation of these wider benefits and development of 'soft skills' demonstrates the relevance of educational access in supporting the more holistic elements of the national curriculum. Interestingly, whilst providers noted these benefits, they were unaware that they are part of the national curriculum; rather the

common perception was that visits only supported the curriculum if they were linked to learning goals within specific subject areas.

3.2 Evidence on optimal approaches to outdoor learning

This section sets out key messages from the literature about the recommended ways to plan and deliver outdoor learning for pupils, including evidence on what makes a successful visit. Whilst the key messages from literature are summarised here, the full literature review with associated references and sources can be found in annex 4.

Key Findings: Optimal approaches to outdoor learning

- Benefits of outdoor learning for pupils often linked to the development of 'soft skills' supported within the national curriculum such as critical thinking, problem solving, social skills, and self-esteem. Bringing curriculum subjects to life in an outdoor setting was also found to improve pupils' learning recall and academic attainment.
- For teachers, outdoor learning provided an opportunity to trial alternative teaching approaches in a more relaxed environment and build relationships more informally with their pupils. Teachers who participated in outdoor learning saw an increase in their skills and confidence in teaching in this setting
- The literature emphasised the benefits of co-planning visits with farmers and pupils to tailor visit plans to both the place and the group of pupils. Other mechanisms for effective planning included linking visit plans to learning outcomes; pre-visits to tailor lessons to the outdoor setting; and teacher training and support to use a range of pedagogical approaches.
- The literature advocated for co-delivery between teachers and farmers to capitalise on their combined knowledge of the pupils (teachers) and place (providers). Pupil-led activities and group work were most commonly cited as encouraging pupil engagement and the development of soft skills, such as teamwork and communication.
- There was limited coverage on how specific subjects or areas of the curriculum could be supported as part of outdoor learning or farm visits, but the literature highlighted the potential to deliver a wide range of subjects and topics.
- Overall, the literature emphasised that outdoor learning should not be seen as standalone but should be directly linked to classroom learning. The success of this approach was associated with buy-in from teachers and senior leaders to recognise the value of outdoor learning and how it can be linked across the curriculum.

3.2.1 Planning for visits

A consistent message across the reviewed literature was the importance of schools planning off-site visits in advance of school group trips to maximise their value both in terms of learning opportunities for pupils and holistically linking activities to the national curriculum. The literature highlighted the main mechanisms for effective planning, namely: co-planning between teachers, providers, and pupils; developing lesson plans; teacher training; and support to use pedagogical approaches.

Co-planning visits with providers and pupils

Studies highlighted the value of teachers planning visits with providers, to help tailor visit plans to both the place and the group of pupils. For example, one study found that almost all observed pupil outcomes were higher on farms that received pre-visits from the school ahead of most or all visits. The literature highlighted that where there was little liaison between sites and the school prior to visits, outdoor site staff often reported finding it difficult to know what the pupils were meant to learn or already knew. The evidence suggested that primary school visits were more likely to be led by site practitioners, such as farmers, while secondary schools tended to have a clearer educational purpose and were less likely to give responsibility to an external provider.

Many studies advocated involving pupils in the planning of off-site visits to promote pupil agency, gain their buy-in and discuss any concerns they may have. The literature pointed towards the need for educators to be aware and mindful of pupils' concerns about the natural environment. Studies identified wider areas of pupil reticence about being outdoors such as, fear of mud, touching some objects, fear of getting lost in an unfamiliar environment, the farm environment and hands-on horticulture activities. Co-planning and exposure to nature were identified as a way to counter these fears; as well as introducing children to nature from an early age.

Studies highlighted that teachers who were new to outdoor learning could benefit from sharing their visit plans with other teachers to develop them further and increase in confidence. Studies also suggested involving those supporting visits (e.g., teaching assistants or parent/carers) could support pre-visits to sites and preparation activities. They also recommended dedicating time to reflect on how visits went with colleagues supported teacher confidence and ability to inform future visits and plans.

Lesson plans with links to learning outcomes

The use of a lesson plan to provide a clear structure to off-site visits was promoted within the literature. Studies suggested including a diversity of activities in the plan to maintain pupil's motivation and engagement in off-site activities. They also stressed the importance of allowing for some flexibility in lesson plans to ensure there was scope to respond to unexpected informal learning opportunities.

There was mixed evidence on the value of explicitly linking lesson plans to learning outcomes, with some studies suggesting that teachers should consider the desired learning outcomes for pupils before identifying the activities and resources needed, to guide the planning process. Others argued that there is no need for formal targets or learning outcomes as this limits teachers' ability to take a flexible approach and follow pupils' interests without fear of failure. Overall, the literature recommended that off-site visits are not viewed as standalone activities, but rather are linked to wider classroom projects to enhance the learning opportunities for pupils and to develop a coherent link to curriculum teaching.

Studies promoted the value of developing place-sensitive lesson plans, whereby the plans are tailored to the outdoor learning site. Such plans required pre-visits to the outdoor learning site so the teacher was familiar with the site and could develop lessons plans that explicitly involved the natural environment and activities relevant to the site. Repeat visits to the same outdoor site was linked to improved quality and depth of engagement with the place for both pupils and teachers. Furthermore, experiencing a place in different seasons was cited as presenting different teaching and learning opportunities.

Practical Planning for visits

Alongside developing plans for academic activities and outcomes, the studies also highlighted the need for schools to invest resources into planning for the practical and logistical aspects of outdoor visits. For instance, educators needed to consider transport, weather appropriate clothing, risk assessments and parental consent. Further barriers included distance of sites from schools and challenges of finding space in the academic timetable to schedule visits.

Having clear communication between the teachers and stakeholders (including, off-site staff, school staff, parents, and carers) was pivotal to planning successful visits. One study highlighted the use of mobile phones and Whatsapp for facilitating effective communications about visits. Failure to plan for the practical aspects of outdoor visits could be a barrier to pupil's enjoyment and learning during visits.

3.2.2 Delivery on site

The literature highlighted that learning outside offers multiple opportunities for the adoption of various pedagogical approaches.

Curriculum coverage

There was limited focus within the literature on how specific subjects and topics may be supported as part of outdoor learning or farm visits, though wide-ranging evidence that outdoor learning can support the development of 'softer skills' referenced in the national curriculum. There was an overarching appreciation however that a wide range of subjects and topics within the curriculum can potentially be supported through outdoor settings. There was a focus within the literature on the capacity of outdoor learning to facilitate learning about 'conventional' options (e.g. geography and science) reflecting the explicit opportunities to learn about natural world phenomena on farm settings. However, the curriculum scoping review also pointed to a wide range of other curriculum subjects, for which opportunities exist to generate meaningful experiences and learning outcomes for young people. This includes History, Design & Technology and English. There was limited evidence of the effectiveness of outdoor learning in farm settings in supporting certain subject areas, such as languages and music.

Pupil-led activities

Some studies suggested using approaches that support both the relational and affective aspects of learning. For instance, some emphasised the opportunity for changing roles, power dynamics and building trust between teachers and pupils during off-site visits. For instance, the literature suggested adopting a collaborative learning environment during off-site visits that encourages pupils to take responsibility for themselves. They suggested that this can be achieved through activities where pupils need to make decisions. For example, group challenges or team-building activities like den building.

Enquiry-based approaches were promoted by multiple studies. These are non-linear teaching approaches rather than teacher-instructed enquiry. Broadly they involved pupils generating hypotheses, investigating, and then forming conclusions and reflections. These problem-solving based approaches were said to encourage pupils' curiosity and peer-to-peer collaboration, as they provided a chance for pupils to work with peers that they may not work with in the classroom.

Other studies described outdoor learning as a holistic and explorative process that primarily focused on the pupil to support their autonomy, peer relationships, and fostered individual competence. Establishing an environment of open and constructive feedback was found to support pupils to develop their competencies in the outdoor setting.

Group activities

The literature highlighted the value of group-based activities to support academic learning, as well as personal and social skills. There were clear benefits to group activities, such as the opportunity for teamwork, peer-to-peer learning, and the development of communication skills. Additionally, off-site visits allowed for smaller learning groups than classroom cohorts, which could support pupils to be more engaged and focused on their learning. The literature also highlighted the added benefit that pupils received of more support from adults and peers.

Some studies suggested the use of group activities such as circle-time activities and storytelling were a useful mechanism to showcase and reflect on what they had learnt. Asking pupils to create learning outputs such as diaries, videos, and art, helped pupils absorb information acquired during the visit and document their learning. For example, the literature suggested that by incorporating assessment practices, teachers were able to make direct links between the curriculum and the outdoor learning in a relevant way which supported exam practice and tested pupils' knowledge. Furthermore, ongoing assessment via small tasks kept pupils motivated and engaged in outdoor activities.

Mix of structured and unstructured activities

The literature showcased and argued for the use of structured and unstructured activities at off-site visits to support learning. Structured activities included observation or participation in place-specific farm activities like feeding animals or more traditional and familiar activities from the classroom such as writing tasks. Unstructured activities ranged from the use of semi-structured games and play, particularly for younger children through to experiential learning whereby pupils learnt from trying new things and overcoming failures. The literature supported the use of unstructured activities to help foster trust between teachers and pupils.

Sensory activities and experiences

Some literature promoted the use of activities that channel the Swedish concept of “friluftsliv” and favour physical, sensual, and spiritual experiences of nature over intellectual experiences. The literature stated that these encourage a holistic off-site visit for pupils and make for rich and engaging learning experiences. Examples included bug collection and climbing. Multi-sensory activities are identified as being highly valued by pupils and observed to generate greater enthusiasm, attentiveness and focus of pupils. Such activities allowed pupils to use their senses, bringing their learning to life and made it 'real' rather than abstract or intangible.

3.2.3 Success factors

This sub-section outlines the benefits of outdoor learning for teachers and pupils, then summarises the key enablers for planning and delivering successful outdoor learning visits. The literature emphasises the

value of lesson plans in maximising the value of outdoor visits for pupils, and collaborative working between teachers and providers.

Benefits for teachers

Outcomes for teachers who had delivered or participated in outdoor learning largely related to their professional development and teaching practice. The literature suggested that outdoor learning allowed teachers to trial alternative pedagogical approaches with their pupils, in particular more learner-orientated approaches compared to the task-orientated approaches associated with traditional classroom learning. This was seen as a positive opportunity for teachers to develop their professional practice by increasing their skills and confidence in supporting outdoor learning.

Some studies also identified improved wellbeing among teachers who delivered education in outdoor settings and improved teacher-pupil relationships. Learning in a relaxed environment could make a difference to the mood and therefore behaviour of both pupils and teachers, allowing both parties to gain a new perspective on each other by virtue of spending time together outside of the classroom setting.

Benefits for pupils

The literature identified a range of benefits of outdoor learning for pupils, which tended to relate to health and education outcomes. Studies emphasised the value of learning outdoors in the natural environment in providing pupils with new experiences outside of the classroom, including multisensorial experiences of nature that are memorable and valued highly by pupils. New experiences were reported to be particularly valuable for pupils from low-income backgrounds and urban areas, who were less likely to have had experiences such as visiting farms.

Compared to traditional classroom learning, outdoor learning was reported to be more inclusive and effective in engaging a range of learners, due to the potential to experience different learning styles. For example, outdoor learning was associated with approaches which were more relaxed, pupil-led, interactive and practical. These benefits were reported to have a positive impact on pupil's behaviour and educational outcomes. A key theme was the relationship between outdoor learning and educational attainment, including literacy and numeracy, particularly for disadvantaged pupils. Facilitators associated with outdoor learning included improved learning recall, knowledge acquisition in a fun way, and improved motivation and confidence.

Several studies highlighted links between outdoor learning and the development of soft skills, such as critical thinking, problem solving, the ability to apply conceptual understanding to real life situations, social skills, decision making, assessing and managing risk, taking initiative and communication skills. These soft skills are referenced throughout the national curriculum, suggesting that outdoor learning can provide opportunities to support the more holistic elements of the national curriculum.

Finally, the literature suggested that outdoor learning can positively affect health, both in terms of physical health and mental wellbeing. Outdoor learning was associated with improved self-esteem through improving pupils' independence; and improved physical activity levels and fitness when regularly participating in outdoor learning.

Importance of lesson plans

Good planning was identified as key to ensuring that outdoor visits maximised potential links to the curriculum, particularly amongst secondary school groups. A consistent message across the reviewed literature was the importance of schools planning off-site visits to maximise their value both in terms of providing learning opportunities for pupils and holistically linking activities to the national curriculum. The literature highlighted mechanisms for effective planning, namely: co-planning between teachers, providers, and pupils; developing lesson plans; and teacher training and support to use pedagogical approaches. Plans should be communicated to all stakeholders involved in visits to ensure shared understanding of the purpose of visits and learning outcomes, and teachers should be careful not to replicate classroom activities outdoors.

Co-planning and co-delivery between educators and providers

The literature advocated for shared delivery between teachers and providers to maximise their combined knowledge of the pupils (teachers) and place (providers). Pupil-led activities were most commonly suggested and were perceived to encourage pupil agency and engagement. Group work was also cited as important in helping pupils to develop soft skills (e.g. teamwork and communication) and join forces with peers they might not usually work with in classroom. The literature recommended that pupils should develop learning outputs to cement what they learnt during the visit, such as a creative output, diary, presentation, or discussion.

3.3 How educational access visits could be delivered

This section compares current delivery, as described by providers in the survey and interviews, with optimum delivery as described in the literature review. Most of the literature reviewed discussed outdoor learning in general terms and there was a gap in the evidence specific to farm visits. This study therefore provides data to strengthen the information about current and optimal practice.

Key Findings: How educational access visits could be delivered

- For the most part, providers described delivering visits that were aligned with optimal approaches in the outdoor learning literature. For instance, they had a plan for visits, communicated with schools/ teachers beforehand, and delivered a mix of provider-led and child-led activities.
- The main gaps between current delivery and optimum delivery as identified in the literature were:
  - Schools/teachers did not always conduct pre-visits to the farm
  - Co-planning and co-delivery between provider, teachers and pupils tended to be limited
  - Visits were not always explicitly linked to curriculum subjects or academic goals, particularly for younger pupils
- The reasons for these gaps included time pressures on schools/teachers and teachers' lack of confidence or ability to plan effective place-based activities that were also linked to the curriculum.
- As such, providers took a lead in developing plans and delivering activities to minimise the burden on teachers. They used their knowledge of the site and their experience of what works to maintain pupil engagement during visits.
- Providers were mixed in their views and enthusiasm for strengthening links between educational access visits and the national curriculum. Whilst they thought it was possible, they needed teachers to take a lead in driving this change to visits.

3.3.1 Planning for visits

Overall, providers were aware of the optimum approaches to planning visits (as identified in the literature, see 3.2.1). Their accounts of current delivery (see 3.1.1) highlighted variation in the extent to which optimal planning practises are delivered. Optimal planning involved developing a visit plan ahead of time in cooperation between the provider, teacher, and pupils. In practice, providers took the initiative to develop plans, typically in isolation from teachers or pupils. These were generally based on past experiences of farm visits. The provider's personal preferences to have a structured or more unstructured, child-led approach, also influenced the level and detail of plans. Although provider-led plans may have supported a 'good' visit whereby pupils had fun and were engaged, their plans tended to lack explicit curriculum subject coverage. Providers noted that teacher time and expectations for planning activities varied by individual educator and their school approach. Developing plans linked directly to the curriculum varied by the Key Stage of the pupils visiting. Visits for older pupils were generally linked to a specific subject or project and therefore lend themselves to detailed, curriculum plans. Visits for young pupils included a variety of activities which could be linked to a range of curriculum topics which cut across multiple subject areas.

Training for providers and teachers

The literature mainly focused on teacher training for delivering outdoor learning and included little about training for providers. This study provides evidence about provider training in the context of the educational access option, thereby helping to address this gap in the literature. Most providers (80% n=75) reported accessing training before hosting educational access visits. While they believed this was helpful, providers emphasised they had developed and refined their approaches to visits through direct delivery. Providers drew on a range of experiences, outside of formal training, to develop their approaches to Educational Access visits, for instance past work experience in schools, experience of engaging their own children/children they knew in farm activities, delivery of public access or engagement activities with farming they had participated in. They valued opportunities for peer learning, from observing educational access visits at other farms, and speaking with providers or teachers experiences of running educational access visits. These informal training opportunities provided them with ideas for activities to run and alternative approaches to engage pupils.

Providers who took part in interviews corroborated the evidence from the literature review regarding the variability in teacher confidence, competencies, and interest in delivering activities during farm visits. The literature highlighted a gap in teacher training and continual professional development opportunities for outdoor learning. Providers who had delivered teacher training on their sites consistently reported varying levels of teacher motivation for outdoor learning, and creativity to link activities into curriculum subjects. As detailed below, providers took a lead in planning and delivering activities particularly for younger children. In line with the literature, this suggests a need to support teachers to develop interests, skills and confidence to plan and deliver outdoor learning.

Lesson plans with links to learning outcomes

The literature highlighted the value of lesson plans with links to learning outcomes. It also suggested co-producing plans between providers, teacher, and pupils. In practice, providers generally led on planning activities that happened on-site, while schools and teachers planned the logistics of visits (e.g., transport, parent consent, risk assessments, school staff attendance). Providers were sympathetic to the time pressures on schools and teacher. They therefore had little expectation for teachers to lead or co-produce plans. The current delivery of educational access does however suggest that there is more scope for pre-visit communication to play a role in informing the development of lesson plans, especially if the value of educational access visits is to be maximised with regard to its links with the national curriculum. The role of pre-visit communication could inform preparation through helping to establish a) whether and how the visit should link to a specific curriculum aim b) the teachers understanding that opportunities for learning will depend on what is available or in season on the site at a particular time, and c) ensuring that the teachers have a good awareness of what learning activities will be delivered on the visit in order that they can engage and prepare the pupils appropriately.

Providers also noted the variation in teacher involvement in planning activities, dependent on their personal interest and enthusiasm for outdoor learning. As suggested in the literature, providers also found teachers could be unfamiliar with both farms and outdoor learning. They therefore perceived teachers to have a limited understanding of what activities and learning are possible for pupils, which in turn, limited their ability to effectively develop plans which were tailored to a farm setting. Providers believed that teachers, particularly those visiting on a 'day out', expected providers to take responsibility and lead in planning and delivery of educational access visits. Equally providers were happy to lead on planning visits.

The literature suggested developing place-sensitive plans as optimal practice; however, different authors advocated for the inclusion of either unstructured or structured pupil activities. As providers were familiar

with their sites, they felt best placed (compared with teachers) to develop plans specific to their farm. This included the types of activities that can be delivered while keeping pupils in safe locations during the visit. Providers outlined two broad approaches to planning visits: unstructured or structured, as illustrated in Table 2 below. Both approaches could account for broad learning outcomes, as providers and teachers could have a shared understanding of what they wanted to achieve without necessarily having a rigid lesson plan. Providers' reasons for taking a structured or unstructured approach were closely aligned to authors' arguments outlined in the literature. From the interviews, the motivating factor for taking one of these two approaches appeared to be linked to the provider's personal preference. Both types of providers, regardless of their preference for unstructured or structured plans, highlighted the need to maintain pupil engagement throughout the visit. There was a consensus view that pupil engagement and enjoyment through a variety of activities, was pivotal to a successful visit.

Table 2 The structured and unstructured lesson plans described by providers.

Unstructured plans	Structured plans
One view was that effective outdoor learning was possible with a 'loose' plan. Providers had developed these plans based on their previous experience of what worked to engage pupils, taking any school requests into account. These providers were experienced and confident in their approach to delivering outdoor learning. They suggested that a rigid plan could inhibit natural, child-led curiosity and learning opportunities. A loose plan provided them with a structure for the visit, while allowing space to respond to the context, pupils, school staff and weather. Providers were more confident to take a child-led approach with experience. They reflected that when they first started hosting education access visits, they were less confident to do this. These providers suggested that a prescriptive plan could stifle natural learning opportunities and pupils' experiences of the educational access visit. Providers stressed the importance of creating informal learning opportunities for pupils and facilitating off-site visits that felt distinctly different to formal classroom teaching and learning.	An alternate approach was to a have a focused, detailed lesson plan with learning outcomes attached. These providers typically had a grounding or close association to formal education. For example, providers had prior teaching experience in schools, or were supported by a friend or family member who was a teacher, to produce lesson plans for visits. These providers also proactively asked teachers about their expected learning outcomes or goals for pupils ahead of visits. They then planned activities accordingly. These providers believed a detailed plan maximised the short timeframe of the visits and provided them with opportunity to respond the context of the visits. *"The whole thing is preparation and planning…if you've prepared and have an outline, then you don't have to stick rigidly to a plan, you can adapt, given the circumstances"*

There was little discussion in the literature about which curriculum subjects and pedagogical approaches worked well for different age groups, school types, and pupils with particular needs. Both the literature and this study provided distinctions between secondary and primary pupils. In this study, providers suggested that they only tended to include explicit learning outcomes linked to curriculum subjects when a teacher requested this. In line with the literature, a clear point of difference was presented across pupil Key Stages.

Providers explained that visits for Key Stages 1-3 tended to involve several activities linked to cross-curricular learning. For instance, providers believed they covered core curriculum learning in a light-touch way, across literacy, numeracy, science, art within a single visit for younger pupils. By contrast, visits for Key Stage 4 and above tended to have a clear curriculum subject or project focus, determined by the school. For instance, a geography or science fieldtrip, or visits linked to an agriculture BTEC module. In line with the literature, providers acknowledged the value of educational access visits to build on and enhance classroom teaching. However, in practice, they were not always certain as to whether this happened for younger pupils and presumed it did for older pupils who visited as part of a subject-specific project.

While provider plans included a list of activities, they had generally not considered the expected learning outcomes. Providers did not believe this was preferable or necessary for younger pupils across Key Stages 1-3. The key outcomes providers wanted to achieve for all pupils were to engage them, increase their awareness and connection with farming and nature, and create positive, memorable experiences, especially for those who would not have a chance to visit a farm without an organised school visit. These outcomes support skills that are implicit across multiple subject areas in the national curriculum.

> *"There's something about being outside, and out of the classroom that lodges in their minds - almost photographically. You can achieve more in a shorter time."*

For optimal visits the literature suggests the development of a visit plan. This study finding confirmed that all providers have a plan for their visits. However, providers made little reference to co-planning with teachers and no evidence for co-planning with pupils, in part due to time pressures on schools. The level of detail and explicit links to the curriculum in plans depended on the provider's personal preferences and school requirements. The findings suggest that providers wanted to retain personal agency as to how they organise and plan visits. However, if stronger links are required between plans and visit activities, greater teacher involvement in planning of activities may be required as providers lack detailed curriculum knowledge.

Teacher pre-visits

Teacher pre-visits were promoted in the literature, to support them to be familiar with the site, develop place-sensitive plans and build rapport with the provider. Like developing lesson plans, providers explained there was variation across teacher and schools as to whether this happened. While some providers insisted on pre-visits, most did not. Providers were open to pre-visits but understood that time-poor teachers may not always be able to commit to these, particularly when the school was far away from the farm site.

Pre-visits tended to happen when the teacher or school was new to the provider. Providers suggested that the main purpose of these visits were to complete risk assessments, as opposed to planning the learning outcomes of the visit. This finding supports the suggestions in the literature about the administrative and bureaucratic burden for teachers and schools in planning visits. Providers explained that a few 'dedicated' teachers chose to complete pre-visits, to develop involved place-sensitive plans, such as laying traps for bugs for subsequent pupil activities. Providers were clear that these teachers were in the minority, in their experience.

