

# N1

National 1  
unit  
specification



## Unit specification

### Science in the Environment: Forces (National 1)

<b>Unit code:</b>	J5HA 71
<b>SCQF:</b>	level 1 (6 SCQF credit points)
<b>Valid from:</b>	session 2021–22

This document provides detailed information about the unit to ensure consistent and transparent assessment year on year.

This document is for teachers and lecturers and contains all the mandatory information required to deliver and assess the unit.

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# Unit outline

The aim of this unit is to provide learners with opportunities to participate in a range of activities, allowing them to explore forces. Learners will participate in simple experiments involving the forces acting on different objects.

Learners who complete this unit will be able to:

- 1 participate in practical activities to explore forces

Please read this unit specification in conjunction with the unit support notes, which provide advice and guidance on delivery, assessment approaches, and developing skills for learning, skills for life and skills for work.

Exemplification of the standards in this unit is given in unit assessment support.

## **Recommended entry**

Entry to this unit is at the discretion of the centre. Relevant experiences and outcomes may provide an appropriate basis for doing this unit.

# Standards

## Outcome and assessment standards

### Outcome 1

#### 1 Participate in practical activities to explore forces by:

- 1.1 sorting different types of forces into groups
- 1.2 carrying out experiments involving forces

### Evidence requirements for the unit

You should use your professional judgement, subject knowledge and experience, and understanding of your learners, to determine the most appropriate ways to generate evidence, and which conditions and contexts to use.

Evidence for this unit could include observation checklists, logs, short recorded oral responses, photographic evidence or equivalent. You should be confident that there is enough evidence to support your judgement that the assessment standards have been met:

- ◆ outcome 1: the learner must show evidence of participating in activities to sort forces into two simple groups, and participating in carrying out experiments involving forces

Learners will normally receive a high degree of support to achieve the outcome of the unit. It is your responsibility to ensure that the level of support is appropriate for the requirements of the unit.

Unit assessment support provides exemplification of assessment.

# Skills for learning, skills for life and skills for work

This unit helps learners to develop broad, generic skills. These skills are based on [SQA's Skills Framework: Skills for Learning, Skills for Life and Skills for Work](#) and draw from the following main skills areas:

## 1 Literacy

### 1.3 Listening and talking

You must build these skills into the unit at an appropriate level, where there are suitable opportunities.

# Equality and inclusion

This unit is designed to be as fair and as accessible as possible with no unnecessary barriers to learning or assessment.

You should take into account the needs of individual learners when planning learning experiences, selecting assessment methods or considering alternative evidence. The unit support notes provide further information.

Guidance on assessment arrangements for disabled learners and/or those with additional support needs is available on the assessment arrangements web page:

[www.sqa.org.uk/assessmentarrangements](http://www.sqa.org.uk/assessmentarrangements)

# Further information

The following links provide useful information and background:

- ◆ [National 1 web page](#)
- ◆ [Building the Curriculum 3 to 5](#)
- ◆ [Guide to Assessment](#)
- ◆ [SCQF Handbook: User Guide](#)
- ◆ [SQA Skills Framework: Skills for Learning, Skills for Life and Skills for Work](#)
- ◆ [Skills for Learning, Skills for Life and Skills for Work: Using the Curriculum Tool](#)
- ◆ [SQA e-assessment web page](#)

# Appendix: unit support notes

## Introduction

These support notes are not mandatory. They provide advice and guidance to teachers and lecturers on approaches to delivering the unit. Please read these unit support notes in conjunction with the unit specification and appropriate assessment support materials.

## Developing skills, knowledge and understanding

You are free to select the skills, knowledge, understanding and contexts that are most appropriate.

Learners who complete this unit will be able to participate in activities involving simple experiments to explore forces.

## Approaches to learning and teaching

This section provides general advice and guidance on approaches to learning and teaching that you can use to deliver this unit.

At SCQF level 1, learners require varying degrees of support, depending on their needs. Some learners may:

- ◆ take part at an experiential or sensory level, requiring full support
- ◆ require frequent direction and support to enable them to take part
- ◆ take part independently or with intermittent support

You should give learners as much support as they need to engage with learning, teaching and assessment activities while maintaining the integrity of the outcome and assessment standards.

The following table provides examples of approaches to learning and teaching. These may also provide naturally occurring evidence that you can use to assess learners against the assessment standards.



