

INTRODUCTORY WORK.

Pupils should already know the significant characteristics of igneous, sedimentary and metamorphic rocks, weathering, erosion, transport and deposition. For ideas on practical ways of approaching this topic see "Spot that Rock" teachers' workshop material and teaching resources on <http://www.earthscienceeducation.com>

PREPARATORY WORK

Prior to the **On-Site** visit to the National Stone Centre Site a suitable preparation is required to raise pupils' awareness of the use of stone in the built environment. Set a homework exercise to list as many different uses of stone that they can see in suitable places. This might be on their way home from school, around school buildings, a local park or monument etc. Stress this is an exercise in observation, and a competition to see who can find the most examples.

Some of the less obvious examples pupils might find are: **clay** (used to make bricks and tiles); **silica sand** (used to make glass); **road metalling** (stone aggregates may be used for the foundation of roads, limestone gravel bonded with bituminous material to surface roads); **limestone**, and other minerals (used to make concrete and cement).

FOLLOW-UP WORK.

After the **On-Site** visit, as a homework exercise, pupils are asked to describe in detail two uses of stone as part of a survey of building stone in the local area.

The term "building" may need to be very loose. Suitable sites could include a local church, gravestones (helpfully dated), school buildings, local walls, high street shop fronts, kerbstones, cobblestones, local monuments, bridges, and the pupil's own home. In particularly unhelpful areas concrete, cement and bricks could be designated as "man-made" stone for the purpose of this exercise.

Teachers (or pupils) should identify two sites to work on (perhaps taken from the preparatory homework exercise above). Remind pupils about situations where permission is required, and appropriate behaviour is expected. Also, draw attention to thoughts about safety, especially if kerbstones, or a cobbled road is chosen.

Pupils should record:

- the location or address of the building / construction;
- a sketch of the relevant part of the site, labelling the rock being surveyed, and the use to which it has been put;
- a description of at least two different rocks (perhaps on two buildings) and the use to which they have been put. For each describe the rock, identify it as igneous, metamorphic, or sedimentary, and give the properties that make it suitable for their purpose.;
- finally record the evidence for the effects of weathering on the chosen rock, identifying the kind of weathering responsible, giving the reasons for their conclusion.

Suitable copies of homework record sheets for the follow-up exercise are to be found on the following pages.