



Archaeological Learning

The benefit and impact of archaeology

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1 Introduction

- 1.1. Archaeology encompasses the study of all the ways in which people have interacted with the material world in the past, through the material remains of that interaction - including buried remains as well as standing buildings, shipwrecks, artefacts and ecofacts and the landscapes and seascapes that make up the historic environment.
- 1.2. Scotland's Archaeology Strategy sets out a vision of Scotland as a place 'where archaeology is for everyone [and] where the study of the past offers opportunities for us now and in the future to discover, care for, promote and enjoy our rich and diverse heritage, contributing to our wellbeing and knowledge and helping to tell Scotland's stories in their global context' – a vision that will be delivered through five strategic aims:
 1. Delivering archaeology
 2. Enhancing understanding
 3. Caring and protecting
 4. Encouraging greater engagement
 5. Innovation and skills
- 1.3. This study was commissioned by Historic Environment Scotland under Aim 4, which is more fully expressed in the strategy as: 'To enable and encourage engagement with our past through creative and collaborative working, active involvement, learning for all ages and enhanced archaeological presentation. It encompasses three objectives:
 - a) To encourage creative and collaborative archaeological activities, developing better ways of engaging people with the process and results.
 - b) To maximise the role archaeology can play in learning for people of all ages, benefiting from everyone's contribution towards valuing, understanding and promoting our past .
 - c) To increase and improve the presentation and interpretation of archaeological information.
- 1.4. It was intended to promote the integration of archaeology into wider learning frameworks through a process of research and design, supporting delivery of objective (b) in particular.

Our Approach

- 1.5. The study was conducted on the premise that, as the material remains of people and communities throughout time, archaeology has the potential to tell stories from our past which resonate with the present and illuminate the future. Both what archaeology can teach us and the ways that we learn about it can enrich the lives of learners of all ages.
- 1.6. Communities of the past dealt with challenges and conditions that pertain today, whether here or in other parts of the world. In Scotland, Bronze Age farmers experienced changing climatic conditions and had to adapt agricultural practices to ensure sustainability for their food supply. Northern Pictish

communities faced overwhelming cultural, linguistic and physical incursions by Vikings. Early modern cities swelled with rural migrants under pressures from famine, eviction and the labour demands of heavy industry. Across time, people fashioned creative responses to their environment and world views - from Neolithic rock carvings to World War I trench art.

- 1.7. Archaeology creates pathways into stories of resilience, adaptation and innovation, of conflict and resolution between people of different ethnicities, geographies, genders and beliefs. It can strengthen our sense of common humanity across millennia, while helping us imagine and accept cultural difference. Archaeology draws people outdoors or into museums to encounter the objects, buildings and landscapes of the past. It stretches their awareness of how others have lived and the interplay between the cultural and natural environment. It opens learners' eyes to their own capacities for observation, analysis, research, creativity and team-working. It imparts skills that can transfer to other areas of work and social life.
- 1.8. This report sets out the aims, methods and results of consultation and research into the potential impacts and benefits of learning that involves archaeology, and offers a framework tool to guide the design of archaeological learning which is informed by the findings.

2 Aims

- 2.1 The aims of the study, as set out in the project brief, were to:
 - 1) Show how and why archaeology is important and can be used as a tool to showcase its suitability, as a multi-disciplinary subject to deliver *Curriculum for Excellence* 'areas' through strategic topics that cover political agendas, such as climate change, outdoor learning, diversity, sustainability, social inclusion, citizenship, communities, migration and so on. The examples should be used to explain how archaeology can impact on these 'areas' and agendas based on current understanding/statistical analysis.
 - 2) Promote *Scotland's Archaeology Strategy* aims and objectives in education departments in Scotland's local authorities and create a list of contacts within the local authorities' education departments that can be used to consult on the outcomes of the project as well as other Archaeology Strategy education aims and objectives (including Heritage Hero Awards and the Learning Scotland's Past – Heritage Learning Resources Portal).
 - 3) Create case studies that can be used by education professionals and more widely to promote archaeology through creative educational activities, with a focus on primary, secondary, higher and less formal education. Case studies should also include ways to provide help with additional support needs that allow accessibility and education objectives for students with profound and severe learning needs. They should also highlight what transferrable vocational skills can be learned.

3 Methods

3.1 Our approach to the achieving the project aims progressed over four stages of research and design:

- 1) Baseline research on policy and strategic frameworks for education and on the outcomes that different learners need to achieve, in order to identify ways that archaeology could help deliver those outcomes.
- 2) Consultation across the archaeology, heritage and education sectors to scope views on the potential for archaeology to benefit different learners; the topics on which it would best support learning; needs and opportunities for it and the barriers to archaeological learning that different audiences face.

The consultation took the form of:

- An online survey, which was circulated via Survey Monkey to key stakeholders in local and national education departments, schools, additional support needs (ASN) education provision, higher education, archaeology and heritage;
- meetings with three focus groups made up of education providers from schools, higher education and ASN provision, museum outreach staff, local authority curators and community archaeologists; and
- individual phone, email and face-to-face consultation with key stakeholders and education practitioners at the Scottish Learning Festival.

The consultation process also built up a contacts list of critical friends who would continue to provide input to the development of archaeological learning throughout this project and beyond.

- 3) The design, based on initial consultation, of a framework tool to guide the design of archaeological learning through a consideration of audiences, key strategic themes, core skills, approaches and methods, areas and issues, and benefits and outcomes.
- 4) The design of four learning resources for primary school pupils, secondary school pupils, higher/further education students and lifelong learners including variations to make them accessible for those with additional support needs.

4 Review of Policy Frameworks

- 4.1 This review was approached from the premise that archaeological knowledge production and wider archaeological practices can, if approached in certain ways, deliver beneficial outcomes and outputs for wider society across a range of educational, social, cultural, economic and environmental issues. As such, the opportunities for educators to utilise archaeological learning as part of curricula have potential benefits for students not only during their course but also after they are qualified, in terms of what they can contribute to their communities and the work place.

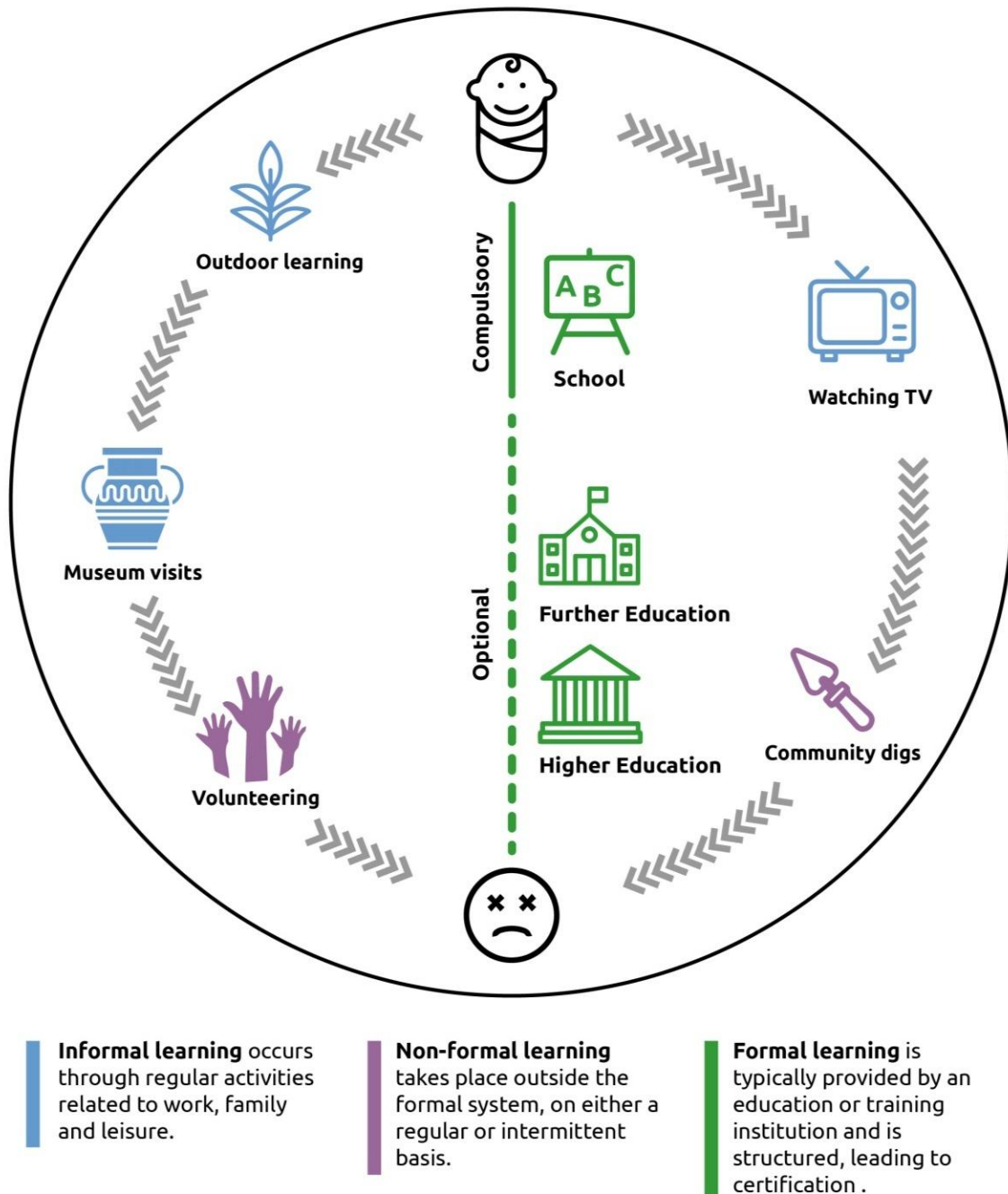
Contexts for Learning

- 4.2 Educational theory and policy recognise three main contexts for learning throughout the lifelong learning journey that each person takes (UNESCO 2012):
- 1) **Formal learning** is provided by an education or training institution including schools, colleges, universities and other providers. It is structured in terms of learning objectives, time and support and it normally leads to a formal level of qualification that is recognised by the relevant national educational authorities. From a learner's perspective, it is intentional. Formal learning encompasses primary and secondary education, further and higher education and adult education programmes.
 - 2) **Non-formal learning** is any kind of structured, organised learning which takes place outside the system of formal education, in an organisation pursuing educational or training purposes, and which does not lead to formal qualification. It is intentional from the learner's perspective. It can include volunteering, workshops, seminars and courses. People of all age groups can participate in it on either a regular or intermittent basis.
 - 3) **Informal learning**, also known as experience-based learning, takes place as a result of one's everyday activities and interactions in the context of work, family, social life and leisure. It is not delivered by an institution and, from the learner's perspective, it is often incidental rather than intentional.

Strategic Objectives

- 4.3 After taking office in 2007, the Scottish Government set out five strategic objectives that underpin its aim of creating a more successful country that is:
- **Wealthier and Fairer:** Enable businesses and people to increase their wealth and more people to share fairly in that wealth.
 - **Smarter:** Expand opportunities for Scots to succeed from nurture through to lifelong learning ensuring higher and more widely shared achievements.

- Healthier: Help people to sustain and improve their health, especially in disadvantaged communities, ensuring better, local and faster access to health care.
- Safer and Stronger: Help local communities to flourish, becoming stronger, safer places to live, offering improved opportunities and a better quality of life.
- Greener: Improve Scotland's natural and built environment and the sustainable use and enjoyment of it.



Illus 1: Schematic depiction of some archaeological learning journeys.

National Performance Framework

- 4.4 Scotland's *National Performance Framework*, which was launched in 2007, sets out a 10-year vision for national wellbeing along with a set of economic, health, social and environmental indicators to measure progress against the vision. It was designed to transform the delivery of public services into an outcome-based approach. The framework was reviewed and a revised version launched in 2018 (nationalperformance.gov.scot).
- 4.5 The framework aims to:
- create a more successful country;
 - give opportunities to all people living in Scotland;
 - increase the wellbeing of people living in Scotland; and
 - create sustainable and inclusive growth.
- 4.6 These aims are intended to apply beyond government and public services, giving equal prominence to economic, environmental and social progress with a focus on reducing inequalities. The values underpinning the stated purpose are expressed thus: 'We are a society which treats all our people with kindness, dignity and compassion, respects the rule of law, and acts in an open and transparent way.' (*National Performance Framework 2018*).
- 4.7 The purpose and values lie at the heart of 11 National Outcomes; these describe the kind of Scotland the framework aims to create and are aligned with the United Nations Sustainable Development Goals. The National Outcomes are that people:
- grow up loved, safe and respected so that they realise their full potential;
 - live in communities that are inclusive, empowered, resilient and safe;
 - are creative and their vibrant and diverse cultures are expressed and enjoyed widely;
 - have a globally competitive, entrepreneurial, inclusive and sustainable economy;
 - are well educated, skilled and able to contribute to society;
 - value, enjoy, protect and enhance their environment;
 - have thriving and innovative businesses, with quality jobs and fair work for everyone;
 - are healthy and active;
 - respect, protect and fulfil human rights and live free from discrimination;
 - are open, connected and make a positive contribution internationally; and
 - tackle poverty by sharing opportunities, wealth and power more equally.
- 4.8 The 81 National Indicators are used to track progress towards the purpose and outcomes. In Section 9 (Conclusions), we highlight those which archaeological learning has the greatest potential to support.

Early Learning and Childcare

- 4.9 The Scottish Government's 2017 action plan *A Blueprint for 2020: The Expansion of Early Learning and Childcare in Scotland* recognises the crucial importance of children's earliest years on their development and the lasting impact that these early experiences have on opportunities and outcomes in health, education and employment in later life. It also acknowledges the importance of universally accessible and high quality early learning and childcare in helping to close the poverty-related attainment gap.
- 4.10 It proposes development of a 'Funding Follows the Child' approach, to be implemented in 2020, and a more progressive service model which prioritises and safeguards quality provision of Early Learning and Childcare (ELC) while giving parents greater choice.
- 4.11 It is underpinned by *Getting it Right for Every Child*, the national approach in Scotland to improving outcomes for children and young people through the greater integration of support and services and a shared understanding of children's wellbeing. It defines the eight indications of children's wellbeing as:
1. Safe
 2. Healthy
 3. Achieving
 4. Nurtured
 5. Active
 6. Respected
 7. Responsible
 8. Included
- 4.12 Approaches to archaeological learning that are designed to address the needs of early learners could help children acquire skills and interests that support progression through their lifelong learning journeys.

Skills for Learning, Life and Work

- 4.13 The Scottish Government has set out a strategy for skills development in people at every stage of life, from early learners to school pupils and vocational and university students. *Skills Scotland: A Life Long Learning Strategy* (2007) outlines how the constituent parts of the education and learning systems can help create a world-class skills base, promoting equal access and removing barriers to skills acquisition.
- 4.14 The strategy identifies different, overlapping clusters of skills that include:
- personal and learning skills that enable individuals to become effective lifelong learners;
 - literacy and numeracy;
 - the five core skills of communication, numeracy, problem solving, information technology and working with others;
 - employability skills that prepare individuals for employment rather than for a specific occupation;
 - essential skills that include all of those above; and
 - vocational skills that are specific to a particular occupation or sector.
-

4.15 It also recognises the importance of soft (or core) skills, including:

- effective time management;
- planning and organising;
- effective oral and written communication skills;
- the ability to solve problems;
- being able to undertake tasks or make submissions at short notice;
- the ability to work with others to achieve common goals;
- the ability to think critically and creatively;
- the ability to learn and to continue learning;
- the ability to take responsibility for professional development; and
- having the skills needed to manage, or be managed by, others (which draws on many of the other skills in this list).

4.16 The strategy highlights the importance of a skilled and educated workforce to productivity and sustainable economic growth. It also points out the personal and economic costs of a low skills base where there are high numbers of young people and adults not in education, employment or training (NEET). Helping young people develop essential skills from their earliest learning experiences and throughout compulsory education is seen as crucial to laying the groundwork for positive personal, social and economic futures.

STEM Education and Training Strategy

4.17 The development of skills and knowledge in the areas of Science, Technology, Engineering and Mathematics (STEM) is a national priority, as expressed in the Scottish Government's (2017b) education and training strategy. It sets out a vision for Scotland 'where everyone is encouraged and supported to develop their STEM skills throughout their lives, enabling them to be inquiring, productive and innovative, in order to grow STEM literacy in society and drive inclusive economic growth.'

4.18 Delivering this vision means that everyone should have opportunities to develop the STEM skills and capabilities needed for life and work and that more people need to develop specialist STEM skills to meet growing demand in the sector.

4.19 The strategy aims to:

- build the capacity of the education and training system to deliver excellent STEM learning so that employers have access to the workforce they need;
- close equity gaps in participation and attainment in STEM, so that everyone has the opportunity to fulfil their potential and contribute to Scotland's economic prosperity;
- inspire children, young people and adults to study STEM and to continue their studies to obtain more specialist skills; and
- connect the STEM education and training offer with labour market need – both now and in the future – to support improved productivity and inclusive economic growth.

- 4.20 Archaeological learning has considerable potential to support STEM learning and deliver to the aims of the strategy. By encouraging children and young people to study STEM subjects and go on to further and higher education and employment, it can ultimately help deliver inclusive economic growth and a more vibrant labour market.



Illus 2: A secondary school pupil flies a First World War flight simulation at the University of Glasgow's Department of Engineering as part of the Wings to War project (see Appendix 2).

Learners with Additional Support Needs

- 4.21 Education Scotland recognises that 'all children and young people need support to help them learn ...[but]... some children and young people ... require support which is additional to, or otherwise different from, the provision that is generally provided to their peers in order to help them benefit from school education'(<https://education.gov.scot/parentzone/additional-support/>).
- 4.22 The Education (Additional Support for Learning) (Scotland) Act 2004 (amended in 2017) created the term 'additional support needs'. It provides a legal framework for identifying and addressing the additional support needs of children and young people who face barriers to learning. It aims to ensure that all children and young people are provided with the necessary support to help them work towards achieving their full potential, promotes collaborative working among those supporting children and young people. It also sets out the rights of children, young people and parents within the system.