Schools and teachers with existing relationships with the provider did not tend to conduct pre-visits. Those supported by an intermediary organisation did not perform pre-visits themselves, as the intermediary lead was familiar with the provider site and the school. They were therefore able to provide schools and providers with the information and reassurances they required ahead of visits.

Although pre-visits were not always possible, all providers had communication with the lead teacher ahead of visits, via email or telephone. For the most part, this was to communicate the logistics of the day and practical information. Providers asked about the size of the group attending, any necessary information such as whether pupils have allergies, suggested a plan of activities for the day, and checked if the teacher had any requirements. Providers developed their own systems for collecting the information they wanted to know ahead of visits. These systems were generally developed over time, through experiences of planning and delivering visits.

The findings suggest that pre-visits were not common practice, but providers and time-poor teachers took pragmatic steps to communicate necessary information ahead of visits. The literature suggested that pre-visits could enhance the quality of visits as it supported teachers to visualise what could be possible in terms of activities for pupils. Equally, providers noted that teachers generally lacked knowledge, skills and creativity to deliver outdoor learning, suggesting a need to build teacher capacity to do this in the absence of time and resource for pre-visits.

Repeat vs one-off visits

While the literature promoted the value of repeat visits to deepen pupil engagement and learning, repeat visits by the same group of pupils did not tend to happen. Repeat visits with the same schools were common however, as was working with the same teacher across visits. Equally, providers highlighted that their relationships with schools could break down when there was a change of personnel, for instance when there was a change of Head or lead teacher.

Providers were open to repeat visits with the same pupils. One provider who had facilitated multiple visits with the same pupils, corroborated the literature, in that multiple visits enabled the pupils to have a deeper engagement with each visit. Pupils were able to observe the farm across different seasons and weathers. There was also the possibility to continue a project over the course of the visits. For example, planting a seed and watching it grow at subsequent visits.

Providers perceived that schools lacked curriculum time, staff capacity and funding resource to facilitate repeat visits with the same pupils. Although schools were not able to facilitate repeat visits for the same pupils, providers with public access and pathways informed pupils of the possibility to visit with their families, independent of the school.

3.3.2 Delivery on site

Provider approaches to delivering curriculum subjects and topics as part of visits (see 3.1.2) aligned to the optimum methods identified in the literature (see 3.2.2). As the literature suggests, providers led activities with younger pupils and encouraged older pupils to work more independently, for example via group activities.

Co-delivery between providers and teachers

The literature promoted the active involvement of providers in supporting site activities, rather than taking a passive host role. Furthermore, the literature advocated for co-delivery between teachers and providers to maximise their combined knowledge of the pupils (teachers) and place (providers). Most providers (84% n=73) who took part in the survey reported they were hands-on and led activities. Providers suggested that teachers who were confident and enthusiastic about outdoor learning led or supported activities too.

Providers highlighted that when large number of pupils visited, pupils were split into smaller groups and teachers and school staff took responsibility for sub-groups. Teachers also took a lead on managing pupil behaviour. While providers were comfortable taking a lead role during the site activities, they did not see themselves as educators, nor did they want this role.

Linking educational access visits to curriculum subjects and classroom activities

There was a gap in the evidence around linking specific curriculum subject areas to farm visits; and specific learning around which curriculum subjects and pedagogical approaches worked best in particular farm settings. In the limited available literature, science and geography were the most-commonly delivered subjects on farm settings. Provider survey responses suggested that these subjects alongside, maths and history, remain the most common focus of visits. However, both the survey and interviews data suggest that providers facilitate visits that incorporate broader subjects across the curriculum too, along with the development of 'soft skills' which cut across the curriculum. Providers gave a range of examples of how their visits met a range of curriculum goals. Providers were creative in the way subjects were applied and incorporated into the day (see Table 1 in section 3.1.2.1 above). Providers suggested that activities for younger age groups had links to core subjects, such as English, maths and science, albeit incidental rather than part of an explicit plan, as highlighted in the example below.

Example 9: Linking visits to classroom activities

One provider developed a lesson plan for each visit, based on information they sought from the lead teacher. They believed that the activities run as part of a typical educational access visit provided pupils with 'real world' application of classroom activities and skills and reinforces curriculum learning. For instance:

- seeing animals, their habitat and discussing their lifecycle supports science education;
- walking through the farm, and discussing its landscape supports geography;
- measuring trees supports maths skills.

As suggested in the literature, there was a consensus view among interviewed providers that visits can and should build on classroom activities or provide an anchor to classroom activities that take place after visit. Providers were not always sure whether this happened and believed this was the responsibility of the teacher/school. Providers highlighted instances where this was known, for example, taking soil and worms from the farm to start a wormery at the school. Providers who had not received explicit instructions to link visits to a curriculum subject, believed they achieved this through the activities they ran.

Providers used a range of activities, as described in the literature from provider-led, pupil-led and group activities. They made use of the existing facilities and resources on their farm during visits, for example, the landscape, buildings, plants/trees, grains, soils and animals. Providers favoured activities that were immersive for pupils involving observation, sensory and participatory activities, such as walking through the farm, observing or assisting with farm activities or feeling grains. These provided pupils with experiential learning opportunities and on a pragmatic level, ensured pupil engagement throughout the visit.

"Most of these children are devoid of what I called tactile experiences. They weren't used to the dirt and they were fascinated by feeling things."

Providers noted the importance of not talking at pupils and allowing space for them to experience the site/activities, and to ask questions. They found that responding to pupil's questions and natural curiosity further supported engagement with the visit.

Most of the literature reviewed discussed outdoor learning in general terms and there was a gap in the evidence specific to farm visits. This study provides information about delivery of farm visits and suggests a range of topics and subjects can be supported.

Covering new or different curriculum subjects

Providers who reported covering a range of subjects at visits already, were open to covering new or different subjects. In line with the literature, these providers were positive about the possibilities of expanding visits to cover a wider range of topics. They believed visits could have greater educational benefits, with closer links to the curriculum.

"I think if you're a good communicator, absolutely anything that you're doing on the farm can have an educational benefit."

"A farm is a microcosm of real life and there is so much in reality that they can learn from being on a farm, whether that's where their food comes from or how to cook it or how to prepare it or how to grow it, or whether that's government subsidies and political parties or the history of land and land management. There is just so much stuff that people haven't really thought about at all when they come and step on a footpath."

Though these providers were open to broaden the scope of visits, they were clear that teachers would need to take a lead in identifying the subject to be covered. As mentioned above, providers did not consider themselves to be educators and did not have detailed curriculum knowledge. Providers expected that covering alternative curriculum subjects would require a greater time investment by teachers to plan visits, including pre-visits, and liaison with the provider to ensure activities were suitable for the farm site as well as the curriculum. Providers highlighted that this would present a change to current practices for most teachers/schools. Furthermore, in line with the literature, they suggested that visit activities should not simply replicate those from the classroom but be delivered in a way that are different to the school environment. Some providers thought that teachers may be less inclined to plan artistic focused visits due to curriculum pressures or a lack of inspiration about what could be covered on site.

"Think it depends how the teacher wants to use us – there is so much going on the farm."

Conversely, there was also providers who were hesitant and less comfortable with covering new subjects. These providers identified potential barriers to covering new topics; these included:

- Type of farm: limits to the topics that can be covered on their particular farm
- Curriculum knowledge: limits to provider knowledge of the national curriculum and linked to this, concerns about having less oversight of visit plans
- Financial: concerns about extra costs involved in delivering different topics

Providers suggested that additional funding could enable them to buy resources required to support new subjects. For instance, funding could be used to bring subject experts such as ornithologists or artists or investing in additional resources like paints and paper (art) or sweep nets for looking at insects (science).

Additionally, providers advocated for expansion of the curriculum to include topics such as farming, food supply, climate change and environmental studies. These topics are covered to some extent in existing curriculum subject areas, highlighting how some providers lack knowledge of the current scope of curriculum topics. They believed these topics were both important for a holistic education and would lend themselves to farm visits.

Providers were mixed in their views and enthusiasm for covering or strengthening links between educational access visit to the national curriculum. In principle they thought it was possible, however, they need teachers to take a lead in driving this change to visits. Furthermore, they believe it is important that visits retain a different feel and experience for pupils compared with regular classroom teaching and learning.

3.3.3 Success factors

The literature tended to focus on benefits of outdoor learning experiences to pupils. It makes reference to some wider benefits for schools and teachers too. However, a gap in the literature is stating the benefits of visits to outdoor learning providers. Providers discussed the benefits of visits for schools and teachers less so than benefits for pupils and providers. This section outlines provider's views on the success factors of visits for pupils and providers.

For pupils

In line with the literature, providers highlighted a range of benefits for pupils. Chiefly they believed the visits provided a greater connection and appreciation of farms, the countryside and the environment. They hoped this would support pupil's respect and appreciation for the environment over the longer-term. This was particularly important for pupils who would not have visited a farm or the countryside outside of a school visit.

"The main reason we do the visits is to educate and have informed consumers. But you can't get it all from one visit so it's about positive experiences."

Providers noted that being in a different environment was inclusive and created opportunities for pupils to engage in new experiences, activities and relate to peers and school staff in a different way to a usual school day. The development of soft skills was observed by many providers though none connected them to the national curriculum, suggesting a lack of awareness of the curriculum and an opportunity for the educational access to promote its relevance to the more holistic elements of the curriculum.

"The schools can use the farms as leverage for better behaviour in the classroom - they really see it as a privilege."

For instance, a provider described how a pupil has engaged particularly well in activities. At the end of the visit, the teacher disclosed that the pupil was non-verbal in school.

As site visits involved walking and physical activity, providers highlighted the health benefits for pupils. One providers noted that since returning to visits after the COVID-19 lockdowns, pupils from lower socio-economic backgrounds seemed more tired by the end of visits. Providers suspected that pupils had reduced levels of physical activity over the last two years of the pandemic.

It was important to providers that pupils had enjoyed themselves and had fun. They believed this was pivotal to pupils recall of their personal and academic learning following visits.

For providers

Providers were clear on the benefits that they derived from participation in the educational access option. They enjoyed engaging with pupils and providing them with memorable, positive experiences on their sites. Providers generally believed visits were an important opportunity to educate younger generations about farming and nature, as well as engaging with their current and future consumers. Providers acknowledged there was a financial payment attached to visits which covered their costs of visits. This was not their primary motivation for taking part in educational access but was a motivating factor.

3.4 Overcoming potential barriers

This section examines key barriers to and potential facilitating factors in hosting educational access visits. It starts with entry-point barriers which could be faced by potential and new providers to educational access, followed by key barriers faced by current providers, and some structural barriers in the education access option which emerged from interviews. It also discusses the impact of Covid-19. This is followed by a discussion on key facilitating factors, some of which have the potential to address certain barriers discussed. These include key facilitating factors in starting as a new provider, in initiating and continuing engagement with schools and in enabling capacity to host visits. Success factors and best practice examples specific to planning and delivering educational access visits (including teaching approaches) are covered in previous sections.

Key Findings: Overcoming potential barriers

- Barriers which could be faced by potential and new providers included a lack of knowledge about the educational access option and a lack of confidence in engaging with a school audience.
- Maintaining pupils' attention, dealing with misbehaviour, ensuring safety, and dealing with risk assessments may be initially challenging but these challenges are overcome with experience.
- The success of visits rested on providers tailoring the visit to their particular site at a given time of year/ season. Having certain facilities on site such as toilets, hand washing facilities, parking spaces and sheltered spaces were also seen as essential.
- For current providers, most barriers concerned difficulties in engaging with schools. As such, it was seen as important to maintain strong relationships with schools and offer repeat visits to overcome barriers around initiating engagement with schools which could be time-consuming.
- For schools, transport costs were a main barrier preventing them from taking up visits. Another factor reported was teacher capacity, including staffing, time, and curriculum pressures.
- Several structural barriers with the educational access option were highlighted, including around funding and engagement with Natural England. Some providers suggested that the educational access option should remove restrictions around age and number of visits to enable providers to expand their offer if they wished to.
- While Covid-19 significantly reduced the number of educational access visits for the majority of providers in the last two years, no major adaptations were required to deliver visits during the pandemic, and for most providers, visits had started to increase again.

3.4.1 Barriers

This section outlines key barriers faced by potential and new providers, key barriers faced by current providers and structural barriers in the educational access option experienced by providers.

Barriers faced by potential and new providers

While discussions did not centre around barriers to providers who might want to start hosting educational access visits, the interviews highlighted a few challenges which could prevent potential providers from participating as well as some challenges that providers faced when they first started hosting visits. A few thought that there was a lack of knowledge about the educational access option among potential providers which could be inhibiting. They suggested that it could be better advertised to potential providers, for example in local media or through directly targeting providers. Some interviewees also added that there could be a clearer message around what the goals and intended achievements of the option are. As one survey respondent said:

"Perhaps make more resources available to farmers in a pack or have an education support officer who could help nationally craft opportunities with farmers. Share best practice help showcase activity and encourage better uptake and delivery of the ED1 option. For me it makes my job more enjoyable and makes me have better mental health by having the opportunity to share my social license. Try to share this message with more farmers."

Interviewees reported that another key barrier which could prevent potential providers from hosting school visits is a lack of confidence in presenting to a public audience, and more specifically, a lack of knowledge around how to engage with school audiences. Many of those consulted said that information is missing on how to tie educational access visits into the national curriculum (see section 3.1). One provider also highlighted that the information available is written in a way that might be inaccessible to certain providers who are less familiar with the education sector and educationalist language. The inaccessibility of information about the curriculum that is specifically tailored to providers may therefore be discouraging to some potential providers.

"[Need] More online resources and activities linking farming and the national curriculum"

"So there's a reason why I handed it lock, stock and barrel to someone else, 'cause it's like hard work to get into. It's been written by people who are educationalists not farmers. And of course it's a team game, right?"

Some interviewees, particularly providers with less experience in education, reflected that when they first started hosting visits, they were concerned about maintaining the pupils' attention and dealing with misbehaviour. This applied to both younger children and older children, and interviewees highlighted that gaining an understanding of the differences between how to engage and adapt to different age groups requires experience. Interviews highlighted that hosting large groups and groups with mixed abilities could be particularly challenging in terms of maintaining pupil attention and addressing misbehaviour. One provider talked about finding it more challenging to engage with pupils from the city who were not as comfortable in the countryside. On the other hand, some interviewees also noted that often, children who had been singled out as having behavioural issues or pupils who came from a different setting, were attentive and did very well simply through being in a different environment. Overall, experienced providers

did not see maintaining pupils' attention or dealing with misbehaviour as a major concern, but these could be initial barriers for new providers.

"Some classes are more unruly than others, not being a teacher I...not struggle but it's harder work...I often ask teachers what their cue is to get pupils' attention...You soon pick that up."

"Mixed groups I used to find a real challenge, but I find it easier now because they do tend to break them down.... because we deal with so many special needs groups, I suppose I am just really used to dealing with it now."

Linked to misbehaviour, some interviewees were also concerned about safety. This included dealing with bureaucratic requirements such as risk assessments which could be a hurdle for both new and experienced providers. One provider shared challenges around dealing with different school and local authority requirements for risk assessments. Another provider described challenges around taking parental consent when they had to address an immediate injury on site. Some interviewees found that safety concerns, risk assessments and related issues of insurance could discourage schools from participating, making it more difficult for providers to initiate engagement with schools.[22] When it came to dealing with safety on site, most providers felt confident despite not being able to anticipate everything. It was suggested that while dealing with safety on site may be daunting or burdensome at first, with the right procedures, planning, and staffing in place as well as practical experience, this should not be a major barrier to delivering educational access visits.

"Thirty years ago almost all the schoolchildren in my locality accessed our land through our educational programme but curriculum restraints and increasing concerns about safety have changed teachers' attitudes for the worse."

Barriers faced by current providers

The interviews highlighted that providers faced several main barriers when engaging with schools. Transport cost was a prominent issue raised. In the eyes of providers, transport costs were a key reason preventing schools from taking up the offer to visit their site and participate in repeat visits. Some interviewees noted that this could create a risk of exclusionary practices whereby schools from more deprived areas are more likely to decline participation compared to more affluent schools, if they did not receive dedicated resources to cover these costs. The interviews also reported that transport costs acted to impose a limit on the geographical area from which providers could draw in visitors from. When schools agreed to take part, some providers suggested that to achieve transport cost efficiencies, they preferred sending larger groups, which made planning and delivery more challenging for providers since they had to ensure that infrastructure and staffing could accommodate the visitor numbers.

Interviewees shared that teacher capacity was another main reason for schools to decline engagement with educational access. This was often related to busy teaching schedules, staffing capacity issues including a lack of staffing cover, and demands around the curriculum which made it difficult to prioritise visits over other subjects. These curriculum demands, particularly pressures to cover curriculum

[22] Evidence gathered as part of Defra's "*Review of social and economic benefits and barriers*" (Dillon, J. & Dickie, I. 2012) found that risk was commonly cited as a barrier to outdoor learning. Organisations reported a fear of accidents and the possibility of litigation as one of the main reasons for the apparent decline in school trips. For more information see: http://publications.naturalengland.org.uk/publication/1321181

requirements in the school setting and more rigid requirements around teaching approaches, seemed to be a bigger limiting factor for teachers from secondary schools.

"They [schools/teachers] can't put it into curriculum, they haven't the time, or they haven't the funding to get a minibus to get them there."

This reflects previous Natural England research that demonstrates how a lack of teacher time is one of the biggest barriers to learning in the natural environment.[23] As well as finding time to organise, plan, and deliver outdoor learning opportunities, teachers also needed time to communicate the value of outdoor learning to colleagues and secure buy-in from other staff.

A lack of knowledge about educational access from schools and public was another key barrier raised by interviewees in relation to engaging with schools. Many providers shared that schools were unaware of the educational access option and its aims when asked to participate. A few providers noted that other schemes such as Learning Outside the Classroom (LoTC) were more well-known and sought after. The interviews suggested that the lack of recognition of the educational access option made it difficult to initiate engagement with schools and made providers more reliant on personal networks and connections. Some interviewees said that the efforts required to promote their offer created an additional burden which discouraged them from continuing with the option into the future.

"The difficult part is actually getting the schools to come in the first place- that's what takes a lot of time."

Some providers shared that they found other aspects of planning and delivering visits to be very demanding in terms of workload and time commitment. They noted that preparation work (e.g. cleaning and preparing the site, ensuring machinery was moved/ made safe, arranging resources etc.) and planning and communicating with schools was much more time consuming than initially anticipated. That said, repeat visits and familiarity with the visiting group was thought to lessen the workload. Interviewees highlighted that planning and delivery could be especially burdensome when hosting larger groups with limited staff. A few providers felt educational access was too onerous to accommodate on top of their full-time occupation. Partly for these reasons, some providers shared that they were unable to take on as many visits as they wished, and a few were discouraged from continuing with the option altogether.

"Actually, it really is quite a lot of work. And it does frame the farm in a certain way which means that we don't have as much time for farming."

Structural barriers with the educational access option

Issues with funding were seen as an overarching structural barrier to the take up of the education access option by most interviewees. Most providers suggested that the funding per visit made available to the provider was not enough to cover the costs of planning, preparation and delivery required. Many felt that visits with larger group sizes should have more funding allocated to reflect the additional capacity and resources required. This was reflected in survey responses since 7% (n=6) reported that additional support should include: "a financial incentive that fairly reflects the group size" (the second most popular coded response when providers were asked about what type of additional support they required). Some providers also felt that the funding amount should consider the additional investments required, for example in

[23] Waite, S. et al. (2016). *Natural Connections Demonstration Project, 2012-2016: Final Report*. Natural England Commissioned Reports #215

constructing visitor facilities, or paying for experts or additional materials to cover certain subjects (e.g. art teachers and art materials for art subjects). As such, the interviews suggested that providers would welcome clearer criteria around funding and claims in the future

"The system is flawed. You can't claim for more than one group going out on your farm on the same day. I had a school, they wanted to send 90 children to go on a fully guided day. I hired guides and additional support to cater for the children and set up activities so I could break the group up into 4 smaller groups. I hired 4 additional contractors to ensure the pupils had an action-packed day. When I claimed, 3 of my claim forms were refused. I can't afford to engage or educate this school again."

A few providers also outlined that they had experienced issues with delayed receipt of funding, and some felt that the gap between hosting visits and receiving payment should be shorter to enable providers to cover costs as, or shortly after they are incurred. Some mentioned that under the current structure of the scheme, which is based around payment following delivery, there is no option for providers to receive even partial reimbursement where visits are cancelled even at very short notice and due to external factors (such as Covid-19 cases or technical issues with the school transport). Here, providers suggested that there was the risk that their planning and preparation work went unpaid in the event of cancellation. As a result of these funding issues, many interviewees found that they were running educational access visits 'out of pocket' and did not see it as a viable business option. Only two interviewees found the visits to be financially rewarding, but one suggested that this was because they did many visits, and the other expected the funding to increase.

Another structural barrier felt by a few providers interviewed was a lack of direct engagement from Natural England with providers in advising providers, facilitating contact between providers and schools, and visiting providers on site to understand how visits are being run on the ground. A few thoughts having limited direct communication about educational access between Natural England and providers has resulted in a lack of common understanding about what its key goals are and a lack of targeted curriculum resource for providers. This was also perceived to limit opportunities for providers to seek guidance, for example around funding criteria. Otherwise however, it seems that providers would appreciate having more of a connection with Natural England, so they feel that they are part of overall running of the scheme and have more visibility of how it is run.

The lack of direct engagement with Natural England was also mentioned by a few providers in relation to the lack of public advertisement of educational access and support in facilitating contact between schools and providers. Here providers tended to report that they felt that they themselves needed to take steps to make schools aware of the educational access option and publicise the opportunity for schools to visit their site, but a number reflected that the overarching scheme organisation could or should support with actions to this end.

A few providers talked about a lack of direct visits and observations from Natural England. They felt this created a distance between programme decision-makers and providers on the ground. Some suggested that active observation could help to provide more consistency in the running of the scheme given the current level of variation in the standard of provision across different providers and sites.

"If I was Natural England I'd put a national facilitator in place who could begin that dialogue between teachers and farmers, collating resources, looking at best practice under a microscope."

Whilst not a widespread view amongst providers, there was a suggestion that Natural England staff currently running the scheme would benefit from liaising with those previously responsible for the organisation of the scheme. The feeling here was that there could be an enhanced understanding of what used to work well under the scheme in order to inform how it might best evolve into the future.

Providers also outlined several restrictions which limited their ability to deliver their educational access as they would like to. Among the providers interviewed, some felt strongly that the under-16 only age restriction should be lifted. They emphasized the benefit of educational access for older groups (e.g., sixth formers, parents, teachers, the elderly). These providers often offered visits to various interest groups (e.g., community groups, university groups, parent groups, SEND groups) through different channels outside of schools, and felt that educational access could be more inclusive of such cohorts. They pointed to the wider learning and education benefits of involvement in visits, beyond school-age pupils. Some interviewees also found that the annual 25 visit cap restricted their ability to participate in the educational access option to the extent that they would like to. It should be highlighted that not all providers wished to take up more visits, especially considering time and capacity constraints. However, some could see the benefits of hosting a higher number of visits, especially if the educational access option was open to more diverse cohorts. A few providers also reported that, considering the provider investment required to ready sites for visits, a higher number of visits would make the option more financially viable for providers.

"Make it more inclusive. Broaden it out to other age groups including family groups, adults and non-school groups. Its more than kids that benefit from them!"

"[Improve] By removing the cap of 25 visits per year and allowing farmers to do more, as this is extremely beneficial financially to the farmer and to the children that visit."

