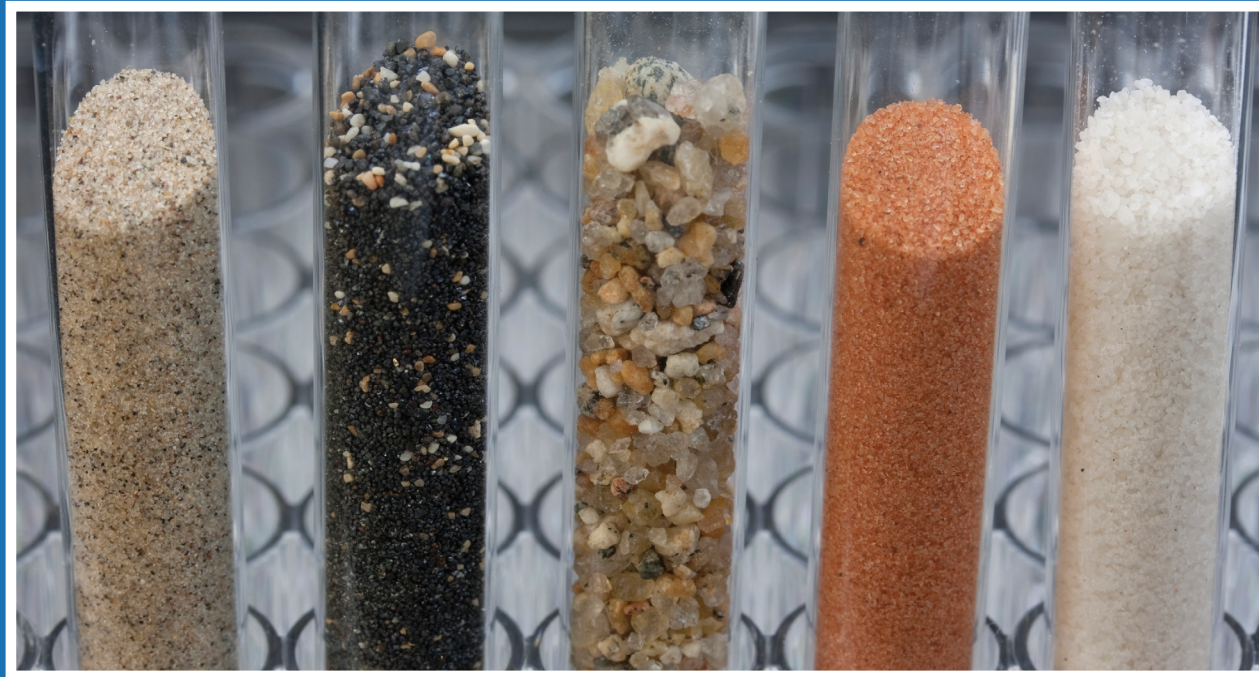


Rocks Lesson 5

Conducting Experiments

Science KS2 Year 3



Rocks Lesson 5: Conducting Experiments

Science

**Key Stage 2
Year 3**

Learning aims

Pupils should be able to:

- Work in a scientific manner to come up with experiments to test the hardness and permeability of a range of rocks.
- Record the findings and draw conclusions from the experiments.

Curriculum links:

to work in a scientific manner to come up with experiments to test the hardness and permeability of a range of rocks.

Keywords

Experiment. Conduct. Equipment. Permeable. Impermeable. Pipette. Prediction.
These can also be found at the end of this PDF.

Conduct

Equipment

Permeable



PowerPoint presentation

The accompanying PowerPoint presentation has 19 slides, providing a guide to two rock experiments; testing the hardness of rock, and testing the permeability of rock. The PowerPoint offers regular opportunities for classroom discussion.

Following the lesson, you may wish to ask the children what other experiments they might consider doing with rocks.

- experiments about weight, or solubility.
- They could conduct an acid test – details of which are at the end of this guide.

The slides are presented as follows:

- Slides 1 and 2 introduce subject and learning aims.
- Slides 3 and 4 suggest an experiment, and remind the children of the different types of rock. This puts the requirement to test into perspective – which type of rock is harder?
- Slides 5 and 6 explain what is expected to happen in the experiment (predictions).
- Slides 7 and 8 explain the rules of the experiment and what is needed for it.
- Slides 9 to 11 explain how to conduct the experiment and how to record the results.
- Slide 12 asks the children if their predictions were right.
- Slide 13 asks the children if they would like to do another experiment – this time a water test.
- Slides 14 to 17 repeat the rules and procedures outlined in slides 5 to 11, but testing to see which rocks are waterproof.
- Slide 18 asks the children if their predictions were right.
- Slide 19 congratulates the children on a job well done – Super Scientists!
- You may wish to create a final slide, based upon a further acid test if you feel the class is ready to move on from basic predictions. This is a more advanced test to determine whether hard metamorphic rocks were once sedimentary rocks that have changed further through heat and pressure. Recreate the water test but use vinegar as the acid. If the rock contains fossilised material, minerals from the fossil will cause the vinegar to fizz on contact with the rock, proving that it was once sedimentary.



Hardness of Rock

Name and Picture of Rock	What Happens?	Hard or Soft?
Name _____		
Name _____		
Name _____		
Name _____		

Is the Rock Waterproof?

Name and Picture of Rock	What Happens?	Permeable or Impermeable
Name _____		
Name _____		
Name _____		
Name _____		

Rocks: Keywords Flashcards



Experiment

Conduct

Equipment

Permeable

Impermeable

Pipette

Prediction



Experiment



Conduct



Equipment



Permeable



Impermeable



Pipette



Prediction