- 4.23 Section 1(3) of the 2004 Act was amended in 2009 to ensure that additional support is not limited to educational support, but can include multi-agency support from health, social services and voluntary agencies, for example. Additional support for children and young people may be provided in a range of locations, including in school, at home, in hospital, or in a specialist health, social services or voluntary agency facility.
- 4.24 Additional Support Needs (ASN) can be both long- and short-term, or can simply refer to the help a child or young person needs in getting through a difficult period. There is a wide range of factors which may lead to some children and young people having a need for additional support. These fall broadly into four areas which can overlap:
1. Disability or health
 2. Learning environment
 3. Family circumstances
 4. Social and emotional factors
- 4.25 Children or young people may require additional support for a variety of reasons. They may include (but are not limited to) those who:
- have motor or sensory impairments;
 - have low birth weight;
 - are being bullied;
 - are children of parents in the Armed Forces;
 - are particularly able or talented;
 - have experienced a bereavement;
 - are affected by imprisonment of a family member;
 - are interrupted learners;
 - have a learning disability;
 - have barriers to learning as a result of a health need, such as fetal alcohol spectrum disorder;
 - are looked after by a local authority or have been adopted;
 - have a learning difficulty, such as dyslexia;
 - are living with parents who are abusing substances;
 - are living with parents who have mental health problems;
 - have English as an additional language;
 - are not attending school regularly;
 - have emotional or social difficulties;
 - are on the child protection register;
 - are refugees;
 - are young carers.
- 4.26 The definition of additional support provided in the Act is a wide, inclusive one. Forms of additional support fall into three broad, overlapping headings:
1. Approaches to learning and teaching
 2. Support from personnel
 3. Provision of resources
-

- 4.27 All these forms of support are types of additional provision which are required to help individual children and young people benefit from education, taking account of their particular needs and circumstances. They apply equally to archaeological learning, which can be designed to remove barriers and address the needs of those requiring additional support to learn.

Lifelong Learning

- 4.28 Policy on lifelong learning has a long trajectory in Scotland. It was defined in the Scottish Executive's 2003 strategy *Life Through Learning; Learning Through Life* as being 'principally concerned with post-compulsory education, training and learning [and encompassing] the whole range of learning: formal and informal learning, workplace learning, and the skills, knowledge, attitudes and behaviours that people acquire in day-to-day experiences' (Scottish Executive 2003, 7).
- 4.29 Investment in lifelong learning was viewed as bringing several key economic and social benefits, including direct economic returns to individuals and collective economic returns to society through enhancing enterprise and employability. The strategy also emphasised the contributions that lifelong learning can make to the achievement of other social goals, including civic participation, health and wellbeing, social cohesion, reduced crime and sustainable development.
- 4.30 The strategy set out a vision for lifelong learning as 'the best possible match between the learning opportunities open to people and the skills, knowledge, attitudes and behaviours which will strengthen Scotland's economy and society.' This would be realised through the pursuit of five key goals, in which Scotland is a place where people:
- have the confidence, enterprise, knowledge, creativity and skills needed to participate in economic, social and civic life;
 - demand and receive high quality learning experiences;
 - have their knowledge and skills recognised, used and developed to best effect in the workplace;
 - receive the information, guidance and support needed to make effective learning decisions and transitions; and
 - have the chance to learn, irrespective of background or current personal circumstances.
- 4.31 More recent Scottish Government policy around lifelong learning has been articulated through statements which vary somewhat in emphasis and approach. These include *Community Learning and Development* (Scottish Government 2004), *Skills for Scotland* (Scottish Government 2007a; 2010) and *Adult Learning in Scotland – Statement of Ambition* (Scottish Government 2014). For the UK as a whole, the Government Office for Science/Foresight strategy *Future of Skills and Lifelong Learning* (2017) highlights the importance of skills and knowledge for the country's productivity and for individuals' wellbeing.
- 4.32 *Skills for Scotland: Accelerating the Recovery and Increasing Sustainable Economic Growth* (2010) emphasises the role of learning for employability and workforce productivity. The most recent statement, *Adult Learning in Scotland – Statement of Ambition* (2014), rebalances the emphasis on

learning outcomes for employability and the wider individual and social benefits that learning creates. These are championed through the Community Learning and Development (CLD) remit of Education Scotland.

- 4.33 A broader context for lifelong learning is set out in the UNESCO Education 2030 Incheon Declaration, which seeks to 'ensure inclusive and equitable quality education and promote lifelong learning opportunities for all'. UNESCO (1996) defines four pillars of learning which are fundamental principles for reshaping education:
- 1) **Learning to know:** Acquiring the cognitive tools required to better comprehend the world and its complexities and to provide an appropriate and adequate foundation for future learning. Combining sufficiently broad general knowledge with the opportunity to work in depth on a small number of subjects. This also means learning to learn, so as to benefit from the opportunities education provides throughout life.
 - 2) **Learning to do:** Acquiring the skills that enable individuals to effectively participate in the global economy and society, through formal and informal social and work experiences.
 - 3) **Learning to live together:** Developing an understanding of other people and an appreciation of interdependence in a spirit of respect for the values of pluralism, mutual understanding and peace.
 - 4) **Learning to be:** Acquiring self-analytical and social skills to enable individuals to develop to their fullest potential, so they are able to act with ever greater autonomy, judgement and personal responsibility. In this respect, education must not disregard any aspect of a person's potential: memory, reasoning, aesthetic sense, physical capabilities and communication skills.

These pillars find resonance in the four capacities set out in the *Curriculum for Excellence* - that young people will become successful learners, confident individuals, responsible citizens and effective contributors.

- 4.34 There is large body of academic literature on lifelong learning. Recent work is usefully brought together in (for example) *The Oxford Handbook of Lifelong Learning* (London 2011), *The Second International Handbook of Lifelong Learning* (Aspin et al 2012) and *The Palgrave International Handbook on Adult and Lifelong Education and Learning* (Milana et al 2018). Perhaps the most relevant to informing the development of archaeological learning opportunities and methods are:
- Education as the Underpinning System: Understanding the propensity for learning across the lifetime (Barnes et al 2016);
 - Factors and motivations affecting attitudes towards and propensity to learn through the life course (Tuckett & Field 2016);
 - Informal Learning in the Family and Community (Field & Tuckett 2016); and
 - Skills and Lifelong Learning: The benefits of adult learning (Schuller 2017).
- 4.35 To summarise the findings of the review, policy on lifelong learning is largely concerned with issues of employability and the skills acquired in formal adult training contexts, but it also recognises the potential for social returns through informal adult learning and community learning and development.

Removing barriers to participation could achieve an even wider range of outcomes for some adults who would benefit from basic skills education (literacy and numeracy) and second chance learning (see Thomas 2001). The effectiveness of lifelong learning policy and implementation, with particular reference to social cohesion issues, has been reviewed by Field (2009; 2015; see also Mark 2013).

5 Review of Educational Frameworks

National Improvement Framework

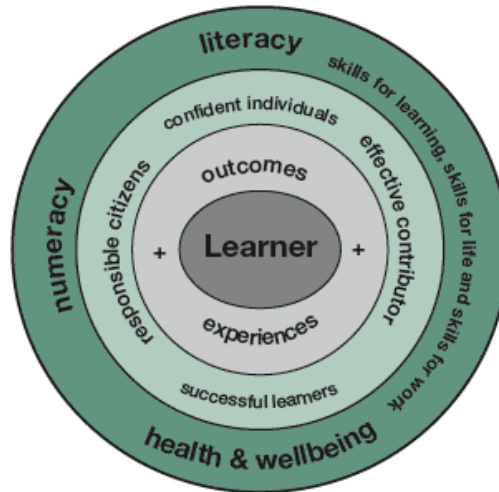
- 5.1 In Scotland, learning provision at school level is shaped by the vision set out in the *National Improvement Framework*, which was launched in 2016 and confirmed as fit for purpose in 2018 following a period of review. It sets out a vision for achieving excellence and equity in education, regardless of learners' social background and circumstances, with four key priorities towards which everyone in Scottish education should work:
1. Improvement in attainment, particularly in literacy and numeracy.
 2. Closing the attainment gap between the most and least disadvantaged children.
 3. Improvement in children's and young people's health and wellbeing.
 4. Improvement in employability skills and sustained, positive school leaver destinations for all young people.
- 5.2 Alongside the *Scottish Attainment Challenge*, the framework aims to raise attainment and ensure equality of outcomes for all children and young people. As part of the Education (Scotland) Act 2016, the reporting procedures for the *National Improvement Framework* have been placed on a statutory footing.
- 5.3 The Scottish Credit and Qualifications Framework, which is administered by the Scottish Qualifications Authority (SQA), promotes lifelong learning in Scotland by:
- helping people of all ages and circumstances access appropriate education and training so they can meet their full potential;
 - providing recognition of a wide range of learning programmes; and
 - helping employers, learners and the general public to understand the full range of Scottish qualifications, how qualifications relate to each other and to other forms of learning, and how different types of qualification can contribute to improving the skills of the workforce.
- 5.4 It uses two measures: 1) the level of a qualification or learning programme, which equates to its level of difficulty, and 2) the number of credit points awarded for it, which equate to the length of time it takes to complete. On average, one SCQF credit point represents 10 hours of learning time.
- 5.5 Schools education was due to be reformed in 2018 with the introduction of the Education (Scotland) Bill 2018. This would create a school- and teacher-led education system in which head-teachers are empowered to be the leaders of learning in their schools. It is designed to improve parental and community engagement in school life and in learning outside of school, as well as actively promote and
-

support pupil participation. Introduction of the bill to Parliament has been postponed until 2019 to allow collaboration with local authorities to deliver improvements first.

Curriculum for Excellence

- 5.6 Education Scotland oversees implementation of the *Curriculum for Excellence*, which governs learning provision from ages 3-18 and encompasses everything that is planned for children and young people, not only classroom teaching. An ambitious, complex framework that is informed by the values of wisdom, justice, compassion and integrity, it focuses on supporting learners to develop skills, knowledge and understanding across the totality of their experiences, including:
- the ethos and life of the school as a community;
 - curriculum areas and subjects;
 - interdisciplinary learning; and
 - opportunities for personal achievement.
- 5.7 Although the *Curriculum for Excellence* has received criticism for its complexity, the absence of an overarching rationale for its values and the lack of consultation during its development (see, for example, Gillies 2004), it currently informs the design and delivery of schools education in Scotland. Its inherent flexibility and its focus on learner outcomes mean it offers multiple opportunities for archaeological learning to articulate with it.
- 5.8 The curriculum is intended to foster four capacities in young people, helping them to become:
1. Successful learners
 2. Confident individuals
 3. Responsible citizens
 4. Effective contributors
- 5.9 Pupils progress over four levels and a senior phase:

Early Level	The final two years of early learning and childcare before a child goes to school and P1, or later for some.
First Level	To the end of P4, but earlier or later for some.
Second Level	To the end of P7, but earlier or later for some.
Third and Fourth Level	S1 to S3, but earlier or later for some. The Fourth Level broadly equates to Scottish Credit and Qualifications Framework Level 4. The Fourth Level experiences and outcomes are intended to provide possibilities for choice.
Senior Phase	S4 to S6, and college or other means of study, to build on the experiences and outcomes of the broad general education (up to Fourth Level) and allow learners to take qualifications and courses that suit their abilities and interests.



Illus 3: Schematic depiction of Curriculum for Excellence capacities and key skills. Source: Curriculum for Excellence - Building the Curriculum 3 - A Framework for Learning and Teaching (<https://www2.gov.scot/Publications/2008/06/06104407/3>).

- 5.10 It is divided into eight areas, each sub-divided into Curriculum Organisers and each with its own set of Experiences and Outcomes. In 2018, Benchmarks were also introduced to provide clarity on the national standards expected within each curriculum area at each level. These set out clear lines of progression in literacy and English and numeracy and mathematics, and across all other curriculum areas from Early to Fourth Levels. The areas and organisers are:

AREA	ORGANISERS
Expressive arts	Art and design Dance Drama Music
Languages and literacy	Listening and talking Reading Writing
Health and wellbeing	Food and health Personal and social education Physical education
Mathematics and numeracy	Number, money and measure Shape, position and movement Information handling
Religious and moral education	Beliefs Values and issues

AREA	ORGANISERS
	Practices and traditions
Sciences	Planet Earth Forces, electricity and waves Biological systems Materials Topical science
Social studies	People, past events and societies People, place and environment People in society, economy and business
Technologies	Digital literacy Food and textile Technological developments in society and business Craft, design, engineering and graphics Computing science

Table 1: *Curriculum for Excellence* areas and organisers.

5.11 There are also several cross-cutting themes. For Early to Fourth Levels (usually ages 3-15) these are:

- Creativity
- Enterprise
- Global citizenship (sustainable development, international education and citizenship)

The progression into Senior Phase (15-18) enables students to extend and deepen their learning and continue to develop these themes. The emphasis here is on transferable skills for learning, life and work, through qualifications and also through a range of opportunities for personal development.

5.12 Also of interest for the integration of archaeology into learning are the key *Curriculum for Excellence* approaches:

- **Using technologies in learning:** Using them to communicate, research, create and present.
- **Active learning:** Being actively engaged, whether mentally or physically, using real life and imaginary situations.
- **Cooperative learning:** Encouraging thinking and talking together, to discuss ideas and solve problems.
- **Interdisciplinary learning:** Using links between different areas of learning to develop, reinforce and deepen understanding.
- **Outdoor learning:** Making use of the outdoor environment for learning.
- **Personalisation and choice:** Pupils are given choices and get involved in planning how and what they learn, in the recognition that not one size fits all.

(<https://blogs.glowscotland.org.uk/fi/FifesCreativeLearningNetworkBlog/easy-guide-to-curriculum-for-excellence/approaches-to-learning-within-cfe/>)

5.13 The main learning objectives which have a high re-occurrence across the areas are:

- **International education:** Emphasis on Scotland's achievements, history and culture and its place in the world.
- **Citizenship:** Understanding one's beliefs and values and those of others in Scotland and globally.
- **Lifelong learning:** Learning for future skills at work, to enable one to participate fully in society and also in learning for enjoyment throughout life.

5.14 The principles that should govern the design of learning resources and activities are:

- Challenge and enjoyment
- Breadth
- Progression
- Depth
- Personalisation and choice
- Coherence
- Relevance

Skills for Learning, Skills for Life and Skills for Work

5.15 With its focus on the learner, the curriculum aims to support the development of skills in children and young people, in order to equip them for development as lifelong learners in their social and working lives as adults and enable them to reach their full potential (Scottish Government 2009, 2). Skills should be developed across all curriculum areas and in all learning contexts, from the early years to the Senior Phase and beyond. The Experiences and Outcomes signpost progression in skills for each level.

5.16 The curriculum recognises that different ways of developing skills may be appropriate for different learners, depending on their needs and learning styles. 'The opportunity to engage in active learning [and] interdisciplinary tasks and to experience learning in practical contexts is important in enabling all children and young people to develop, demonstrate and apply a wide range of skills' (ibid).

5.17 Active learning is seen as especially appropriate way for children to develop skills, knowledge and a positive attitude to learning in the early years. It is defined as 'learning which engages and challenges children's thinking using real and imaginary situations' (ibid, 21) through:

- Spontaneous play.
- Planned, purposeful play.
- Investigating and exploring.
- Events and life experiences.
- Focused learning and teaching.

5.18 The key areas of skill which the curriculum seeks to develop in learners of all levels are:

- Literacy across learning.
- Numeracy across learning.
- Thinking skills across learning.
- Health and wellbeing across learning.
- ICT skills.
- Personal learning planning and career management.
- Working with others.
- Leadership.
- Physical co-ordination and movement.
- Enterprise and employability.

5.19 Children and young people can develop their skills in a range of practice contexts and opportunities, as well as in the classroom (ibid, 22). These include:

- enterprise in education activities, courses and programmes enabling young people to build the skills associated with enterprise, entrepreneurship and employability;
- learning out of doors;
- sustainable development activities including environmental and community activity and participation in the Eco-Schools programme;
- cultural and creative activities including music or dance classes, drama and musical productions;
- health promoting school activities;
- out of school hours learning;
- community sports and leisure activities;
- specific opportunities such as Skills for Work qualifications, Duke of Edinburgh's Award or ASDAN;
- work placements and work shadowing, where the *Curriculum for Excellence* offers the flexibility for a more individualised approach which is relevant and meaningful for young people, providing opportunities for them to consider the skills they will need in advance of their placement, to practise and develop their skills, and to reflect on their experience post-placement;
- school/college partnerships which provide opportunities for young people to develop skills in a relevant, work-related environment; and
- national training programmes such as Get Ready for Work, which provide young people with confidence and skills for learning, life and work to enable them to engage with the labour market.

Outdoor Learning

5.20 Outdoor learning is integral to the *Curriculum for Excellence*. Learning in an outdoor environment has enormous potential to add relevance and depth that complements indoor learning and it can contribute to delivering national strategic objectives. Its key benefits are summarised by the Scottish Government (2010, 5):

- It encourages learners to understand the interplay and relationship between curriculum areas, which in turn promotes lifelong learning and develops critical thinking skills.

- It can lead to lifelong enjoyment of outdoor recreation, which supports physical and emotional wellbeing and contributes to a healthier Scotland.
- Outdoor activities span social divisions and can help build stronger communities, as well as help children develop skills to assess and manage risk when making decisions.
- Frequent and regular outdoor learning encourages children and young people to engage with natural and built heritage, helping them understand the global significance of sustainability issues and inform the decisions they will make that contribute towards a greener Scotland.
- The outdoors provides excellent opportunities to use a wide range of skills and abilities not always visible in the classroom, awareness of which can change personal, peer and staff perceptions and profoundly affect learners' life expectations and success.

5.21 Every child and young person is entitled to have planned, quality outdoor learning experiences. These can give them opportunities to develop skills such as communication, problem solving, information technology, working with others and thinking skills. They can also develop their literacy and numeracy skills through measuring angles, calculating bearings and journey times and using the spoken word, charts, maps, timetables and instructions. Outdoor learning gives them opportunities to be physically active, with benefits for emotional wellbeing and mental health (ibid, 9).



Illus 4: Secondary school pupils learn about First World War communications technology and interactions between opposing lines at Digging In, Glasgow (see Appendix 2).

- 5.22 In October 2018, 50 organisations and individuals making up Scotland's Outdoor Play and Learning Coalition signed a position statement asserting the right of all children and young people to play and learn, as enshrined in the UN Convention on the Rights of Children, and the benefits of outdoor play to learning, health, wellbeing and development. The statement acknowledges 'shared responsibility to support and enable all of Scotland's children and young people to access our diverse green spaces and natural landscapes and to empower them to enjoy these spaces for the purposes of playing and learning' (Scotland's Outdoor Play and Learning Coalition (2018).