Covid-19

The Covid-19 pandemic and related restrictions have created some barriers for providers. Most interviewees had significantly reduced or completely stopped visits because of the pandemic, although many said that visits have started to increase again more recently. The interviews suggested that Covid-19 had exacerbated some existing barriers, particularly around schools' risk aversion and staff capacity. Outside of school closures, schools were prevented from taking part in visits during the pandemic due to longer bureaucratic processes related to risk assessments and school regulations over the number of pupils allowed within coaches/ minibuses. While restrictions had started to lift at the time the interviews were conducted, some providers reported that increased health and safety processes could continue to prevent more risk averse schools from participating. Another key reason for the decreased levels of school participation shared by interviewees was the additional burden on staff capacity caused by Covid-19 which meant that some providers were hesitant to engage with schools and add pressure on staff at such a challenging time.

On the other hand, some interviewees reported that Covid-19 has not caused major difficulties to facilitating visits. Most providers shared that they did not need to implement any considerable adaptations as they already had WASH facilities and the visits were mostly taking place outdoors, or in open spaces. A few had made adaptations such as hosting smaller groups and a smaller number of visits with longer stays, going into schools and doing activities on school grounds instead of hosting visits on site, and participating in online options such as "facetime a farmer".

On a more positive note, a few providers speculated that there could be an increased demand and take-up of educational access because Covid-19 had brought attention to the value of connecting with nature through outdoor learning and might therefore act to increase its popularity. This may, perhaps, be reflected in the fact that many providers reported a recent increase in uptake after the initial slump in demand across the pandemic.

3.4.2 Facilitating factors

This section outlines key facilitating factors for new providers, facilitating factors in engaging with schools, and facilitating factors in enabling provider capacity to host visits.

Starting as a new provider

Some interviewees suggested that the Countryside Educational Visits Accreditation Scheme (CEVAS) training was an important starting point for new providers to gain confidence in understanding the basics of how to structure and frame a visit, and what schools might look out for broadly, for example types of safety concerns and essential facility requirements. A few providers, who had no previous experience in education, found that the CEVAS training helped them understand how their visit could fit into the curriculum. A few interviewees, however, found the CEVAS training to be more general and less informative about the curriculum or pedagogical approaches. These interviewees tended have a pedagogical background or were more confident and experienced as educators. Some interviewees found that having CEVAS as a form of accreditation gave them a sense of credibility when presenting their offer to schools.

> *"Having done that course I had complete confidence [the visit] was completely safe."*

> *"It makes you think about what you have on the farm that might fit in with the curriculum."*

> *"It was also good to have the accreditation as something we could point to when presenting the service to schools."*

Networking opportunities were also reported to be a useful way of equipping providers with practical knowledge and different perspectives on how to adapt visits and successfully engage with schools and pupils. There was appetite for providers to learn from each other (as well as experts) about what works well on visits in terms of pupil engagement and ideas/inspiration for activities that will support effective learning outcomes. Specifically, Open Farm Sundays, events hosted by LEAF (Linking Environment and Farming) and similar local organisations, membership in the National Farmers Union, visits to demonstration sites, mentoring schemes and more informal networking opportunities with other providers and educators were among these suggestions. A few interviewees were actively involved in training or mentoring, and they emphasised the value of networking (whether through formal or informal forums) in expanding knowledge about practical issues which providers need to consider when hosting visits and improving their confidence in how to engage with visitors.

The interviews reflected that while training and networking opportunities are important starting points, the biggest facilitating factor in building up provider knowledge and confidence is the practical experience of hosting visits and learning experiences over time. One provider suggested that a good way of getting started with hosting visits is to start with a smaller group to build up confidence and experience. Interviewees reported that it was easier to deal with challenging behaviour in smaller groups. Others

advised new providers to take time to listen to pupils and let them ask questions, in-line with a child-led approach (see section 3.1.2.2), to gain a better understanding of how to engage pupils from different age groups. Some providers shared that taking cues from and gaining feedback from teachers was also an important way of learning and growing in confidence.

"'The most helpful thing is to actually get on and do it…that's what gives you the confidence because then you're interacting with the school staff on site."

Initiating and continuing engagement with schools

The interviews strongly reflected that initial contact and engagement with schools was a key challenge for providers (see section 3.4.1.2). Suggestions were made around facilitating initial contact with schools but interviewees also highlighted the importance of maintaining good relationships with schools that were already engaged.

Most interviewees drew on personal connections and networks, leveraging existing links with local schools to initiate contact. Only two interviewees reported that LEAF or the Country Trust had facilitated their contact with schools. In a few cases teachers had visited the site or taken students for fieldtrips in the area on prior occasions and made enquiries to the provider, but it was rare for schools to initiate contact according to most interviewees. Instead, they reported that word of mouth played an important role in raising awareness about the provision locally and growing their school connections. Some interviewees highlighted that local schools at a relatively close travel distance would be much more likely to engage due to barriers associated with transport costs and time commitment (see section 3.4.1.2).

Interviewees suggested that the best way to initiate engagement is through direct, in-person contact with a specific teacher or member of staff. This was reflected in the survey responses which indicate that the most popular form of communication was directly with the class teacher via telephone or email (89% n=77) or in person (49% n=43). The interviewees reflected that in person communication was more effective in building initial relationships with the school and reminding schools of the provision prior to steady communication being established. A few interviewees who had tried cold calling, emailing, or sending leaflets to schools said that such attempts were very unlikely to yield success. Direct contact with teachers was also seen as important for relationship building and was also crucial as visit timings would often revolve around teaching schedules and teacher capacity. Some interviewees highlighted the importance of having a specific 'advocate' within the school as a point of contact to push for the visit.

"We found that the best way to engage with a school is to find that one person who will mediate the relationship, who will talk to the headteacher and actually fight our cause… either you have to already know who the person is already…. or other times you have to physically go to the school desk and find out who that advocate would be. Sending emails and phoning doesn't work because people are just too busy."

Due to the challenges of initiating engagements with new schools, and the many benefits of receiving visits from the same school (practical, financial, educational, relationship-building, ability to better understand and meet particular school/pupil needs), many of the providers consulted hosted and encouraged repeat visits from the same schools (see section 3.3.1.4). This also afforded them more lead-in time to communicate with teachers prior to, and following, a visit, as these were likely to be scheduled further in advance. Some providers shared that their repeat visits were closely embedded in the curriculum (i.e., part of a specific course), or timed and themed with something that regularly happens within the school (e.g., 'nutrition week', 'sleep week'). Most providers agreed that to engage the same school in repeated visits, it

was essential to have regular communication and maintain a strong relationship with specific teachers (their 'advocates'). Without this point of contact, providers found it hard to know what was happening within the school and curriculum timetables and found that the schools were likely to forget about their offer. However, several interviewees warned that being overly reliant on one single contact point could also create challenges due to staff turnover. This highlights the need to increase understanding of the benefits associated with outdoor learning across the wider teaching workforce, and the importance of building capacity across schools, so that teachers gain confidence in teaching in an outdoor setting.

"The problem I have with building on school visits is...you build a relationship with a teacher and then they move on elsewhere. It can be hard to get going again"

Having the capacity to host visits

The interviewees highlighted a number of key facilities that are essential to enabling their capacity to host visits. The most commonly mentioned were toilets and hand washing facilities and parking spaces- these were what interviewees found to be the first things which schools enquired about. This corresponds with survey responses where 88% (n=83) and 85% (n=80) of providers respectively listed parking facilities, and toilets and hand-washing facilities as the top facilities they have on their site for visitor use. Most (80% n=75) respondents had a covered area to leave belongings or shelter children from the weather, 78% (n=69) had seating in a covered area, and 73% (n=69) had a suitable space for learning. These were all facilities which were often mentioned as enablers within the interviews. Having sheltered spaces was seen as particularly important to navigate rough or cold weather. Some interviewees had classrooms/meeting rooms, but others did not. A few of the interviewees were funded by Defra to build the classroom facility or wished to use Defra funding for this purpose. Interviews highlighted that the capacity for providers to host bigger class sizes was associated with the size of the classroom, shelter and parking space available. Interviewees also highlighted that having disabled access facilities is helpful in enabling providers to host inclusive visits, and a few interviewees voiced some concerns around being able to host inclusive group visits for more than one physically disabled child without such facilities. Facilities such as kitchens or canteens were less commonly mentioned by interviewees and were not seen as essential to their capacity to host visits, but some interviewees who produced food on site found them to be useful in incorporating food preparation and consumption as part of the educational access visit.

Apart from these essential facilities, a strong theme running across the interviews was that the success of visits rests on providers framing and tailoring the visit around the features and opportunities on their particular site at a given time of year/ season. A number of providers outlined that certain habitats, geographical or historical features on the site had provided an opportunity for an engaging learning experience for visiting pupils. For many of the interviewees, this resonated with their key motivation for hosting educational access, and their desire to raise the profile of farm enterprises and settings, and to educate the public about where their food comes from.

"It is really important that the buildings we use for the visit are farm buildings. Because one of the things that we stress is we are a working farm....there is a huge amount that you can teach by just using ordinary farm equipment"

In terms of safety concerns around facilities, interviewees suggested best practices in planning visits (see section 3.1.1.2). These included prepping the site, removing dangerous machinery or fencing off certain areas of the site, doing risk-assessments and pre-visits, having regular reminders around safety and safety procedures in place, as well as having staff capacity on site to mitigate and deal with emerging risks during the visit.

Staff capacity was also a key facilitating factor in providers' capacity to host visits. Interviewees emphasised the importance of having enough staff between providers and teachers to lead and oversee activities, especially for younger children and larger groups. Some interviewees, especially providers with less full-time members of staff to lead visits on site, reported that getting teachers and/or parents to facilitate activities was helpful, particularly when splitting up large groups to do small-group activities. Teacher confidence and interest in the topic was an important facilitating factor in such cases. Some interviewees found that building the interest, knowledge and confidence of the teacher was just as important as teaching the pupils. When leading visits around specialised subject areas, where providers or teachers might lack expertise, some interviewees saw added value in hiring experts (such as botanists, biologists, artists) to cover or expand on the curriculum provision.

"Trying to do more actual hands-on activities...I can do that if I've got plenty of teachers/adults around. Groups of say 6 children. If there aren't enough teachers, that's hard to do..... any difference in quality of the day is entirely dependent on the teachers. If some are really engaged it's brilliant"

04

Conclusions and Recommendations

4.0 Conclusions and recommendations

This chapter summarises the key points from the discussion of the findings in chapter 3. Based on these findings, it offers a number of best practice principles for providers, schools, and teachers to take into account when planning and delivering educational access visits. Lastly, this chapter provides recommendations to Natural England, Defra, and wider government to consider, which will help to maximise the value of visits.

4.1 Summary of key findings

The following sub-section summarises the key themes explored in chapter three, and in doing so answers each of the evaluation research questions.

4.1.1 Current delivery

Whilst the survey and interviews presented a range of experiences, there were some common themes. Many educational access providers have been hosting school visits for many years and felt confident in their ability to welcome school groups onto their site. They did not always consult guidance prior to individual visits, though would welcome a space to share ideas with other educational access providers or to access tailored, best practice resources. The extent to which visits were linked to curriculum subjects varied and could depend on the age group or the frequency of visits for a particular group of pupils. Whilst learning outcomes were more likely to be suggested by teachers, providers often planned the way in which visits would be carried out with teacher input. Co-planning was felt to be more successful if teachers could conduct a pre-visit of the site but a key barrier here was recognised as a lack of capacity on the part of teachers.

Older age groups were more likely to cover specific curriculum subjects during visits than younger age groups. Where curriculum outcomes were not explicit, providers used their own knowledge of the curriculum to gauge what subject areas were covered during visits, which mostly included science, geography, history, and maths. Providers usually took a lead during the visits and addressed these subjects in a wide range of ways which catered to the site they were on and the time of year pupils visited. They did sometimes vary the teaching approach, usually based on the age of the visiting group. Child-led approaches such as those involving free exploration were often used with younger age groups, whilst group activities were felt to work better with older pupils. Practical, 'hands-on' activities were unanimously felt to successfully engage pupils. These were activities which engaged their senses, such as seeing machinery at work, touching soil, smelling animals, tasting produce, and listening to birds.

Providers felt the teaching approaches they implemented during educational access visits were almost always successful and often reflected these had been tested and developed over a number of years. They tended to measure success based on whether pupils had enjoyed the visit and engaged with the activities,

though also received positive feedback from teachers and pupils. A small number of providers were told that certain pupils who engaged well during educational access visits were typically disengaged in a classroom setting, echoing the pupil benefits discussed in the literature. More widely, providers wanted to facilitate a connection between pupils and the natural environment and saw educational access visits as a steppingstone towards this, particularly given the fact that some visiting groups may never have visited a farm before.

4.1.2 Optimal approaches

The literature highlighted the benefits of outdoor learning for pupils, in addition to some wider benefits for schools and teachers. Bringing curriculum subjects to life in an outdoor setting was found to improve pupils' learning recall and academic attainment. Outdoor learning was also linked to pupils' development of 'soft skills' supported within the national curriculum such as critical thinking, problem solving, social skills, and self-esteem. For teachers, outdoor learning provided an opportunity to trial alternative teaching approaches in a more relaxed environment, increase their skills and confidence in teaching in this setting, and build relationships more informally with their pupils.

The literature emphasised the value of schools planning off-site visits to maximise outcomes for pupils in terms of learning opportunities and holistically linking activities to the national curriculum. Studies highlighted the benefits of co-planning visits with providers and pupils to tailor visit plans to both the place and the group of pupils. There were also suggestions that teachers who were new to outdoor learning could benefit from discussing their visit plans with more experienced staff, and others involved in supporting visits, to increase their confidence in planning visits and incorporate any learning from past visits. Other mechanisms for effective planning included the linking of visit plans to learning outcomes; pre-visits to tailor lessons to the outdoor setting; and teacher training and support to use pedagogical approaches.

In terms of delivery, the literature advocated for co-delivery between teachers and providers to capitalise on their combined knowledge of the pupils (teachers) and place (providers). Pupil-led activities and group work were most commonly cited as encouraging pupil engagement and the development of soft skills, such as teamwork and communication. The literature recommended that pupils prepare learning outputs to embed what they learnt during the visit, such as a diary, presentation, or discussion.

There was limited coverage on how specific subjects or areas of the curriculum could align with outdoor learning or farm visits, but the literature highlighted the potential to support a wide range of subjects and topics. While there was a focus on the suitability of outdoor visits to facilitate learning about 'conventional' options such as geography and science, the curriculum review suggested that there were only a small number of subjects for which a farm setting would not lend itself easily for effective outdoor learning visits, namely languages and music. Overall, the literature emphasised that outdoor learning should not be seen as standalone but should be directly linked to classroom learning. The success of this approach was associated with buy-in from teachers and senior leaders to recognise the value of outdoor learning and how it can be linked across the curriculum.

4.1.3 Gaps in provision

Providers had developed their own approaches to educational access visits. These were informed by specific education access training and guidance, wider public engagement activities, and past teaching experiences. They had refined their approaches over time, from experience of delivery, to suit their site,

the school and age group of pupils visiting. For the most part, providers described delivering visits that were aligned with optimal approaches in the outdoor learning literature. For instance, all providers had a plan for visits, communicated with schools / teachers beforehand, and delivered a mix of provider-led and child-led activities.

The evaluation identified gaps in provision from optimal approaches suggested in the literature. The main gaps were that schools/teachers did not always conduct pre-visits to the farm, co-planning and co-delivery between provider, teachers and pupils tended to be limited, and visits were not always explicitly linked to curriculum subjects or academic goals, particularly for younger pupils. The reasons for these gaps were highlighted in the literature and confirmed by providers. Providers highlighted the time pressures on schools/teachers and teachers' lack of confidence or ability to plan effective place-based activities that were also linked to the curriculum. Providers took pragmatic decisions in developing plans and delivering activities to minimise the burden on teachers and make best use of their knowledge of both the farm and their experience of what works to maintain pupil engagement during visits.

Providers were mixed in their views and enthusiasm for strengthening links between educational access visits and the national curriculum. In principle they thought it was possible, however, they needed teachers to take a lead in driving this change to visits. Furthermore, they believed it was important that visits retain a different feel and experience for pupils compared with regular classroom teaching and learning. There was a lack of awareness that the development of soft skills is supported by the national curriculum, and that outdoor settings provide a great opportunity to facilitate this type of learning.

4.1.4 Overcoming barriers

The interviews highlighted several barriers which could be faced by potential and new providers. These included a lack of knowledge about the educational access option and its aims among potential providers and a lack of confidence in engaging with a school audience. For new providers, maintaining pupils' attention, dealing with misbehaviour, ensuring safety, and dealing with risk assessments may be initially challenging. The interviews suggested that these initial challenges are overcome with experience.

CEVAS training and networking opportunities were reported as important starting points for new providers to gain the initial knowledge and confidence in hosting their first visits and anticipating schools' needs. Toilets, hand washing facilities, parking spaces and sheltered spaces were seen as essential facilities required to host visits. Otherwise, interviewees suggested that the success of visits rests on providers framing and tailoring the visit around the features and opportunities on their particular site at a given time of year/ season.

For current providers, most barriers concerned difficulties in engaging with schools. Providers saw transport costs as a main barrier preventing schools from taking up visits. Another factor reported was teacher capacity, including staffing, time, and curriculum pressures. In terms of initiating engagement with new schools, providers found that limited knowledge about the educational access option was a key barrier. As such, providers emphasised the importance of maintaining strong relationships with local schools they were already engaging with and offering repeat visits where possible. Interviewees suggested that the best way to initiate and maintain engagement is through direct, in-person contact with a specific teacher or member of staff. However being overly reliant on one single point of contact could also create issues in the case of staff turnover.

Initiating engagement with schools, planning and delivering visits (particularly for new and large groups) could be burdensome and time consuming for providers. Interviewees advised that repeat visits could alleviate burden around planning and delivery to some extent. Having enough staff capacity was highlighted

as a key facilitating factor, especially for hosting larger groups. Some interviewees recommended involving teachers and parents as helpers.

Several structural barriers with the educational access option were highlighted. Providers raised various issues around funding, most notably that funding per visit was insufficient to cover costs (particularly to host larger groups). They also felt that Natural England could be more engaged with providers in terms of direct, regular communication, facilitating contact between providers and schools, and visiting providers on site to understand how visits are being conducted. Some providers suggested that the educational access option should remove restrictions around age and number of visits to enable providers to expand their offer if they wished to.

While Covid-19 significantly reduced the number of educational access visits for the majority of providers in the last two years, no major adaptations were required to deliver visits during the pandemic, and for most providers, visits have started to increase again.

4.1.5 Final summary

The above section summarises the outcomes of the research across the assignment's underpinning research questions. Overall, the research has highlighted the very many benefits associated with educational access visits for learners, and highlights that providers are taking initiative and making efforts ensure that visits are engaging, stimulating and valuable for visitors. However, at present, visits through the option represent somewhat of an untapped resource for delivering learning experiences that reflect and reinforce the content of the national curriculum. The potential is there – but providers are often limited by a lack of understanding about the content of the curriculum and the expectations for learning outcomes across different key stages – they need to be better enabled to support this ambition. The focus on delivering the national curriculum should take into consideration the development of soft skills, and not be at the expense of supporting the very many wider benefits that derive from connecting young learners with nature. However, where there is the ambition to use these visits to support the national curriculum, the research suggests that there is an opportunity to develop and deliver this aspect further – and the following recommendations reflect on how this potential might be realised to a greater degree.

4.2 Recommendations

The evaluation evidence suggests that there a number of ways in which the educational access option could be further developed and reviewed as it progresses into the future. A number of recommendations are therefore suggested here, in terms of how the educational access option can best provide an opportunity for supporting the national curriculum, but also in terms of the running of the scheme more broadly.

4.2.1 Recommendations relating to providers

The recommendations to providers are framed in terms of features of good practice that the evaluation evidence has highlighted, and which providers may benefit from hearing as 'top tips' to guide their future practice. The recommendations are shared in a such a style as to enable replication in guidance for, or communication with providers.

Planning

1. Prior communication and planning with teachers: Research with other educational access providers, and evidence from wider research on outdoor learning outlines that communication between the provider and the visiting school before the visit has an important role in making the visit successful and bringing about the most benefits for learners. Even if it is likely that you as the provider will lead and host the visit completely, advance contact with the school should be prioritised to a) hear whether there are certain curriculum subjects/ topics that the teacher would like to cover on the visit, b) discuss the scope for certain curriculum subjects/ topics to be covered reflecting what is going on at your site and what is in season, c) outline to teachers how, and the extent to which you would like them to engage as part of the visit and d) communicate key risks and proposed mitigation (e.g. safety around machinery, how best to provide support for pupils with additional needs). Do invite the teacher to come to the site before the visit, as research shows that it is beneficial for the teacher to experience the site provision in advance so they can understand the learning opportunities, feed into the planning, and discuss how to deal with any risks before the actual visit takes place.
2. Liaise with the teacher on national curriculum coverage and possibilities: Whilst you are involved in the capacity of provider and host, and have much to offer visiting school pupils, be reassured that there is no expectation for you to take on the role of professional educator. Any learning is good, but learning tied to the national curriculum will mean that the visit will reinforce what pupils should learn at a given age and stage of their education. Research has shown that educational access visits are somewhat of an untapped potential for offering pupils learning experiences across the breadth of subjects defined in the national curriculum. Do speak to the teacher in advance to understand more about the curriculum expectations for the group visiting and how you can work together to facilitate learning of relevant subjects and topics for the specific key stage you are hosting. Ask the school to advise you on how they might like to cover certain aspects of the national curriculum, and you will likely have suggestions about how learning and activities on your site could bring the curriculum alive for learners. Teachers may not realise the extent of learning opportunities that could be made available through the visit, nor will likely be very aware of how these change and adapt with the seasons. Pre-visit communication is vital to establish and build this understanding, to inform visit planning and delivery.
3. Follow-up in the classroom: Research has shown that following-up the site visit when back in the classroom can really help pupils to reinforce and benefit from what they experience during educational access visits. Consider the opportunities for pupils to follow-up in this way to cement their learning, whether it be through pupils making something that can be taken back to the school site, undertaking a task or activity that can be completed again in a school setting to observe differences, or follow-up virtual contact discussion with yourself. An effective approach is to treat a farm or wildlife site visit as fieldwork – where data is collected for later analysis back in the classroom – this will effectively demonstrate to learners how theory and practice are interlinked. Again, this is something that can be discussed and planned in advance of the visit with input from the teacher.

Delivery

4. Balance planning with flexibility: The best quality visits strike a balance between detailed planning and preparation, and flexibility to respond to pupil's interests and changes in circumstances. So, whilst the visit should always be planned in advance (ideally with input and collaboration from the teacher) there is a lot of value where the plan can be agile enough to respond to children's interests and questions as expressed on the visit. This means that the opportunity for children to be self-led in their learning can be supported. Equally, plans need to be flexible enough to accommodate (even sudden) changes in weather conditions. Providers reference that a number of 'back-up' plans or other pre-prepared activities are useful in this respect.

