

TEACHER NOTES

Science

Earth & Atmosphere: composition of Earth & the rock cycle



Contextual Summary

This is a curriculum-based Science resource that enables students to practise their understanding of how rocks are formed, and how sedimentary rocks are important in the fossilisation process. The resource highlights the importance of sedimentary rocks as a feature of the geology of the Isle of Wight, and students are able to link what they learn in the museum with their wider understanding of these Earth processes. Students also explore the possible causes of extinction and their impact on the atmosphere. This curriculum area is a core part of Science within the 2014 National Curriculum and, in Scotland, Curriculum for Excellence. The resource is aimed at key stage 3 only.

The resource links to the geology of the Isle of Wight specifically, ensuring relevance on the visit for students whilst ensuring the wider curricular relevance is maintained. Questions have been chosen because they link directly with the key curriculum areas.

Task Implementation

It is suggested to teachers that they introduce the topic before the visit, so the subject matter is familiar and they have an understanding of the rock cycle and perhaps some understanding of the fossilisation process.

If prepared, students should be keen to find the answers to the questions, and may have already researched / guessed at some of the possible answers.

This task could also be used as a follow-up task to compound learning.

Ability Levels

There are 2 versions of this resource, one low and one high ability resource for key stage 3.

These could be adapted further by teachers if required, i.e. for SEN. For example, students could be tasked with giving fewer reasons, or responding to areas that interest them the most, or perhaps work in teams to find the answers.

Key skills practised in this unit:

- ▶ Understanding of the rock cycle and processes of fossilisation
- ▶ Hypothesising reasons for extinction
- ▶ Identifying the impact of extinction scenarios

Relationship to Curriculum

The above skills are required to be taught and practised as per the National Curriculum, for Science key stage 3.

SUBJECT

Science

UNIT

Earth & Atmosphere

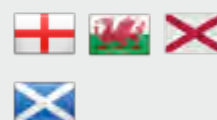
OPPORTUNITIES FOR USE

- ✗ Pre-Visit
- ✓ On-Site Activity
- ✓ Post-Visit
- ✗ Peripheral Task



20-45 Mins

APPLICABILITY



KS3

S1-S3

CURRICULUM / SYLLABUS

- ✓ National Curriculum 2014
- ✓ Curriculum for Excellence

Applies to Resources numbered:

102141
102142

Learning Opportunities

Pre-Visit

This resource could be used as a pre-visit research task, but is designed to work in conjunction with the dinosaur features on display in the museum.

During the Visit

Completion of the resource/s linked to this document:

Earth & atmosphere: composition of Earth and the rock cycle

Resource ID: **102141** (KS3 high ability), **102142** (KS3 low ability)

Post Visit

This resource could be used as a follow-up task to compound learning or evidence their level of understanding after the visit.

Other follow-up tasks could include:

- ▶ Whole class discussion about the responses to the questions
- ▶ Groups presenting back their collated responses to the class
- ▶ Projects on Isle of Wight rocks or fossils in an area of particular interest

Enrichment Opportunities

Students will experience a museum-environment and be able to learn about fossils, rocks, and the Isle of Wight's sedimentary structure.

Learning Outcomes

Students will be able to demonstrate their ability to understand the rock cycle in relation to the Isle of Wight and its fossil richness, identify processes of fossilisation, and consider hypothetical reasons for extinction and their effect on the Earth's atmosphere.

For further details visit www.edudest.uk and click:

- ▶ *Resource Finder* - to locate specific resources identified above
- ▶ *Venue Finder* - to learn more about education at this venue
- ▶ *Subject Finder* - to find other relevant Isle of Wight venues