Learners with Additional Support Needs

Curriculum for Excellence and ASN

- 5.23 The *Curriculum for Excellence* is designed to be inclusive and accessible to learners with additional support needs (ASN), who are entitled under law to whatever support they require for whatever reason - whether social and emotional factors, health and ability issues, family circumstances or the learning environment.
- 5.24 The diversity in learners' abilities presents a challenge for policy makers, teachers and others to provide education that is able to flexibly respond to different needs. Learning providers must respond in ways that remove barriers to participation, learning and achievement, promote inclusion and equality and ensure high quality education is available to all. Learners with ASN may need extra support to participate in learning, but this should not exclude them from opportunities offered to those not requiring additional support. Extra support is usually provided to those that need it in parallel to the normal learning and teaching that takes place. According to Enquire, the Scottish Government-funded advice service for additional support for learning, every child is different and each will cope differently with issues in their lives (<http://enquire.org.uk/>).
- 5.25 For example, one autistic child may react very differently from another when visiting a museum to take part in learning activities; this means that a range of flexible additional support resources and procedures should be put in place so that visits are positive learning experiences for everyone. The venue itself and its layout and content may present challenges for learners with different support needs. For example, difficult access to an archaeological site may pose a barrier to a child with a physical disability, and the design or font of worksheets or books may make them difficult to use for a child with dyslexia.
- 5.26 There is no single, correct way to support children or young people; the type and level of support will depend on individual needs. The law does not specify what type, level or frequency of support a child or young person should receive.
- 5.27 Extra support may include:
- Short bursts of intensive work, one-to-one or in a group, with a teacher or learning support assistant rather than formal lectures or workshops.
 - Extra time for workshops.

- A teacher or heritage education officer adapting how they teach lessons or deliver workshops (for example, breaking down the lesson into smaller chunks).
- Adapting learning materials to a child's needs (for example, using appropriate fonts for dyslexic learners).
- Changing the environment to suit a child's needs (for example, changing the layout of a museum exhibit to make it more accessible).
- Providing coping mechanisms or quiet spaces to help children moderate their behaviour (for example, an area on an excavation site where there are fewer people and less going on).
- Using special equipment or IT to engage learners (for example, using virtual reality to help learners with physical disabilities visit sites that are hard to access, such as hill forts).

5.28 Usually different types of support have to be tried and tested to see which ones work best for a child. Thus, some degree of flexibility is required when designing heritage workshops or activities. It is important to assess the needs of learners before activities take place so that adequate support can be integrated into the education activity or heritage event.

Scotland's Heritage Sector and ASN

- 5.29 Scotland's heritage sector has committed to making archaeology and heritage, including sites, monuments, museums and projects, accessible to all including those with additional support needs. A strategic priority of *Our Place in Time*, Scotland's historic environment strategy, is to 'ensure capacity by supporting and enabling people to engage with the historic environment, making the values of the historic environment accessible to everyone' (Scottish Government 2014), and *Scotland's Archaeology Strategy* commences with the vision of 'a Scotland where archaeology is for everyone' (Scottish Government 2015).
- 5.30 Historic Environment Scotland (HES) states: 'We are committed to developing and promoting inclusive access for all while being sensitive to our special historic environments.' The *HES Access Guide* to 80 historic properties outlines the access provision for those with physical disabilities (Historic Environment Scotland 2018).

Further Education

- 5.31 All young people in Scotland are entitled to a senior phase of education, which usually commences at age 15 (S4 onwards). They can pursue various qualifications and awards in order to help them progress towards positive destinations according to their needs and aspirations and build on the skills for learning, life and work that they have developed during their time in Broad General Education. These are ordered within the Scottish Qualifications and Credit Framework, which is overseen by the Scottish Qualifications Authority (see Table 2).
- 5.32 National Qualifications (NQs) are one of the most important types of qualification in Scotland. They are taken by students in secondary schools and colleges and also by some adult learners, and cover a range of academic and vocational subjects. They include National 1 to 5, Highers, Advanced Highers and the

Scottish Baccalaureate (available in Expressive Arts, Languages, Science, and Social Sciences). They also include various vocational and skills-related qualifications and awards known as Skills for Work courses, which focus on generic employability skills and provide progression pathways to further education, training and employment.

- 5.33 The SQA also administers work-based learning schemes for young people, including the Certificate of Work Readiness, Foundation Apprenticeships (for S4-S6 pupils) and Modern Apprenticeships (for those aged 16 and over) (SQA 2018).

Higher Education

- 5.34 Scotland's higher education system consists of 19 institutions (16 of which are universities) authorised to award academic degrees. They use Scottish Credit and Qualifications Framework (SCQF) levels and credit points for students entering or transferring between programmes or institutions. Entry is most often contingent upon obtaining Highers in the Scottish system, or the General Certificate of Education Advanced Level certificate (GCE A Level) elsewhere in the UK.



Illus 5: Students from Kelvin College learn screen-printing as part of the Weave Parkhead! project in Glasgow (see Appendix 2).

- 5.35 For each degree subject, a Subject Benchmark Statement describes the nature of study and the academic standards expected of graduates. Statements are written by subject specialists and facilitated by the Quality Assurance Agency for Higher Education. They form reference points in the design, delivery and review of academic programmes, providing general guidance while allowing for flexibility and innovation.
- 5.36 The HE institutions also provide graduate attribute statements, which detail the qualities and skills that students should develop throughout the course of their study and engagement in student life. While they vary in approach and emphasis, they generally include attributes relating to the mastery of subject-specific knowledge, study skills and digital literacies. Many strongly emphasise employability (QAA 2017).
- 5.37 Employability can be defined as a set of skills, understandings and personal attributes that make a graduate more likely to gain employment and be successful in their chosen occupation, thus benefiting themselves, their community and the economy (Yorke 2004). Employers increasingly expect graduates not only to have mastery of subject-specific knowledge but also to demonstrate a broader range of skills that include team-working, communication, leadership, critical thinking, problem solving and self management and initiative (Lowden et al 2011).
- 5.38 The broad-based learning nature of archaeology can develop many core skills attractive to employers and can equip graduates with a firm grounding for a wide range of careers.

Lifelong Learning

- 5.39 A wide range of opportunities are on offer to lifelong learners - from qualifications offered in formal learning contexts within the Scottish Credit and Qualifications Framework to courses which learners can pursue in non-formal contexts, as well as the informal learning which takes place throughout people's lives.
- 5.40 In considering the potential benefits and impacts of archaeological learning, we have chosen to focus here on the Community Development and Learning context because of its outcome-led approach and its concern with those who most need improved life chances and communities that are stronger, more resilient, supportive, influential and inclusive.
- 5.41 Chances to participate in lifelong learning are not evenly distributed. There are three main types of barriers which some people face (Boeren 2016, 24):
1. Situational barriers (such as childcare responsibilities and limited time and money).
 2. Dispositional barriers (such as lack of confidence and self efficacy, low motivation).
 3. Institutional barriers (such as high Fees, courses at difficult locations, poor communication).

Identifying, reducing or removing barriers to participation is a fundamental issue, therefore, in designing informal and non-formal learning opportunities for under-represented groups.

- 5.42 Research has identified below-average chances of participation in lifelong learning among both employed and unemployed adults, aged 45-65, who have low levels of education and skill (Boeren
-

2016, 25; Desjardins et al 2006, 74-5). These groups could especially benefit from archaeological learning activities, including potential learners in geographical locations remote from centres of non-formal and formal learning.

5.43 As Boeren notes:

The content of lifelong learning activities should match the needs of the potential adult learner, but it is also vital that the activities are being offered at convenient times and locations. Especially for the most disadvantaged groups, it does not make sense to travel for educational purposes. When in employment, low-skilled adults are more likely to be found in routine manual jobs, and will therefore receive fewer opportunities at the workplace; it might thus be important for the public sector to guarantee that appropriate courses are available. Similar mechanisms apply to the needs of unemployed people who may need to retrain or update their skills and knowledge to perform a new profession for which employment opportunities are available (2016, 98).

- 5.44 The individual and social benefits which lifelong learning creates (see para 4.32) are promoted most actively through Education Scotland's Community Learning and Development (CLD) remit. This covers a broad range of areas, including youth work, community-based adult learning, family learning and community development. The focus of CLD is on improving life chances through learning, personal development and active citizenship, and through building stronger, more resilient, supportive, influential and inclusive communities. As local authorities and their community planning partners shape and deliver CLD, they can respond to local needs and opportunities. CLD is a vital way of engaging with young people and adults, especially those who have been disadvantaged and excluded (Scottish Government 2010, 27).
- 5.45 Community Learning and Development (CLD) are delivered through Local Authority Community Planning Partnerships (CPP), as expressed in *Strategic Guidance for Community Planning Partnerships: Community Learning and Development* (Scottish Government 2012). Subsequent clarification, given in *Revised Guidance Note on Community Learning & Development Planning 2018-21* (Education Scotland 2017a; see also Education Scotland 2017b), highlights the need to focus on the most disadvantaged.
- 5.46 Community Learning and Development deliver to community empowerment and participation, as expressed in the Community Empowerment (Scotland) Act 2015. Developing skills and working to CLD standards is facilitated through the Competent Practitioner Framework (CLD Standards Council Scotland 2017) and supported by the CLD self-evaluation and quality indicators framework (Education Scotland 2016).

6 Consultation Results

6.1 The consultation took the form of:

- an online survey, circulated to key stakeholders in the education, archaeology and heritage sectors;
- meetings with three focus groups made up of education providers from schools, higher education and ASN provision, museum outreach staff, local authority curators and community archaeologists; and
- Individual phone, email and face-to-face consultation with key stakeholders and with education practitioners at the Scottish Learning Festival in September 2018.

In addition to gathering views and insights on the potential benefits of archaeological learning, it aimed to build up a contacts list of critical friends who would continue to provide input to the development of archaeological learning throughout this project and beyond.

- 6.2 The consultation process commenced with a phase of research to gather contact details for people working in local authority education departments, Education Scotland, schools and outdoor learning organisations; those working with ASN learners in various contexts; staff in museum outreach services, national and third sector heritage organisations and commercial archaeological units, and people working in further and higher education with interests in archaeology and heritage. The online survey was circulated to this list of contacts through email and also promoted widely on social media and via personal contacts.
- 6.3 Consultation was also conducted through focus groups, which met in June 2018 in Glasgow, Fort George and Edinburgh. Participants were invited from a range of national and local heritage organisations, further and higher education institutions, museums, schools and ASN service providers. Further individual consultation took place by phone, email and meetings during the summer and autumn of 2018. The organisations consulted are listed in Appendix 1.
- 6.4 The findings from the online survey, focus groups and individual consultations are collated below.

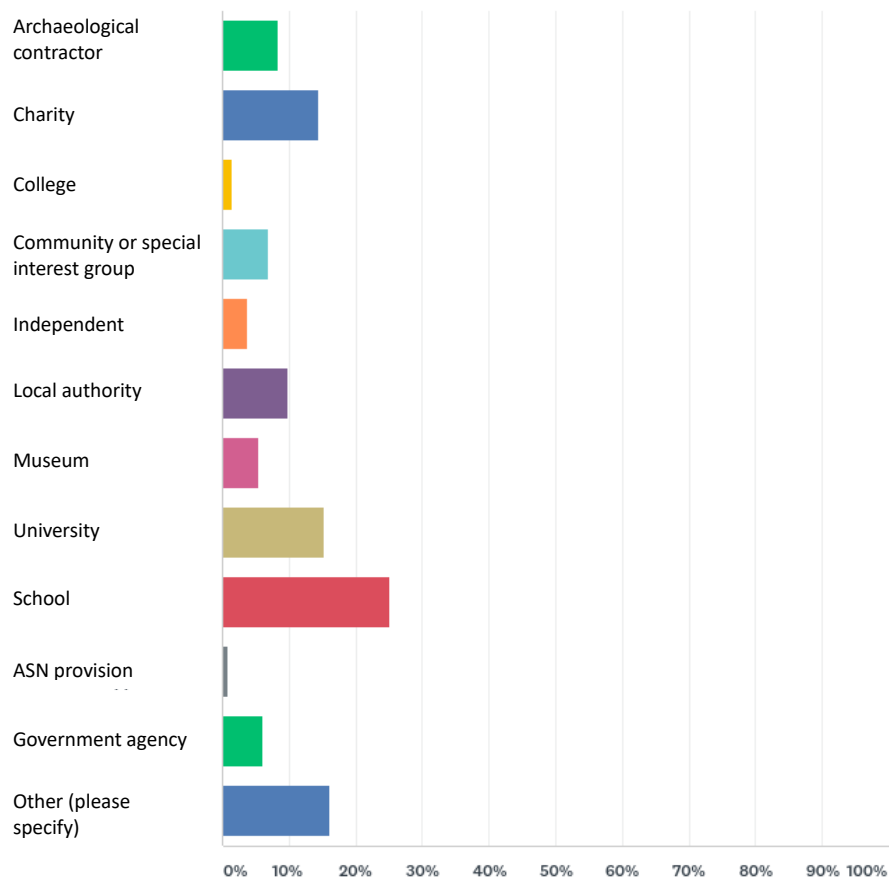
SCQF Levels	SQA Qualifications			Non-Formal Recognition	Qualifications of HE Institutions	Scottish Vocational Qualifications & Apprenticeships
12			Professional Development Award		Doctoral Degree	Professional Apprenticeship
11			Professional Development Award		Masters Degree, Integrated Masters Degree, Post Graduate Diploma, Post Graduate Certificate	Graduate Apprenticeship, Professional Apprenticeship
10			Professional Development Award		Honours Degree, Graduate Diploma, Graduate Certificate	Graduate Apprenticeship, Professional Apprenticeship
9			Professional Development Award		Bachelors / Ordinary Degree, Graduate Diploma, Graduate Certificate	Graduate Apprenticeship, Technical Apprenticeship
8		Higher National Diploma	Professional Development Award		Diploma of Higher Education	Higher Apprenticeship, Technical Apprenticeship,
7	Advanced Higher, Awards, Scottish Baccalaureate	Higher National Certificate	Professional Development Award Community Achievement Award Youth Achievement Award	Skills Passport	Certificate of Higher Education, Advanced Diploma in British Archaeology	Modern Apprenticeship
6	Higher, Awards, Skills for Work Higher	National Certificate	Professional Development Award Community Achievement Award Youth Achievement Award National Progression Award Community Achievement Award Youth Achievement Award	Skills Passport		Modern Apprenticeship, Foundation Apprenticeship

SCQF Levels	SQA Qualifications			Non-Formal Recognition	Qualifications of HE Institutions	Scottish Vocational Qualifications & Apprenticeships
5	Skills for Work National 5	National Certificate	National Progression Award Community Achievement Award Youth Achievement Award	Skills Passport, Heritage Hero		Modern Apprenticeship
4	Skills for Work National 4	National Certificate	National Progression Award Community Achievement Award Youth Achievement Award	Heritage Hero		SVQ
3	Skills for Work National 3	National Certificate, Certificate in Archaeological Practice	National Progression Award	Heritage Hero		
2	National 2	National Certificate	National Progression Award	Heritage Hero		
1	National 1			Heritage Hero		

Table 2: Qualifications calibrated to the Scottish Credit and Qualifications Framework (Scottish Qualifications Authority 2018), with archaeological awards integrated after HES 2018b, 6.

Survey Results

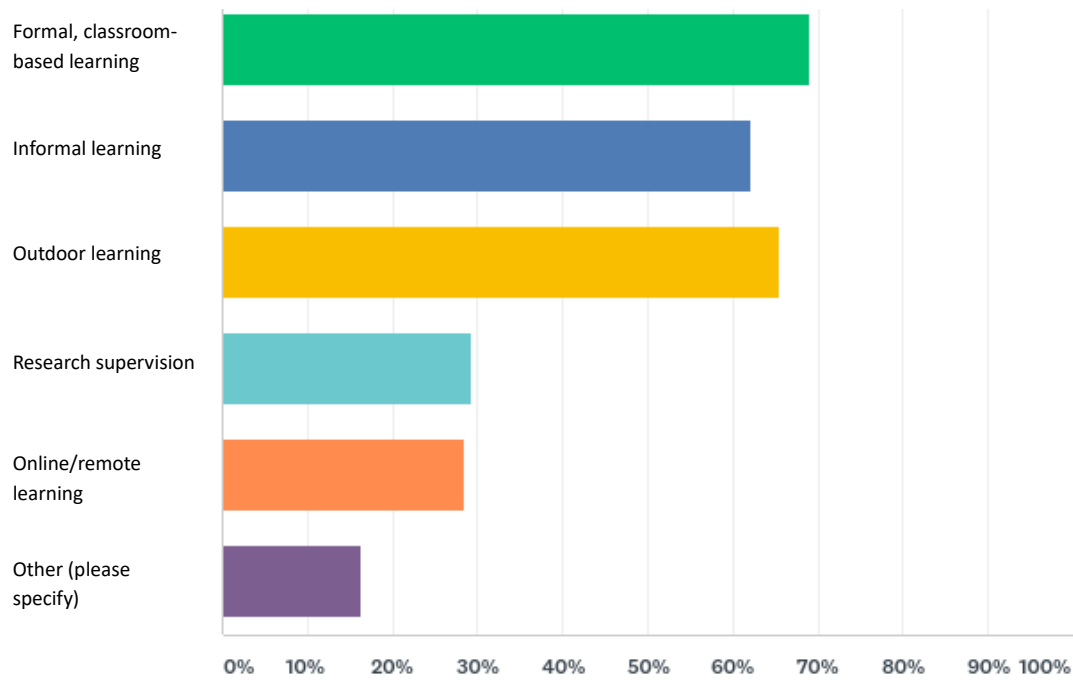
6.5 A total of 134 people responded to the online survey. Respondents were spread across various organisations and sectors, with the highest proportion based in schools (see Appendix 1).



