

Making 'rock' from sand

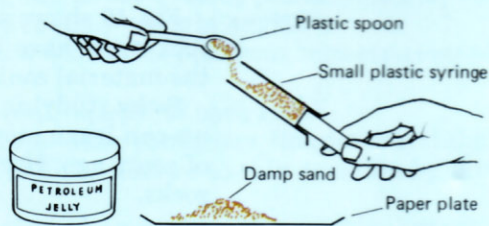
Fig. 11

(a) Follow the instructions in Fig. 11 using damp sand in a plastic syringe with its nozzle cut off.

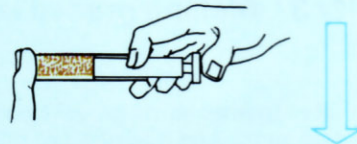
- Has squeezing the sand made the grains stick together at all?
- (b) Do the experiment again, but use a mixture containing 3 spoonfuls of damp sand with each spoonful of clay powder. Leave the cylinder of 'rock' to dry out, and then look at it under a hand lens.

- Does the clay help the sand grains to stick together?
- (c) Do the experiment again, but use a dough-like mixture of sand and plaster made as shown in Fig. 12. Leave the cylinder of 'rock' for a few minutes, and then look at it under a hand lens.

- Arrange the 'rocks' formed in (a), (b) and (c) in order of how well the grains stick together. (Put the least easily crumbled one first.)
- Where would the sandstone you broke up in Activity 1 fit into this order?



- 1 Smear the inside of the syringe with petroleum jelly. Then fill the syringe with damp sand.

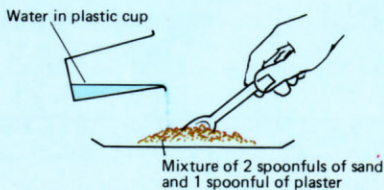


- 2 Put your thumb over the end of the syringe and press in the plunger as hard as you can



- 3 Push the cylinder of sand out of the syringe onto a paper plate

Fig. 12



Add enough water to make a dough-like mixture after stirring

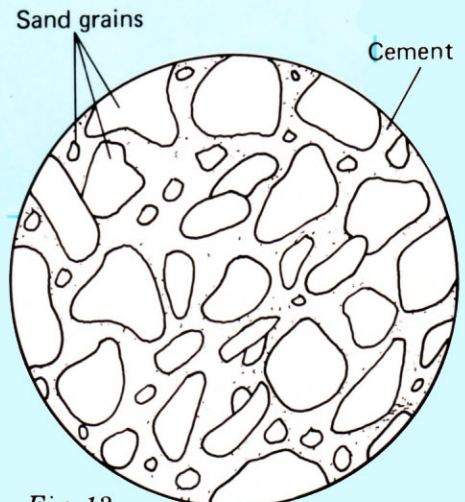


Fig. 13
Sandstone under the microscope (magnified about 30 times)