## Science in the Environment: Forces

Outcome 1: participate in practical activities to explore forces

Assessment standards	Approaches for learning and teaching
1.1 sorting different types of forces into groups	<p>Learners should be able to sort forces into two groups, such as push or pull, sink or float. For example:</p> <ul style="list-style-type: none"><li>◆ being pushed on a swing, so you can swing forwards and backwards</li><li>◆ a model car being pushed along a track</li><li>◆ a plug being pulled out of the sink</li><li>◆ a cork being pulled out of a bottle</li></ul>
1.2 carrying out experiments involving forces	<p>Learners should be able to experience the sensation of a push or pull on their body and, where able, exert this on an object. For example, learners could experiment with playground forces:</p> <ul style="list-style-type: none"><li>◆ swing</li><li>◆ roundabout</li><li>◆ wheelchair</li></ul> <p>They could test different items to see if they float or sink, or experience this sensation on their body. For example, learners could experiment in the swimming pool:</p> <ul style="list-style-type: none"><li>◆ use a waist float</li><li>◆ make a noodle go underwater</li><li>◆ drop pool toys into the water</li></ul> <p>They could experiment with a big push and a small push and see how far an object moves each time, for example:</p> <ul style="list-style-type: none"><li>◆ push a toy car, swing or shopping trolley</li><li>◆ pull a rope cord to turn on a light or make something move</li></ul>

# Approaches to assessment and gathering evidence

There is no external assessment for National 1 units. All units are internally assessed against the requirements outlined and described in the unit specification and the unit assessment support pack.

To achieve the unit, learners must achieve the unit outcome.

At SCQF level 1, most evidence for assessment is gathered on a naturally occurring, ongoing basis, rather than from more formal assessment methods. There are many contexts that you might use for gathering evidence, for example, extra-curricular and/or outdoor learning.

Naturally occurring evidence is evidence that occurs in and as part of learning and teaching, which you can gather for assessment purposes in a variety of ways:

- ◆ observation of evidence demonstrated during an activity (using an observation checklist, visual recording, photography or equivalent)
- ◆ oral questioning before, during, and on completion of an activity (recorded using an audio-visual or audio recording or using your detailed written notes as evidence)
- ◆ learning and teaching activities that generate physical evidence for assessment
- ◆ identifying opportunities to record evidence during out-of-centre activities

You should focus on small, well-defined steps in learning. In this way, the learner is more likely to achieve success in the units and in any subsequent learning.

Learners benefit from receiving accurate and regular feedback regarding their learning. This helps to ensure they are actively involved in the assessment process. It is important that you use different approaches to assessment to suit the varying needs of learners.

## Combining assessment within units

It may be possible to reduce the volume of assessment for this unit by designing broad assessment tasks that cover a number of assessment standards at one time. However, for some learners it may be more appropriate to design assessment tasks that include smaller steps and/or repetition, which could help with the retention and reinforcement of learning.

# Developing skills for learning, skills for life and skills for work

This section highlights the skills for learning, skills for life and skills for work that learners should develop in this unit. These are based on SQA’s Skills Framework: Skills for Learning, Skills for Life and Skills for Work and should be built into the unit where there are appropriate opportunities. The level of these skills will be appropriate to the level of the unit.

Some examples of potential opportunities to practise or improve these skills are given in the following table.

Skills for learning, skills for life and skills for work	Approaches for learning and teaching
<p><b>1 Literacy</b></p> <p>1.3 Listening and talking:</p> <ul style="list-style-type: none"> <li>◆ listening means the ability to understand and interpret ideas, opinions and information presented orally for a purpose and within a context, drawing on non-verbal communication as appropriate</li> <li>◆ talking means the ability to communicate orally ideas, opinions and information for a purpose and within a context</li> </ul>	<p>Where appropriate, learners could use their normal communication method during learning and teaching activities to communicate, for example:</p> <ul style="list-style-type: none"> <li>◆ information about which group a force should be sorted into, by using or pointing to specific keywords and/or pictures as appropriate</li> </ul>

It is important that you provide learners with opportunities to develop these broad general skills as an integral part of their learning experience.

# Administrative information

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## History of changes

Version	Description of change	Date

Note: please check [SQA's website](#) to ensure you are using the most up-to-date version of this document.