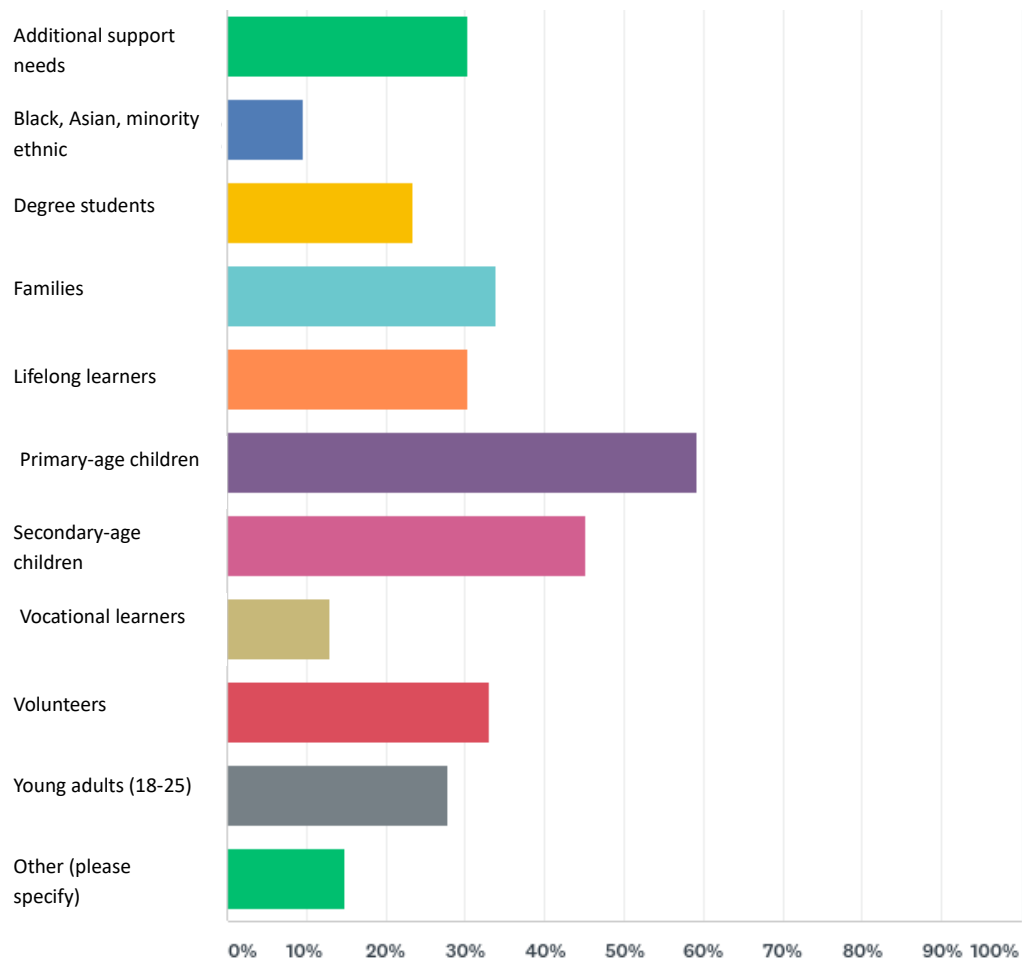
6.6 Responses to the question (Q7) 'How often do you use archaeology in your daily practice?':

All the time	33.07%	42 respondents
Frequently (about once a week)	7.09%	9 respondents
Sometimes (about once a month)	7.87%	10 respondents
Rarely (a few times a year)	9.45%	12 respondents
Never	42.52%	54 respondents

6.7 The majority (124 out of 134, or 94%) answered 'yes' to Q8, 'Does your organisation deliver learning?' These 124 were asked (Q9): 'What types of learning does your organisation deliver?'. They answered:



6.8 Responses to the question (Q10): 'Who are your main audiences for learning?' were:



6.9 Those who answered 'No' to Q8 ('Does your organisation deliver learning?') were directed to a set of questions (Q12-19) about the potential for archaeology to deliver learning on various topics and help learners different skills, as well as the types of activities that are most appropriate for archaeological learning. Those who answered 'Yes' to Q8 were directed to questions (Q9-11) about the types of learning they deliver and audiences with whom they work and then to a set of questions (Q20-Q29) that mirrored Q12-Q19 but were phrased slightly differently.

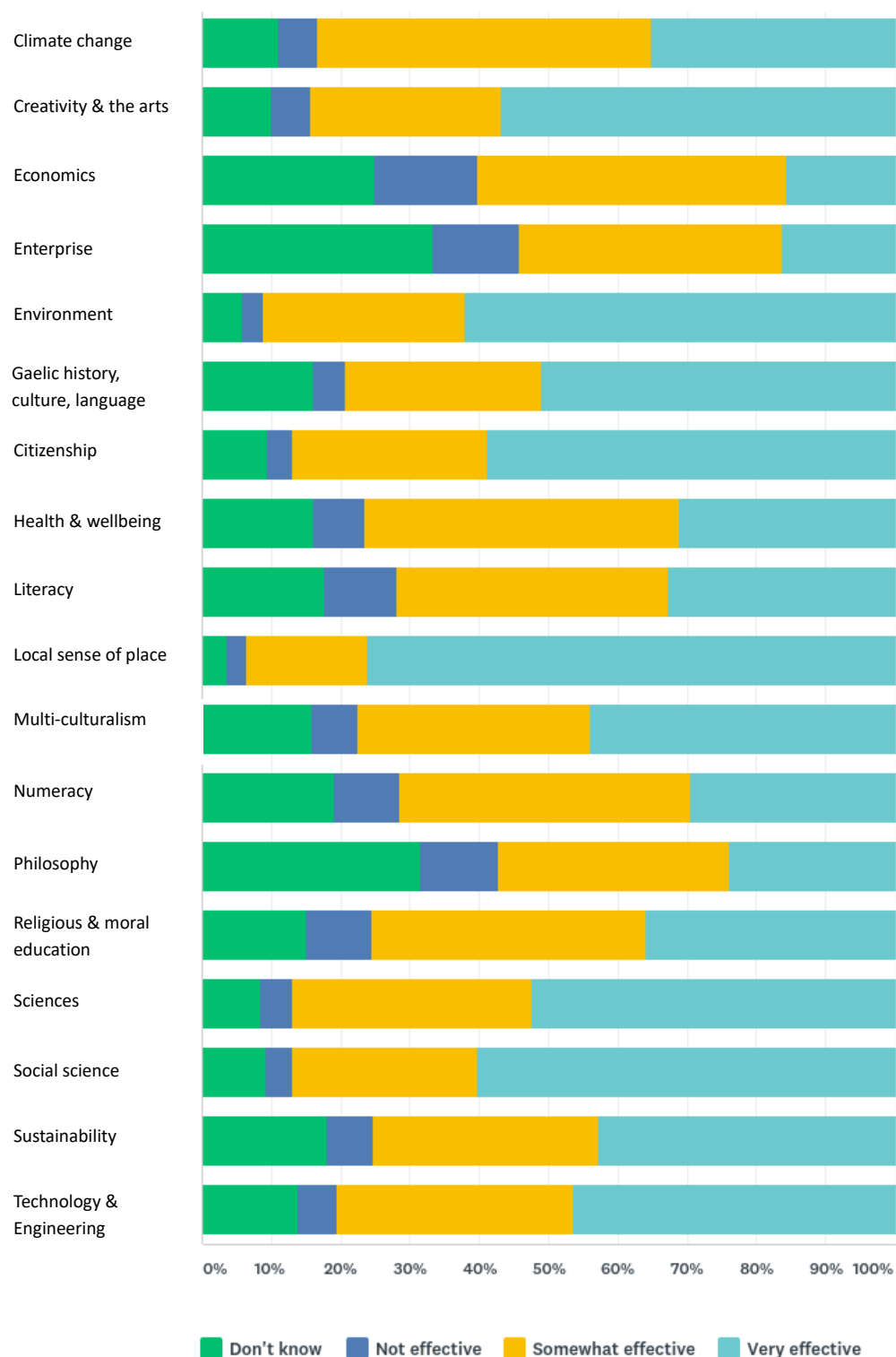
6.10 All respondents were asked: 'What do you think archaeology has to offer in terms of learning?' A representative selection of answers is given below.

Respondent's sector / role	Response
Archaeological contractor	Cross curriculum practical learning for many subjects.
Archaeological contractor	Access to a huge variety of interests that can hook in participators, as well as hands on activities that engage wide audiences.
Archaeological contractor	understanding of the undocumented past a sense of local, regional and national value and identity a commercial skill e.g. for guides a way into school and university study for people who are practical rather than academic a social way of breaking down barriers fitness and outdoor activity.
Archaeological contractor	Nope, don't get this. Archaeology is a discipline that you learn and apply in the researching our past. I consider it the goal of learning process to improve and enrich personal skills in the undertaking of archaeology.
ASN support provision	Opportunities for young people with ASN to explore alternative approaches to learning and introduce experiences they previously haven't had exposure to.
ASN support provision	Sensory experience, hands- on. Organised, structured cataloguing. History and place making.
ASN support provision	I think archaeology is a great tool for learning. I have seen how it can engage people who were otherwise disinterested and unmotivated. Learning about the history of the land where we live can spark a lot of interest and excitement and is therefore a great way to engage a group. The different elements within archaeology can offer something for everyone from the physical digging and environmental preparation, to the actual dig exploration and finally the research. There is much to learn along the way. The knowledge gained can lead to interesting discussions and the desire to learn even more, digging deeper into the subject.
ASN (addiction) support provision	Fantastic opportunity for people to learn about history, socialize with others, learn new skills.
Digital learning provider	We've written a blog especially about the ways in which archaeology (and heritage more widely) is fundamental to learning about identity (and all of the important things that come with that), however I think the science and engineering aspects of archaeology are very under played!
Educational resource promotion	I think there are many exciting opportunities for the people of Scotland to immerse themselves in archaeology but it's a bit scary when first approaching the idea of it!
Informal learning provider (archaeology)	Learning is a process. Archaeology can offer heuristic, experiential sessions to aid learning. Archaeology as environmental education: taking care of our world means stewardship of natural and cultural resources. Archaeology as discovery: humans have an innate need to discover and explore

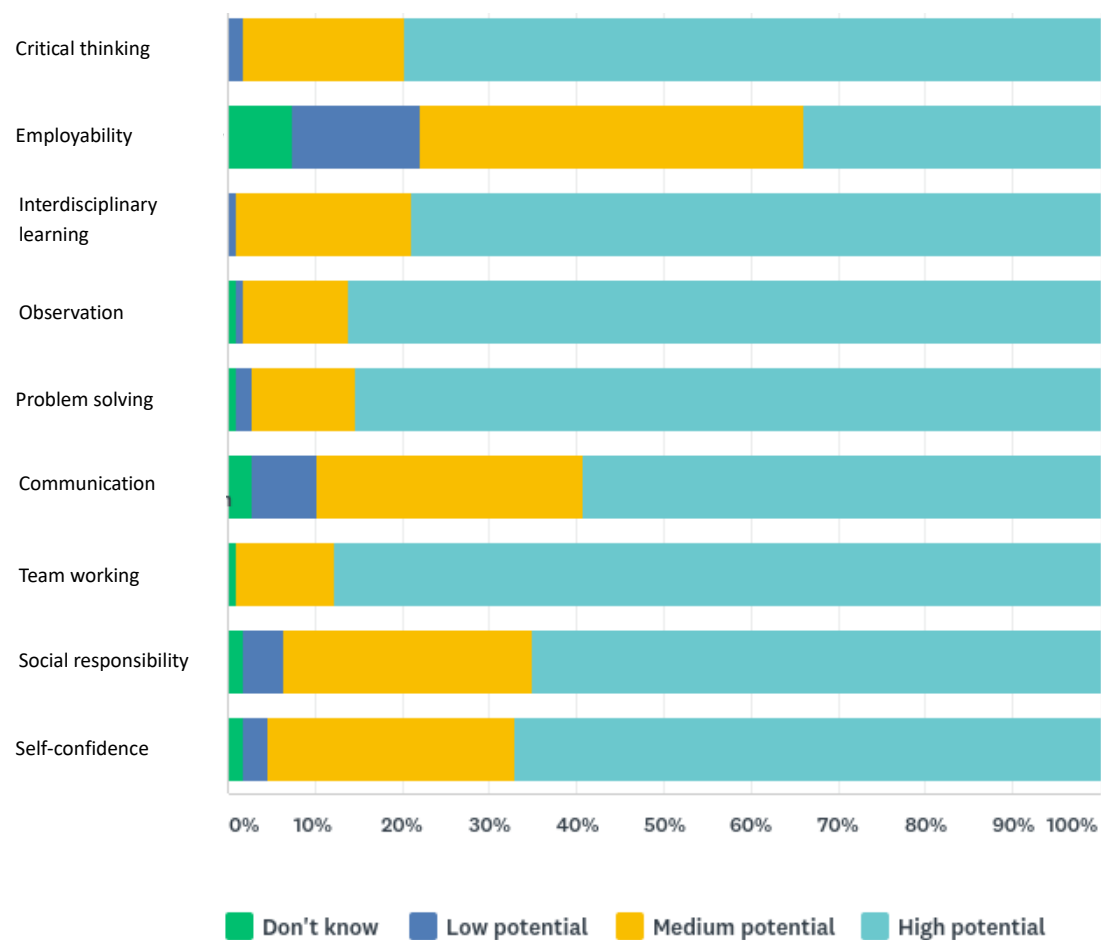
Respondent's sector / role	Response
	(Montessori named exploration is one of the 'human tendencies'). Archaeology allows us to explore the past and from that, our place in the world today. It is suited to informal and formal learning settings. As a multidisciplinary subject and the only subject that I know of that is a social science and a science, it is perfectly suited to <i>Curriculum for Excellence</i> Broad General Education level as well as topics in secondary level that explore history/prehistory (including exam questions), modern studies, geography and science, for example. It is very suitable for delivering learning in the topics listed in Q12.
Informal learning provider (archaeology)	It has a huge amount to offer. It is interdisciplinary, and can attract people with various interests. It relates to people's sense of place and their well-being. If people are interested in their past, and learn more about it, they will protect and promote it.
Informal learning provider (archaeology)	Archaeology is a methodology and a way of thinking that can help piece together clues from our shared past. Through observation and discussion, ideas and theories take shape. Using archaeological recording techniques at an historic site can be a great way to explore the past and learn in a truly cross-curricular context.
Lifelong learning provider (archaeology)	It has a huge amount to offer. It is interdisciplinary, and can attract people with various interests. It relates to people's sense of place and their well-being. If people are interested in their past, and learn more about it, they will protect and promote it.
Informal learning provider (history and built heritage)	Archaeology is a great way to engage audiences. It provides tangible heritage and spaces to discuss the past, present, and future.
Informal learning provider (historic environment)	Multi-disciplinary, inspiring and exciting, a process, hands-on so can engage all types of learners and is particularly beneficial for those who struggle to learn in traditional ways. it supports the development of transferable skills such as critical thinking, problem solving, teamwork and communication. it can demonstrate practical application of maths, real world experience and a direct link with world of work and careers.
Informal learning provider (historic environment)	Supporting all aspects of the <i>Curriculum for Excellence</i> , not just social subjects but science mathematics, technology literacy. It also can provide a great introduction to team work and is great for skills development especially for the workplace. It also broadens people's understanding of other cultures and leads to questioning traditionally held views. A good all rounder!
Informal learning provider (historic environment)	Investigative, analytical, deductive, interpreting skills. Plus specific knowledge of past societies and material culture.
Lifelong learning provider (local authority)	For lifelong learners ability to be part of inclusive communities, the use of the core skills. Could also be useful in multiculturalism.
Local authority historic environment curator	New skills, increased awareness of surroundings, opportunities to engage with others, increased confidence, meaningful contribution to local community.
Museum education	Archaeology can often present a number of theories with no right answer. This gives learners the chance to discuss, investigate and draw their own conclusions. Sometimes taking influence from their own situations and making comparisons to past cultures and societies. This offers learners a unique engagement with objects.
Secondary school teacher (ASN pupils)	A 'hook' perhaps for disenchanted students.
Primary school teacher	I think it has the opportunity to cover a vast range of the curriculum. Social sciences, literacy, numeracy, technology etc.
Primary head teacher	Opportunities for exploring local environment, develop skills across the curriculum.

Respondent's sector / role	Response
Primary school depute head teacher	Supports cross-curricular links, gives children hands on practical examples of topic learning.
Primary school principal teacher	Archaeology has an impact on every part of learning. From what materials now can tell us about where we came from, to using what we know to shape and learn about the future. It links into developing the young workforce and is very relevant in our school's area.
Primary school teacher	Exciting historical learning about the people in the past in the local area. Developing problem solving skills and critical thinking skills in real life situations.
Secondary school teacher	As a history teacher I view it as extremely useful for teaching my subject. Artefacts, settlements, etc can enrich the teaching of my subject.
Secondary school depute head teacher	Archaeology allows a study of the past and how humans/society has developed over time and as a result, encourages human inquiry, questioning and development of knowledge. By nature, archaeology facilitates outdoor learning and the development of transferable skills which can be used at all stages of life.
Secondary school teacher	It is an ideal umbrella subject to use to deliver interdisciplinary learning projects in broad general education.
STEM learning resource provider	Storytelling, science, understanding of heritage.
Trainee teacher	Storytelling is key if archaeology is to be presented to school kids.
Trainee teacher	Learning about history, technological and scientific focus. Outdoor learning, links to religious education, literacy etc.
Trainee teacher	I think it can be linked to social studies, maths and literacy, art, drama, RME, digital technology and health and wellbeing.
Trainee teacher	Lots! I am a design and tech trainee teacher so I believe knowing where things come from is a huge benefit! Also planning more outdoor learning is so important in the curriculum right now!
University lecturer	Understanding of the longue duree of many aspects of the histories of environmental management.
University lecturer (Education)	It has a lot to offer. I would say that it can strengthen our sense of self and feeling of belonging. Looking at the ways in which people used to live (e.g. through material traces) makes us reflect on our own life. It also has the potential to strengthen communities since, through archaeology, we can gain a better understanding of our common origins and history. Archaeological projects are often collective endeavours and might become 'communities of practice' where team work and peer support lead to meaningful learning.
University lecturer (Education)	Everything: reflection on the material conditions of human life and the nature of time.
University lecturer (History & Archaeology)	A broad-based approach to the past that allows understanding of the present through a wide range of humanities and social science methodologies and theoretical approaches. An understanding of the time depth of human experience, the range of challenges faced by people in the past, and the unbelievable inventiveness and resourcefulness of people in dealing with those challenges.

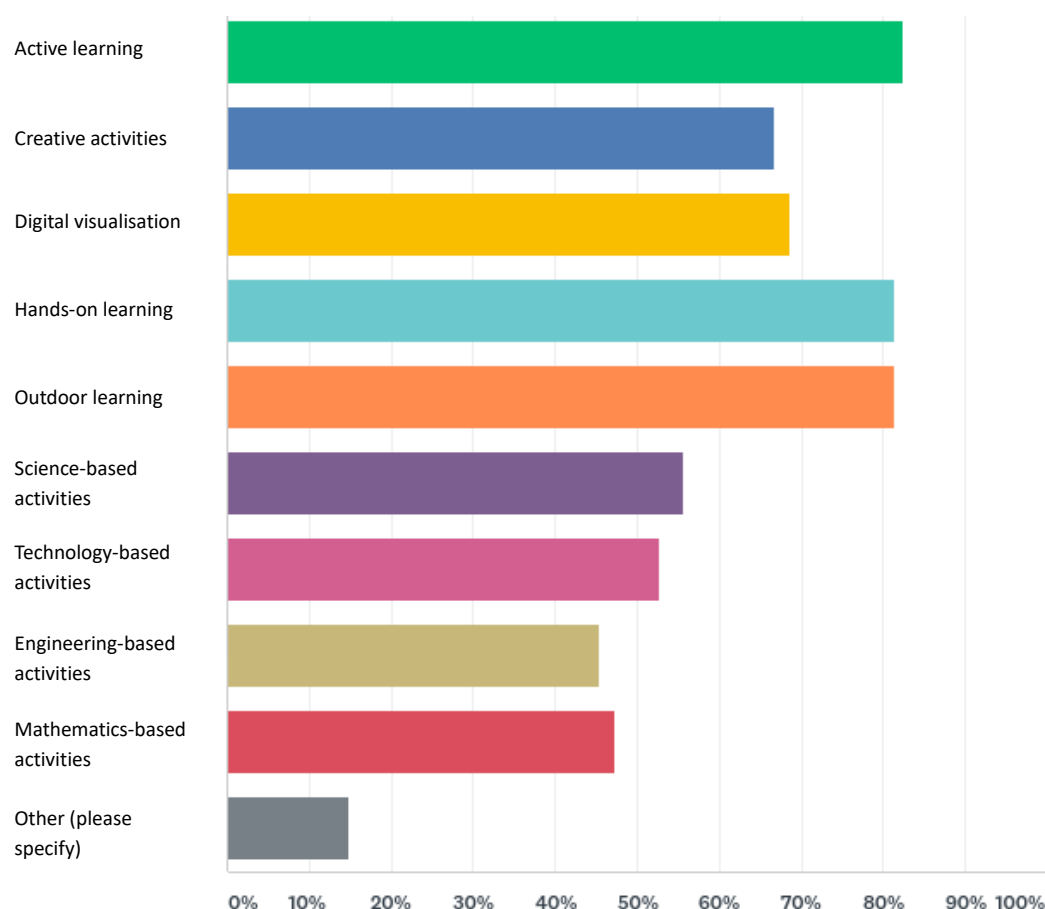
6.11 To the question: 'How effective do you think archaeology is in helping to deliver learning on the following topics?' (Q21), 110 respondents answered:



6.12 Respondents were asked (Q22) 'Do you think archaeological learning can help people develop the following skills and abilities?' of which 109 answered:



6.13 Respondents were then asked (Q23): 'What kinds of activities or lesson plans would be useful to help your organisation provide archaeological learning?'. The answers were:



6.14 In response to Q16, 'Would you be interested in receiving training and resources that would help equip you to deliver learning through archaeology?', three said yes and two said no.

