

Science - Year 3

Rocks – Block 3R

Rocks and Fossils

Session 2

Resource Pack

I can design a fair test

Name

The Hardness Test

For our test we will

It will be fair because

Our Results

Rock Sample	Chalk	Granite	Limestone	Slate	Sandstone	Marble	
Observations							
Rank order of rocks for hardness (1 for the softest rock, 2 for the 2 nd softest and so on)							
What type of rock might it be?							

I can design a fair test

Name

The Water Test

For our test we will

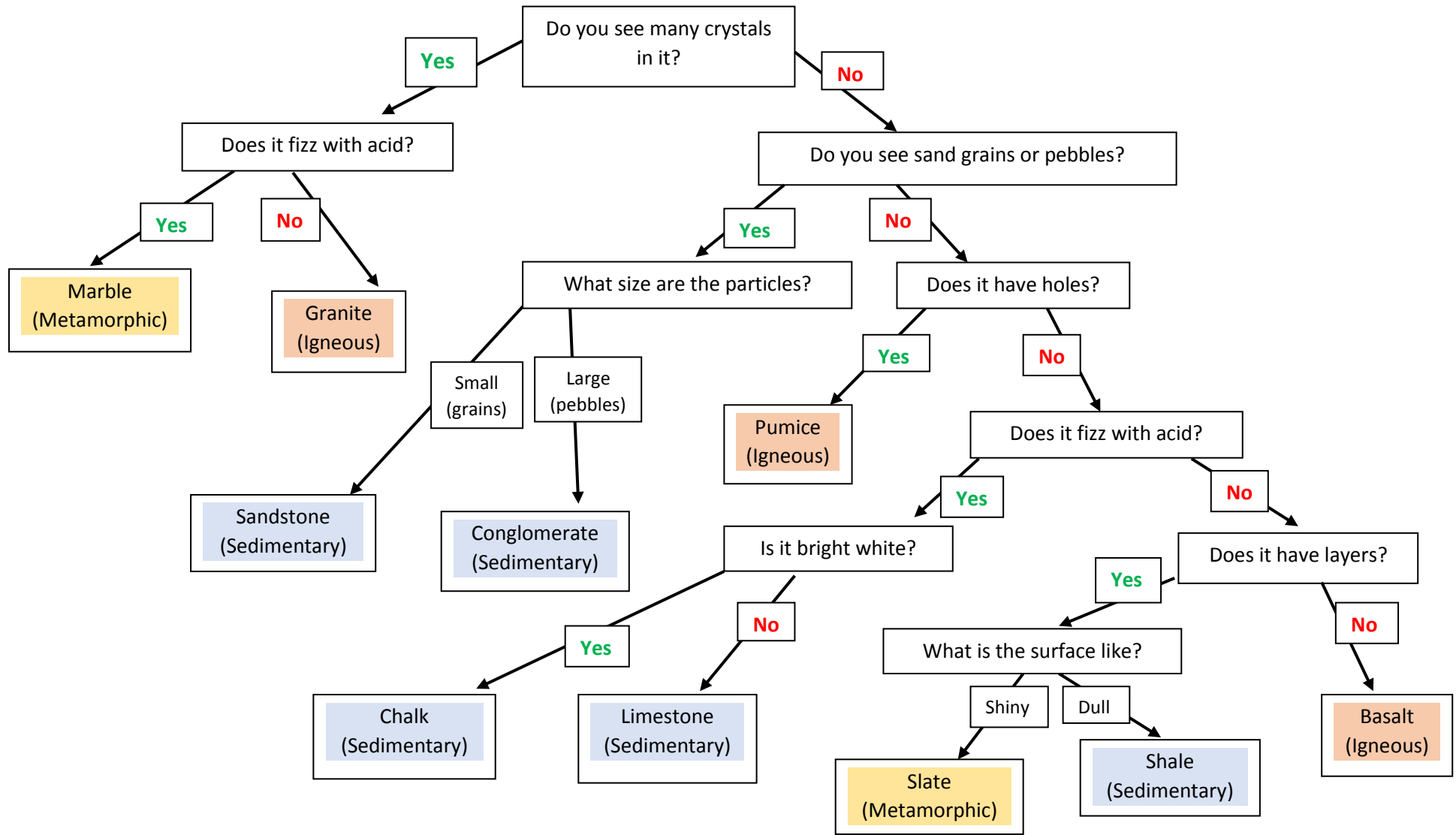
It will be fair because

Our Results

Rock Sample	Chalk	Granite	Limestone	Slate	Sandstone	Marble	
Observations							
Is the rock permeable? (It allows water to soak in)							
What type of rock might it be?							

Rock Identification Key

Start here



Chalk

Limestone

Sandstone

Granite

Marble

Slate

Chalk	Limestone
Sandstone	Granite
Marble	Slate

Chalk	Limestone
Sandstone	Granite
Marble	Slate

Chalk	Limestone
Sandstone	Granite
Marble	Slate

Chalk	Limestone
Sandstone	Granite
Marble	Slate

Chalk	Limestone
Sandstone	Granite
Marble	Slate

Chalk	Limestone
Sandstone	Granite
Marble	Slate

Session 2 Teachers' Notes

Health and Safety

Harmful micro-organisms

During this session the children will be handling rock samples. These could potentially be contaminated with harmful micro-organisms, particularly if you have sourced some of the rocks yourself. Samples from educational suppliers should be safe to handle. If you have any doubts about cleanliness and safety of the samples:

- Talk to the children about the risk including the need to keep their hands away from their mouths
- Provide plastic gloves for the children to wear whilst handling the samples
- Wash hands thoroughly after the tasks

Acid

During this session the children will be testing rocks with small drops of acid (household vinegar). This is a weak acid but it would cause stinging if it came into contact with eyes. Take precautions by:

- Warning the children of the danger
- Providing the children with protective goggles for the task

Classroom Organisation

Storing samples for testing

For Tasks 2 and 3 the children will need labelled samples. Use recycled packaging that has separate sections, e.g. egg boxes, fruit packaging... During the session groups of 3 children will work on labelling and sorting the samples as below.



The session involves a carousel of 3 rock testing activities. To help the session run as smoothly as possible, it would help to have your 3 testing zones set up with all the necessary equipment and work sheets ahead of the lesson as follows:

Zone 1: The Acid Test – Plenty of newspaper to protect tables from acid, unlabelled rock samples (1 set for each group of 3), if possible include basalt, shale, conglomerate and pumice along with your 6 essential rocks, a beaker containing a little household vinegar and a pipette per group, magnifiers, safety goggles for each child and a copy of the Rock Identification Sheet per child

Zone 2: The Hardness Test - A set of labelled rock samples in compartments per group of 3 children, paper plates (to collect rubbings), and items to test hardness, e.g. sandpaper, nails, lolly sticks, plastic spoons and the Hardness Test Task Sheet to record agreed method and observations

Zone 3: The Water Test - A set of labelled rock samples in compartments per group of 3 children, pipettes, beakers of water and magnifiers and the Water Test Task Sheet to record agreed method and observations