5. Prioritise the provision of an active learning experience: The best activities to deliver with pupils are those which provide active learning experiences that tap into their senses and which provide an experience that stays in their memory. Learners should have fun on their visit as this will increase the value of their visit. Rather than thinking about the information or knowledge that you want to tell your visitors, think about the way that you could help them to experience and take in the information for themselves through doing or observing something for themselves and learning through smell, touch, sight, sound. Research shows that these sort of practical and sensory experiences have huge value for young learners and your site provides a perfect setting to support that. Whether physically lifting and moving, or making, feeling, counting – the kinaesthetic, embodied, and tactile pupil experience should be planned for in all visits.
6. Consider small group learning where possible: Feedback from providers suggests that visits work effectively where pupils are broken into smaller groups (ideally 7-8 pupils per group or less) which can provide an opportunity for the pupils to rotate across different parts of your site. This brings benefits in terms of engaging learners effectively and helping to manage risks (e.g. eliminating unsupervised interactions with machinery and livestock). It is worth thinking in advance what will work best on your site and communicating with the school about scope for teaching staff/ volunteers to accompany small groups, and how they could best support this.
7. Behaviour management remains the teacher's responsibility. In general, providers and schools report that educational access visits are very effective in engaging those pupils for whom concentration and engagement can sometimes be a challenge in the classroom. But if challenges around behaviour arise, reassured that you are not responsible for the behaviour of children on site. Teachers know the visiting pupils best and are well-equipped to deal with behaviour and/ or attention issues. So do not let lack of experience in this area be a barrier to your engagement as a provider. Do take cues from teachers when dealing with these issues, and do defer to, or ask teachers to step in to address challenges. Prior planning and communication with the visiting teacher will always help prepare you for challenges around pupil behaviour and attention, but dealing with these in the most appropriate way remains the school's responsibility and specialism.
8. Be yourself and share what interests you! There is merit in visiting pupils getting to know your personality so that they can understand more about your role, life and what is important to you. So do not be afraid to share about your passions and experiences, including through story telling. Pupils will connect with this and it will help to make the visit memorable for them. As a provider, you might be the first or only representative of a farm or wildlife site that the visiting pupils have ever met, and you can help build the profile and reputation of farming or the natural world simply by sharing your personality and engaging pupils in your interests across the course of the visit.

4.2.2 Recommendations relating to teachers and schools

The recommendations to teachers and schools are framed in terms of features of good practice that the evaluation evidence has highlighted, and which teachers and schools may benefit from hearing as 'top tips' to guide their future practice and engagement with the scheme. The recommendations are shared in such a style as to enable replication in guidance for, or communication with schools. They are based on the literature review and consultations with providers, and do not necessarily represent teachers' views.

Planning

1. Co-planning is key: The best educational access visits take place where there has been co-planning and co-delivery shared between the provider and the visiting school. Effective co-planning requires that providers and schools first share information on potential learning aims and opportunities, reflecting what is available on the visit site. A cooperative approach to sharing information and expectations and planning for visits is the key to maximising the usefulness of the visit in terms of achieving learning outcomes aligned with the national curriculum.

2. Aim to integrate subject coverage: Whilst visits have the capacity to cover a single subject or topic across the course of the visit, it is more realistic that providers cover a number of different subjects or topics in a single visit – the interviews with providers indicate that this happens on the majority of visits. This reflects the multi-faceted nature of the learning opportunities available on different types of educational access sites. In order to maximise the overall learning value of site visits, teachers should ideally view site visits as an opportunity to cover more than one subject or topic – this can inform discussion and planning with providers regarding possibilities, but also coordination with other teaching staff across different subjects when thinking about taking a cohort out of lessons for a day.

3. Advance communication and a visit to the site are essential: Research with providers has indicated that there is a real appetite amongst them to liaise and communicate with the school and the visiting teacher(s) before the visit. They are aware of the pressures and capacity constraints which are a barrier to this pre-visit communication. However, it is essential that pre-visit communication takes place, and ideally a site visit in advance, to exchange information on a) expectations for certain curriculum subjects and topics to be covered b) the best opportunities to cover certain learning outcomes on the visit c) how the learning will be delivered on the visit and how the teacher and provider might best collaborate d) risk management (health and safety on the farm, arranging appropriate approaches and support for pupils who need additional support). Where teachers take the time to liaise with the provider in advance of visits, experience has shown that visits are more effective in supporting learning outcomes amongst pupils.

4. Advise providers about curriculum content: Providers are often able to draw on their experiences of delivering the scheme over time, and also their personal or previous experiences with the education system. However, providers, understandably, tend to have limited understanding about the content and coverage of the national curriculum. There is potential for educational access visits to offer more value as a vehicle for learning linked to the national curriculum. However, providers need to be made aware of the subjects and topics that are relevant for each group of visitors to learn about. Providers are ready to suggest how their site presents opportunities for learning across a range of subjects, and prepare appropriate activities, but do be ready to first share details of the learning aims, curriculum subjects and topics that are appropriate and relevant for the group of pupils visiting – along with your hopes and expectations here. The literature review and research undertaken through this study highlights that the range of subjects that can be taught through farm visits is much wider than many would first assume. Imagination and creativity are the key means through which to facilitate coverage of a wide range of subjects and topics, so to ensure that your communication with the provider offers space for creative thought to consider how various activities and experiences can bring different subjects and topics alive for young learners.

Delivery

5. Active engagement and interest during the visit are valuable: Research with providers indicates that they see teachers as key collaborators in making farm visits a success. Many providers are happy to host and lead visits but also very much recognise that active engagement from teachers is important

for helping pupils engage and make the most from the visit. Providers feel that the way that teachers engage and show interest on the visit will affect how the pupils respond to the experiences they encounter. Teachers and parent volunteers should therefore regard themselves as active participants in the visit, and key to its success.

6. Facilitating repeat visits to lever enhanced learning outcomes: Outdoor learning settings change with the seasons as do the opportunities for pupils to learn through education access visits. Consider whether and how your school can facilitate visits where the same pupils can visit and revisit the same setting to experience how the site changes over time. Where food production and plant/ animal lifecycles are a topic of learning, the farm setting provides a very rich environment to support learning outcomes and reinforce learning over time. Liaison with the provider in advance of visits will help the school to understand and plan the best opportunities for this.

4.2.3 Recommendations relating to Defra & Natural England

Guidance and resources

1. Training offer: The research has shown that the educational access training offer is useful to providers and helps to connect them with other providers and the overall aims underpinning the scheme. Crucially, going forward, it can be a platform for upskilling providers to support the delivery of the national curriculum and inspiring them to provide appropriate activities and learning opportunities for pupils. The research has found that providers often rely on their own understanding of curriculum content, and so training is a key way to provide information and guidance on this. Based on the research with participants (and reflection on wider good practice), it is recommended that the training offer is refreshed to incorporate good practice examples of how the national curriculum can be covered through learning on site visits. Careful consideration should be given to making the training offer as accessible as possible for participants in terms of locations (regional delivery to minimise travel), required time commitments (since too much time away from the site will be a barrier to participation), and expenses (reimbursement of costs, and an incentive payment should be considered). It is recommended that an engagement exercise with a number of providers is undertaken to ensure that the training offer is designed in such a way as to engage with them effectively and minimise the barriers to participation. The value and importance of the training should be made clear to participants.

2. Curriculum information: Building on the finding that providers are keen to support learning outcomes but have relatively limited knowledge of national curriculum coverage, it is recommended that a resource is designed to share a summary overview of curriculum subjects and topics across various key stages. One of the ways to approach this could be via a more detailed audit of the national curriculum to identify relevant subjects, topics, and soft skills which could be supported through outdoor learning more generally. The ideal scenario here is that the Department for Education, Natural England, and Defra work collaboratively to set out how these opportunities can be tailored to outdoor learning, including educational access settings. Considering capacity, there is perhaps the potential for a contractor to work across the departments to facilitate, coordinate and support the development of the resource. This resource needs to succinctly outline curriculum content in an easy to access and engaging format, such that providers can see what learning outcomes are relevant for the age of group visiting their site. This will ensure that activities can be planned and tailored in a way which supports national curriculum delivery. This resource could accompany training but also be provided direct to providers when they opt-in to the scheme.

3. Development of shared resources: It is recommended that a shared resource for providers and teachers is created to support them in co-planning visits. This tailored resource could take the format of a 'tool-kit' to showcase how different topics and subjects can be taught on a farm setting, using best practice examples to highlight potential success factors (e.g. in a checklist format). It should also include lesson plans or activities that are (or can be) adapted to different settings, subjects, or key stages. This will help to highlight what is expected within the curriculum for each key stage and provide inspiration for providers and teachers. The tool-kit should also include some short videos (each 2-3 minutes long) to showcase pupils, teachers and providers discussing what works and how specific barriers might be overcome. Whilst visits are often provider-led, resources should take into account other stakeholders, such as if visits are led by teachers or designated intermediaries Ultimately, the tool-kit should be provided as part on an online repository of resources (available to both providers and schools), curated by a dedicated facilitator (whether from the Government or via an intermediary organisation). Relevant website and social media links (e.g. intermediaries, educational resources from other providers) can also be shared. This resource could be developed into a forum for facilitating shared information, tips, and experiences toward improving the quality of site visit delivery. The option of partnering with an intermediary or partner engaged in countryside education might be considered here in order that existing resources might be reviewed, developed and/ or combined as possible.
4. Facilitation and support: It is recommended that options for further support to providers are considered. There is a need to connect them with the support, information, and resources they need to actively and effectively cover the national curriculum in educational access visits. Meanwhile the local environmental access option needs to be visible and clear to schools. One option suggested by providers is a dedicated Education Outreach Officer intermediary to engage with providers and schools, deal with recruitment and engagement onto the scheme and support quality and effective delivery through connecting providers and schools with guidance and support. This should include facilitation to support national curriculum coverage but also to maximise the value of visits for young learners more broadly in terms of fostering improved mental health, connection with the natural world, wellbeing, physical activity, environmental understanding, and stewardship. There are a range of options and modalities for the delivery of this facilitation and support function, including through working with intermediaries and partners.

Communication and Marketing

5. Marketing: The research with providers indicates that they feel that there is a need to better and more clearly articulate to schools what the educational access option is and what the opportunities are for schools to engage and take part. Providers keen to increase their involvement in educational access, report that they feel responsible for reaching out to schools themselves and 'selling' the opportunities for group visits, and the associated benefits. In some cases, this has proved a barrier to widened take-up of the option. It is therefore recommended that Natural England and Defra refresh the marketing approach for the scheme. Some providers suggested that the name and branding of the educational access option is reviewed to ensure that it resonated with its aims, and also those it intends to reach and engage. Overall, direct marketing to schools should be considered to raise awareness about the existence of the educational access option, the opportunities for schools to take part, and how they can get involved in setting up and delivering an effective visit. This may be accompanied by more granular level detail of the specific opportunities within a school's local vicinity (e.g. some providers suggested that schools could be provided with a map of participating sites). Marketing to potential providers should also be considered to outline clear messages about the goals of the scheme, and the potential rewards for providers. This marketing should also provide some reassurance that providers do not need to have prior experience of working with young people or the education system. This marketing is considered essential if the scheme would like to diversify the range of providers beyond

those with some prior experience, interest, or background of working with children (which features strongly in the profile of current providers).

6. Visibility of Natural England governance and contact-point: Research indicates that there is some demand amongst providers to feel more connected to the governance of the educational access option. Here it is recommended that communication with providers should focus on improving visibility of Natural England's scheme contact points. There is some suggestion amongst providers that visits to sites by Natural England would help to ensure consistency and also ensure that the governance of the scheme is connected to the delivery 'on the ground'. This possibility should be considered, but there also may be other ways of reassuring providers that the scheme is governed in a transparent and visible way and is also informed by a practical understanding of delivery and its associated challenges.

Process and eligibility

7. Process review: It is recommended that a process review of the current educational access option is undertaken to review the eligibility criteria, payment thresholds and application/ payment process, to best reflect the overall goals of the scheme, the need for efficiency and the need to retain and attract providers. There is some feedback from providers that some of the criteria and thresholds in fact act as a deterrent to their increased involvement in the option. For example, many providers do not understand the rationale of the 25-visit cap and for some this threatens the viability of their involvement (especially where infrastructure to support visits has already been funded or prepared). Where providers become more experienced in hosting visits over time, the cap may in fact run counter to the ambition to use the visits more as a vehicle to deliver the national curriculum. The current payment structure (by visit) should also be reviewed. It may be that the current payment structure could be adapted in favour of a graded fee scale or per capita payment structure. Many providers feel that different rates should apply to reflect the size of group, and ultimate number of learners hosted on a visit, in order to better reflect the extent of their efforts/ preparation. The application, claim and payment system should also be reviewed for efficiency, reflecting provider feedback about delayed payments and lack of any financial reimbursement in the case of last-minute cancellation of visits.

8. Financial incentives: Changed or additional financial incentives may be reviewed (as part of the above) to consider the possibility of incentivising providers to tie learning experiences to the national curriculum. This option should be discussed between Natural England/ Defra and the Department for Education, reflecting the nature of outcomes to be supported where the national curriculum becomes an increasing focus for visits. Providers also highlighted that the main barrier to school participation is transport costs. It is recommended that the Department for Education considers financial assistance to schools to support with transport costs, especially where there is a desire to link pupils from schools based in urban and/or deprived areas with the educational access option.

9. Widened cohort involvement: The research highlighted a view from providers that the scheme should potentially be widened to different cohorts, such as pupils in specialist education settings, and/or other interest groups (e.g. toddler groups, scout and guide groups, church/religious youth groups, organisations working with families). The rationale here is that the learning benefits of visits can be valuable for learners of various ages, and visiting from a range of settings beyond formal education institutions. The potential for the scheme to be widened in this way will depend on the degree to which Natural England/ Defra would like the option aims going forward to link with the delivery of the National Curriculum. The recommendation from the evaluation team is that the aim of the scheme should not be made so narrow that is discounts the possibilities for a range of learners to encounter the range of benefits linked to outdoor learning and experiences. Whilst the educational access option might increasingly support the delivery of formal learning outcomes linked to the national curriculum (in part

through the recommendations shared above) it also has much value in delivering a range of 'softer' but very important outcomes associated with environmental stewardship, inclusion, positive mental health and wellbeing, as well as supporting visitors to connect and understanding the natural world more broadly.

Further research

10. As the literature review highlighted, there is limited evidence of the value and benefits of non-residential visits to farms and wildlife sites, especially considering opportunities to best support delivery of the national curriculum in England. To ensure that the future of the educational access option, and additional future outdoor learning interventions, are orientated toward delivering the most effective and valuable learning experiences for young people, it is recommended that the Department for Education, in partnership with Defra, commissions some research to address the gaps in existing evidence. The research should seek to review a sample of non-residential field visits through fieldwork to observe and capture the benefits of non-residential visits to learners. In particular, the research should look to review the specific learning experiences and activities which add-value in terms of supporting delivery of the national curriculum. This can ensure that guidance and resources to teachers and providers can be tailored and designed to best lever advantages to learners across a range of areas, including the formal learning outcomes associated with the national curriculum.

11. Whilst this research has usefully gathered the insights of providers, it would be valuable to engage with teachers and schools to understand their perspectives on the current delivery of educational access as a next step. Here it may be that additional or alternative barriers to increased take up and optimal practice can be identified. It would be beneficial to engage teachers in the scoping and design of resources especially information on the curriculum and resources. Ultimately teachers should be involved some way in the consideration and development of the education access scheme into the future. There would also be benefit in understanding their views of educational access impacts over the medium term (i.e. considering outcomes that emerge once back in the classroom and after the visit is over).

05

Annexes

5.0 Annexes

5.1 Annex 1: Evaluation Framework

Based on the ITT, discussions with Natural England, and a rapid review of key literature and programme documentation, Ecorys designed the following research questions. This table indicates the primary source(s) of evidence for each research question.

Research Question	Literature Review	Provider Survey	Provider Interviews
RQ 1: What are the most relevant curriculum subjects and topics and pedagogical approaches that can be delivered within (non-residential) outdoor learning?			
1a. What curriculum subjects and topics can effectively be delivered within outdoor education?	X		
1b. What pedagogical approaches can effectively be used within outdoor education?	X		
1c. How do optimum curriculum subjects and topics and pedagogical approaches vary between different sites and providers?	X		
1d. How do optimum curriculum subjects and topics and pedagogical approaches vary between key educational stages?	X		
RQ 2. What curriculum subjects and topics and pedagogical approaches are currently being delivered on educational access sites?			
2a. What curriculum subjects and topics are currently delivered on educational access sites?		X	
2b. What pedagogical approaches are used during educational access visits?		X	
2c. How does delivery of curriculum subjects and topics and pedagogical approaches vary between different sites and providers?		X	
2d. How does delivery of curriculum subjects and topics and pedagogical approaches vary between key educational stages?		X	

Research Question	Literature Review	Provider Survey	Provider Interviews
RQ 3. How does the current approach to educational access compare to optimal approaches within (non-residential) outdoor learning?			
3a. To what extent are curriculum subjects and topics which can effectively be delivered within outdoor education currently being delivered on educational access sites?		X	X
3b. To what extent are pedagogical approaches which can effectively be used within outdoor education currently being used on educational access sites?		X	X
3c. How does coverage of optimum curriculum subjects and topics and pedagogical approaches vary between different sites and providers?		X	X
3d. How does coverage of optimum curriculum subjects and topics and pedagogical approaches vary between key educational stages?		X	X
RQ 4. What are the facilitators and barriers towards the implementation of optimal approaches within (non-residential) outdoor learning?			
4a. What factors facilitate successful delivery of curriculum subjects and topics and pedagogical approaches on educational access sites?	X		X
4b. How might these facilitating factors be applied?			X
4c. What barriers might prevent successful delivery of curriculum subjects and topics and pedagogical approaches on educational access sites?	X		X
4d. How might these barriers be overcome?			X

5.2 Annex 2: Survey Questionnaire

Introduction

Ecorys is conducting an evaluation of the Educational Access Scheme on behalf of Natural England. The purpose of this survey is to understand how the scheme is currently being delivered on farms, with a specific interest around what is being taught and how it is being taught. The survey will also explore how you currently communicate with schools and teachers who visit your farm and how well-supported you feel to prepare for and host school visits.

The survey should take 15-20 minutes to complete. If you do not have time to complete all the questions at once, you can save your progress and resume the survey using the same link.

We will process your data in line with GDPR requirements, as outlined in our privacy notice *[provide link or attachment*]. Your answers to this survey will be combined with others' responses and anonymised before they are shared with Natural England, so please be as open and honest as possible. Your feedback will help Defra to ensure that farmers and schools get the maximum value from supporting educational access on farms in the future.

1. Would you like to proceed with the survey? *[Single choice]*
   - **a.** I wish to proceed with the survey and confirm that I have read the privacy notice
   - **b.** Do not wish to proceed with the survey *[screen out]*
2. We understand that you are completing this survey on behalf of *[organisation name]*. Please could you confirm your identity below.
   - **a.** I confirm that I am from *[organisation name]*.
   - **b.** I am not from *[organisation name]*. *[screen out]*
3. *[If not identified as overseeing multiple sites based on sample data]* Please specify your name and connection to the farm. *[Open text response]*
4. *[If identified as overseeing multiple sites based on sample data]* We understand that your organisation works across more than one site. For the purpose of this survey we would like you to focus on a site that hosts educational access visits. Please choose the one which is most familiar to you and think of educational access visits to that site when you respond to the questions. Please specify the site you will be focusing on. *[Open text response]*

Provider Characteristics

5. First of all, we would like to understand a bit about you and your farm. Which of the following enterprises are on your farm? *[Multi choice]*
   - **a.** Cereals
   - **b.** General cropping
   - **c.** Horticulture
   - **d.** Pigs

e. Poultry

f. Dairy

g. LFA Grazing Livestock

h. Lowland Grazing Livestock

i. Mixed

j. Other (including Non-classifiable)

6. We're also interested to understand more about the size of your farm. How many people (including family members) work on your farm in a typical month? *[Single choice]*

a. Less than 1 full time member of staff

b. 1-2 full time members of staff

c. 2-3 full time members of staff

d. 3-5 full time members of staff

e. More than 5 full time members of staff

7. Which of the following facilities do you have on your farm which are available for visitors to use? Please select all that apply. *[Multi choice, randomise order of (a)-(m)]*

a. Parking facilities

b. Toilets

c. Hand-washing facilities

d. Accessible facilities (e.g. disabled toilets or ramps)

e. A covered area to leave belongings or shelter children from the weather

f. Seating in a covered area (e.g. for teaching or eating lunch)

g. A suitable space for learning or education

h. Spaces on the farm managed for learning, but also for agriculture or nature

i. Animals to pet, feed, or observe

j. Woodland for play

k. Food processing tools to use or observe

l. Visitor centre

m. Shop

n. Other (please specify)

o. None of these

8. What agri-environment scheme are you currently in?* *[Single choice]*

- **a.** Higher Level strand of Environmental Stewardship (HLS)
- **b.** Countryside Stewardship (CS) Mid Tier
- **c.** Countryside Stewardship (CS) Higher Tier
- **d.** Not sure
- **e.** None of these *[screen out]*

9. For how long have you been delivering an educational access option under agri-environment agreements? Please think back to when you first started hosting school visits under any previous schemes or renewed agreements, and don't worry if you haven't hosted any school visits more recently due to the pandemic. *[Single choice]*

- **a.** Less than 2 years
- **b.** 2-5 years
- **c.** 6-10 years
- **d.** Over 10 years
- **e.** Not sure
- **f.** Not applicable – I have not hosted any school visits via the educational access scheme *[screen out]*

10. Why do you deliver educational access visits on your farm? Please select all that apply and use the text box to provide further explanation if you would like to. *[Multi choice, randomise order of (a)-(e)]*

- **a.** I am interested in helping children and young people learn about farming
- **b.** I am interested in helping children and young people learn about nature and/or the environment
- **c.** It's a good way of promoting general awareness about activity on my farm
- **d.** It's a good way for me to be involved with the local community
- **e.** It provides me with an additional stream of revenue
- **f.** Other (please provide detail) *[open text box]*

11. Have you completed any training to support you with hosting school visits? Please select all that apply. *[Multi choice, randomise order of (a)-(e)]*

- **a.** I have a Countryside Educational Visits Accreditation Scheme (CEVAS) accreditation
- **b.** I have attended training run by Linking Environment and Farming (LEAF)
- **c.** I have attended training run by a charity

d. I have attended training run by a school

e. I have attended training run by a university

f. Other (please specify)

g. Not applicable – I have not completed any training to support me with hosting school visits

Current Delivery

Now we want to ask about how you conduct school visits on your farm as part of the educational access option. When answering the following questions please think about school visits during a 'typical year' before Covid-19.

12. In a typical year, how many individual school group visits do you host on your farm as part of the educational access option? *[Single choice]*

a. Fewer than 5 school visits

b. 5-9 school visits

c. 10-14 school visits

d. 15-19 school visits

e. 20 or more school visits

13. How many students, on average, attend a single school visit to your farm? Please provide an estimate. *[Single choice]*

a. Less than 10

b. 10-19

c. 20-29

d. 30-39

e. 40-49

f. 50-59

g. 60 or more

14. In a typical year, how many different schools do you host on your farm as part of the educational access option? *[Single choice]*

a. Fewer than 5 different schools

b. 5-9 different schools

c. 10-14 different schools

d. 15-19 different schools

e. 20 or more different schools

15. In a typical year, what type of schools do you host on your farm as part of the educational access option? Please select all that apply. *[Multi choice. Screen out if at least one of (b)-(f) is NOT selected.]*

a. Nursery

b. Primary

c. Middle (deemed primary)

d. Middle (deemed secondary)

e. Secondary

f. All-through

g. Special

h. Pupil Referral Unit (PRU) / Alternative Provision (AP)

i. Other

16. In a typical year, what different age groups do you host on your farm as part of the educational access option?* Please select all that apply. *[Multi choice]*

a. Key Stage 1 (Years 1-2 / ages 5-7)

b. Key Stage 2 (Years 3-6 / ages 7-11)

c. Key Stage 3 (Years 7-9 / ages 11-14)

d. Key Stage 4 (Years 10-11 / ages 14-16)

e. Other

f. Not sure

g. None of these

17. Which, if any, of the following curriculum subjects were covered during school visits with each age group as part of the educational access scheme? Please select all that apply. *[Multi choice grid question, with only those Key Stages selected in Q16 appearing across the top]*

[For each option selected above, a pop-up box will appear asking the following prompt, with answer options "tended to be engaging" and "tended not to be engaging"] How well did this curriculum subject engage pupils during school visits to your farm?