6.15 Respondents from organisations that deliver learning were asked: 'Does your organisation currently use archaeology to deliver learning?' (Q25). Out of 109, 64 (59%) responded yes while 45 (41%) said no. Asked what barriers they face in using archaeology, respondents said:

Respondent's sector / role	Response
Archaeological contractor	The barrier of the language here, I think I'm starting to understand what on earth you're talking about but it is a struggle. The phrase 'use archaeology to deliver learning' is a classic, I commend you on your jargon speak. No plain english awards for you.
ASN (addiction) support provision	Opportunity to engage in such activities from archaeology organisations.
ASN support provision (heritage)	Answered yes but there are significant barriers to supporting ASN children with Autism, ADHD, Dyslexia and mental health issues. (Access, understanding and

Respondent's sector / role	Response
	awareness in particular).
College lecturer	Does not fully relate to NC/HNC curriculum.
Digital learning	Although we answered yes above, you may be interested in another blog we've written about barriers to heritage education - we found a resistance to it due to the perceived importance of STEM learning, and the misconception that archaeology isn't STEM!
Educational charity	not a high priority or as direct as history/maths which we regularly link in to.
Educational resource promotion	Not my remit; we offer a platform to promote learning.
Education Scotland curriculum implementation support	Understanding of where it fits with teacher needs, and access to appropriate resources.
Informal learning provision (Archaeology)	I answered yes to Q16, but barriers to archaeology I identify are: it's an -ology, it's seen as too specialised.
Museum education	We don't use it as much as we'd like through current lack of resources .
Lifelong learning provision (local authority)	Budget and access to resources.
Local authority heritage officer	For many teachers in the class room, they may feel that archaeology is something they don't understand and don't have confidence in teaching. The more digital learning they can promote in classrooms the better. They can't always afford to get a bus to sites.
Local authority historic environment curator	Only one archaeologist who already has a full-time commitment to planning activities. Many learning experiences are delivered within own time.
Local authority historic environment curator	Lack of capacity and resources.
National historic environment curator	Needs a broader spectrum than dressing up boxes.
Primary school teacher	Resource access/expert knowledge.
Primary school teacher	Staff confidence and awareness.
Primary school teacher	Lack of understanding/knowledge and training.
Primary school teacher	Staff knowledge and confidence.
Primary school teacher	At some stages. Lack of knowledge and understanding of the topic and resources/people available to help.
Secondary school teacher	Staff being able to teach it.
Secondary school teacher	Skills and expertise of staff.
STEM learning resource provider	Don't have a good enough understanding myself.

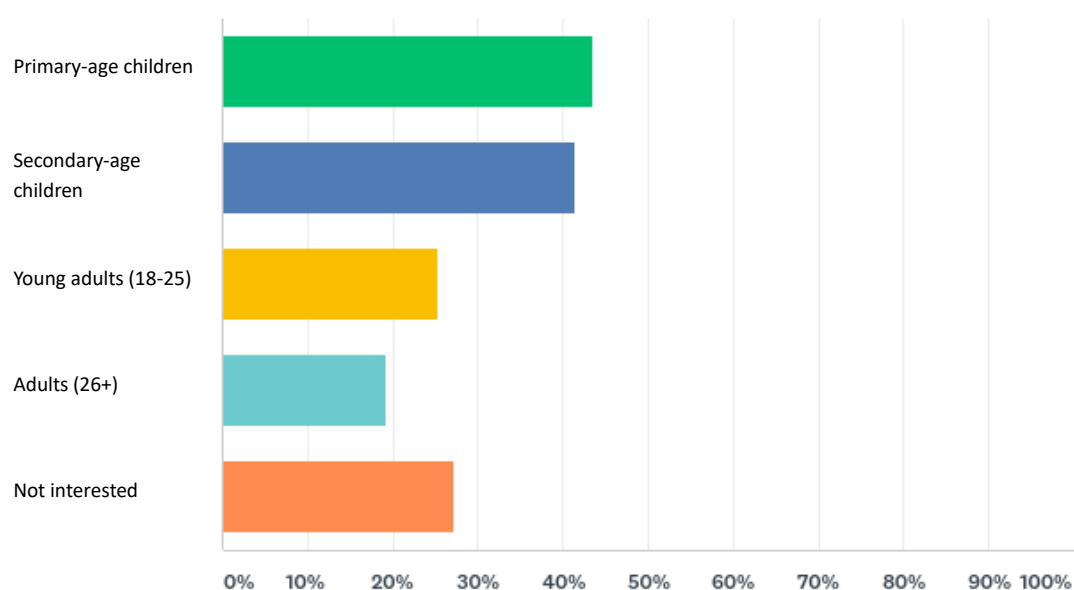
Respondent's sector / role	Response
Trainee teacher	Money and time.
Trainee teacher	Relate more to tech subjects.
University lecturer (Education)	Potential barriers would be limited time and staff willingness to integrate such learning activity in our curriculum. We also have to get all our teaching activities risk assessed. That bureaucratic process might also act as a barrier.
University lecturer (Education)	Lack of knowledge.

6.16 Out of 103 respondents, 85 (82%) answered 'Yes' to the question 'Would you be interested in training for staff on how to use archaeology as a learning tool?' (Q27), while 18 (17%) said 'No'.

6.17 They were then asked how they would like to receive more information about learning resources (Q28) and how they would like to receive training. Numerous people responded 'online', 'video' and 'face to face'. Some specific responses were:

- 'Online toolkits and workshops / meetings to share ideas and get feedback on planned activities.'
- 'I favour informal meet up sessions - not top down, but engaging chat along the lines of hints, tips and challenges from everyone in the room.'
- 'Perhaps more guidance for special needs. I think also that there needs to be attention to guiding people on how to use archaeology in lifelong learning events. There is training on formal classroom type of delivery, but it is a different approach for lifelong learning - I've given a lot of thought on the necessity of providing some guidance for people doing this.'
- 'Ideally by someone coming to give face to face training to our team - as we are in the islands it is more cost effective to bring one person in than to send people away and that way the trainer can see our facilities and are aware of our issues.'
- 'Through staff coming to speak at groups like Heritage Education Forum, GEM, Scottish Learning Group, etc. '
- 'Couple of workshops or a short conference where people already engaging in such activities could share their experience.'
- 'Again depends on what the training covered. If practical based or outdoors than face to face best, but online materials may also be relevant.'

6.18 Q30 asked: 'Would you be interested in vocational heritage awards and youth awards, and if so, for what age group(s)?'. The answers were:



6.19 A total of 90 respondents agreed to be contacted again to provide feedback on this project while 85 said they were willing to be contacted about similar opportunities in archaeological education in the future.

Focus Group and Consultation Feedback

6.20 The focus groups and individual consultations were designed to generate discussion around the issues raised the survey and to gather more detailed responses to the questions raised in the online survey, in order to feed informed perspectives into the project. A full list of consultee organisations is included in Appendix 1.

6.21 Feedback from the focus group and individual consultations is collated below by area of discussion.

Benefits of learning that involves archaeology

- It's tangible and provides encounters with the past, a sense of discovery.
- Skills development, especially in archaeological STEM: recording, observing, discussing, and interpreting.
- One of the best ways of teaching across the curriculum, a 'big, wonderful umbrella' that encompasses different topics and skills, regardless of archaeological period.

- Archaeology and the historic environment can be an effective vehicle for enhancing people's health and wellbeing, helping them develop skills and providing creative inspiration.
- Archaeology isn't just about acquiring knowledge of the past through material remains. It's a way of thinking, an approach to learning.

Overcoming barriers to engagement with archaeology

- The term 'archaeology' can be quite off-putting; it sounds academic, elitist, like something you need a degree to understand and engage with. And many assume it means digging and buried remains. It's also too restrictive: 'archaeology' does not encompass 'heritage', but 'heritage' does encompass 'archaeology'.
- Archaeological jargon (intra-disciplinary dialect) is also a big turn off, and this needs to be addressed in the regional ScARFs.
- Archaeology is often perceived as being very patriarchal, straight, middle class; address this to help ensure equality of access to it.
- In practice, there's a long way to go in making archaeology accessible to disengaged audiences and more research is needed on how to achieve this. See Glasgow Women's Library report Equality in Progress on accessibility in museums: https://womenslibrary.org.uk/gwl_wp/wp-content/uploads/2018/06/EiP-Report-Research-from-a-Grassroots-Museum-180615.pdf
- Lack of time can be a barrier, especially for working families, and so can other resources such as transportation and outdoor clothing, especially for those on lower incomes and with disabilities.
- A perception that it's accessible to anyone is key - making clear that it's not purely academic and it's not just for school learners.
- Look at how difficult to engage groups are being engaged, for example through charities and service providers. Talk to them directly about what they need and want and design activities with them that deliver the outcomes they need.
- Ultimately its people (rather than an off-the-shelf resource) that successfully engage other people.

Engaging schools

- Archaeologists want to know which thematic topics are most relevant and how to get them into schools, and also how to design archaeological projects so they're relevant to audiences.
- It is difficult to link up the stages of the learning journey, given the lack of joined-up ways of working, approaches and guidance across the archaeology, heritage and education sectors. There needs to be more communication between heritage practitioners/archaeologists and teachers.
- It would help to phrase things in *Curriculum for Excellence* language; the community archaeology sector needs training on that. Also look at schools' websites to see their mission statements and understand what they prioritise.

- Also, seek to engage not just schools but their communities - families, parents, grandparents.
- Identify your allies in schools and use them! There is almost always a champion for archaeology, just as there are champions for art, outdoor learning, etc in every school. Teachers often generate their own ideas and go with them, so if archaeologists can get teachers hooked that is half the battle. Even better, win over the local authority managers above head teacher level. Tag archaeological learning to a policy and match it to benchmarks, and educators will pay attention and find funding for it.
- Trainee teachers would benefit from the chance to do some archaeology or other heritage volunteering; they would also bring children from their placement schools. June would be the best time of year, but it would have to involve real digging experience (for the staff). If staff are interested in something, they will teach it. There is a Standards for Professional Registration framework for trainee teachers; they have to write a profile and staff match it to the SPR to see how they've done. Archaeological learning could contribute to this.
- June and August are the best times to talk to teachers or provide CPD; from October they're into exams, etc. Schools are under lots of pressure and they transfer that to their staff - so teachers won't attend things on Friday afternoons.
- There could be an opportunity for trainee and new teachers to do applied research on the impact of archaeological learning; the profession is gearing up for professional doctorates.
- Think about other people that come into schools who aren't teachers, and what they can deliver as part of this: Princes Trust training, ASDAN, community educators, Skills Development Scotland.
- It would help to phrase things in CfE language; community archaeology sector needs training on that. Also look at schools' websites to see their mission statements - what they prioritise.
- Also, seek to engage not just schools but their communities - families, parents, grandparents. For vulnerable groups, family-based activities can be very helpful (outdoor activity, cooking, etc); the child is interested so the family gets involved. Get staff, pupils and parents working together and raise awareness of what's available to do for free.
- Schools are heavily influenced by results; departments will get what they ask for if they get good results and it fits with the school plan (for example, to increase engagement with other agencies).
- There are lots of unused schools packs produced by archaeologists with no input from teachers! Archaeologists have to work with teachers to develop them.
- There seem to be systemic problems with how archaeological projects are developed. Schools should be consulted and involved at planning stages. Archaeological groups come to schools midway through a project to seek pupil participation, but there's a process schools have to go through - planning involvement in light of school calendar, get permissions, etc.
- Schools are so busy and overwhelmed; archaeologists need to work on improving dialogue with them. Secondary school teachers in particular need a long lead-in time to build engagement into pupils' busy timetables, and the content needs to be tailored to the school or area if it's going to appeal.

- Adopt a co-production approach with schools, so projects are generated by them with support and professional input. Start with their interests and needs - establish these by talking to groups and their service providers - and design projects with them to address these.
- You often find, as a teacher, that archaeologists come in and talk very enthusiastically about the subject but don't understand the constraints and demands of curriculum delivery. It's important to provide context for projects - for example, give schools background resources on the Neolithic/Bronze Age if they're going to work on a stone circle.
- Explicitly link archaeological learning resources to the curriculum; make it clear to teachers why they should be using them. Resources that address various outcomes/ themes can include specific, short activities that address maths, geography, etc (and are linked to curriculum benchmarks).
- Engaging teachers in archaeological learning shares challenges with outdoor learning, such lack of confidence and knowledge. Partnering with schools and providing teachers with mentors or with CPD would help address this.
- For primary schools, make it easy for teachers; provide off-the-shelf resources that are fun, engaging, around (for example) craft, technology, history, chemistry (by using experimental archaeology, for example). The primary curriculum is all about integrated learning, whereas the secondary curriculum is much more segmented.
- Among secondary school pupils, ownership is very important. Lots of workshops miss the point. Kids want to create, produce and make something. There should be co-production, resulting in something they can show at home.
- There should be a tangible legacy, something to leave in the community (not just digital). It could be a binder of resources, something as simple as that. There can also be intangible legacies, such as pride of place. Schools are hubs of community networks of peer, families, teachers; they're not just delivering learning. So promoting archaeological learning can provide powerful legacies for these communities.
- Most schools don't do archaeology; it gets lumped in with history. A basic problem is that people (from children to adults) don't know what archaeology is. It's not on most people's radar, for example in Skills Development Scotland. Archaeological learning doesn't have to be flagged up as archaeology; it can be slipped in as something else and presented as a new method that will enable people to learn in different ways.
- STEM is a key area of focus, so bring this into as much learning as possible; it also delivers soft skills. A STEM approach celebrates success and archaeology could fit in here with a very skills-based (less topic-based) approach, in which children build on the background learning they've done in the classroom by working with heritage professionals.
- It is important, if possible, to have activities span a long period, so that children can revisit a place or activities many times and see the project through.
- Regional ScARFs should make it easier for schools to understand the archaeology of their area.

- Front-end, formative and summative evaluation is really important in developing resources - getting input and feedback from teachers at all stages.

Key themes & topics

- Topics aren't the issue; archaeology could fold into almost anything. 'If you chase the topics, you're going to do archaeology a disservice' (secondary school teacher). It's the bigger curriculum themes and outcomes that we should focus on:
 - Global citizenship
 - Outdoor learning
 - Learning for sustainability
 - Place-based learning / local sense of place
 - Skills-based learning, especially STEM skills (observing, recording)
 - Growing the young workforce
 - Literacy and numeracy
 - Expressive arts (drawing on imagination, storytelling)
- Promote an interdisciplinary approach that allows transfer of skills between areas. Broad, humanity-based topics (Broad General Education) will pull in learning from across the curriculum. Archaeology actually hits almost all of these topics: Climate change, Creativity and the arts, Enterprise, Environment, Gaelic history, culture and language, Citizenship, Health & wellbeing, Literacy, Local sense of place, Multi-culturalism, Numeracy, Philosophy, Religious and moral education, Science, Social science, Sustainability, Technology & engineering.
- Design projects/resources that combine different themes and outcomes and demonstrate relevance to real world experience - a key principle of the *Curriculum for Excellence*.
- It's all about how pupils are going to respond, so content needs to be engaging. Pick something fun that matches approaches and skills development.
- The nurture approach is very current now in both primary and secondary schools. It's about the way you communicate to children, with respect. Nurture groups go on outdoor education each week and funding is available for it.
- Focus on outcomes, attainment (providing rounded experiences), audience needs - not topics.
- Teachers are looking for STEM learning that's properly integrated, not just about science and technology.
- Incorporate consideration of values: how society makes decisions about cultural heritage - why are some things preserved and some not? What do we value?
- Get pupils to think problems through from an archaeological or material culture perspective; get them to start with their own experience.
- The traditional idea of topics sees students as empty vessels into which you pour knowledge; instead, teach them to learn and be resilient. Put soft skills at the start, not as afterthoughts.

- Outcome-based, project- and process-led approach would be much more useful than a topic-led one; that can be slotted in later. Stress skills acquisition rather than knowledge acquisition.
- Value of regional approach to curriculum, as each region has different issues - so offer a toolkit for engagement with the local historic environment: The Archaeology of Us. Model how to draw on local context, with background information to fit.

Literacy & numeracy attainment

- If you can demonstrate that studying archaeology at an early age impacts literacy and helps close the attainment gap it will go a long way towards mainstreaming archaeology in education.
- Graphic resources (such as comic books) appeal to children who don't normally engage with literacy, and they can draw on archaeological examples of literacy such as prehistoric rock art and Pictish symbols.
- Empower under-represented groups to tell their particular stories through their material culture.
- Archaeology is all about a sense of place and time, so you can use children's own things and own locale to do this and build their literacy skills in the process.
- Numeracy and literacy are foundation skills - essential to further learning - so encouraging development of these through archaeology will help learners succeed throughout their learning journeys. Archaeological learning can demonstrate how societies have always used literacy and numeracy in some form.

