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**Overview**

This standard is about enabling people to collect, collate, analyse, present and interpret data about the biological and geographical environment. This will usually be completed by taking participants on limited journeys, often on foot, through a known and relatively non-hazardous area. Participants are likely to be children and young people undertaking field studies.

This standard covers three main outcomes. These are:

1. prepare for environmental investigation
2. prepare participants for environmental investigation and understanding
3. develop participants' investigation skills and understanding of the environment

This standard is for experienced staff working in the outdoors who are capable of working without direct supervision. Typical contexts will involve working with children and young people on educational outcomes.

**Performance  
criteria**

**Prepare for environmental investigation**

- You must be able to:
- P1 identify the aims and learning objectives of the environmental investigation
  - P2 make sure the investigation makes the best use of the available **options** and meets the **participants** needs
  - P3 make sure the context and background for the investigation relate to the desired learning
  - P4 make sure there are **safety parameters** which follow organisational regulations and procedures
  - P5 check and agree all aspects of the environmental investigation with a **responsible colleague**

**Prepare participants for environmental investigation and understanding**

- You must be able to:
- P6 clarify the focus and aims of the environmental exploration with the **participants**
  - P7 communicate the background and context for the investigation to the **participants**
  - P8 promote the value of environmental awareness and understanding to the **participants**
  - P9 encourage the **participants** to take ownership of the environmental investigation for themselves, whilst making clear the **safety parameters**
  - P10 emphasise the importance of observing the environment during the investigation and of sharing these observations with others
  - P11 encourage the **participants** to ask questions and be able to deal with these questions informatively

**Develop participants' investigation skills and understanding of the environment**

- You must be able to:
- P12 encourage the **participants'** environmental awareness and understanding in line with the planned aims and learning objectives
  - P13 make the **participants** aware of the range of fieldwork **techniques** and how

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they are used in differing **environments**

P14 manage the collection and collation of data

P15 assist the **participants** to present, analyse and interpret findings

P16 intervene when this will support the learning objectives for the exploration

P17 make use of the prevailing conditions, unplanned events, the site and the **participants'** abilities

**Knowledge and understanding**

**Prepare for environmental investigation**

You need to know and understand:

- K1 how to identify the aims and learning objectives of the environmental investigation and their relationship with specific curricula and syllabi
- K2 the value of environmental awareness and understanding to participants and the types of investigations and activities which encourage this
- K3 why it is important to identify participants needs and how to do so
- K4 the available options in the local area for environmental investigation
- K5 how to choose an investigation that makes the best use of the available options and meets the participants needs and learning strengths
- K6 the importance of ensuring the context and background for the investigation relate to the desired learning
- K7 the safety parameters and **health and safety** requirements that ensure the participants' safety and enable the agreed aims of the activity to be achieved
- K8 the benefits of checking and agreeing all aspects of the environmental investigation with a responsible person

**Prepare participants for environmental investigation and understanding**

You need to know and understand:

- K9 why it is important to clarify the focus and aims of the environmental investigation with the participants
- K10 the importance of communicating the background and context of the investigation with the participants
- K11 the local environments and the context of the investigation
- K12 the importance of facilitating the participants understanding of environmental awareness
- K13 why it is important that the participants take ownership of the environmental investigation for themselves
- K14 why having sufficient principles for the investigation is important to facilitating understanding through effective learning
- K15 the importance of participants observing for themselves and sharing these observations with others in the group
- K16 how to encourage participants to observe and what they should be looking for

- K17 how to encourage the participants to ask questions and be able to deal with these questions informatively and positively
- K18 other sources of information which the participants or candidate could use

**Develop participants' investigation skills and understanding of the environment**

You need to know and understand:

- K19 the key environmental concepts which underpin the investigation
- K20 how to encourage the participants' environmental awareness and understanding in line with the planned aims and learning objectives
- K21 different field work techniques and how these can be applied to a range of environments
- K22 key features of the local environments, including flora and fauna, general geology, geomorphology, climate, soil types and land use
- K23 local sites and why they are interesting, why they are vulnerable and how to protect them
- K24 collection and collation of data techniques
- K25 how to assist the participants to present, analyse and interpret findings correctly
- K26 how to intervene when this will support the learning objectives for the investigation
- K27 how to make use of the prevailing conditions, unplanned events, the site and the participants' abilities

