

Palaeontology

Preservation

Chances of preservation

G or I **E**

A student gives the name of a living creature, another student must give its chances of preservation and say why, then he suggests another creature and the next student has to give its chance of preservation etc. Alternatively the students are given a worksheet with pictures of various creatures on it.

Preserving a dinosaur

G or P 15 min

Students discuss the relative chances of preserving the different parts of a dinosaur: bones, hair, skin, teeth, claws, soft tissue, droppings, eggs, nest etc.

Carbonisation of plants

D

Surround a leaf with clay and then bake it in an oven. Finally break open the clay to find the carbonised remains of the leaf.

Permineralisation

A I 1 min

Students feel the weight of a piece of modern bone and a piece of fossil bone. Likewise for modern and fossil vertebrae.

External moulds

D

To demonstrate the formation and meaning of external moulds press a robust fossil or a plaster cast into soft clay. Lightly oil the fossil or shell first to stop it sticking to the clay. Allow the clay to harden by drying.

Internal and external moulds

A P 20 min in total

*Plastic cups are half filled with plaster of Paris. A single valve of a bivalve (*Glycimeris* is the best shape) is then pressed into the plaster concave upwards. A second lot of plaster of Paris is made and a small amount of ink is added to give it a different tint. This is poured on top of the shell and the cup filled up. The cups must be left for at least 24 hours in a warm dry place. The plastic is then cut away and a chisel used to break open the plaster. If the shell is removed there will be an internal and an external mould.*