Early learners and school learners

- Use archaeological learning to offer encounters and opportunities which build confidence and skills at an early stage, before knowledge-based learning commences.
- Archaeological learning can be really effective with children who find learning difficult in conventional contexts; it can be outdoor-based, collaborative and confidence-building. Primary school children find it especially engaging and it has a high impact on them.
- Other key audiences are those 20% classified as school refusers and those from families experiencing socio-economic deprivation, who probably won't attend university. Another potential audience: young people who don't sit exams in secondary school but who still have to come in and departments have to offer them a programme. ASDAN (www.asdan.org.uk/) offers an alternative curriculum for children who don't sit exams; it gets them problem solving, working on other soft skills. Archaeological learning could contribute to this, which would target that 20%.
- Secondary school learners' timetables are so full that it's difficult to incorporate archaeological learning unless its relevance to the curriculum is clearly demonstrated, and even then it needs to be planned well in advance. Alternatively, they can be engaged in extra-curricular learning activities.

- Provide learners with archaeological information which they then use in ways that appeal to them (such as a comic book on Craigmillarloch hillfort, produced by secondary school pupils with support from the HES learning team).
- Secondary schools have an activity week each year and some will do heritage-related activities. National Museums Scotland offers a trail through the museum for day as part of this. It's a good way of engaging some pupils.
- Support pupils to develop skills and get awards (such as Heritage Heroes) which give them a concrete sense of achievement and can be added to the CV they have compiled by the time they leave school.
- Reach young people through the people who are already working with them, such as local or community youth workers.

Senior phase, college and university learners

- Demonstrate what career paths are available through studying archaeology - not just academic ones - framing archaeology as being about taking care of the things that society has.
- Young people have to demonstrate hours given back to the community and universities want to see these extras; if it's something they're interested in, all the better (although not all will be on track to attend university). All universities have a way of recognising informal learning.
- Encourage mobility between different levels: archaeologists working with teachers, teachers talking to university students, etc - connect the different audiences with different educators.
- Archaeology degrees are now about potential to work in the sector, not about becoming an archaeologist, although the academic track is still a common perception.

Audiences for informal learning

- A common theme is place + community.
- Older and retired people are often more interested in discovery more than developing skills.
- The 25-55 age group is harder to engage; we need to develop approaches that appeal to families.
- Children want to dig, but older people often want to try different things - other kinds of research, working with objects, etc.
- From the perspective of someone who learned archaeology in an informal context as an adult, there were aspects of continuing professional development in learning archaeological survey and the basics of excavation, along with other skills that could transfer to professional life such as local heritage project management and report writing.
- Researching family history can be a good starting point for engaging families and connecting people to place. Researching a common ancestor (for example, identified from a grave in a local graveyard)

can then help people understand perceptions of ancestry in the past (for example, in the Neolithic and Bronze Age).

Black, Asian and Minority Ethnic (BAME) learners

- Barriers include perceptions that archaeology is about white heritage; BAME learners don't see themselves represented. It can also appear quite obscure and abstract.
- Archaeology is barely on the radar of asylum seekers. Language is often a big issue, so learning that supports ESOL would be relevant and helpful to them. Many are not allowed to work or stud, so creating opportunities for fun, interactive learning would help combat social isolation.
- Delivering sustained activity at a location relevant to BAME audiences (for example, activities over a period of several weeks at a gurdwara or mosque) could help develop their interest in archaeological learning.



Illus 6: Participants map migration journeys in a Diving for Pearls workshop in Govan, Glasgow (see Appendix 2).

Audiences with additional support needs

- Heritage practitioners need to develop better awareness of the diversity of needs. We could do with more training about ASN learners' and their families' needs and how to ask the right questions - sometimes as simple as: 'do you have ASN, and is there anything we can do to make your experience better?'
- Those with ASN also need increased awareness that it's legitimate to make known their needs.
- Sensory bags / play bags help some children; NTS use already and HES are beginning to. Also in some cases, ear defenders, things to chew on or squeeze.
- Autistic children need predictability, so you need to break down what is going to happen in what order and why, but less is more in terms of talking and written text. Don't explain learning outcomes; they will pick them up anyway.
- Many respond well to sensory experience and the chance to make/touch/experience something. Others don't like that so they need other options, for example to draw.
- Older children (secondary school age) generally know what they can cope with and may have coping strategies in place. Again the guiding principle should be less is more (in terms of information provided) and using simple, accessible terms, with pictures to show them what to expect. Some, especially of this age, have high capacity for empathy with animals.
- Adequate support (1:2 ratio) is important; some children get anxious and run away. Identify what they're good at and give them opportunities to do it through meaningful, useful tasks that make them part of the team.
- Needs in terms of skills development:
 - Teamwork
 - Sharing
 - Critical thinking - understanding consequences of events and actions in the past
 - Basic life skills - navigating public transportation, for example
 - Interaction with people
 - Understanding sustainability and their own connections to the world
- Asylum seekers and refugees are another category of ASN group. Co-production of archaeological learning can work well with these learners. It can help them connect to their new location and also give them the chance to share their own heritage and culture, thus helping address their loss of voice and identity.

7 Recommendations and Conclusions

- 7.1 Based on the results of research and consultation across the education, heritage and archaeology sectors, we have considered how archaeological learning can benefit different audiences in terms of wider outcomes like those articulated in the *National Performance Framework* (see below). In this perspective, the ultimate aim of learning is not necessarily to acquire knowledge or skills specific to archaeology, although that may be a desirable by-product, but to help learners achieve benchmarks and outcomes that meet their needs and aspirations.
- 7.2 An **Archaeological Learning Framework Tool** (see paragraphs 7.14ff) has been developed to aid the design of learning activities and resources to help maximise their benefit to learners and achieve high-impact outcomes in terms of learning around nationally important strategic themes and key skills, using appropriate methods, engaging with topical areas and issues and supporting learners to achieve benchmark and indicators.
- 7.3 For school-age learners, the flexibility inherent in the *Curriculum for Excellence* and its emphasis on cross-curricular approaches and outdoor learning create many potential pathways for learning that weaves archaeology into different curriculum areas. For students of further and education, archaeological learning can present opportunities to develop skills that are applicable in real-world contexts and work places, giving them valuable experience in engaging wider audiences in archaeology and heritage.
- 7.4 For some lifelong learners, Community Learning and Development activities with an archaeological or heritage focus could facilitate their journeys from informal to formal learning. This approach would steadily build interest and confidence and work to break down barriers to participation by moving from informal learning to non-formal, horizontal learning (in which information and skills are exchanged rather than transferred through top-down instruction). Some learners may then develop the motivation to pursue formal learning. Activities can be designed around events or sites which are of broader historical or social interest to communities, including participatory arts, popular culture and heritage, volunteering and engagement activities.
- 7.5 Adopting this horizontal learning approach would allow the development of informal and non-formal opportunities for individuals across different spheres of life - work, family, leisure and community. It would also foster a culture of inter-generational learning, in which older and younger people can learn from each other. Co-designing projects and activities with participants would also promote informal, horizontal learning and could focus on aspects of popular culture and local life which interest them.
- 7.6 As part of this study, Northlight Heritage have developed guides for **Archaeological Place-based Learning** and **Community Planning - Past, Present & Future**, which are designed for different levels of school-age learners. We designed another series of activities around **Community Engagement for Legacy and Impact** for further and higher education students, which could easily be adapted for lifelong learners. We have also developed a set of structured suggestions for **Community Archaeological Learning** which illustrates a horizontal pathway for lifelong learners. These resources are presented separately in the Archaeological Learning Toolkit (Northlight Heritage 2018).

Overview

- 7.7 As one of the principal ways of studying and understanding not only the historic environment but the different ways people have inhabited the world, archaeology has unique potential to benefit different learners in various contexts of formal, informal and non-formal learning. Learning that involves archaeology can deliver beneficial outcomes and outputs not only for individual learners but also for wider society across a range of educational, social, cultural, economic and environmental issues.
- 7.8 Archaeology can be a vehicle for constructing and conveying stories from the past which resonate with the present and illuminate the future. Past communities dealt with challenges and conditions that pertain today, whether in Scotland or other parts of the world. Bronze Age farmers experienced changing climatic conditions and had to adapt agricultural practices to ensure sustainability for their food supply, for example. Northern Pictish communities faced overwhelming cultural, linguistic and geographical incursions by Vikings. Early modern towns swelled with rural migrants seeking respite from famine and eviction and drawn by the labour demands of the Industrial Revolution. Throughout time, people have fashioned creative responses to their environment according to specific historical conditions, from Neolithic rock carvings to World War I trench art.
- 7.9 Archaeology can draw out narratives of human resilience, adaption and innovation. It can help us map dynamics of conflict and resolution between people of different ethnic origins, genders and belief systems. It can strengthen our sense of common humanity across millennia while helping us imagine and accept cultural difference and diversity.
- 7.10 Archaeological learning draws people outdoors, with benefits for health and wellbeing, and into museums to encounter the objects, buildings and landscapes of the past. It stretches learners' awareness of how different communities lived and the interplay between cultural and natural heritage. It can develop their capacities for observation, analysis, research, team-working and creative thinking, along with other skills that they can transfer to other professional and social arenas.

Archaeological learning in the national policy context

- 7.11 Section 4 sets out the key policy frameworks for learning, skills development and health and wellbeing. Aligning learning that involves archaeology to the outcomes defined in these frameworks will maximise its impact and benefits for learners, as well as ensuring the relevance and supporting the mainstreaming of archaeology and historic environment in local and national contexts. Archaeological policies have largely been incorporated into wider strategies, such as *Our Place In Time: the Historic Environment Strategy for Scotland* (2014) and *Going Further - the National Strategy for Scotland's Museums and Galleries* (2012).
- 7.12 Archaeological learning presents abundant opportunities for relevance and resonance to students and the communities of which they are part. There is thus high potential for archaeology, as part of the historic environment, to become integral to other areas of policy, such as the *National Planning Framework 3 and Scottish Planning Policy* and policies on Environment & Rural Development, Education, Lifelong Learning & Training and Local Government & Communities.

ARCHAEOLOGICAL LEARNING IN THE NATIONAL PERFORMANCE FRAMEWORK		
National Outcomes	National Indicators	Archaeological Learning: Potential benefits & impacts
CHILDREN AND YOUNG PEOPLE: We grow up loved, safe and respected so that we realise our full potential	Child social and physical development Child wellbeing and happiness Children's voices Healthy start Quality of children's services Children have positive relationships Children's material deprivation	Supporting the development of literacy and numeracy skills from an early age Providing opportunities for outdoor and play-based learning, with impacts on health and wellbeing
COMMUNITIES: We live in communities that are inclusive, empowered, resilient and safe	Perceptions of local area Loneliness Perceptions of local crime rate Community land ownership Crime victimisation Places to interact Access to green and blue space Social capital	Enhancing people's local sense of place by engaging them in understanding and interpreting their historic environment Providing opportunities for community learning and development that enhance social inclusion and cohesion and combat loneliness
CULTURE: We are creative and our vibrant and diverse cultures are expressed and enjoyed widely	Attendance at cultural events or places of culture Participation in a cultural activity Growth in the cultural economy People working in arts and culture	Encouraging participation in cultural activities around archaeology and the historic environment Supporting skills development and training that can lead to opportunities to work in the cultural sector
ECONOMY: We have a globally competitive, entrepreneurial, inclusive and sustainable economy	Productivity International exporting Economic growth Carbon footprint Natural capital Greenhouse gas emissions Access to superfast broadband Spend on research and development Income equalities Entrepreneurial activity	Promoting skills development to encourage entrepreneurial activity around archaeology and the historic environment, particularly in the tourism economy

ARCHAEOLOGICAL LEARNING IN THE NATIONAL PERFORMANCE FRAMEWORK		
National Outcomes	National Indicators	Archaeological Learning: Potential benefits & impacts
EDUCATION: We are well educated, skilled and able to contribute to society	Educational attainment Confidence of children and young people Resilience of children and young people Work place learning Engagement in extra-curricular activities Young people's participation Skill profile of the population Skill shortage vacancies Skills underutilisation	Supporting achievement of Curriculum for Excellence benchmarks and helping to deliver experiences and outcomes Providing opportunities for work place learning around archaeology and the historic environment Providing opportunities for the development of skills that are applicable in different work contexts
ENVIRONMENT: We value, enjoy, protect and enhance our environment	Visits to the outdoors State of historic sites Condition of protected nature sites Energy from renewable sources Waste generated Sustainability of fish stocks Biodiversity Marine environment	Supporting learning for sustainability for all audiences Creating outdoor learning opportunities Raising awareness of the conservation needs of historic sites, including in the marine environment Enhancing understanding of the relationships between cultural and natural heritage
FAIR WORK AND BUSINESS: We have thriving and innovative businesses, with quality jobs and fair work for everyone	The number of businesses High growth businesses Innovative businesses Economic participation Employees on the living wage Pay gap Contractually secure work Employee voice Gender balance in organisations	

ARCHAEOLOGICAL LEARNING IN THE NATIONAL PERFORMANCE FRAMEWORK		
National Outcomes	National Indicators	Archaeological Learning: Potential benefits & impacts
HEALTH: We are healthy and active	Healthy life expectancy Mental wellbeing Healthy weight Health risk behaviours Physical activity Journeys by active travel Quality of care experience Work related ill health Premature mortality	Encouraging physical and outdoor activity Providing opportunities for intergenerational learning and recovery through heritage that support mental wellbeing
HUMAN RIGHTS: We respect, protect and fulfil human rights and live free from discrimination	Public services treat people with dignity and respect Quality of public services Influence over local decisions Access to justice	
INTERNATIONAL: We are open, connected and make a positive contribution internationally	A positive experience for people coming to Scotland Scotland's reputation Scotland's population Trust in public organisations International networks Contribution of development support to other nations	Enhancing visitor experience by raising awareness of and appreciation for archaeology and the historic environment
POVERTY: We tackle poverty by sharing opportunities, wealth and power more equally	Relative poverty after housing costs Wealth inequalities Cost of living Unmanageable debt Persistent poverty Satisfaction with housing Food insecurity	

Table 3: Potential benefits and impacts of archaeological learning, mapped against National Outcomes and Indicators in the *National Performance Framework*.

7.13 The over-arching, 10-year vision expressed in the *National Performance Framework* (paragraph 4.4 and following), with the National Outcomes and National Indicators it sets out to measure progress, provides a useful structure against which to map archaeological learning provision. Table 3 sets out some potential benefits and impacts of archaeological learning for each National Outcome.

Archaeological Learning Framework Tool

7.14 Based on the results of research and consultation, we have developed an Archaeological Learning Framework Tool (Table 4) for mapping learning pathways. Using the tool, the design process begins by identifying the audience and proceeds to choose the strategic themes, the key skills, the approaches and methods and the areas and issues that are most appropriate for them and their needs and aspirations. It should finish by identifying the key benchmarks and indicators that learners will achieve at the end of the pathway. The narrative below explains each stage on the matrix in detail.

Audiences for Learning

7.15 Potential pathways begin with a consideration of who is learning:

- Early learners (Pre-school to P1)
- School pupils - First Level (P2 to P4)
 - Second Level (P5 to P7)
 - Third Level (S1 to S3)
 - Fourth Level (S4 to S6)
 - Senior Phase
- Vocational students in further education or apprenticeships
- University students
- Lifelong learners in formal, informal or non-formal contexts
- ESOL (English for speakers of other languages) learners

Members of any of these groups might have additional support needs of varying types. Section 9 below includes some online resources which can support the design of learning activities for those with different support needs.

Strategic Themes

7.16 We have identified a set of national priorities, as expressed in the *National Performance Framework* (NPF), the *National Improvement Framework* (NIF), the *Curriculum for Excellence*, the *Skills for Scotland* strategy and other policies and strategies (see section 4), and have distilled these into nine Strategic Themes. Archaeological learning which is designed around these will have the greatest impact and benefit for learners.

7.17 **Learning for sustainability:** This is a theme across all *Curriculum for Excellence* areas, as well as an approach to learning. It weaves together key curriculum themes of sustainable development education, global citizenship, outdoor learning and health and wellbeing. It is 'concerned with knowing and understanding our world and equipping children and young people with values, knowledge, attitudes, capabilities and skills to enable them to contribute effectively to the common good' (Education Scotland 2015). Archaeological learning can contribute significantly to it by building knowledge and understanding of how people in the past lived in relation to their environment and the

economic, ecological, social and cultural dynamics that have made past communities come and go (Carman 2016).

- 7.18 **Local sense of place:** Place-based learning encourages examination of people's everyday lives and the ways they inhabit places and how human culture and nature interact (Mannion et al 2010). Building sense of place in learners of any age contributes to social inclusion and is a key outcome in the *NPF*, as well as for local government. Archaeology and the historic environment are important factors in shaping the character of places; learning about them can thus inform local sense of place in a unique way.
- 7.19 **Global citizenship:** Another key theme of the *Curriculum for Excellence*, this encompasses sustainable development, which enables learners to recognise the interdependence of people and the environment; international education, which prepares them for life and active participation in a multicultural society, and citizenship, which develops understanding of their rights and responsibilities (Education Scotland 2010). It is embedded in the experiences and outcomes across all areas and provides a holistic approach to developing the four capacities. Archaeological learning supports it by helping people understand other (past) societies' values and traditions, Scotland's role in the world historically, past interdependence between people and environment, and the diversity of Scotland's history, culture and heritage.
- 7.20 **Literacy and numeracy:** These are priorities for education as set out in the *NIF* and are among the essential skills defined in *Skills for Scotland*. Without literacy and numeracy skills, children's potential for learning is comprised, and adults who lack these skills experience much higher levels of social and economic disadvantage (Scottish Government 2009). Archaeological learning has high potential to support development of these skills from an early age by providing opportunities to talk, listen, read, write, count, measure, etc. Especially effective here could be the concept of artefactual literacies, (Pahl & Rowsell 2010), which explores ways to engage pupils with literacy by drawing in their extra-curricular identities and using objects to generate stories.
- 7.21 **Equality and diversity:** Promoting this is an important aspiration in the *NPF* and the *Curriculum for Excellence*, by encouraging children and young people to learn about their own and other cultures and develop respect for difference. Archaeological learning can support intercultural awareness, helping learners understand and appreciate differences between their communities and past ones.
- 7.22 **Health and wellbeing:** A healthy, active population is one of the National Outcomes of the *National Performance Framework*. By offering opportunities for outdoor, community and intergenerational learning, archaeological learning can support the development of learners' physical and mental health.
- 7.23 **Outdoor learning:** The recognised benefits of this approach extend to skills development, mental and physical health and wellbeing, learning for sustainability and social cohesion and inclusion. It plays an integral role in the *Curriculum for Excellence* (Scottish Government 2010). Archaeological learning in an outdoor environment has enormous potential to benefit learners for all these reasons.
- 7.24 **Social inclusion:** The *NPF* sets as a National Outcome having communities that are inclusive, empowered, resilient and safe. Social inclusion is about enabling people and communities to participate fully in society. Archaeological learning can promote this by helping people develop a strong local sense of place and by offering opportunities that counter social exclusion and support community development.