	Key Stage 1 (Years 1-2 / ages 5-7)	Key Stage 2 (Years 3-6 / ages 7-11)	Key Stage 3 (Years 7-9 / ages 11-14)	Key Stage 4 (Years 10-11 / ages 14-16)
Science				
English				
Maths				
Art & Design				
Citizenship				
Computing				
Design & Technology				
Geography				
History				
Languages (Ancient or Modern Foreign Languages)				
Music				
Personal, Social and Health Education (PSHE)				
Physical Education				
Religious Education				
Not sure / None of these				

18. Please list any particular topics you remember being addressed within each of these curriculum subjects during school visits to your farm. For example, if you covered 'Design & Technology' you might have addressed food technology, if you covered 'Geography' you might have addressed environmental change, or if you covered 'Science' you might have addressed planting and growing. *[Open text grid question, with only those curriculum subjects selected in Q17 appearing across the side]*

Curriculum Subjects	Curriculum Topics
Science	
English	
Maths	
Art & Design	
Citizenship	
Computing	
Design & Technology	
Geography	
History	
Languages (Ancient/ Modern Foreign Languages)	
Music	
Personal, Social and Health Education (PSHE)	
Physical Education	
Religious Education	

19. Do you talk about the Countryside Code) when you host educational visits? *[Single code]*

- **a.** All of the time
- **b.** Most of the time
- **c.** Some of the time
- **d.** Rarely
- **e.** Never

20. Which, if any, of the following teaching and learning approaches or styles are used for each age group during school visits? Please select all that apply. *[Multi choice grid question, with only those Key Stages selected in Q16 appearing across the top]*

[For each option selected above, a pop-up box will appear asking the following prompt, with answer options "tended to be engaging" and "tended not to be engaging"] How well did this teaching and learning approach engage pupils during school visits to your farm?

	Key Stage 1 (Years 1-2 / ages 5-7)	Key Stage 2 (Years 3-6 / ages 7-11)	Key Stage 3 (Years 7-9 / ages 11-14)	Key Stage 4 (Years 10-11 / ages 14-16)
Farmer led guided tour or activities				
Teacher led guided tour or activities				
Group activities (e.g. making things, problem solving, or games)				
Individual activities (e.g. using worksheets and signboards)				
Free exploration and enquiry				
Other				
Not sure / None of these				

Working with Schools

The next set of questions will explore how you work with schools and teachers prior to, and during, school visits within the educational access scheme.

21. How do you tend to communicate with schools prior to their visit to your farm? Please select all that apply. *[Multi choice]*

- **a.** Directly with the class teacher, via telephone or email
- **b.** Directly with the class teacher, via an in-person visit
- **c.** With the school's office or administrative staff, via telephone or email
- **d.** With the school's office or administrative staff, via an in-person visit
- **e.** Other / not sure
- **f.** Not applicable – I do not communicate with schools prior to them visiting my farm

22. *[Don't ask if answered (f) to Q21]* What sort of topics do you discuss with a school prior to their visit to your farm? Please select all that apply. *[Multi choice, randomise (a)-(h)]*

- **a.** Health & safety measures on the farm
- **b.** Logistics of visiting the farm (e.g. parking, visit duration)
- **c.** Facilities on the farm (e.g. toilets, hand-washing facilities, sheltered areas)
- **d.** What will be taught or learnt during the visit
- **e.** The role of the teacher during the visit
- **f.** Your role during the visit

g. The role of other helpers on the farm during the visit

h. What outcomes/benefits pupils will get from the visit

i. Other

23. During the **preparation** for a school visit to your farm, who usually takes a leading role in each of the following areas? *[Single choice grid question]*

	The teacher leads on this	The teacher leads with some input from the farmer	The farmer leads with some input from the teacher	The farmer leads	Other
Choosing the curriculum subjects or topics to be covered					
Choosing the teaching approach or style					
Preparing the learning or lesson content for the visit					

24. When planning for a school visit, which of the following is the most important consideration **in terms of learning and teaching** to the person planning the visit (whether that is you or the teacher)? *[Single choice]*

a. What will be taught and learnt (e.g. curriculum subjects)

b. How pupils will learn and be taught (i.e. teaching approach or style, and/or outcomes or benefits for pupils)

c. These are both equally important

d. Other / not sure

25. Who tends to take a lead **during** the school visit? If more than one person is involved in delivering these subjects during school visits, please select more than one option. *[Multi choice]*

a. I (the farmer) lead the delivery of educational access visits

b. The class teacher leads the delivery of educational access visits

c. Other (please specify) *[open text]*

d. Not sure

Improving the scheme

This section aims to identify how the educational access scheme can better support farmers and schools to deliver school visits as part of the scheme.

26. Which of the following sources of guidance, if any, do you use to support you to prepare for and run school visits? *[Multi choice, randomise (a)-(e)]*

- **a.** Defra/ Natural England
- **b.** Gov.uk
- **c.** Visit My Farm
- **d.** LEAF Education
- **e.** Countryside Classroom
- **f.** Other (please specify) *[open text]*
- **g.** Not applicable – I do not refer to any guidance to support me to prepare for and run school visits

27. *[Hide if answered (g) to Q23]* How helpful do you find the guidance that you are currently using in supporting you to prepare for and run school visits? *[Single choice grid, with only those options selected in Q23 appearing down the left-hand side.]*

	Very helpful	Somewhat helpful	Somewhat unhelpful	Very unhelpful	Not sure
Defra/ Natural England					
Gov.uk					
Visit My Farm					
LEAF Education					
Countryside Classroom					
Other					

28. What other guidance, if any, would you find helpful in supporting you to prepare for and run school visits? *[Open text response]*

29. What other guidance, if any, do you think teachers would find helpful in supporting them to prepare for and participate in school visits? *[Open text response]*

30. Are there any other ways in which you think the educational access scheme could be improved? *[Open text response]*

Thank & Close

Thank you for taking the time to respond to this survey. As part of our research, we would like to conduct some follow-up interviews to explore farmers' views on the current educational access scheme and how it can be improved in more depth.

The interviews would last 30-40 minutes and would be scheduled at a time of your convenience between now and the end of January. We would either carry out these conversations on the telephone or online via Microsoft Teams.

31. Would you be available to take part in a follow-up interview during January? *[Single choice]*

a. Yes

b. No

32. *[If answered 'yes' to Q28]* Please leave your email address so that we can get in contact with you to arrange the interview. If you would prefer to take part in a telephone interview instead of a video interview via Microsoft Teams, please leave your telephone number too. *[Open text response]*

33. If you would like us to send you a summary of the survey results, please provide your email address unless you have already provided us with your email address in response to the previous question. We will not use your email address for any other purpose. *[Open text response]*

Many thanks again for completing this survey. Your feedback is extremely valuable and will help Natural England understand how to best support providers and user of educational access visits.

5.3 Annex 3: Provider Interview Guide

[Researcher note: read through survey responses in advance of the interview and tailor the questions where highlighted in blue].

What is the evaluation about?

Ecorys is conducting an evaluation of the Educational Access option on behalf of Natural England and Defra. The purpose of these interviews is to understand how the scheme is currently being delivered on farms, with a specific interest around what kinds of subjects are being taught and in what ways. These interviews will build on your responses to the survey to gather more detail about your experiences of hosting school visits, and to understand more about what you think works well and what could be improved. Your responses will help Natural England and partners think about future improvements or changes to the Scheme.

The interview should take around 30-40 minutes, and will cover:

- A bit about your farm and why you got involved in hosting school visits as part of the educational access option
- How you prepare for hosting school visits
- A day in the life of a 'typical' school visit, including what is taught during visits and how it is taught
- Ways in which the educational access option can be improved in the future

We will process your data in line with GDPR requirements, as outlined in our information and privacy notice which you should have received via email. This is the same as the one you should have received in advance of completing the survey. It explains that we might use some direct quotes in our reporting, but these would be anonymised and so wouldn't be identifiable to you as an individual.

Do you have any questions about how we'll be using your data, or on the interview?

Can you confirm you have read the information sheet and privacy notice and are happy to proceed with the interview at this time?

Are you happy for me to record our discussion today? The recording would be for my own reference to provide an additional reference point to my notes and a chance to check back to record quotes in full. *[If they prefer not to be recorded, please explain that you would like to take notes.]*

Introduction

From your survey responses, we understand that you have been hosting educational access visits for X years, and that you tend to host around X visits per year. I understand your farm is primarily a X type of farm and there are X number of people who work on it.

1. It would be useful to get more of an understanding of the farm you work on. Could you tell me a bit more about the activity on your farm or educational access site?
   - ▷ How much do you produce on your farm or holding in a year?
   - ▷ Aside from the farm's primary use, have you diversified your activities at all and if so how?
   - ▷ Aside from these educational access visits, do you take part in any other optional schemes [prompt if required: for example, government schemes, environmental schemes, certification schemes?]

2. Can you remember how you originally got involved with hosting Educational Access visits?
   - ▷ How did you find out about the educational access option?
   - ▷ What motivated you to sign up?
   - ▷ Why have you continued to be involved in hosting school visits?
   - ▷ Have your motivations changed during the time you have been involved in hosting these visits [probe if they have, why]?

3. You mentioned you have completed X training to support you with hosting school visits. How useful has this training been?
   - ▷ Do you ever look to refresh this training or do new training?
     - ■ [if yes] How often would you do this?
     - ■ [If yes] what do you hope to get out of completing new or refreshed training?
   - ▷ [If interviewee has not completed any training] would you like to attend any training to support you with school visits? If so, what training would you be interested in attending?

4. How confident do you feel to facilitate school visits? Why?

5. What guidance do you consult in helping you to prepare for and run these visits? (Refer to survey responses).
   - ▷ Why do you use this guidance in particular? How did you find it?
   - ▷ When would you refer to this guidance? How often?
   - ▷ How well does this guidance support you?

- Do you ever look for more guidance, to supplement the guidance you already use? If so, when would you do this and where would you look for it?
- [If interviewee does not consult any guidance] Why do you not use any guidance?
- Are there any topics that it is difficult to find guidance on for preparing and running school visits?

Planning School Visits

It would be good to understand in a bit more detail, the process you go through when hosting educational access visits, from start to finish.

6. First of all, how did you initially come across the school(s) you work with?

- [Prompt: word of mouth, recommendation, advertising via school networks, advertising via dedicated websites such as Countryside Classroom.]
- [If relevant] How well do these partnerships/ outreach/ recruitment methods work?
- [If hosting multiple visits] Do you tend to work with lots of groups within the same school, or host fewer visits but from a range of different schools? Why?

7. You said you do/don't (Q21) communicate with schools in advance of visits.

- [If yes] what do you discuss [probe: lesson plan, curriculum and teaching approaches, who will take a lead during the visit, the ages of pupils attending and whether they have any specific needs]?
- How important is this communication with schools prior to the visit, for you and for the school?
- [If no] Why do you not communicate with schools in advance of visits? Do you face any challenges in engaging with schools [probe whether this is the interviewee's choice or due to a lack of opportunity]? Would you like to if you had the opportunity?

8. How else do you prepare for school visits? How does this preparation help you during school visits?

9. Have you hosted any school visits since the start of the pandemic?

- [if yes] Have you had to navigate any additional issues? What were these issues?
- [if yes] Did you need to access any support to help you navigate these issues? What support did you look for, and did you find what you needed?
- [if no] Do you have any additional concerns about hosting visits now, given the current stage of the pandemic? What support do you think you will need to host school visits during the pandemic?

Delivering School Visits

10. Once on site, what is your capacity for hosting school visits?

- [Probe: specific parts of the farm children are contained to, what facilities they make use of.]
- How many individuals can you feasibly host during school visits [probe: any limits due to parking, toilets or indoor space]? Has this changed since the start of the pandemic?

- Since hosting educational access visits, have you made any adaptations to the facilities on your farm [probe: built new facilities, made different areas of the farm safe to welcome children]?

11. You mentioned that you host visits for X key stages (Q14). Could you tell me a bit more about the teaching approaches used for these groups?

- What individual or group activities were carried out, and how were these facilitated by you and/or the teacher?
- [For each approach outlined above] how successful was this approach in engaging pupils? What do you think made it a success?
- [For any that were considered unsuccessful) What do you think made it unsuccessful?
- Were there any groups/types of pupils that these approaches worked more or less successfully with [probe: age groups, gender, children with SEND]?
- Does the level of your involvement in planning or delivery make a difference to how successfully these teaching approaches were delivered?
- Does the level of the teacher's involvement in planning or delivery make a difference to how successfully these teaching approaches delivered?

12. How often are visits related to learning goals or planned outcomes?*

- How often, if at all, do teachers discuss these learning goals or planned outcomes with you?
- How often do these learning goals or planned outcomes link to specific subject areas within the national curriculum?
- What do you think are the most successful (or least successful) ways to link visits to the national curriculum based on your experience?
- How does this vary, for example by age group or school type?

13. Who decides what curriculum subjects to cover – you or the teacher?

- [If this varies] in what circumstances do you decide, and in what circumstances does the teacher decide?
- Which subjects or topics have worked particularly well? Why? Does this vary, for example by age group or school type?
- Are there any that are less suited to educational access? Why? Does this vary, for example by age group or school type?

14. As part of our research, we have identified potential for a range of subjects within the national curriculum to be delivered on farms during educational access visits. As well as more well-used subjects such as Science, Geography and Maths, we have identified opportunities to teach other subjects such as Technology, History and Art.

- How would you feel about covering new curriculum subjects and topics (such as these)?
- What support would you need to be able to cover new or different curriculum areas? How would you like to receive this support?

Future Delivery

15. In your opinion, what makes an educational access visit successful?

- What do you think are the main outcomes and/or benefits [probe: for them, for teachers, for pupils, and for the school]? Does this vary, for example by age group or school type?
- How do you know this? [Probe: are visits evaluated (by them or the school), or do they receive feedback from the school]?
- What are the barriers to ensuring successful delivery [probe teacher confidence, pupil behaviour management, school risk assessments, children having the right clothing]? Does this vary, for example by age group or school type?

16. Are there any other ways in which you think educational access could be improved? Reference to and build on survey responses.

- What can be done to ensure more visits are successful [probe: by them, by teachers/schools, and by the scheme]?
- What could Natural England/ Defra do to encourage more farmers to host educational access visits?

17. Will you continue to provide educational access beyond your current agreement? Why/ why not?

- Would you recommend taking part in educational access to other farmers? Why/ why not?

Thank & Close

Thank you for taking the time to speak to me today. Was there anything else you'd like to add that we haven't covered during our conversation today?

[Thank interviewee for time, reassure them that their feedback will remain anonymous and that it will be taken into account as the educational access option is developed in the future].

5.4 Annex 4: Literature Review

Contents

1.0 Introduction

Ecorys was commissioned in October 2021 by Natural England and the Department for Environment, Food and Rural Affairs (Defra) to conduct an evaluation of the Educational Access option, through which farmers can open their sites for school groups to undertake accompanied educational visits. This report presents the first deliverable associated with the evaluation; a literature review of relevant sources to outline best practice in non-residential outdoor learning, looking specifically at relevant curriculum content and teaching approaches across Key Stages 1 – 4. A separate strand of the evaluation meanwhile is undertaking fieldwork with providers to explore and understand how the Educational Access option is currently being delivered. A later report will summarise the results of this fieldwork, also drawing on the literature review presented here to identify recommendations for improving the Educational Access option.

1.1 Context

The Educational Access option has for many years been available as part of Defra's agri-environment schemes; it offers payment to farmers for providing Educational Access to their farm or wildlife sites. This option was first made available via the Countryside Stewardship Scheme (CSS), then facilitated through Higher Level Environmental Stewardship (HLS) via the HN9 option, where each visit was funded at £100 and a minimum of four visits had to be undertaken before an annual claim could be made. More recently, the Educational Access option (referred to as ED)[24] is also available via the Mid Tier and Higher Tier Countryside Stewardship (CS) which funds farmers ('providers') £290 per school group visit, for up to a maximum of twenty-five visits per year. Providers who currently offer Educational Access visits participate in either HLS or CS and so the number of visits they host and the renumeration they receive for hosting visits will depend on which scheme they are in.

The Educational Access option provides the opportunity for educational groups to learn about a range of subjects, not limited to those subjects such as geography and science which might be most conventionally associated with farms. The option allows for wider aspects of the curriculum to be delivered on a farm visit, ranging from history and maths to design and technology and ICT. Under the option, the farmer or provider (which might also be a designated farm employee) accompanies school groups on the visit in order to provide information about the farm and the environmental benefits arising through its taking part in an agri-environment scheme.

This evaluation builds on a 2002-2003 review of access in agri-environment schemes by Defra and a 2007 study by Bowden, Drew et al on the potential of farm visits for education, although this did not specifically address the topics of content or teaching approaches appropriate for outdoor education settings. The focus of this evaluation is somewhat different to this previous work as it seeks to review current best practice in non-residential outdoor learning, then compare this with what is currently being delivered through the Educational Access option. The methodological approach for the evaluation (outlined in more detail below) involves fieldwork with farmers/ providers to understand how the existing Educational Access option is being delivered, and a literature review to understand best practice in outdoor education more generally. In comparing the two, the evaluation will consider how best the Educational Access option might be improved into the future.

The premise, or starting point, for this evaluation is that the full potential and value of visits to Educational Access sites is not currently being harnessed, and perhaps is limited by a narrow perception of what subjects can be taught on farms or wildlife sites. The literature review suggests that farm visits are

[24] https://www.gov.uk/countryside-stewardship-grants/educational-access-ed1

appropriate settings to learn about a wide range of curriculum subjects beyond those conventionally associated with such schemes (e.g. geography). The final evaluation report will culminate in a specific set of recommendations for a range of relevant stakeholders, in order to lever increased value from Educational Access visits into the future.

1.2 Aims of the Literature Review

This report forms the first part of the evaluation and presents a literature review of studies into outdoor learning for Key Stage 1-4 education, specifically considering day visits (rather than residential visits) to farms and wildlife sites.

The literature review examines best practice of curriculum content and pedagogy[25] within outdoor education amongst mainstream education. It outlines the benefits and drawbacks of learning content being delivered outdoors and away from the school site; the advantages and disadvantages of different pedagogical approaches for different curriculum topics; and the outcomes associated with these approaches.

The literature review covers and considers the following aspects:

- **a.** a review of studies of the delivery of the National Curriculum (including PSHE) to identify where there are particular benefits, or drawbacks, associated with Key Stage 1-4 children of all abilities being taught in outdoor settings compared to learning inside classrooms and on school sites,
- **b.** the characteristics and competences seen in individuals leading the educational experience e.g. skills, knowledge, experience, qualifications, motivations and confidence, which support the emergence of positive outcomes,
- **c.** the various different teaching or pedagogical approaches that can be used across particular ages and stages of the curriculum in outdoor learning settings, along with their associated outcomes, benefits and disadvantages.
- **d.** a curriculum review and summary of the current content for KS 1-4 to identify topics where there would be the greatest benefits to pupils and schools from visits to Educational Access sites.

The literature review is structured around an evaluation framework designed at the outset of the work, which outlines the specific areas of interest underpinning the review. This has informed the strategy and methodology for identifying, screening, and reviewing literature (detailed further in section 1.3).

The review provides an overview of curriculum content and pedagogical approaches most relevant when considering positive outcomes in non-residential outdoor education, also identifying some examples of effective outdoor learning. In reviewing best practice, the review identifies particular 'success factors', facilitators and barriers underpinning effective outdoor learning. This will be considered alongside the evaluation fieldwork (survey and interviews with providers) to inform a set of recommendations to improve the delivery of the Educational Access scheme into the future.

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[25] Pedagogy literally translates as the art or science of teaching children, though is often used as a synonym for "teaching" or "education". New World Encyclopedia (2021). *Pedagogy*. Available at: https://www.newworldencyclopedia.org/entry/Pedagogy [accessed 10th January 2022]

1.3 Literature Review Methodology

A Rapid Evidence Assessment (REA) approach has been adopted for the literature review. This approach has been selected as it appropriate for providing an overview of key and most relevant sources within literature within a short space of time, as an effective means of capturing overarching messages within a body of evidence. The REA has been guided by the following areas of exploration, reflecting the research questions and evaluation framework for the overall study:

1. What curriculum subjects and topics can effectively be delivered within (non-residential) outdoor learning?
2. What pedagogical approaches can effectively be used within (non-residential) outdoor learning?
3. How do optimum curriculum subjects and topics and pedagogical approaches vary between different sites and providers?
4. How do optimum curriculum topics and pedagogical approaches vary between key educational stages?
5. What are the facilitators for successful delivery of curriculum topics and pedagogical approaches within (non-residential) outdoor learning?
6. What are the barriers preventing successful delivery of (non-residential) outdoor learning, relating particularly to curriculum topics and pedagogical approaches?

We also undertook a wider review of the current curriculum to identify topics where there would be greatest benefits to pupils and schools from visits to Educational Access sites.

The REA has progressed on the basis of identifying a wide range of literature sources then selecting the most relevant literature through appraising it according to several key quality metrics. Literature was found by searching relevant databases and search engines[26], publications pages of relevant organisations[27], and through an internal call for evidence with project stakeholders. In total, 136 pieces of literature were found to be potentially relevant and screened by the project team. Each piece of identified literature was assigned a score for relevance against each of these quality metrics including; level of rigour for publication (considering the independence and nature of the source), the quality of the evidence (considering the quality of the design and research robustness), the relevance to Educational Access (the degree to which outdoor learning, and educational visits to farms and wildlife sites in particular are covered), and the relevance to research aims (the degree to which curriculum subjects/ topics and/or teaching/ learning approaches and their associated benefits are covered). The highest overall scoring literature was prioritised for review, and a double score rating applied to the research aims relevance metric to ensure that those sources with the highest relevance were prioritised. This approach has meant that the most relevant

[26] Key search terms ("Outdoor education"; "Outdoor learning"; "Nature learning"; "Learning outside"; "Udeskole" (Danish); "Friluftsliv (Scandinavian)"; "Froebelian'", "Forest School"; "Bush School"; "Beach school"; "Field Trip"; "Fieldwork"; "Farm visit") were combined with the following qualifiers: ("pedagogy" / "curriculum" / "teaching" / "learning" / "benefits"). As well as Google Scholar, the following databases were included in the desk research: Academic Search Complete, Education Research Complete, PsychArticles, PsychTest, Science Direct Journals, Freedom Collection, Scopus, SocIndex, SportDiscus.

[27] Websites of 25 organisations were consulted, including organisations focusing on outdoor education (e.g. Institute for Outdoor Learning, Council for Learning Outside the Classroom, Field Studies Council), wildlife organisations (e.g. National Trust, Forestry Commission, The Wildlife Trusts) and organisations who conduct activities with young people (e.g. Outward Bound Trust, Scout Association, Girl Guide Association).

literature (including grey literature) was prioritised for review across the limited timescales for the evaluation. Out of the total of 136 pieces of literature identified initially, 74 were reviewed in depth.

