

EXPLORING MATERIALS

Key stage 1 SCIENCE (QCA 1C & 2D)



Learning Objectives During this Day Course pupils should learn:
<ul style="list-style-type: none"> ü To observe and identify some materials in the environment. ü That there are different kinds of materials which occur naturally in the environment. ü To make predictions about materials and how they might change when heated. ü To sort and group rocks and materials by observable characteristics. ü To describe and compare the properties and uses of selected materials.
Pupils will also:
<ul style="list-style-type: none"> ü Learn safely in a new environment; ü Gain an appreciation of the environment and understand their role in caring for it.

Day Course Programme
Where 2 classes are attending the course the introductory session will be common to both. Classes will then separate and sessions A and B will be interchangeable am and pm.
Introduction: On arrival a member of CEES staff will welcome your group to the Centre and describe the day's programme and the learning objectives.
Session A: This session is based at Upware Centre's unique nature reserve. Pupils will undertake a variety of activities related to materials. In groups, pupils will follow a materials scavenger hunt, exploring natural and unnatural materials and will look for rocks and fossils on the Jurassic fossil bank. The highlight of the session will be the open fire where pupils will be able to safely observe a variety of materials being burnt, and notice how they change when heated (see note below).
Session B: This will be a workshop session with a variety of activities related to exploring materials, including: sorting and grouping rocks and minerals by observable characteristics; close observation of the characteristics of selected rocks and natural materials and identification of materials by touch. The session will also include a materials trail in the Centre grounds in which pupils will locate and identify selected materials.
Plenary: The group will reflect on their day and consider how well the learning objectives have been met.
Note: The actual programme may vary depending on number and needs of pupils, length of visit and weather conditions.

Adult : Pupil ratios
For this course CEES' recommended ratio for safety is 1: 6.
For most classes up to 6 pre-arranged working groups, each with an adult is ideal.
Additional adults may be needed with classes where individual pupils need 1 : 1 support
Other information
Please see separate guidance notes on safe and effective day courses, including information on clothing and equipment.
For heating materials on the fire, it is most effective if, prior to the visit, each class chooses a selection of materials to heat, and predicts the results. The materials should be brought on the day in a tin biscuit box and the box containing the heated materials can be taken back to school afterwards.

Relevant extracts from CEES risk assessments	
See also separate guidance notes on safe and effective day courses	
Hazard	Control measures
Extreme weather conditions	<ul style="list-style-type: none"> • CEES staff are aware of daily forecast. • Alternative venues or activities are substituted if weather conditions are particularly unfavourable. • In extreme cases, where guidance notes on clothing have not been complied with pupils may be excluded from activities.
Uneven ground, low branches on trees, steep slopes, steps.	<ul style="list-style-type: none"> • Pupils and adults are made aware of expected standards of behaviour and, for example pupils are instructed to walk, not run, to look ahead, and stay close to their supervisory adult.
Unfamiliar surroundings	<ul style="list-style-type: none"> • Adults supervise directly, for example, walking beside the group and regularly checking that entire group is present. • Pupils are made aware of safe standards of behaviour
Fire	<ul style="list-style-type: none"> • A small fire is lit and tended by CEES staff only. • Pupils are given instructions in expected behaviour near a fire. • Pupils are closely supervised at all times near the fire. • Pupils remain at stay a safe distance from the fire.
Handling natural materials	<ul style="list-style-type: none"> • Pupils are warned about known dangers regarding for example sharp or stinging plants. • Pupils are instructed to wash hands thoroughly after handling natural materials and before eating.