AUDIENCES FOR LEARNING				
Early Learners First Level school pupils Second Level school pupils Third/Fourth Level school pupils		Senior Phase school pupils Further education students Higher education students		Lifelong learners ESOL learners NB: Each audience group will include learners with additional support needs
Design learning around	that helps learners develop	using	through engagement with	and that supports them to achieve
STRATEGIC THEMES	KEY SKILLS	APPROACHES & METHODS	AREAS & ISSUES	KEY BENCHMARKS & INDICATORS
Learning for sustainability Local sense of place Global citizenship Literacy & numeracy Equality & diversity Health & wellbeing Outdoor learning Social inclusion Enterprise and employability	Thinking skills Literacy & numeracy skills Oral & written communication skills Information & communication technology Working with others Leadership Personal & social health & wellbeing skills Personal learning planning & career management skills Physical co-ordination & movement skills Enterprise & employability skills Social responsibility skills	Outdoor learning Digital visualisation Creative learning Active learning STEM-based learning Play-based learning Co-creation	Environment & climate change Expressive arts Gender politics Mathematics Multi-culturalism Philosophy Religious & moral education Science Social studies Technologies Community development	<i>Curriculum for Excellence</i> Experiences & Outcomes (early learners, primary & Secondary pupils, learners with ASN, school refusers) Core Skills (SQA Levels 2-6 learners) Skills for Work (further education students) Graduate Attributes & Subject Benchmarks (higher education students) Skills Passport (lifelong learners) National Indicators (all learners) Wellbeing Indicators (all learners): <ul style="list-style-type: none"> • Safe • Healthy • Achieving • Nurtured • Active • Respected • Responsible • Included Awards: <ul style="list-style-type: none"> • Heritage Heroes • Youth Achievement • Community Achievement

Table 4: The Archaeological Learning Framework Tool.

- 7.25 **Enterprise and employability:** Helping learners acquire knowledge and practical understanding of the world of work and the skills and positive attitudes needed to support the country's sustained economic growth are key strands of the *Curriculum for Excellence* and *Skills for Scotland* strategy. Archaeological learning for young people and adults can be designed to support the development of skills that they can transfer into the world of work.

Key Skills

- 7.26 'Skill', narrowly defined, means an assessable, acquired capability to engage in particular activities and specifically 'the ability, competency, proficiency or dexterity to carry out tasks that come from education, training, practice or experience.... [which] can enable the practical application of theoretical knowledge to particular tasks or situations'. More broadly defined, it includes behaviours, attitudes and personal attributes that help people effectively engage in certain contexts such as education and training, employment and social situations, and which are not readily assessable (Scottish Government 2007a, 59).
- 7.27 Core skills are defined by Education Scotland as 'the broad skills that help people achieve success in many situations in life and work.... [and that] provide a basis for learning throughout life, for working effectively, and for handling problems' (education.gov.scot/nationalqualifications/about/Core). The five core skills are: communication, numeracy, information and communication technology, working with others and problem-solving (SQA 2013). Skills for learning, life and work which school pupils should acquire within the *Curriculum for Excellence* are set out in *Building the Curriculum 4: Skills for learning, skills for life and skills for work* (Scottish Government 2009, 10-19), and these articulate with skills reviewed in *Skills for Scotland: A lifelong skills strategy* (2007) in the context of lifelong learning.
- 7.28 The core skills and skills for learning, life and work are collated and defined as:
- 7.29 **Thinking skills**, defined as follows:
- **Remembering** involves activities such as recall, recognition or locating information.
 - **Researching** involves locating information using appropriate tools and methods.
 - **Understanding** might involve activities such as describing, explaining, summarising and translating;
 - **Applying** requires learners to apply knowledge and understanding in different contexts.
 - **Analysing** requires learners to break down information into component parts and search for relationships.
 - **Evaluating** involves making an informed judgement about something, such as an issue or method. Activities such as comparing, appraising, prioritising, rating or selecting, could involve learners in evaluating.
 - **Creating** happens when learners are required to generate new ideas and products through activities such as designing, creative writing, planning, reconstructing, inventing, formulating, producing and composing.

Designers of archaeological learning should build conscious development of these skills into activities for learners.

- 7.31 **Literacy & numeracy skills:** Using language, symbols, text and data of all kinds to explore, understand and use important concepts and ideas in personal, social and working life. Literacy skills allow people to engage fully in society and in learning through different forms of language and a range of texts. Numeracy skills help develop confidence and competence in solving problems, interpreting and analysing information, making informed decisions, functioning responsibly in everyday life and contributing effectively to society. Both sets of skills increase people's opportunities in the world of

work and lay the foundations for lifelong learning. Designers of archaeological learning should think creatively about how to maximise opportunities for enhancing these skills in learners.

- 7.32 **Oral and written communication skills:** These form part of the general literacy skill set, but are worth drawing out because of their importance in many learning and work contexts.
- 7.33 **Information & communication technology:** Along with literacy and numeracy, a foundation skill for the further acquisition of skills and knowledge, as well as being essential for employability.
- 7.34 **Working with others:** Planning and carrying out projects in small groups, sharing tasks and responsibilities and being willing to learn from and with others, as well as individually. This can help people learn to assert their own views, listen to others' views and become good team leaders who can use others' strengths to best effect. Designers of archaeological learning should consider how they can provide opportunities for interaction and cooperation that encourage learners to work together collaboratively.
- 7.35 **Leadership:** Learning to value others' views and contributions, help others envisage new ways of thinking and working, listen well and understand the strengths and values of other team members and set the standard for team achievements. Developing leadership skills and the confidence that underpins them can help young people progress into education, training and employment. Designers of archaeological learning should consider how their activities can help learners develop these skills through team working.
- 7.36 **Personal and social health and wellbeing skills:** Essentially, the capacity to form and sustain good personal, social and professional relationships, which underpin successful learning at any age. They support the development of self-esteem and confidence in learning, resilience in the face of setbacks and respect for others' ideas. Skills in personal learning planning and career management, working with others, leadership, physical coordination and movement and enterprise and employability relate closely to health and wellbeing skills.
- 7.37 **Personal learning planning and career management skills:** When they are involved in talking about planning their own learning from the early years on, children develop the skills to identify, discuss and reflect on their own evidence for learning, using appropriate language; take responsibility for managing their learning; help plan their next steps and set learning goals, and make informed choices about future learning. Building on these skills in secondary school, learners should develop the confidence and self-awareness to gather information on options for education and employment. Those designing archaeological learning should think about building time and mechanisms for self-evaluation into projects and activities, and how best to encourage learners to set goals for their own learning and future work.
- 7.38 **Physical co-ordination and movement skills:** An important contribution to health and wellbeing, these skills include balance, rhythm and sequencing, spatial orientation and reaction to visual and auditory stimuli. They can also support learners to develop healthy social interactions, relationships and resilience. Designers of archaeological learning should think about how their activities could help learners apply and develop these skills.

7.39 **Enterprise and employability skills:** Collectively, these ensure people are ready for the world of work in general (rather than a specific occupation) and are transferrable to various contexts. Some of them overlap with other skill sets, such as thinking and leadership skills. They include the ability to:

- plan and organise work;
- manage time effectively;
- solve problems;
- think critically and creatively;
- recognise need and opportunity, and influence and negotiate with others to take ideas forward;
- evaluate risk to inform individual and collective decision making;
- take the initiative, working with and leading others;
- be creative, flexible and resourceful with a positive attitude to change;
- have self-awareness, optimism and an open mindset;
- have a modern world view and show resilience, adaptability and a determination to succeed; and
- discuss, set and meet roles and expectations in a working environment.

Designers of archaeological learning should think about how activities can help young people develop and apply these skills and give them opportunities to engage with the world of work and consider how it relates to their future learning and career options.

7.40 **Social responsibility skills** which involve respecting individual and cultural differences and relate to good citizenship. Although not explicitly drawn out in curriculum or skills strategy documents, they are implicit in the values expressed in the *NPF*. Skills include:

- **Community building** through activities that enrich or enhance others' environment or experiences.
- **Teaching** or assisting others to acquire new skills, knowledge and attitudes.
- **Empathy** for others' views and experiences.
- **Multicultural understanding** across differences in language, religion and tradition.

Approaches & Methods

7.41 The approaches and methods in the Archaeological Learning Framework Tool are defined below. Definitions are drawn from the *Curriculum for Excellence*, Cambridge Assessment (2017), Mannion (2010), Breathnach (2017) and Sefton-Green (2008).

- **Outdoor learning:** Active learning that takes place in an outdoor environment.
- **Digital technologies:** Systems that encourage active learning, knowledge construction, inquiry and exploration on the part of learners, and can also allow for remote communication and data sharing between teachers and/or learners in different physical classroom locations.
- **Creative learning:** Arts and cultural activity that leads to the acquisition of skills and knowledge, including learning through an art form and developing skills in imagination and creative practice
- **Play-based learning:** It engages and challenges children's thinking using real and imaginary situations through spontaneous or planned, purposeful play.
- **Active learning:** Helps learners acquire knowledge and skills through experiencing or actively participating in archaeology / heritage.

- **Place-based learning:** Immerses learners in local heritage, cultures, landscapes, opportunities and experiences and uses these as a foundation for cross-curricular learning.
- **STEM-based learning:** Helps learners acquire skills and knowledge in areas of Science, Technology, Engineering and Mathematics.
- **Play-based learning:** Through either free play or guided activities, children learn through first-hand experience in ways that motivate, stimulate and support them to develop skills, concepts and concentration.
- **Co-creation:** Learners work with teachers to design learning pathways.

Areas & Issues

7.42 Consultation and research identified a number of areas and issues around which effective archaeological learning could be designed. The first eight in this list are *Curriculum for Excellence* areas, while the following four are current social issues highlighted in the curriculum and lifelong learning strategies.

- Environment & climate change
- Expressive arts
- Literacy and English
- Numeracy and Mathematics
- Religious & Moral Education, including Philosophy
- Science
- Social Studies
- Technologies
- Gender politics
- Multi-culturalism
- Community development

Key Benchmarks & Indicators

7.43 Benchmarks and indicators are the measurements by which education providers measure successful learning in formal contexts, as well as more qualitative indicators of positive outcomes in informal contexts.

7.44 ***Curriculum for Excellence Experiences and Outcomes*** apply to Early Learners and pupils at primary and secondary school up to Fourth Level, including those with Additional Support Needs (ASN) and school refusers (pupils who refuse to attend school due to emotional distress).

7.45 **Core Skills** (communication, numeracy, ICT, problem-solving and working with others) can be formally acquired through completing a named Core Skills unit, or any unit, course or award which has been audited and validated against the Core Skills framework (SQA 2013). These are available to learners at SQA Level 2-6 (see Table 2), including students at secondary schools, colleges or HE institutions or those taking courses with training providers or at workplaces.

- 7.46 **Skills for Work** courses focus on helping young people and adults acquire generic employability skills which are needed to succeed in the workplace. Skills are learned through various practical experiences linked to vocational areas. Learning environments can include colleges, training providers or workplaces and the courses provide progression pathways to further education, training and employment.
- 7.47 **Graduate Attributes** describe the qualities and skills that HE students should develop, including mastery of subject-specific knowledge, study skills and digital literacies, while **Subject Benchmarks** describe the nature of study and the academic standards that graduates are expected to achieve (QAA 2017).
- 7.48 **Skills Passports** allow lifelong learners, FE and HE students to collate their career qualifications and references and manage their training and job applications. There are online tools available, including some specific to certain sectors.
- 7.49 **Archaeology Skills Passports** are available to purchase online and allow students preparing for a career in archaeology to chart their skills, training and progression (www.archaeologyskills.co.uk/).
- 7.50 **National Indicators** to measure progress against National Outcomes are set out in the *National Performance Framework* (2018). Archaeological learning has good potential to deliver to a number of them (see Table 3).
- 7.51 **Wellbeing Indicators** were established in The Children and Young People (Scotland) Act 2014 and defined as:
- **Safe:** Protected from abuse, neglect or harm at home, at school and in the community.
 - **Healthy:** Having the highest attainable standards of physical and mental health, access to suitable healthcare and support in learning to make healthy, safe choices.
 - **Achieving:** Being supported and guided in learning and in the development of skills, confidence and self-esteem, at home, in school and in the community.
 - **Nurtured:** Having a nurturing place to live in a family setting, with additional help if needed, or, where possible, in a suitable care setting.
 - **Active:** Having opportunities to take part in activities such as play, recreation and sport, which contribute to healthy growth and development, at home, in school and in the community.
 - **Respected:** Having the opportunity, along with carers, to be heard and involved in decisions that affect them.
 - **Responsible:** Having opportunities and encouragement to play active and responsible roles at home, in school and in the community, and where necessary, having appropriate guidance and supervision, and being involved in decisions that affect them.
 - **Included:** Having help to overcome social, educational, physical and economic inequalities, and being accepted as part of the community in which they live and learn.
- 7.52 **Heritage Hero Awards** are designed to improve learners' self-confidence and wellbeing through engagement with challenging heritage projects; to inspire young people to develop a lifelong interest in Scotland's past; to increase awareness of how to access Scotland's heritage in schools, youth groups and similar organisations, and to help foster links between heritage organisations, community groups

and young people. They are administered by Archaeology Scotland (archaeologyscotland.org.uk/learning/heritage-hero-awards/).

- 7.53 **Youth Achievement Awards (YAA)**, aimed at young people age 14 and over, are designed to support the aims and purposes of the *Curriculum for Excellence*, close the attainment gap and deliver the Developing the Young Workforce agenda. They can be incorporated into existing or planned activities and delivered in a range of settings, including youth and community projects, schools and colleges. They are credit-scored by the SQA to levels 4-7 on the Scottish Credit and Qualifications Framework. They follow a plan-do-review process which enables young people to more effectively recognise and articulate their learning and achievements within different contexts, increasing self-esteem, improving motivation and keeping them engaged with learning. YAA progress over four levels: Bronze is about young people taking part; Silver is about assisting and sharing responsibility with others; Gold is about taking individual responsibility to organise and lead, and Platinum (for age 16+) is about undergoing training and creating learning opportunities for others (www.youthscotland.org.uk/awards/youth-achievement-awards/).
- 7.54 **Community Achievement Awards (CAA)** are designed to support, recognise and accredit learning and achievement in a community setting. They provide formal recognition of volunteering and community-based projects and give people supporting their communities the chance to progress with their own learning journeys and encourage others to do the same. through Community Learning and Development. They are administered by various colleges and third-sector organisations. CAAs are accredited under the SCQF; achievement of Levels 4-5 requires 40 hours of learning, Level 6 requires 60 hours and Level 7 requires 80 hours. It proceeds over three stages: planning, implementing and evaluating (see, for example, www.awardsnetwork.org/awards/glasgow-kelvin-college/community-achievement-award).

Conclusions

- 7.55 This study has scoped out ways that archaeological learning can benefit different audiences and deliver positive impacts in the context of national policy frameworks and educational provision. Based on the results of consultation feedback and research, it proposes an outcome-led approach to designing archaeological learning resources and activities that are aligned to learners' needs and aspirations.
- 7.56 However, given the wide range of contexts and audiences for learning and the great variety in their needs, more detailed research and development is needed on the most appropriate learning approaches for specific audiences. This is especially the case for learners with additional support needs, early learners and lifelong learners in Community Learning and Development contexts.
- 7.57 Our research and consultation highlighted the importance of support for learning at an early age. Supporting learning and especially the development of literacy and key skills in early learners, particularly those whose attainment is in the lower 20%, can have long-term benefits for their later progression in learning.
- 7.58 Learning that involves archaeology - with its potential for tactile, sensory and outdoor aspects - has great potential to benefit those who struggle to learn in traditional, formal settings and who need additional support. However, the huge variation in what comprises additional support needs - from

specific health or disability to issues to challenging family circumstances, social and emotional factors and problems with the learning environment - means that more work is needed to develop the right approaches and resources to address specific kinds of need. More training and support are also needed in the archaeology and heritage sectors, to make practitioners aware of the range of additional support needs and how best to meet them.

- 7.59 While archaeological learning has potential to benefit anyone, the real opportunities for progress and innovation may lie in developing ways to engage audiences who are not already engaged in archaeology and heritage, and who may have the greatest need for improved life chances. Archaeological learning which engages lifelong learners in their own community and workplace contexts can open up horizontal pathways to learning that can support wider outcomes such as social inclusion and improved health and wellbeing.
- 7.60 Lifelong learning in the Community Development and Learning context could be effectively designed and delivered through partnerships between archaeological educators, service providers that support individual and community development, and educational institutions which prioritise widening access and delivering impact through public engagement. Integral to that approach would be the effective monitoring and evaluation of outcomes for participants, with the collection of qualitative and quantitative insights, on a longitudinal basis.
- 7.61 The challenge that faces archaeological practitioners, when working with learners in any context, is first to equip ourselves with knowledge of their needs and aspirations. We can then develop ways of engaging them on their own terms (for example, through co-production, place-based and community learning) which help deliver outcomes that match their needs and align to national, mainstream policy.

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Resources for Additional Support Needs Provision

<http://enquire.org.uk/>

Enquire is the Scottish governments advice service for additional support for learning. Their mission is to:

- raise awareness of children's rights to extra support in school;
- help families and schools work together to ensure children get the support they need; and
- provide advice to children and young people who might be struggling in school.

<https://reach.scot/>

Reach is Enquire's website and is dedicated to giving advice and information to pupils about their rights to feel supported, included, listened to and involved in decisions at school.

With practical tips on what can help, rights information and young people sharing their views and experiences on all sorts of issues at school, Reach is the go-to source of advice on helping pupils make the most of their education.

<http://www.autismtoolbox.co.uk/>

The Autism Toolbox is a resource to support the inclusion of children and young people with autism spectrum disorder in mainstream education services in Scotland. As well as introducing and describing some of the more common challenges a pupil with autism might face, it provides real life case studies from Scottish schools and practical examples of support that can be applied to different settings. It also signposts other useful websites.

<https://www.dyslexiascotland.org.uk/>

A Scottish charity supporting people affected by dyslexia,

<http://www.disabilityscot.org.uk/>

Disability Information Scotland helps to guide people through the maze of disability information. We offer information via:

9 Appendices

Appendix 1: Consultees

Those consulted as part of the project, including online survey respondents, focus group participants and individual consultees, represented the following organisations.