Whilst literature was not scored on the basis of its age, a balanced proportion of recent literature has been included in the review, with 29 pieces of literature published in the past five years (2017-2021). The majority of literature (72% n=53) was published in 2010 or later . Coverage of examples from England and within the UK have been included, whilst also taking into consideration relevant global literature, recognising that certain countries have a richly developed body of research in outdoor learning, or "Udeskole" (Danish) and "Friluftsliv" (Scandinavian). In total, over half (58% n=42) of the literature sources had a focus on the UK, whilst a large minority 42% (n=31) was framed in an international context.

1.4 Literature Review Limitations

The literature review is subject to several caveats and limitations. Firstly, the review was commissioned as part of a wider evaluation which was subject to a ringfenced budget and a particular remit or focus for the work. The most relevant literature sourced within a particular time period has been reviewed, although it should be noted that the number and range of sources reviewed are not exhaustive. Rather, the focus has been on identifying and reviewing the most relevant sources of literature, guided by the remit and resource associated with the evaluation. Reflecting the brief for the work, as defined by Natural England, the literature review focuses specifically on relevant curriculum content and pedagogical approaches, rather than a wider set of related issues.

Whilst a thorough review of relevant literature has been undertaken it should be highlighted that limited sources of literature have been identified which have a discrete focus on visits to farms and wildlife sites specifically. A large minority of the literature sources (42% n=31) did refer to educational visits to farms or wildlife sites, however these settings were often briefly mentioned as suggestions for where outdoor learning could take place with fewer articles focusing on the nuances of these settings specifically. Lessons and examples are therefore drawn from a wider body of literature which considers non-residential outdoor learning more generally in order to identify gaps in coverage but also to consider effective practice which can be compared to existing practice on Educational Access sites.

The literature review does not specifically review barriers amongst particular groups (e.g. geographic areas or socioeconomic groups), however, where relevant, it has captured facilitators and barriers relating to underrepresented groups (such as pupils from urban schools or those for whom English is a second or other language) where they affect successful delivery of curriculum subjects and pedagogical approaches either directly or indirectly.

It is also worth noting that this literature review was carried out in the midst of the Covid-19 pandemic which has been ongoing since March 2020. Schools in England were forced to close to most pupils from March 2020 and most did not fully re-open to all pupils until September 2020. A further outbreak of the virus forced schools to close again for the majority of January and Februrary 2021. A secondary impact of the pandemic has been a reduction in the trips and activities carried out by schools, partly due to social distancing measures restricting the possibilities of excursions, and partly due to schools prioritising classroom lessons to make up for the teaching time missed during school closures. This is likely to have affected the number of outdoor learning visits conducted by schools in this timeframe. None of the screened literature referred to the impact of the Covid-19 pandemic on outdoor learning. It is possible that it is too early for research and coverage of outdoor learning to have emerged, and perhaps the focus of academic research has been on outdoor activities within school settings as an alternative to indoor learning

during the pandemic. Consequently, the impact of Covid-19 has not been covered wtihin the literature review, though will be explored through interviews with farmers during the next stage of the research.

2.0 Value of Outdoor Learning

This section demonstrates the value and various benefits of outdoor learning, as identified in the literature. It firstly outlines the broad benefits of outdoor learning, before examining the more specific benefits and practicalities in linking outdoor learning visits to the National Curriculum. This section will conclude with a curriculum review highlighting the curriculum subjects and topics which have the most potential to be delivered within an Educational Access setting.

2.1 Benefits of Outdoor Learning

The body of literature reviewed identifies a range of benefits of outdoor learning. Benefits tend to focus on the value of outdoor learning for pupils, particularly in relation to health and education outcomes, although outcomes for the wider school community are also cited. This section examines the benefits of outdoor learning for pupils, schools, and teachers, including the outcomes that can be achieved for each group.

2.1.1 Benefits of outdoor learning for pupils

The literature emphasises the value of outdoor learning in providing pupils with new experiences outside of the classroom (Jesus-Leibovitz *et al.,* 2017; Whitfield, 2020). For example, Sofa (2014) reported that outdoor learning enabled children to access knowledge and skills not offered to them anywhere else, and Halocha (2005) noted that trips provided multisensorial experiences of nature that are very memorable and valued highly by pupils. In their review of how National Nature Reserves could be used to provide learning, Mannion *et al.,* (2011) found that encounters with animals were one of the most recurring, memorable, and valued aspects of outdoor learning for pupils.

New experiences were reported to be especially valuable for certain target groups of pupils, for example pupils from low-income background and young carers who are less likely to have had experiences such as visiting farms. Farm visits were considered to be particularly beneficial for children from urban areas who might have not had experience of farm settings (Mattu, 2016). Respondents from Mattu's study (2016) reported a more notable reaction from urban children during visits who are more unused to seeing countryside landscapes and animals. The belief that children should be connected with nature even if they live in cities and urban areas is well-established within Scandinavian "friluftsliv" pedagogies (Peters, 2021). Leng *et al.,* (2019) found that outdoor learning was a good way of engaging reluctant learners, as pupils responded well to interactive, pupil-led activities such as exploring an orchard and choosing to pick an apple. This study, and another by Blackham *et al.,* (2021) also found outdoor learning approaches were accessible to pupils with special educational needs or disabilities and learners whose first language is not English due to the focus on sensory and visual learning.

The body of literature reviewed explored the reasons that outdoor learning experiences were so valuable for pupils compared to traditional classroom learning. A strong theme was the opportunity to experience different learning styles, which were often reported to be more relaxed, pupil-led, interactive, and practical. For example, Harris (2018) described how outdoor learning environments provided new contexts and environments for learning, in which pupils have greater independence as they are free from the norms and expectations associated with the classroom. This was reported in other studies to encourage creativity and better engage pupils in learning activities as a result (Marchant *et al.,* 2019). These benefits were reported

to have a positive impact on pupils' behaviour (Kervinen, 2018; Sahrakhiz *et al.,* 2017); in particular pupils were described as calmer and more tranquil (Adams & Beauchamp, 2019) after having taken part in outdoor learning experiences. Outdoor learning was similarly associated with greater enthusiasm, attentiveness and focus within pupils' learning during the educational experiences in the natural environment and brought the potential for improved health and physical ability, and self-esteem in pupils on a long-term basis (Mannion, G. *et al.,* 2011).

A key theme identified within the literature is that outdoor learning can support pupils' educational outcomes. Many studies highlighted the relationship between outdoor learning and improved academic attainment, for example literacy and numeracy in Key Stage 1 and 2 pupils (Quibella, 2017; Sofa, 2014; University of Glasgow and Policy Scotland, 2020). Outdoor learning was also noted to be beneficial in boosting attainment of disadvantaged pupils. An adaptive testing study carried out by Harvey *et. al* (2017) in Scotland compared primary school groups with higher levels of deprivation to a control group and found that less affluent children were generally more likely to increase their attainment levels in numeracy and literacy thanks to outdoor learning, with one pupil progressing by four and a half years in attainment from a 12-week intervention.

In addition to the facilitators discussed above, the literature highlighted that outdoor learning improved pupils' learning recall as they were able to recount what they had seen, touched, and interacted with when writing about what they had learnt. For example, Tas and Gulen (2019) found that by understanding phenomena through observation, pupils found subject matter more interesting and fun, and were therefore more likely to remember what they had learnt. Similarly, some studies reported that outdoor learning facilitated knowledge acquisition in a fun way, with pupils engaging effectively whilst not necessarily realising they were learning (Barford & Daugbjerg, 2018; Leng *et al.,* 2019). Importantly, several studies reported where pupils engage in outdoor learning in this way, it can increase their motivation (Dillon, 2012; Natural England, 2012; Sahrakhiz *et al.,* 2017) and confidence in their learning, as highlighted in case study 1 below.

Case study 1: Improved confidence leading to educational outcomes

Ofsted (2008) published a report which evaluated the importance of learning outside the classroom. The evaluation report identified strengths and weaknesses in practice and showed how schools and colleges overcome common barriers that can limit successful learning outside the classroom.

Specifically, the report provides an example of groups of pupils, who were underachieving in English and mathematics. The pupils spent two hours a week after school at an outdoor learning centre, where they took part in climbing, canoeing, dry-slope skiing, and other outdoor activities. Staff used these experiences as stimuli for work in mathematics, writing and computing. Evidence from the schools and the centre showed that, within a few weeks, the standard of pupils' work had improved noticeably. Their responses to questionnaires showed that their confidence and self-esteem had also risen. One pupil wrote: "I have learned so much here. It has built up my confidence and I have learned to try my best and have a go" (Ofsted 2008:8). A typical comment from a parent described the way her daughter had returned from the centre "looking so animated and stimulated – quite different from a normal school day" (Ofsted 2008:8).

Other sources of literature discussed links between outdoor learning and pupils' development of soft skills, such as critical thinking and problem solving (Rahmawati & Koul, 2016). For example, outdoor learning was found to have a profound effect on improving language skills amongst pupils whose first language is not

English, as stimulation from the outdoor environment allows them to express ideas outdoors that they tend not to in the indoor environment (Grimshaw *et. al,* 2019). A strong theme emerging from the evidence is that outdoor learning brings curriculum subjects to life since it provides them an opportunity to experience these in concrete terms. There are benefits here in allowing pupils to apply their conceptual understanding to real life situations and experiences (Hainsworth, 2018; Han and Foskett, 2007). For example, Sofa (2014) found that as well as enhancing existing knowledge, bush school experiences allowed pupils to see the interconnection between subjects taught indoors and outdoors. For example, links with mathematics through estimating how many eggs fit in a nest or using sticks to measure distance and links with science through learning about the lifecycles of animals.

Improved social skills were recognised as a key outcome for pupils, particularly where outdoor learning incorporated group work. The literature identified several teacher-observed outcomes, including listening and following instructions (ADAS, 2007); teamwork and interpersonal skills; decision making; ability to assess and manage risk; taking initiative (Ofsted, 2004); and communication skills (Hainsworth, 2018). As a result, an associated outcome was improved peer-to-peer relationships as outdoor learning activities were reported to encourage pupils to negotiate new social roles (Sahrakhiz *et al.,* 2017) and experience each other in new ways (Wistoft, 2013).

Several studies reported that outdoor learning can positively affect health, both in terms of physical health and mental wellbeing. As well as academic confidence, the literature suggested that pupils build their self-esteem through improving their independence (University of Glasgow and Policy Scotland, 2020) and overcoming challenges, such as being surrounded by long grass, being close to large animals or walking on uneven ground (Whitfield, 2020). Outdoor learning, across a range of settings, was also reported as providing opportunities for physical movement and challenge, leading to improved physical activity levels and fitness when provided on a regular basis. (Dillon, 2012; Harris, 2017; Marchant *et al.,* 2019).

Finally, there was clear evidence within the literature that outdoor learning programmes enabled children to connect with the natural environment (Whitfield, 2020). Through interacting and engaging with nature, children are reported as having an improved sense of place (Vermont FEED, 2007) and more positive attitudes to the environment. For example Nolson (2008) noted that farm visits introduce pupils to ideas associated with environmental stewardship. This is supported by Smeds *et al.,* (2015) who found that farm visits engaged children in topics such as ethics and animal wellbeing, economic issues in dairy farming, and farming practices.

2.1.2 Benefits of outdoor learning for teachers and schools

Although the literature tends to focus on outcomes for pupils, there is clear evidence of outcomes for teachers who had delivered or participated in outdoor learning, largely in relation to their professional development and teaching practice.

Some articles highlighted that outdoor learning could facilitate teachers trialling alternative pedagogical approaches, in particular more learner-orientated approaches rather than the task-orientated approaches associated with classroom learning, where teachers are often under pressure to meet learning targets (Harris, 2017). This was reported as allowing teachers to be more creative and flexible in their delivery of the curriculum (Kervinen, 2018; Nundy *et al.,* 2009). Here, the literature points to benefits of field visits and outdoor learning in providing a setting and opportunity for teachers to develop their professional practice.

A strong theme in the literature was that teachers commonly increased their skills and confidence in delivering outdoor learning (Mannion, G. *et al.,* 2011; Nundy *et al.,* 2009), suggesting that outdoor learning can contribute to teachers' professional development. Some studies observed that once teachers deliver

or participate in outdoor learning, they report increased confidence to do it again (Leng *et al.,* 2019). A related outcome, as identified by Wistoft (2013), was improved wellbeing among teachers who deliver education in outdoor settings, as they are reported to be less stressed compared to teachers who only deliver in indoor settings.

The literature also identified improved teacher-pupil relationships, as a result of both parties gaining a new perspective outside of the school or classroom setting (Waite & Goodenough, 2018). For example, Knowler *et al.,* (2019) found that outdoor learning was an important facilitator in challenging teachers' associations about pupils and pupil identity, such as those at risk of being excluded as a disciplinary measure.

2.2 Delivering the National Curriculum through Outdoor Learning

There was clear support within the literature that outdoor learning, across a range of setting and visit types, can be a valuable mechanism for delivering a wide range of curriculum subjects. Clear and careful planning was considered key in meeting curriculum objectives off-site and linking these objectives to topics covered in the classroom was considered particularly effective. This sub-section will examine the messages emerging in the evidence base around the curriculum subjects commonly delivered during outdoor learning visits, the ways in which these visits successfully linked activities to the curriculum, and some of the barriers which teachers had to overcome in order to focus on the curriculum during outdoor learning visits.

2.2.1 Facilitators to cross curricular delivery within outdoor learning

The literature recognises that a range of curriculum subjects can be delivered well within an outdoor setting. Whilst the evidence base does often not review opportunities to deliver specific subjects and topics on a case-by-case basis, there is general appreciation that there is potentially great scope for a very wide range of subjects to be taught through outdoor learning experiences.

For example, in its resource providing Practical guidance, ideas and support for teachers and practitioners in Scotland, Education Scotland (2009) emphasised that each curriculum area lends itself well to outdoor learning and that each subject area has its own unique benefits, from maths to expressive arts. Instead of focusing on specific subjects, therefore, the literature explains the value of integrating curriculum objectives into outdoor learning and examined the most effective ways in which this can be facilitated as detailed in this sub-section.

2.2.1.1 Planning

The role of effective advance planning was recognised in the literature as crucial in ensuring curriculum objectives could be incorporated within outdoor learning visits. The importance of having a clear lesson plan with links to learning outcomes, emerged within the literature as a factor seen to underpin effective outdoor learning. This was considered particularly important for secondary school groups, for whom getting permission to learn off-site was often more challenging. In order for these visits to go ahead, Secondary teachers needed to make a clear case to senior leadership around how visits would support the curriculum, and teachers were therefore more likely to write a lesson plan (ADAS, 2007).

ADAS conducted a previous evaluation of Education Access in which they conducted a survey of farmers and teachers who took part in Educational Access visits. Their survey findings showed that discussing a

lesson plan and curriculum subjects, topics, or themes, with the farmer (or outdoor learning practitioner) in advance of a visit was reported to improve the quality of visits (ADAS 2007; Risku-Norja & Korpela 2010). They recommended their evaluation report that farmers should prepare a 'Teachers Information Pack' ahead of visits to support schools' preparation which should include a list of curriculum objectives that they expect to address during the visit - although in reality curriculum objectives were only provided by 7% of farmers surveyed (ADAS 2007). There is evidence here that transparency and certainty around the intended outcomes enhanced the success of the visit, both in terms of the experience on the day and the positive benefits that emerged as a result.

Arranging a pre-visit from teachers ahead of a farm visit was reported to be particularly beneficial in allowing teachers and farmers to plan lessons in a collaborative way. Mannion *et al.,* (2011) described how pre-visits enabled teachers to visualise more possibilities for lessons and how they could tailor them to the outdoor setting. They argued that the more familiar teachers were with the outdoor learning setting, the more likely they were to focus on curriculum planning because they were able to address their more immediate concerns (such as health and safety, toilet facilities) in advance. Visiting sites on a regular basis was therefore thought to be a facilitating factor in helping teachers to focus on the curriculum during visits because they and their students were familiar with the site. Good links between schools and outdoor learning settings helped to facilitate these repeat visits and enabled outdoor learning to become a sustained part of the curriculum (e.g. with multiple visits per year) rather than seen as a 'one-off' event; coordinating visits with learning in the classroom also helps to strengthen the impact of these visits (Ofsted, 2004).

Overall, the evidence suggests that there is an important role of advance planning and communication in ensuring that farmers are well-prepared and positioned to act as active stakeholders in visits. These activities help to ensure clarity in roles and contributions – here, a positive outcome is that farmers can be given licence to share the role of 'educator' through imparting knowledge and experience on particular topics as opposed to acting in a more passive capacity as 'host'. At the same time, teachers are more likely to actively support and engage the young people in their learning experiences, also acting to deliver the visit more collaboratively with the provider, where they have had a chance to become familiar with the host and the site in advance. The ways in which teachers and farmers can work together to plan and deliver visits is explored further in section 3.1.2 below.

2.2.1.2 Linking to classroom activities

The literature emphasises that outdoor learning should not be viewed as standalone or as a one-off opportunity but be carefully planned and directly linked to what children are learning in school (Whitfield, 2020). As Ofsted (2008:5) commented: *"Learning outside the classroom was most successful when it was an integral element of long-term curriculum planning and closely linked to classroom activities"*. Outdoor learning visits were widely seen as an effective way of building on curriculum topics addressed in the classroom and bringing them to life, as implemented widely in Denmark where "udeskole" places an emphasis on closely linking indoor and outdoor activities across all subject areas. Ballantyne & Packer (2009) outlined that an effective approach to curriculum integration was to introduce a particular topic in a classroom setting and invite pupils to deconstruct and rationalise their learning in an outdoor setting to help them make connections between the two experiences. Involving pupils in preparatory work was found to increase their excitement and enjoyment during visits (Dillon *et al.,* 2006). For example, learning from good quality study materials prior to a visit, such as high-quality textbook illustrations that pupils can expect to see on site, was useful for student retention of learning as it enabled them to make the connection between what they learnt in the classroom and what they saw off-site (Halocha, 2005). In this respect, a farm visit should be thought of one part of, or a milestone within, a sustained teaching project (Mannion *et al.,* 2011). A number

of articles also outlined the importance of building on outdoor learning in subsequent class-based learning (Barford & Daugbjerg, 2018; Wistoft, 2013) in order to reinforce and build on the positive outcomes emerging from a visit. The case study 2 box below provides some examples of the ways in which outdoor learning can be integrated into classroom activities.

Case study 2: Linking outdoor learning to classroom activities

In 2011, Scottish Natural Heritage commissioned research into enabling practicing teachers from primary and secondary schools to collaboratively explore how National Nature Reserves could be used to provide for learning across a range of subject areas.

In their report, Mannion *et al.,* (2011) noted how outdoor learning acted as a catalyst for a range of indoor teaching and learning opportunities both before and after visits. For example, one school used their grounds to learn about compass points before going on a visit, whilst another school group used their outdoor visit as inspiration for writing poetry or stories afterwards. In all cases, the visits were not standalone events but were focal points in wider and more sustained projects. Most teachers explicitly spoke about using the visits as foundational experiences that could support wider learning goals. These projects were often related to specific curriculum subjects and topics such as 'special places in religious and moral education studies', or 'generating a portfolio of artwork drawing on nature as inspiration'.

Interestingly, in their report into learning outside the classroom, Ofsted (2008) reported that learning objectives are more likely to be integrated with classroom-based learning in secondary schools than primary schools due to the increased focus on the curriculum during outdoor learning visits for older children. In contrast, primary schools were less likely to integrate outdoor learning visits with classroom-based activities or outline well-defined learning objectives in advance of off-site visits.

2.2.1.3 Securing teacher buy-in

ADAS (2007) identified how some teachers may need convincing of the benefits of farm visits as they often lacked understanding of how these can be linked to curriculum needs or might not perceive outdoor learning as a 'legitimate' teaching practice (Zink & Boyes, 2006). Certainly, as with other home nations, this was reported to be in the case in Scotland where outdoor learning is no longer centrally located in the curriculum, and a move away from a prescriptive curriculum has meant that outdoor education is often overlooked (Nicol *et. al.,* 2007). In their paper on establishing formal outdoor education practices, Kervinen, Uitto & Juuti (2018) explained the importance of clarifying that outdoor learning is indeed 'schoolwork' in order to 'institutionalise' outdoor learning; making outdoor visits a more regular part of teaching was thought to be a successful way of better institutionalising outdoor learning in schools. They argued that although there is a risk that outdoor learning may not always relate to curriculum subjects and topics, teachers can make direct links to the curriculum by incorporating assessment practices to test students' knowledge. This challenge in securing buy-in from class teachers was more apparent amongst secondary schools, where Mannion *et al.,* (2011) reported that they found it more difficult to gain support of colleagues, particularly because subject-level divisions mean there is less place for cross-curricular activity.

Ofsted (2008) emphasised how the success of outdoor learning depends on buy-in from senior leaders who are willing to support their staff with the planning needed to make these visits a success. This was particularly evident amongst secondary schools, where senior management had to ensure that visits added sufficient value to pupils' learning, and so staff leading visits were required to discuss and refine learning objectives well in advance. The report highlighted that the benefits of outdoor learning are often observed

anecdotally and not recorded systematically. It recommended that schools demonstrate the value of outdoor learning in supporting improvements to pupil attainment so that they can convince parents and governors to embed it as part of the curriculum. It was also deemed important for senior leaders to buy into the 'softer' benefits of outdoor learning (e.g. improving pupils' personal development) too in order to enable teachers to trial different learning approaches in a more relaxed way. Glackin (2021) warned however, that if teachers believe that their teaching practice is continually under scrutiny, they are unlikely to take, maintain and practise the pedagogical risks required to make outdoor learning visits successful. This links to the reflection earlier in the review that outdoor visits are important opportunities for teachers to develop practice by taking risks by experimenting with pedagogical approaches that they may be less experienced with, thereby having an important role in developing the quality of overall pedagogical practice.

2.3 Subjects with Potential for Delivery through Outdoor Learning

As part of our literature review, we undertook a review and summary of the current National Curriculum in England, Key Stage (KS) 1-4 to identify topics where there would be greatest benefits to pupils and schools from visits to Educational Access sites. In reading these suggestions, it is important to bear in mind that schools and farms are all different, and that context and individual differences will allow for some curriculum subjects, and some farm settings, to be more suitable than others. The professional judgement of teachers and farmers is therefore crucial to maximise learning opportunities presented on outdoor learning sites.

The broad intent of the National Curriculum for England opens multiple opportunities for learning. It is based on the School Curriculum which states that: "Every state-funded school must offer a curriculum which is balanced and broadly based and which:

- promotes the spiritual, moral, cultural, mental, and physical development of pupils at the school and of society, and
- prepares pupils at the school for the opportunities, responsibilities, and experiences of later life.

All schools should make provision for personal, social, health and economic education (PSHE), drawing on good practice. Schools are also free to include other subjects or topics of their choice in planning and designing their own programme of education."[28]

Arguably, the promotion of the spiritual, moral, and cultural, aspects of the curriculum are more difficult to quantify within the curriculum subjects. However, as can be seen from the literature review, the multi-faceted impact of an outdoor learning visit is evident.