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**Additional information**

**Scope/range related to performance criteria**

**1 Participants**

- 1.1 adults
- 1.2 children and young people
- 1.3 groups whose members do not know each other
- 1.4 participants with particular needs in relation to the activity
- 1.5 individuals
- 1.6 groups

**2 Safety parameters**

- 2.1 physical boundaries
- 2.2 criteria for abandoning the experience
- 2.3 participants' safety rules
- 2.4 relevant guidelines for activities of this kind

**3 Techniques**

- 3.1 relating to working with plants
- 3.2 relating to working with animals
- 3.3 relating to working with human geography
- 3.4 relating to working with physical geography

**4 Environments**

- 4.1 urban
- 4.2 rural
- 4.3 upland
- 4.4 coastal
- 4.5 named habitats/ecosystem

**5 Responsible colleague**

- 5.1 line manager
- 5.2 senior colleague
- 5.3 other adult

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**6 Options**

6.1 on-site locations

6.2 off-site locations

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<b>Scope/range related to knowledge and understanding</b>	<b>1</b>	<b>Health and Safety</b>
	1.1	relevant health and safety legislation
	1.2	organisational procedures and requirements
	1.3	principles of the duty of care
	1.4	safeguarding
	1.5	emotional/psychological health
	1.6	licensing regulations/ inspection requirements for activities/centres
	1.7	technical knowledge, including national organisational guidance relating to environmental investigation
	1.8	the types of contingencies which are likely to occur: weather, accident and emergency, forced changes and how to plan for these
	1.9	standard emergency procedures



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**Glossary****Curricula and syllabi** (singular: curriculum and syllabus)

In the context of outdoor education and mainly school groups, a curriculum is the overall education plans for the school - statements of the overall aims and learning outcomes. In contrast, a syllabus is more practical and describes the content of the curriculum (and how the curriculum will be delivered/achieved) and are seen as one part of it.

**Organisational regulations and procedures**

Typically, these documents will set out the standards, procedures and requirements for activity delivery. They may include equipment lists, outline session plans, safety points and procedures. They also may make reference to specific NGB (National Governing Body) or other relevant national activity bodies in terms of information and guidelines related to activities. The documents may also make reference to staffing levels and standards in terms of ratios, qualifications and training/assessment undertaken, which may link to NGBs, technical advisers and other external or internal features. Good quality documents have many uses and may be needed by a range of internal and external parties and stakeholders. The documents help to communicate to staff and others clear and consistent information.

**Ownership**

In relation to participants' engagement in all aspects of the activity/session, including suitable levels of involvement in planning, organising and the running of the session itself, with even some decision-making aspects on options, taking into account the experience and capability of all involved. This engagement can bring an enhanced sense of satisfaction and learning as responsibility requires being informed and understanding/appreciation of the issues - a better, more enjoyable experience. However, ultimately, the instructor/leader to the activity must always maintain ultimate responsibility /accountability, especially in terms of safety, in line with organisational regulations and procedures.

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**Safety parameters**

These are a set of facts or boundaries that set out the limits for participants in relation to safety within the activities. They are not the only aspect of safety management as there is always the volatility and inconsistency of the human factor! However, safety parameters can be very useful when communicated with participants so there can be shared and agreed understanding of limits that can help maintain safety.

**Links to other NOS**

This standard links with SKAOP3, SKAOP4 and SKAOP7.

## SKAOP21 (SQA Unit Code - HF1A 04)

Facilitate participant's understanding and investigation of the environment



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<b>Developed by</b>	SkillsActive
<b>Version number</b>	2
<b>Date approved</b>	February 2014
<b>Indicative review date</b>	April 2018
<b>Validity</b>	Current
<b>Status</b>	Original
<b>Originating organisation</b>	SkillsActive
<b>Original URN</b>	SKAD36
<b>Relevant occupations</b>	Associate Professionals and Technical Occupations; Leisure, travel and tourism; Sport, leisure and recreation; Sports and Fitness Occupations
<b>Suite</b>	Outdoor Programmes; Expedition Leadership and Management
<b>Key words</b>	outdoors, environment, investigation, understanding, participant, field studies, data, geographical, biological

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