Aberdeenshire Council Archaeology Service
Aboyne Academy
Archaeology for Communities in the Highlands (ARCH)
Archaeology North Ltd
Archaeology Scotland
ARCHAS Ltd
Arngask Primary School
Bothwellpark High School
Cameron Archaeology
Centre for Battlefield Archaeology
Centre for Open Learning, University of Edinburgh
Chapbook History
Children's Services
Christie Park Primary School
City of Edinburgh Council Archaeology Service
City of Glasgow College
City of Glasgow Group
Cleish Primary School
Clifton Hall School
Clydebank High School
Clydesdale Community Initiatives
Comhairle nan Eilean Siar
Culloden Battlefield Visitor Centre
Culture Perth and Kinross
Doonfoot Primary School
Dumfries and Galloway Council
Earlston High School
Edinburgh Archaeology Outreach Project (EAOP)
Education Scotland
Enable Heritage
Enabled Archaeology Foundation
Extended Outreach
Falkirk Council
Forest Enterprise Scotland / Forestry Commission Scotland
Foulford Primary School
Gardiner & Theobald LLP
Glasgow City Council
Glasgow Life
Glasgow Museums
Gumption Girls
Harestanes Primary School
Headland Archaeology
Hecklegirth Primary School

Highland Archaeology Services Ltd
Historic Environment Scotland
Immersive Minds
Inherit (Institute for Heritage & Sustainable Human Development)
Inverclyde Council
Jordanhill School
Jorvik Viking Centre
Lairg Local History Society
Liberton High School
MacLeod Archaeology
Morlaggan Rural Settlement Group
Museum nan Eilean
National Museums Scotland
National Trust for Scotland
Nesting Primary School
North of Scotland Archaeological Society
Our Lady of the Annunciation Primary School
Phoenix Futures
Quarter Primary School
Rathmell Archaeology Ltd
Reach PLC
Renfrewshire Council
Rubicon Heritage Services
Sacred Heart Primary School
Scotland's Urban Past (HES)
Scottish Book Trust
Scottish Civic Trust
Shetland Amenity Trust
Society of Antiquaries of Scotland
St Edwards Primary School
St Joseph's RC Primary School
St Mungo's High School
St Vincent's Primary School
South Ayrshire Council
Stirling Council
The Engine Shed
The Shielling Project
University of Edinburgh
University of Glasgow
University of Stirling
University of Strathclyde
Wessex Archaeology
WestLand Resources Inc
Youth Community Support Agency

Appendix 2: Archaeological Learning Case Studies

This section describes some current and recent examples of archaeological learning for different audiences that illustrate a range of approaches.

School pupils and further/higher education students

FORESTRY COMMISSION SCOTLAND LEARNING RESOURCES

Audience(s): Level 2 and other school-age learners

Approach(es): Outdoor, creative and active learning

Weblink: scotland.forestry.gov.uk/managing/work-on-scotlands-national-forest-estate/conservation/archaeology/learning

Forestry Commission Scotland have created a set of highly engaging, visually appealing resources to support Outdoor & Woodland Learning Scotland and help deliver *Scotland's Archaeology Strategy*. The activities, pitched at *Curriculum for Excellence* Level 2 learners but adaptable for other levels, are designed to encourage place-based learning on the National Forest Estate and other outdoor environments. They include creative and practical exercises for children along with advice for teachers on planning, accessibility and evaluation. The resources produced cover *Outdoor Archaeological Learning*, *Recumbent Stone Circles*, *The Picts*, *Wolf Brother's Wildwoods* and *Trees and the Scottish Enlightenment*.

DIGGING IN / WAR & PEAS / WINGS TO WAR

Audience(s): School-age learners, further education and higher education students

Approach(es): Outdoor, creative, active and STEM-based learning

Weblink: diggingin.co.uk / warandpeasplot.co.uk / wingstowar.info

This suite of learning projects, designed and delivered by Northlight Heritage in partnership with Glasgow City Council and the University of Glasgow, explored the impact of World War I on individuals, communities and society through a programme of outdoor learning for schoolchildren and events for the public in 2015-19. They were based around the experimental creation of WWI trench systems in Pollok Country Park, which later expanded to include a demonstration Home Front allotment plot and a replica WWI Antoinette pilot trainer. Over 5,000 schoolchildren took part in the learning programme. Role play and hands-on learning activities using trench periscopes and handling materials in the immersive environment of the trenches, as well as the garden plot and pilot trainer, helped them learn about various aspects of WWI experience, ranging from technology to medicine, nutrition and ethics to social relations across gender and political divides. The programme also involved training university students and other volunteers to design and deliver effective learning.

CRAFTING THE PAST

Audience(s): School-age learners (as well as adults)

Approach(es): STEM-based and play-based learning, digital visualisation

Weblink: archaeologyscotland.org.uk/learn-resources/crafting-the-past/

This games-based learning initiative, created by Immersive Minds in partnership with Dig It!, delivers archaeology to a range of audiences by accurately recreating locations in Minecraft, using photographs, visits and historical records, so that students and digital tourists alike can visit Scottish heritage sites in their own virtual world.

YOUNG ARCHAEOLOGISTS CLUBS

Audience(s): School-age learners

Approach(es): Outdoor and active learning

Weblink: <https://archaeologyscotland.org.uk/the-young-archaeologists-club/>

YAC has a network of local clubs across the UK where 8–16 year olds can get their hands mucky doing real archaeology. Each club is run by a team of adults; either volunteers or paid staff at museums and other organisations. Clubs usually meet once a month for couple of hours on weekends and sometimes YAC clubs run whole-day events. Clubs engage in various archaeological activities, including visiting and investigating archaeological sites and historic places, trying out traditional crafts and taking part in excavations. YAC is co-ordinated by the Council for British Archaeology, and supported in Scotland by Historic Environment Scotland and Archaeology Scotland.

THE SHIELING PROJECT

Audience(s): School-age learners and families

Approach(es): Outdoor and active learning

Weblink: www.theshielingproject.org/

This off-grid outdoor learning centre is based in Glen Strathfarrar, near Beaully. It engages visitors of all ages, but especially school-age children, in hands-on activities that help them learn about shieling life in Scotland's past and consider options for a sustainable future. The project is all about outdoor living – from looking after our livestock to making real buildings, from weaving baskets to making burgers from the meat we have raised here. The tradition of the shieling where folk lived outdoors all summer herding the cattle, gives us a window onto the past, but also helps us look forward to a sustainable future. The centre runs an outdoor nursery, children's and family camps and residential courses for school pupils and Duke of Edinburgh Award candidates.

THE SCOTTISH CRANNOG CENTRE

Audience(s): School-age learners and further/higher education students

Approach(es): Outdoor and active learning

Weblink: www.crannog.co.uk/

The reconstruction of an Iron Age loch dwelling on Loch Tay provides the setting for immersive learning about the character of life through the medium of experimental archaeology and hands-on activities. The centre hosts visits for school groups as well as university students of archaeology, architecture, art, photography and engineering and also offers school-based workshops and handling sessions.

WEAVE PARKHEAD!

Audience(s): Further education students

Approach(es): Creative learning

Weblink: weaveparkhead.weebly.com/

Students from Kelvin College learned screen-printing techniques and created an exhibition as part of a collaborative project between Northlight Heritage and schools, community groups and textile artists in Glasgow's east end. The project celebrated the history and heritage of Parkhead, from handloom weaving to steel forging, workers' cooperatives and striking architecture through a series of workshops and events that combined weaving, creative craft skills and historical research to reveal the spirit of Parkhead – the stories, people and places that make it unique.

Lifelong and community-based learning

CANAL COLLEGE

Audience(s): Learners aged 16-30, not in employment, education or training

Approach(es): Outdoor and active learning

Weblink: scottishwaterwaystrust.org.uk/project/canal-college/

Working in partnership with Archaeology Scotland, Scottish Waterways Trust runs Canal College, a programme in which young people, some with ASN, learn practical heritage skills outdoors and earn awards and certificates to get them on the path to work. It aims to inspire young people to create brighter futures for themselves, build their confidence, let them experience team-working and improve their health and wellbeing. It also supports them to achieve awards like the John Muir Award, receive SQA accredited training, enhance social skills and overcome barriers to work and education. Participants experience traditional heritage skills like stone masonry and lime mortaring as well as archaeology and vegetation management. Over 70% of young people completing Canal College secure work, get into further education or take on a new volunteering role.

TARRADALE THROUGH TIME

Audience(s): Lifelong learners, school-age learners

Approach(es): Outdoor, creative and active learning

Weblink: <http://www.tarradalethroughtime.co.uk/index.asp>

This multi-year project provides opportunities for people to get involved in discovering aspects of local heritage and archaeology and acquire skills in archaeological techniques, while helping increase knowledge of the long-term settlement history, subsistence practice and land use of an area of Highland Scotland. It engages different generations in investigation and interpretation. The longevity of the project has helped build interest and awareness among local communities of project activities and findings.

STOBS CAMP PROJECT

Audience(s): Lifelong learners

Approach(es): Outdoor and active learning

Weblink: archaeologyscotland.org.uk/projects/stobs-camp-project/

Archaeology Scotland leads the multi-year community project focused on the heritage of Stobs Camp in the Scottish Borders, which was an arena for Scotland's preparation for war and the subsequent handling of First World War prisoners, both civilian and military. It aims to better understand Stobs Camp and the role it played, to value, share and commemorate Stobs and the people connected to it and to protect the camp for future generations. Archaeology Scotland engages various local community organisations, landowners and schools in learning about the site's heritage, for example through surveying physical remains and conducting oral history and genealogical research.

DIVING FOR PEARLS

Audience(s): Lifelong learners, BAME audiences

Approach(es): Creative and active learning

Weblink: northlight-heritage.co.uk/conc5/index.php/whatwedo/diving-pearls/

This participatory, multi-media project by Govan & Craigton Integration Network and Northlight Heritage explored the cultural, social and economic impact of the shipbuilding industry on the population of Govan. It brought together people with migrant histories - from the descendants of Highland and Irish settlers to more recent arrivals from Europe, as well as asylum seekers and refugees from around the world. A series of accessible, hands-on workshops led participants to explore the history of Govan and facilitated wider discussion of shared histories of journey and migration.

MERKINCH WELFARE HALL - FIT FOR THE FUTURE

Audience(s): Lifelong learners, school-age learners, young adults

Approach(es): Creative and active learning, co-production

Weblink: www.merkinchwelfarehall.org.uk/

The refurbishment of the early 20th-century Merkinch Welfare Hall in Inverness brought the building back into productive use as a community asset. It was accompanied by an ambitious, inclusive outreach programme that engaged the local community in researching and celebrating the building's past through open days, street art, historic archive research, public lectures, photographic workshops and training courses, school learning opportunities and community information and technology initiatives.

DISCOVER THE HEART OF NEOLITHIC ORKNEY THROUGH THE COMMUNITY'S EYES

Audience(s): Lifelong learners, school-age learners

Approach(es): Creative and active learning, co-production

Weblink: www.historicenvironment.scot/archives-and-research/publications/publication/?publicationId=023728f8-6240-4a06-a4fd-a6270090b2f1

A community mapping project aimed to capture what the Heart of Neolithic Orkney World Heritage Site means to the local community. Pupils from Stenness Community School, Voluntary Action Orkney's Connect project, users of the West Mainland Day Centre and other members of the local community contributed their stories and memories to create a unique map of the World Heritage Site. The map, designed by a local illustrator, incorporates images, poems and stories of walks, wildlife sightings, sounds, myths and legends and attests to the emotional connections people have with specific sites. It was developed with support from Historic Environment Scotland and the University of the Highlands and Islands Archaeology Institute.

Audiences with additional support needs

THE INCLUSIVE ACCESSIBLE ARCHAEOLOGY PROJECT

Audience(s): Learners with disabilities

Approach(es): Active learning

Weblink: archaeologyuk.org/accessible/

Legislation requires employers and educational institutions to make reasonable adjustments to ensure that disabled persons are not placed at a substantial disadvantage in comparison to persons who are not disabled. In response to this, work has been done in higher education establishments to make campus-based teaching accessible; however, much less effort has been made to make field trips and fieldwork inclusive, even though fieldwork training and site visits are key components of archaeological degrees. The Inclusive Accessible Archaeology Project (Phillips et al 2007) was set up to investigate how archaeological projects could address this imbalance and provide guidelines of good practice for inclusion in archaeological field work training and field trips and for making archaeological excavations accessible to the general public. The project also developed a system that allowed archaeological students to self evaluate their abilities and for projects to make suitable anticipatory adjustments accordingly.

CAVLP HERITAGE - CLYDE AND AVON VALLEY LANDSCAPE PARTNERSHIP

Audience(s): Learners with various support needs

Approach(es): Outdoor and active learning

Weblink: communityactionlan.org/

From 2015-18, Northlight Heritage delivered CAVLP Heritage as a partner on the Clyde and Avon Valley Landscape Partnership. One strand of this involving collaboration with programme partners Clydesdale

Community Initiatives, a social enterprise that works with a range of people with support needs, in the context of the Community Action Lanarkshire Project. Participants took part in workshops on the theme of Celebrating Communities of the Past, in which they researched the archaeology of the CCI premises at Langloch Farm and discovered evidence for activity from later prehistory through the Industrial Revolution and to the present day. Helen Thompson of CCI described it as

a fantastic opportunity for our participants (adults and young people), most of whom have ASNs and/or mental health and other long term health issues. This type of hands-on archaeology provides a great way to engage people who are isolated or disengaged from the mainstream due to health issues, disabilities or other disadvantage. It is also an excellent way to improve people's health and wellbeing.

The sessions delivered on the Five Ways to Wellbeing model developed by the Centre for Wellbeing, New Economics Foundation, which captures a person's wellbeing based on five key areas – Keep learning, Be active, Take notice, Give and Connect. Helen added:

[The sessions] also generated a lot of excitement and opened people up to think in new ways about their surroundings. [They] were all tailored to the needs of our groups while at the same time ensuring that [participants] were able to contribute to the archaeological investigations, which again gave everyone a great sense of contribution. The sessions were physical, sensory, outdoors, environmental and some also included map reading and a little online research, all of which was good for health and soul!

One of the participants gave the following feedback:

I have been isolated for a long time with depression and anxiety, but the connections I have made – with people and the environment – are showing me possibilities that I could not see before, and my future looks brighter as a result. I believe that these activities and this feeling of connection can work for others, too, which makes our use and preservation of the landscape vitally important.

HUMAN HENGE

Audience(s): Learners with mental health conditions

Approach(es): Active, outdoor and creative learning

Weblink: humanhenge.org

Human Henge is a ground-breaking culture therapy project about archaeology, mental health and creativity, explored in journeys across the Stonehenge World Heritage Site. It is run by the Restoration Trust in partnership with Richmond Fellowship, Historic England, the National Trust and Bournemouth University, and supported by Avon and Wiltshire Mental Health Partnership NHS Trust. It draws on ideas that Stonehenge was once a place of healing and examines whether a creative exploration of historic landscapes can help people with mental health conditions. Through a programme of participant-led activities, local people living with mental health problems and on low incomes come together for fun, therapeutic adventures. Accompanied by curators and artists, archaeologist Professor Tim Darvill and musician and creative facilitator Yvette Staelens, they explore the monuments, features and layers of

meaning in the Stonehenge landscape.

NATIONAL MUSEUMS OF SCOTLAND

Audience(s): Learners on the autism spectrum

Approach(es): Active learning

Weblink: www.nms.ac.uk/national-museum-of-scotland/plan-your-visit/events-and-resources-for-autistic-people/

National Museums Scotland is committed to encouraging children and young people on the autism spectrum to visit and enjoy the national museums, they have also made their museums accessible for those with physical disabilities. There are a range of initiatives to support and welcome families with autistic children to the National Museum of Scotland in Edinburgh. This includes a useful visitor pack and resources to plan visits. They have also implemented early doors and late night opening times to encourage visits at quieter times.

JORVIK VIKING CENTRE, YORK

Audience(s): Learners on the autism spectrum

Approach(es): Active learning

Weblink: www.jorvikvikingcentre.co.uk

The Centre has been awarded an Autism Friendly Award for their work to provide an autism friendly environment to their visitors. The Centre put in place a number of provisions for people with autism including designing resources as visual stories, which helps to prepare visitors for the unknown and explains all sensory elements to each attraction. These include:

- quiet areas and ear defenders to help with sensory overload
- a traffic light system for visitors that communicates whether or not they want to be approached and engaged in conversation
- a queue-jumping option for those who find it difficult to wait in line
- participation in the National Autistic Societies Autism Hour, during which all the sensory elements of the attraction are toned down.

All staff receive autism awareness training, which helps them better understand autism and gives them confidence to help visitors.

RECOVERY THROUGH HERITAGE

Audience(s): Learners with drug and alcohol problems

Approach(es): Active and outdoor learning

Weblink: www.communityactionlan.org/trails/item/local-landscape-heroes-phoenix-futures-trail

The Recovery through Heritage pilot project formed part of the CAVLP Heritage programme, which was delivered by Northlight Heritage for the Clyde and Avon Valley Landscape Partnership. It involved

working alongside Phoenix Futures, a charity that supports people with alcohol and drug problems. Phoenix Futures participants cleared vegetation from the Roman bathhouse in Strathclyde Country Park and enhanced other sites to create a Local Landscape Heroes heritage trail to Dalzell House. The Phoenix Futures Recovery Through Nature programme connects people using their services with nature, to support their recovery by giving them opportunities to work as part of a team on practical conservation projects in settings across England and Scotland. Participants in Recovery through Nature achieve a 41% higher successful recovery completion rate than the national average (and 75% higher among opiate users); they report improved mental and physical health, increased self-esteem and confidence and enhanced belief in their ability to change. By aligning the project to this already successful programme, Recovery through Heritage explored how archaeology and heritage could be used to help recovery.

OPERATION NIGHTINGALE

Audience(s): Veterans of conflict with PTSD and other mental and physical injuries

Approach(es): Active and outdoor learning

Weblink: www.wessexarch.co.uk/our-work/operation-nightingale

Operation Nightingale was developed to utilise both the technical and social aspects of field archaeology to help in the recovery and skill development of soldiers injured in the conflict in Afghanistan. There is a close correlation between the skills required by the modern soldier and those of the professional archaeologist. These include surveying, geophysics (for ordnance recovery or revealing cultural heritage sites), scrutiny of the ground (for improvised explosive devices or artefacts), site and team management, mapping, navigation and the physical ability to cope with hard manual work, often in inclement weather.

WATERLOO UNCOVERED

Audience(s): Veterans of conflict with PTSD and other mental and physical injuries

Approach(es): Active and outdoor learning

Weblink: www.waterloouncovered.com/

Waterloo Uncovered is a support program for veterans and the military community, built around an archaeology project on the battlefield of Waterloo. It is delivered in partnership with several European universities, and brings together conflict archaeologists, veterans and serving soldiers, many of whom have incurred physical and mental injuries, including Post Traumatic Stress Disorder (PTSD). The project aims to understand war and its impact on people and to educate the public about it. Participants bring their military perspective, skills, and experience to the excavations while they learn new skills, have new experiences and receive support in facing challenges issues such as recovery, transition, social isolation and mental health. The project demonstrates the potential for archaeology to support those suffering from PTSD: it provides interest and focus but is also meditative; its outdoor- and team-based nature is particularly appealing to soldiers. It can also provide a stepping stone to vocational training or further education.