2.3.1 Subjects which are currently delivered

The literature highlights that a number of subjects were taught in outdoor settings. The majority of these are related to science in some way, such as STEM, ecology, biology, and the environment and sustainability. Food and farming are topics specifically addressed in a number of ways, for example by exploring the life cycle of crops, where food comes from, and seasonal changes (Whitfield, 2020). Dillon *et al.,* (2003)

[28] Department for Education (2013). *The national curriculum in England*. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/425601/PRIMARY_national_curriculum.pdf [accessed 14th December 2021]

discussed how outdoor learning specifically within a farm setting was a successful means of covering a range of topics relating to food, farming, and land management such as sustainable farming, genetic engineering and biotechnology, food chains, and ecosystem processes. As well as science, a number of examples in the literature specifically discussed how geography, maths and English were addressed well within an outdoor learning setting.

Outdoor learning visits allows for the core subjects (English, maths, and science) to provide real life experiences which can be developed in the classroom. The benefit of an educational visit is that these cross-curricula essentials are based in real-world experiences. For example, the teaching of creative writing or poetry – even with the most disaffected pupils – becomes possible with good scaffolding[29] as these outdoor learning visits engage all the senses. Furthermore, the teaching of numeracy and literacy is expected through all subjects. As the National Curriculum states:

- "Teachers should use every relevant subject to develop pupils' mathematical fluency. Confidence in numeracy and other mathematical skills is a precondition of success across the national curriculum.
- Teachers should develop pupils' numeracy and mathematical reasoning in all subjects.
- Teachers should develop pupils' spoken language, reading, writing and vocabulary as integral aspects of the teaching of every subject. English is both a subject in its own right and the medium for teaching; for pupils, understanding the language provides access to the whole curriculum. Fluency in the English language is an essential foundation for success in all subjects.
- Pupils should be taught to speak clearly and convey ideas confidently using Standard English. They should learn to justify ideas with reasons; ask questions to check understanding; develop vocabulary and build knowledge; negotiate; evaluate and build on the ideas of others; and select the appropriate register for effective communication. They should be taught to give well-structured descriptions and explanations and develop their understanding through speculating, hypothesising, and exploring ideas. This will enable them to clarify their thinking as well as organise their ideas for writing."[30]

2.3.2 Potential for wider subjects

In contrast, most other subject areas were rarely singled out in the literature, including arts, humanities, and technologies. This supports a review of the evidence conducted by ADAS (2007) which found that certain curriculum subjects were underused, including design and technology, music, art, and history. Instead, the literature suggests the benefits of incorporating a range of curriculum topics into outdoor learning across different Key Stages (especially at primary level) but does not explore what these subject areas could be in any detail.

One of the most appropriate and obvious topics, particularly if schools only have the opportunity to carry out one visit (e.g. per year or per age group), is to draw connections between the population and food production in England. The most obvious use of a visit is at KS1 & 2 design and technology (cooking and nutrition topic) which states that pupils should be taught to understand where food comes from (KS1) and

[29] Scaffolding is a is a teaching method that helps students learn more by working with a teacher or a more advanced student to achieve their learning goals. Sarikas, C (2020). "Vygotsky Scaffolding: What It Is and How to Use It", Prep Scholar. Available at: https://blog.prepscholar.com/vygotsky-scaffolding-zone-of-proximal-development [accessed 10th January 2022]

[30] Department for Education (2013). *The national curriculum in England.* Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/425601/PRIMARY_national_curriculum.pdf [accessed 14th December 2021]

understand seasonality and know where and how a variety of ingredients are grown, reared, caught, and processed (KS2).

Whilst there is good evidence in the literature to suggest that a one-off visit is beneficial, repeated educational visits are reported to allow for reflection, consolidation, and different topic focuses. Taking this into account, our curriculum review suggests there is potential for a wider range of subjects to be delivered, especially if teachers and farmers can apply an imaginative approach to teaching curriculum topics in an outdoor setting. For example, even Music and Languages – curriculum subjects that have less obvious links to outdoor learning within the National Curriculum content – could be applied in an outdoor setting. Lambert *et al.,* (2020) provided some example lesson plans in their book *'The National Curriculum Outdoors'*. One activity which ties in with the KS2 Music curriculum is identifying sounds within the outdoor soundscape, and creating sound clips using sounds from nature. The book also showed how outdoor learning can be relevant to languages, for example by preparing and cooking food gathered on a farm whilst learning relevant vocabulary and expressing preferences for food.

Table 1 (below) provides examples of multiple other possibilities of subjects and topics, which may have the educational visit as a catalyst or focus – either from the one visit or ideally from repeated visits. These suggestions will be built on in the final report using the findings from primary research with farmers, which provide us with more detail on the curriculum subjects and topics which are effectively delivered on educational access sites.

Table 1: Curriculum subjects and topics which could be applied on a farm setting[31]

Key Stage	Curriculum Topic	Examples of what pupils should be taught
	Science	
1 & 2	Animals, including humans	▶ Identify that animals, including humans, need the right types and amount of nutrition, and that they cannot make their own food; they get nutrition from what they eat ▶ Identify that humans and some other animals have skeletons and muscles for support, protection, and movement.
1 & 2	Living things and their habitats	▶ Recognise that living things can be grouped in a variety of ways ▶ Explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment ▶ Recognise that environments can change and that this can sometimes pose dangers to living things ▶ Describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including micro-organisms, plants, and animals ▶ Give reasons for classifying plants and animals based on specific characteristics

[31] The examples in this table are taken from the Department for Education's National Curriculum in England Key Stage 1 and 2 framework document (available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/425601/PRIMARY_national_curriculum.pdf) and Key Stage 3 and 4 framework document (available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/840002/Secondary_national_curriculum_corrected_PDF.pdf)

1 & 2	Evolution and inheritance	▶ Recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago ▶ Recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents ▶ Identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution
3	Biology: Nutrition and digestion	▶ Content of a healthy human diet: carbohydrates, lipids (fats and oils), proteins, vitamins, minerals, dietary fibre and water, and why each is needed ▶ Plants making carbohydrates in their leaves by photosynthesis and gaining mineral nutrients and water from the soil via their roots
3	Biology: Reproduction	▶ Reproduction in humans (as an example of a mammal) ▶ Reproduction in plants, including flower structure, wind and insect pollination, fertilisation, seed and fruit formation and dispersal, including quantitative investigation of some dispersal mechanisms
3	Biology: Photosynthesis	▶ The reactants in, and products of, photosynthesis ▶ The dependence of almost all life on Earth on the ability of photosynthetic organisms, such as plants and algae, to use sunlight in photosynthesis to build organic molecules that are an essential energy store and to maintain levels of oxygen and carbon dioxide in the atmosphere the adaptations of leaves for photosynthesis
3	Biology: Cellular respiration	▶ Aerobic and anaerobic respiration in living organisms, including the breakdown of organic molecules to enable all the other chemical processes necessary for life ▶ The process of anaerobic respiration in humans and micro-organisms, including fermentation, and a word summary for anaerobic respiration

3	Biology: Relationships in an ecosystem	▶ The interdependence of organisms in an ecosystem, including food webs and insect pollinated crops ▶ The importance of plant reproduction through insect pollination in human food security ▶ How organisms affect, and are affected by, their environment, including the accumulation of toxic materials
3	Biology: Genetics and evolution	▶ The variation between individuals within a species being continuous or discontinuous, to include measurement and graphical representation of variation ▶ The variation between species and between individuals of the same species means some organisms compete more successfully, which can drive natural selection ▶ Changes in the environment may leave individuals within a species, and some entire species, less well adapted to compete successfully and reproduce, which in turn may lead to extinction ▶ The importance of maintaining biodiversity and the use of gene banks to preserve hereditary material
4	Biology: Ecosystems	▶ Levels of organisation within an ecosystem ▶ Some abiotic and biotic factors which affect communities; the importance of interactions between organisms in a community ▶ How materials cycle through abiotic and biotic components of ecosystems ▶ The role of microorganisms (decomposers) in the cycling of materials through an ecosystem ▶ Organisms are interdependent and are adapted to their environment ▶ The importance of biodiversity methods of identifying species and measuring distribution, frequency, and abundance of species within a habitat ▶ Positive and negative human interactions with ecosystems

4	Biology: Evolution, inheritance, and variation	▶ How the genome, and its interaction with the environment, influence the development of the phenotype of an organism ▶ Single gene inheritance and single gene crosses with dominant and recessive phenotypes ▶ Genetic variation in populations of a species ▶ The process of natural selection leading to evolution and the evidence for evolution ▶ Developments in biology affecting classification ▶ The importance of selective breeding of plants and animals in agriculture ▶ The uses of modern biotechnology including gene technology; some of the practical and ethical considerations of modern biotechnology
	English	
1 & 2	Spoken language	▶ Listen and respond appropriately to adults and their peers ▶ Ask relevant questions to extend their understanding and knowledge ▶ Use relevant strategies to build their vocabulary ▶ Articulate and justify answers, arguments, and opinions ▶ Give well-structured descriptions, explanations, and narratives for different purposes, including for expressing feelings ▶ Maintain attention and participate actively in collaborative conversations, staying on topic and initiating and responding to comments ▶ Use spoken language to develop understanding through speculating, hypothesising, imagining, and exploring ideas

1 & 2	Writing (composition)	▶ Develop positive attitudes towards and stamina for writing by: ▷ writing narratives about personal experiences and those of others (real and fictional) ▷ writing about real events ▷ writing for different purposes
3	Writing	▶ Writing for a wide range of purposes and audiences, including: ▷ well-structured formal expository and narrative essays ▷ stories, scripts, poetry and other imaginative writing ▷ notes and polished scripts for talks and presentations ▷ a range of other narrative and non-narrative texts, including arguments, and personal and formal letters ▶ Summarising and organising material, and supporting ideas and arguments with any necessary factual detail ▶ Applying their growing knowledge of vocabulary, grammar and text structure to their writing and selecting the appropriate form

4	Spoken English	▶ Working effectively in groups of different sizes and taking on required roles, including leading and managing discussions, involving others productively, reviewing and summarising, and contributing to meeting goals/deadlines ▶ Listening to and building on the contributions of others, asking questions to clarify and inform, and challenging courteously when necessary ▶ Listening and responding in a variety of different contexts, both formal and informal, and evaluating content, viewpoints, evidence, and aspects of presentation ▶ Improvising, rehearsing, and performing play scripts and poetry in order to generate language and discuss language use and meaning, using role, intonation, tone, volume, mood, silence, stillness and action to add impact
	Maths	
1 & 2	Number	▶ Count, read, write, order, and compare numbers in numerals ▶ Identify and represent numbers using objects and pictorial representations including the number line ▶ Solve one-step problems involving multiplication and division, by calculating the answer using concrete objects, pictorial representations, and arrays with the support of the teacher. ▶ Solve number problems and practical problems that involve all of the above

1 & 2	Measurement	▶ Measure, record, compare, describe, and solve practical problems for lengths and heights, mass/weight, capacity and volume, and time ▶ Sequence events in chronological order using language ▶ Recognise and use language relating to dates, including days of the week, weeks, months, and years ▶ Convert between different units of metric measure ▶ Understand and use approximate equivalences between metric units and common imperial units ▶ Measure and calculate the perimeter and areas of composite rectilinear shapes in centimetres and metres ▶ Estimate volume
1 & 2	Ratio and Proportion	▶ Solve problems involving the relative sizes of two quantities, the calculation of percentages, and similar shapes where the scale factor is known or can be found ▶ Solve problems involving unequal sharing and grouping using knowledge of fractions and multiples
3	Ratio, proportion, and rates of change	▶ Change freely between related standard units [for example time, length, area, volume/capacity, mass] ▶ Use scale factors, scale diagrams and maps ▶ Use compound units such as speed, unit pricing and density to solve problems

3	Geometry and measures	▶ Derive and apply formulae to calculate and solve problems involving: perimeter and area of triangles, parallelograms, trapezia, volume of cuboids (including cubes) and other prisms (including cylinders) ▶ Calculate and solve problems involving: perimeters of 2-D shapes (including circles), areas of circles and composite shapes ▶ Draw and measure line segments and angles in geometric figures, including interpreting scale drawings ▶ Describe, sketch and draw using conventional terms and notations: points, lines, parallel lines, perpendicular lines, right angles, regular polygons, and other polygons that are reflectively and rotationally symmetric ▶ Use the properties of faces, surfaces, edges and vertices of cubes, cuboids, prisms, cylinders, pyramids, cones, and spheres to solve problems in 3-D
4	Algebra	▶ Plot and interpret graphs and graphs of non-standard functions in real contexts, to find approximate solutions to problems such as simple kinematic problems involving distance, speed, and acceleration
	Art & Design	
1		▶ To use a range of materials creatively to design and make products ▶ To use drawing, painting, and sculpture to develop and share their ideas, experiences, and imagination
2		▶ To create sketch books to record their observations and use them to review and revisit ideas ▶ To improve their mastery of art and design techniques, including drawing, painting, and sculpture with a range of materials

3		▶ To use a range of techniques to record their observations in sketchbooks, journals, and other media as a basis for exploring their ideas ▶ To use a range of techniques and media, including painting ▶ To increase their proficiency in the handling of different materials ▶ About the history of art, craft, design, and architecture, including periods, styles and major movements from ancient times up to the present day
	Citizenship	
3		▶ The roles played by public institutions and voluntary groups in society, and the ways in which citizens work together to improve their communities, including opportunities to participate in school-based activities
	Design & Technology	
1	Technical knowledge	▶ Build structures, exploring how they can be made stronger, stiffer, and more stable ▶ Explore and use mechanisms [for example, levers, sliders, wheels, and axles], in their products
1	Cooking and nutrition	▶ Use the basic principles of a healthy and varied diet to prepare dishes ▶ Understand where food comes from
1 & 2	Make	▶ Select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining, and finishing], accurately ▶ Select from and use a wider range of materials and components, including construction materials, textiles, and ingredients, according to their functional properties and aesthetic qualities
2	Evaluate	▶ Understand how key events and individuals in design and technology have helped shape the world

2	Technical knowledge	▶ Apply their understanding of how to strengthen, stiffen and reinforce more complex structures ▶ Understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers, and linkages]
2	Cooking and nutrition	▶ Understand seasonality and know where and how a variety of ingredients are grown, reared, caught, and processed
3	Design	▶ Develop specifications to inform the design of innovative, functional, appealing products that respond to needs in a variety of situations ▶ Use a variety of approaches [for example, biomimicry and user-centred design], to generate creative ideas and avoid stereotypical responses ▶ Develop and communicate design ideas using annotated sketches, detailed plans, 3-D and mathematical modelling, oral and digital presentations and computer-based tools
3	Technical knowledge	▶ Understand and use the properties of materials and the performance of structural elements to achieve functioning solutions ▶ Understand how more advanced mechanical systems used in their products enable changes in movement and force
3	Cooking and nutrition	▶ Understand the source, seasonality, and characteristics of a broad range of ingredients

Geography		
1	Human and physical geography	▶ Identify seasonal and daily weather patterns in the United Kingdom and the location of hot and cold areas of the world in relation to the Equator and the North and South Poles ▶ Use basic geographical vocabulary to refer to: ▷ key physical features, including: beach, cliff, coast, forest, hill, mountain, sea, ocean, river, soil, valley, vegetation, season and weather ▷ key human features, including: city, town, village, factory, farm, house, office, port, harbour and shop
2	Human and physical geography	▶ Physical geography, including: climate zones, biomes and vegetation belts, rivers, mountains, volcanoes and earthquakes, and the water cycle ▶ Human geography, including: types of settlement and land use, economic activity including trade links, and the distribution of natural resources including energy, food, minerals and water
2	Geographical skills and fieldwork	▶ Use fieldwork to observe, measure, record and present the human and physical features in the local area using a range of methods, including sketch maps, plans and graphs, and digital technologies
3	Human and physical geography	▶ Physical geography relating to: geological timescales and plate tectonics; rocks, weathering and soils; weather and climate ▶ Human geography relating to: population and urbanisation; international development; economic activity in the primary, secondary, tertiary and quaternary sectors; and the use of natural resources ▶ Understand how human and physical processes interact to influence, and change landscapes, environments, and the climate; and how human activity relies on effective functioning of natural systems

3	Geographical skills and fieldwork	▶ Build on their knowledge of globes, maps and atlases and apply and develop this knowledge routinely in the classroom and in the field ▶ Interpret Ordnance Survey maps in the classroom and the field, including using grid references and scale, topographical and other thematic mapping, and aerial and satellite photographs ▶ Use Geographical Information Systems (GIS) to view, analyse and interpret places and data ▶ Use fieldwork in contrasting locations to collect, analyse and draw conclusions from geographical data, using multiple sources of increasingly complex information
	History	
1		▶ Changes within living memory; where appropriate, these should be used to reveal aspects of change in national life
2		▶ Changes in Britain from the Stone Age to the Iron Age; this could include late Neolithic hunter-gatherers and early farmers or Iron Age hill forts: tribal kingdoms, farming, art and culture
3		▶ Ideas, political power, industry and empire: Britain, 1745-1900; this could include Britain as the first industrial nation – the impact on society or Darwin's 'On The Origin of Species' ▶ Challenges for Britain, Europe, and the wider world 1901 to the present day; this could include social, cultural and technological change in post-war British society ▶ The study of an aspect or theme in British history that consolidates and extends pupils' chronological knowledge from before 1066; this could include Britain's changing landscape from the Iron Age to the present

Physical Education		
2		▶ Take part in outdoor and adventurous activity challenges both individually and within a team
3 & 4		▶ Take part in outdoor and adventurous activities which present intellectual and physical challenges and be encouraged to work in a team, building on trust and developing skills to solve problems, either individually or as a group

2.3.3 Critical Success factors

Whilst there is a wide range of appropriate curriculum subjects and topics, the way in which subjects are planned and applied is more critical to their success than the relevance of the curriculum area itself. Notably, good teaching allows for a multiplicity of topics, subjects, and a broader and balanced curriculum to be delivered to students. Good subject knowledge across the curriculum, seeing the connections apparent, along with imagination, help in this process.

Experience and practise of outdoor learning and educational visits during Initial Teacher Education (ITE) should be viewed as essential to the delivery of the curriculum as the other important aspects of teaching the National Curriculum (e.g. safety in science or physical education). Confidence in organisation, constructing detailed lesson plans, and active teaching during the visit, are essential and should feature in teachers' Continued Professional Development (CPD) opportunities as well as their ITE. Teacher confidence continues to be a barrier to school visits and is perhaps an area that Defra could contribute to – in ITE as well as ongoing CPD for teachers.

However given the barriers to off-site school trips and the resulting limited opportunities in general, certain subjects which are less likely to benefit from a farm visit, such as music, drama, physical education. This is particularly evident in secondary education where the structure lends itself less well to multi-subject educational visits despite farm settings being an ideal location for multidisciplinary studies. For example, it would be unusual for the science/biology department to agree to a joint visit with the geography or English departments, given the discrete ways in which the subjects are taught. Curriculum delivery is not necessarily mapped out with these shared visits in mind, regardless of the arguments given above for the inclusion of literacy and numeracy.

3.0 Facilitating Effective Outdoor Learning

This section outlines how outdoor learning can be best planned and delivered, including visits to farms, as recommended by the reviewed literature.

3.1 Planning Visits

A consistent message across the reviewed literature was the importance of schools planning off-site visits in advance of school group trips to maximise their value both in terms of learning opportunities for pupils and holistically linking activities to the national curriculum (as discussed in section 2.2.1.1). The literature highlighted the main mechanisms for effective planning, namely: co-planning between teachers, farmers, and pupils; developing lesson plans; teacher training; and support to use pedagogical approaches.

3.1.1 Planning outdoor learning activities

Making use of a lesson plan

The use of a lesson plan to provide a clear structure to off-site visits was promoted within the literature. Studies suggested including a diversity of activities in the plan to maintain pupil's motivation and engagement in off-site activities. They also stressed the importance of allowing for some flexibility in lesson

plans to ensure there was scope to respond to unexpected informal learning opportunities (Mannion *et al.,* 2011; O'Brien and Murray, 2006).

Education Scotland (2009) provided practical considerations for planning off-site visits. Their outdoor learning guidance for teachers and practitioners suggested considering the desired learning outcomes for pupils before identifying the activities and resources needed, to guide the planning process. Conversely, Harris (2017) argues against the requirement for formal targets or rigid learning outcomes as this allows teachers to take a more flexible approach and follow pupils' interests without fear of failure. As outlined in section 2.2.1.1, Ofsted (2008) advised against off-site visits being standalone activities, but rather linking them to wider classroom projects to enhance the learning opportunities for pupils and to develop a coherent link to curriculum teaching.

Furthermore, Ofsted (2008) stated that the most effective visits involved giving all those who assisted or helped with the trip clear guidance about expected learning and how to promote it.

Developing a place-sensitive plan

Studies promoted the value of developing place-sensitive lesson plans, whereby the plans are tailored to the outdoor learning site. Mannion *et al.,* (2011) observed the effectiveness of 'place-sensitive' and 'place-essential' plans that made use of the natural environment and can only be delivered outdoors (e.g., making use of the natural landscape, taking photos of wildlife). Such plans required pre-visits to the outdoor learning site so the teacher was familiar with the site and could develop lessons plans that explicitly involved the natural environment and activities relevant to the site. Repeat visits to the same outdoor site was linked to improved quality and depth of engagement with the place for both pupils and teachers. Furthermore, experiencing a place in different seasons was cited as presenting different teaching and learning opportunities. One study found that almost all observed pupil outcomes were higher on farms that received pre-visits from the school ahead of most or all visits (ADAS, 2007). In this study, teachers reported that pupils developed personal and social skills, learnt about the environment, listened, followed instructions, developed problem solving and teamwork skills, as well as an appreciation of farming. The literature also highlighted the practical barriers educators faced in developing such detailed plans including a lack of time, resource, and cost implications. (Jesus-Leibovitz *et al.* 2017).

Simply transferring classroom approaches to the outdoors was identified as a pitfall to effective outdoor learning. The reviewed studies identified that teachers who simply replicated usual school practice outside missed the chance to use outdoor learning approaches. They noted that while the context for learning was different outdoors, the pedagogical approaches remained the same as classroom practice (Knowler*, et al.,* 2019; Adams and Beauchamp, 2019). Although, 'place ambivalent' plans with activities that could happen anywhere including indoors (e.g., reading book or completing a worksheet) took on a different 'feel' when delivered outdoors, they did not make the best use of the outdoor environment (Mannion *et al.,* 2011). The authors also emphasised that place ambivalent plans were often used by 'novice outdoor' educators; highlighting the need to develop teacher skills, knowledge, and confidence to plan outdoor learning activities.

Preparing for the practical aspects of visits

Alongside developing plans for academic activities and outcomes, the studies also highlighted the need for schools to invest resource into planning for the practical and logistical aspects of outdoor visits. For instance, educators needed to consider transport, weather appropriate clothing, risk assessments and parental consent (O'Brien and Murray, 2006; Waite and Goodenough, 2018). Further barriers included distance of sites from schools and challenges of finding space in the academic timetable to schedule visits (Nicol *et al,* 2007; Tilling, 2004). Ofsted (2008) reported that day visits often did not make the best use of

available resources to build pupils' knowledge with limited time dedicated to learning, once time for travel and lunch was accounted for. Travel time was seen as a particular barrier for urban schools (Mattu, 2016) who have fewer opportunities to visit farms compared to rural schools who might be able to see routine farm work as part of their normal school day. Interestingly, Bentsen *et. al,* (2018) drew comparisons between the English and Danish school system and identified that outdoor learning, or "udeskole" (as it is referred to in Denmark, is often light-touch and facilitated by small, regular excursions. They argue that this pedagogical freedom enables more flexibility to learn in outdoor environments compared to the English school system where alignment with formal assessments means that curriculum coverage and timetabling are often barriers to outdoor learning.

Having clear communication between the teachers and stakeholders (including, off-site staff, school staff, parents and carers) was pivotal to planning successful visits. One study highlighted the use of mobile phones and Whatsapp for facilitating effective communications about visits (Kervinen et al. 2018). Failure to plan for the practical aspects of outdoor visits could be a barrier to pupil's enjoyment and learning during visits.

3.1.2 Co-planning outdoor education visits

Co-planning with farmers

The studies highlighted the value of teachers co-planning visits with farmers, to help tailor visit plans to both the place and the group of pupils (ADAS 2007). A report by Ofsted (2008) stated that there was often little liaison between sites and the school prior to visits, making it difficult for outdoor site staff to know what the pupils were meant to learn or already knew. The report also noted the differences between primary and secondary educators' approaches to teaching during offsite visits. They found that during primary school visits, site practitioners (e.g., farmers) often contributed to most of the teaching; whereas secondary schools tended to have a clearer educational purpose and were less likely to give responsibility to an external provider.

Co-planning with pupils

Many studies advocated involving pupils in the planning of off-site visits to promote pupil agency, gain their buy-in and discuss any concerns they may have. Ofsted (2008) stressed that when pupils (of all ages) helped to plan the topics, activities, and learning approaches, the activities were exciting and led to higher achievement. Similarly, Education Scotland (2009) recommended involving pupils in the planning process to provide teachers with an understanding of what motivates them, to ensure the outdoor learning experience was engaging, and to help prepare pupils for the visit and conditions through discussion of the potential challenges (e.g., poor weather).

The literature points towards the need for educators to be aware and mindful of pupils' concerns about the natural environment. Studies identified wider areas of pupil reticence about being outdoors such as, fear of mud, touching some objects fear of getting lost in an unfamiliar environment, the farm environment and hands-on horticulture activities (Dillon *et al.,* 2003). In a study involving woodland visits, Simmons (1994; cited in Dillion *et al.,* 2003) identified pupil's primary fears related to coming across poisonous plants, wild animals and the 'wildness' of the place. Bixler and Floyd (1999; cited in Dillion *et al.,* 2003) identified the 'disgust' factor rather than fear as a barrier to outdoor learning; this related to pupil aversion to slugs, snails and insects for example. They found that pupils with high disgust sensitivity, preferred activities that did not involve handling organic matter and fieldwork sites with clear access pathways. Furthermore, some pupil's fears may be imagined, informed by negative portrayal of nature (e.g., scary bogs and marshes) in

children's literature and media (Anderson and Moss, 1993; cited in Dillion *et al.,* 2003). Pupil fears and phobias posed barriers to pupils' enthusiasm for and engagement with outdoor learning. Co-planning and exposure to nature were identified as a way to counter these fears; as well as introducing children to nature from an early age. Teacher confidence in the natural environment was also recognised as a facilitator to pupil's comfort outdoors and in dispelling their fears about nature (Dillion *et al.,* 2003).

Finally, Kervinen *et al.* (2018) found that it was important for teachers to establish and manage pupils' expectations of visits. They stated that teachers should make pupils aware that the visit was a learning opportunity to mitigate the risk of pupils' seeing the outdoor education trip as merely a fun day out.

Studies highlighted teachers who were new to outdoor learning could benefit from sharing their visit plans with other teachers to develop them further and increase in confidence. Studies also suggested involving those supporting visits (e.g., teaching assistants or parent/carers) could support pre-visits to sites and preparation activities. They also recommended dedicating time to reflect on how visits went with colleagues supported teacher confidence and ability to inform future visits and plans (Education Scotland 2009; Mannion *et al.,* 2011).

3.1.3 Supporting schools and teachers to effectively plan off-site visits

3.1.3.1 Teacher training to improve knowledge, skills, and confidence

The literature highlighted that teacher's tended to be inexperienced in delivering outdoor learning and that they often knew little about farming. These factors combined, could limit teacher's enthusiasm for outdoor learning. Like pupils, teachers could feel uneasy in farm settings, depending on their previous exposure and experience of these settings. They may have been influenced by scare stories about disease (e.g., Bovine spongiform encephalopathy (BSE) and Foot and Mouth media reports) and factory farming (Mannion *et al.,* 2011). Limited or no experience of outdoor learning among teachers, was linked to lower levels of skills and confidence to deliver high-quality learning opportunities at off-site visits (Nundy *et al*, 2009; Waite, 2020; Waite and Goodenough, 2018). Furthermore, these teachers tended to associate outdoor visits with increased risks for pupils' health and safety. They also felt unfamiliar and nervous about teaching and managing pupils in an outdoor environment (Mannion *et al.,* 2011; Sahrakhiz *et al.,* 2017; O'Brien and Murray, 2006; Han and Foskett, 2007). One study showed that teachers' who had had positive outdoor learning experiences as children themselves, were keener to deliver outdoor learning (Mannion *et al.,* 2011).

The evidence about teacher's lack of skills and confidence to deliver farm visits, points to the potential value of teacher training about outdoor learning. Training could raise awareness of the opportunities associated with outdoor learning and help teachers to feel empowered to plan and take part in visits as active stakeholders. Within the reviewed literature, a range of studies consistently identified teacher training in outdoor learning as a mechanism to support educators develop their knowledge, skills, and confidence to better prepare for off-site visits. Training was seen as a way to help teachers develop ideas of different activities and approaches. Additionally, it encouraged them to develop plans that are specific to the site (Nundy, 2009; Tilling, 2004). However, Dillon (2012) argued that there is a lack of coherence in teacher training and continual professional development opportunities regarding environmental education and pedagogies. Nolson (2008) suggests the need to have staff in schools and farms that are skilled in both farming and education.

3.1.3.2 Overcoming resource barriers across schools and farms

Effective planning of off-site visits requires time and resource from teachers and farmers. Both schools and farms face multiple barriers to investing the required resource into planning high-quality visits that are linked to the curriculum.

Among schools, the studies highlighted limited staff time and capacity for planning; access to information on what works; availability of funding for extracurricular activities; staff to student ratio; a lack of support from parents/carers and school governors; and timetable pressures, particularly in 'academically-focused' schools, often driven by assessment regimes (Leng *et. al.,* 2019; Marchant, 2019; Mannion *et al*., 2011).

Natural England (2012) recommended that schools needed to be provided with a compelling rationale that sets out the evidence for outdoor learning for institutions and individuals. They suggested this can help to overcome challenges of teacher and senior staff buy-in to outdoor learning and help convince funders and parents of its value. Additionally, they indicated that this could help to encourage equitable access for all pupils to outdoor learning opportunities.

Similarly, Blackham et al. (2021) stressed the barriers farmers face in devoting time to pre-planning activities ahead of school visits. They reported this was particularly the case for farmers who are overworked and part of a small team (or the only person) managing the farm.

One solution to address these potential barriers is linking schools with an outdoor learning coordinator. Coordinators can match schools with farms that will meet their needs; considering pupils' age group and needs, appropriate activities and logistics, such as travel (Whitfield, 2020). Similarly, a learning report on designing an impact evaluation of the Nature Friendly Schools (NFS) programme in England (Iyer, *et al.* 2021) identified that teachers valued working alongside a dedicated NFS Education Officer. An Education Officer was allocated to participating schools to support teacher training and delivery of outdoor learning. By getting to know the school, teacher and pupils, Education Officers were able to build on schools' existing approach to outdoor learning and ensure that it was consistent with the ethos of the schools involved.

The literature showed that schools in which off-site trips were the norm, teachers and pupils were more willing to participate in outdoor learning, and wider school support was also available to facilitate visits. Teacher and pupils' attitudes to being outdoors influenced the success of off-site learning. Their exposure to outdoor visits made both teachers and pupils more ready and prepared to be and learn outdoors. Studies identified that teachers' enthusiasm supported outdoor learning experiences. Teachers needed to be spontaneous, flexible, and fun (Mannion *et al.,* 2011; Han and Foskett, 2007).

3.2 Delivering Outdoor Learning Visits

This section sets out key messages in the literature about the recommended ways to deliver outdoor learning for pupils, including activities (pedagogical facilitators), as well as the potential barriers to delivery.

3.2.1 Teachers and farmers' roles

The reviewed literature suggested that teachers should take an active role in delivery of outdoor learning alongside farmers. Barford and Daugbjerg (2018) found that teachers can sometimes stand back from activities during off-site visits, transferring responsibility to the site-staff. They stressed the importance of teachers taking an active role in delivery and engaging with pupils' learning processes. Waite and Goodenough (2018) found that sessions run by an external practitioner provided a contrast to the classroom environment. Yet others recommend that effective delivery involved teachers and farm staff (or off-site staff) co-leading outdoor learning (ADAS, 2007; Quibella, 2017). The role of adults modelling

activities and behaviours was identified as important to supporting the learning journey of pupils. In their study of bush schools in Australia, Sofa (2014) discussed the use of social learning theory, whereby elders at the bush school modelled skills first and then pupils tried the activity.

3.2.2 Teaching approaches and activities

The literature highlighted that learning outside offers multiple opportunities for the adoption of pedagogies. Ballantyne and Packer (2009) strongly argued for having a robust pedagogical framework. Specifically, they promoted the use of the Productive Pedagogy Framework which comprises of five key standards: 1. higher order thinking; 2. depth of knowledge; 3. connectedness to the world beyond the classroom; 4. substantive conversation; and 5. social support for student achievement. They argued that having a clear framework makes pedagogical practices more effective.

Pupil-led activities

Knowler *et al.* (2019) stressed the use of pedagogies that go beyond academic learning. They suggested using approaches that support both the relational and affective aspects of learning. For instance, they emphasised the opportunity for changing roles, power dynamics and building trust between teachers and pupils during off-site visits. For instance, the Forest School Leader's role is that of a facilitator rather than a teacher and approaches to learning are child-centred and hands-on (Blackham *et al.* 2021). Education Scotland (2009) suggested adopting a collaborative learning environment during off-site visits that encourages pupils to take responsibility for themselves. They suggested that this can be achieved through activities where pupils need to make decisions. For example, group challenges or team-building activities like den building. Such activities encourage pupils to use natural spaces in a meaningful way.

Enquiry-based approaches are promoted by multiple studies (Barford and Daugbjerg 2018; Hainsworth, 2018; Scott, 2012; Sofa 2014). These are non-linear teaching approaches rather than teacher-instructed enquiry. Broadly they involved pupils generating hypotheses, investigating (e.g., exploration, data interpretation), and then forming conclusions and reflections. Based on a study of enquiry-led approaches within "udeskole" in Denmark, Barford and Daugbjerg (2018) explained that teachers should offer necessary and meaningful choices to encourage learners' creativity in order to be successful, and that teachers need not remove themselves from the activity but facilitate learning and provide pupils with a chance to 'test' their hypotheses with the teacher. These problem-solving based approaches were said to encourage pupils' curiosity and peer-to-peer collaboration, as they provided a chance for pupils to work with peers that they may not work with in the classroom (Defra, 2011).

A similar pedagogical approach was noted by Sahrakhiz *et al.* (2017), whereby outdoor learning was seen as a holistic and explorative process that primarily focused on the pupil to support their autonomy, peer relationships, and fostered individual competence – an ethos that reflects the principles of Danish "udeskole" (Bentsen et al., 2018). Building on this, establishing an environment of open and constructive feedback was found to support pupils to develop their competencies in the outdoor setting (Quibella *et al.* (2017). Kervinen *et al.* (2018) and Wistoft (2013) suggested a balance between teacher- and pupil-led activities, as highlighted by case studies 3 and 4 below.

Case study 3: Pupil-led activities (1)

Kervinen *et al.* (2018) provided an example of where pupils were given the opportunity to freely explore the outdoors both independently and in groups scaffolded with instructions and parameters provided

by the teacher. This enabled pupils to work and think independently, and then come together with their peers to discuss and share ideas related to the tasks and their learning.

Case study 4: Pupil-led activities (2)

Wistoft (2013) showcased another example whereby pupils were given space to explore and play in the outdoors both on their own and guided by their teachers and the on-site practitioners. This created a unique learning environment that not only met various academic objectives but also contributed to strengthening pupils' action competencies (or their attitudes, skills and knowledge) as well as their mental and physical health. Crucially the pupils were acknowledged on their own level, grounded in what they were capable of doing. The author concluded that the project's teaching instruments supported the active participation of pupils in an outdoor learning environment. They also note that the teaching was relevant to pupils' own lives, values and ideas and actions.

Group-activities

The literature highlighted the value of group-based activities to support academic learning, as well as personal and social skills. There were clear benefits to group activities, such as the opportunity for teamwork, peer-to-peer learning, and development communication skills (Nicol *et al.,* 2007). Additionally, off-site visits allowed for smaller learning groups than classroom cohorts (e.g., fewer than 30 pupils). Quibella *et al.* (2017) found that smaller groups could support pupils to be more engaged and focused on their learning. They also highlighted the added benefit that pupils received more support from adults and peers.

Learning approaches in Forest Schools are rooted in a democratic learning style and founded on a socio-constructivist perspective of education (Aasen, Grindheim, & Waters, 2009). Social constructivism approaches work from the perspective that all knowledge develops as a result of social interaction and language use. It is therefore a shared experience, rather than an individual one. They encourage active participation in the learning process and the development of learning communities. The learning community can create their own meaning through participation in the given activity with fellow pupils and the environment (Blackham et al. 2021).

Kervinen *et al.* (2018) suggested the use of group activities as a mechanism to motivate and assess pupils. In their study, teachers gave pupils activities to complete in groups. The groups' work collectively contributed to their grade. The authors argued that by incorporating assessment practices, teachers were able to make direct links between the curriculum and the outdoor learning in a relevant way which supported exam practice and tested pupils' knowledge. Furthermore, ongoing assessment via small tasks kept pupils motivated and engaged in the outdoor activities.

Structured vs unstructured activities

The literature showcased and argued for the use of structured and unstructured activities at off-site visits to support learning. Structured activities included observation or participation in place-specific farm activities like feeding animals (ADAS, 2007; Risku-Norja and Korpela, 2010) or more traditional and familiar activities from the classroom such as writing tasks (Scott, 2012). Unstructured activities ranged from the use of semi-structured games and play, particularly for younger children (Education Scotland, 2009; University of Glasgow and Policy Scotland, 2020) through to experiential learning whereby pupils learnt from trying new things and overcoming failures (Leng *et. al.,* 2019). The literature supported the use of unstructured activities to help foster trust between teachers and pupils.

Sensory activities and experiences

Adams and Beauchamp (2019) promoted the use of activities that channel the Swedish concept of "friluftsliv" and favour physical, sensual, and spiritual experiences of nature over intellectual experiences. The literature stated that these encourage a holistic off-site visit for pupils and make for rich and engaging learning experiences. Examples included bug collection and climbing. Multi-sensory activities are identified as being highly valued by pupils and observed to generate greater enthusiasm, attentiveness and focus of pupils (Krombaß Harms, 2008; Mannion *et al*., 2011; Quibella *et al.* 2017; Sahrakhiz *et al.* 2017). Such activities allowed pupils to use their senses, bringing their learning to life and made it 'real' rather than abstract or intangible (Scott and Boyd, 2014).

Age and key stage appropriate activities

Younger pupils have been engaged in outdoor learning through a range of play opportunities like bug collection, den building, woodland craft, or free play. Whereas older pupils enjoyed negotiating more challenging activities such as problem-solving activities, climbing rocks, or taking photographs, and using the environment to teach specific curriculum subjects (Mannion *et al*., 201; University of Glasgow and Policy Scotland, 2020).

Creative learning outputs

Asking pupils to create learning outputs was identified as an effective way to help pupils to absorb information acquired during the visit. Examples included keeping learning diaries to document and reflect on learning, making a video to showcase learning, creating an art exhibition inspired by the visit (Risku-Norja and Korpela, 2010). Group presentations that showcased and reflected on learning from the curriculum task were recommended; as were circle-time activities, storytelling, and art-based activities (Quibella *et al.* 2017). Simply giving pupils time to reflect on learning was also suggested (Mannion *et al*., 2011).

Repeat visits

Finally, repeat visits by pupils and teachers to the same off-site locations was identified as a strategy for driving the quality and depth of understanding and engagement with natural places (Mannion *et al.,* 2011).

4.0 Conclusions

This section outlines the gaps in evidence that can be seen on the basis of the literature review. It then draws together an overarching summary of the main messages emerging from the literature review, especially considering the benefits and value of outdoor learning, the critical factors which can be seen to underpin effective delivery and the ways in which curriculum subjects and topics can be delivered in outdoor learning settings, focusing on farms,

4.1 Outstanding Gaps in the Literature Coverage

The literature review highlighted a number of significant gaps in the evidence base linked to Educational Access, as identified below:

- Farm settings. Most of the literature discussed outdoor learning often in quite general terms and did not specifically refer to farm visits or wildlife sites. This meant that the findings outlined in this report relate to outdoor learning more generally, even though some might be more or less relevant to a farm

setting. Consequently there was also limited opportunity to draw specific learning around which curriculum subjects and pedagogical approaches worked best in what farm setting or with what type of farmer. There is limited coverage within the literature reviewed about the evidence of the benefits of outdoor learning for farmers or sites hosting visits.

- Subject-specific findings. Only the most-commonly delivered subjects (mostly science and geography) were discussed in the literature, and not often in detail. This meant that findings around best practice were mostly linked to how the curriculum can be integrated into outdoor learning rather than what is successfully being integrated from the curriculum. Evidence gaps remain therefore about what makes these particular subjects successful, and what other subjects have been delivered successfully.
- Age-specific findings. There was little discussion over which curriculum subjects and pedagogical approaches worked well for different age groups, school types, and pupils with particular needs. Distinctions were sometimes made between secondary aged children and young children (e.g. early years) but comparisons often lacked depth. Therefore this report has not been able to cross-examine findings by age groups or key stages as hoped.

4.2 Main Summary Conclusions

Benefits

The literature tended to focus on benefits of outdoor learning experiences to pupils, though some wider benefits for schools and teachers were referenced. The literature shows a gap in terms of coverage and consideration of the benefits of visits to farmers or outdoor learning providers. Providing new and different experiences outside the classroom was found to engage pupils with a range of learning styles, improving their engagement, focus and enthusiasm. Outdoor learning is associated with a wide range of positive benefits in terms of the learning experiences and outcomes that can be supported. Bringing curriculum subjects to life in an outdoor setting was found to improve pupils' learning recall and academic attainment. Outdoor learning was also linked to pupils' development of 'soft skills' such as critical thinking, problem solving, social skills, and self-esteem. For teachers, outdoor learning provided an opportunity to trial alternative teaching approaches in a more relaxed environment, increase their skills and confidence in teaching in this setting, and build relationships more informally with their pupils.

Facilitators in Delivering Outdoor Education

A number of critical or facilitating factors emerged from the literature, and which were cited as underpinning the delivery of positive outcomes. These mainly related to the planning and delivery of visits and are summarised here.

As highlighted above, good planning was key to ensuring that outdoor visits maximised potential links to the curriculum, particularly amongst secondary school groups. A consistent message across the reviewed literature was the importance of schools planning off-site visits to maximise their value both in terms of providing learning opportunities for pupils and holistically linking activities to the national curriculum. The literature highlighted mechanisms for effective planning, namely: co-planning between teachers, farmers, and pupils; developing lesson plans; and teacher training and support to use pedagogical approaches. Plans should be communicated to all stakeholders involved in visits to ensure shared understanding of the purpose of visits and learning outcomes, and teachers should be careful not to replicate classroom activities outdoors.

The literature advocates for co-delivery between teachers and farmers to maximise their combined knowledge of the pupils (teachers) and place (farmers). Pupil-led activities were most commonly suggested and were perceived to encourage pupil agency and engagement. Group work was also cited as important in helping pupils to develop soft skills (e.g. teamwork and communication) and join forces with peers they might not usually work with in classroom. The literature recommended that pupils should develop learning outputs to cement what they learnt during the visit, such as a creative output, diary, presentation, or discussion.

There were a number of barriers to the effective planning and delivery of outdoor learning. Notable barriers included limited time and resources amongst teachers and farmers, and a lack of confidence, experience, and information about what works. More widely, schools often struggled with limited funding to facilitate outdoor learning visits, as well as limited buy-in from stakeholders such as parents/carers and school governors.

Curriculum Coverage and Opportunities

In terms of existing visits, there is a limited focus within the literature on how specific subjects may lend themselves to being delivered as part of outdoor learning or farm visits. This likely reflects that the available literature and research on this topic tends to provide more coverage of the benefits associated with outdoor learning in general.

There is an overarching appreciation however that a wide range of subjects and topics within the curriculum can potentially be delivered through outdoor settings. There is a focus within the literature on the capacity of outdoor learning to facilitate learning about 'conventional' options (e.g. Geography and Science) reflecting the explicit opportunities to learn about natural world phenomena on farm settings. However, the curriculum review also points to a wide range of other curriculum subjects, for which opportunities exist to generate meaningful experiences and learning outcomes for young people. This includes History, Design & Technology and English. There are only a small number of subjects for which a farm setting would not lend itself easily or meaningfully for effective outdoor learning visits, such as languages and music.

However, it is also worth highlighting that on the basis of the literature reviewed, it seems that when reviewing what subjects/ topics could be taught on farm/outdoor settings the apparent relevance of a subject/ topic to delivery in an outdoor or farm setting is perhaps of secondary importance to the skills and engagement of the teachers and providers, and the communication between them. It is these factors that also act to make subjects and visits effective, relevant and likely to result in positive outcomes. This suggests that teachers and providers are key enablers for diversifying the current range of subjects taught through outdoor learning experiences.

Thorough lesson plans with clear learning goals are signalled as important in ensuring curriculum objectives could be incorporated into outdoor learning visits, especially amongst secondary school groups. Planning lessons collaboratively with farmers was considered beneficial, with pre-visits thought to be the most effective way to tailor lessons to the outdoor setting and provide teachers with confidence to focus on curriculum subjects.

Importantly, outdoor learning should not be seen as standalone, but should be directly linked to classroom-based learning, ideally as part of an integrated project. In this way, preparatory work increased children's excitement and helped to bring visits to life, whilst subsequent class-based activities built on this learning. However, for this to happen teachers need to be convinced of the value of outdoor learning and how it can be linked across the curriculum. Success is also dependent on buy-in from senior leaders who recognise

the academic and non-academic benefits it can bring pupils and support their teaching staff in facilitating and delivering these visits.

Beyond the remit of this assignment, there is scope for future work to perhaps explore the degree to which these stakeholders can be best enabled and supported to identify and develop creative and inspiring content for farm visits under the educational access option in the future, taking into account the particular site, as well as the particular age, stage, and interests of the children. In particular, the literature suggests that there are barriers to the successful integration of curriculum subjects/ topics as part of outdoor education visits, partly which reflect the structure of the education system, but also the degree to which teachers are orientated to consider the possibilities associated with outdoor education (through teacher training and continuing professional development). This suggests that stakeholders and providers could further be supported to overcome the difficulties of integrating visits across different curriculum subject opportunities, particularly at KS 3 and 4.

The final report will draw on evidence from the other strands of the evaluation (interviews and surveys with providers) to consider what subjects are currently being taught through the educational access option, and the degree to which providers feel there may potential be to diversify the delivery and take-up of the option in this respect. Specific recommendations will then be offered as part of the final reporting stage.

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Answering tomorrow's challenges today

Albert House
Quay Place
92-93 Edward St.
Birmingham
B1 2RA

T: +44 121 827 9151
E: birmingham@ecorys.com

ecorys.com