














# Rocks: Grouping Rocks

<p><b>Aim:</b> Group together different kinds of rocks on the basis of their simple physical properties in the context of natural rocks. I can group rocks based on their properties.</p> <p>Making systematic and careful observations by examining different types of rocks. I can make systematic and careful observations.</p>	<p><b>Success Criteria:</b> I can name the different types of rocks. I can identify features of different rocks. I can group rocks by specific criteria. I can handle and examine rocks carefully. I can use systematic observations to identify the properties of rocks.</p>	<p><b>Resources:</b> <b>Lesson Pack</b> A selection of igneous, sedimentary and metamorphic rocks A selection of books on rocks Computers / Laptops / Tablets Sandpaper Pipette A large container or plastic box</p>
	<p><b>Key/New Words:</b> Igneous, sedimentary, metamorphic, rocks, group, properties, permeable, impermeable, hard, soft, durable, buoyancy, split.</p>	<p><b>Preparation:</b> <b>Properties of Rocks Activity Sheet</b> - 1 per child <b>Grouping Rocks Activity Sheet</b> - 1 per child (A3 copies for HA)</p>

**Prior Learning:** Children will have learnt the three different types of rocks in lesson 1.

## Learning Sequence

	<p><b>Types of Rocks:</b> What are the three types of rocks? Why causes them to be different? Children need to demonstrate they understand the difference occurs in the formation of the rocks. Show the types of rocks on the <b>Lesson Presentation</b> and use this to address any misconceptions or errors.</p>	
	<p><b>Describing Rocks:</b> In talk partners, children discuss the adjectives they would use to describe rocks. Children feedback to class and ideas to be written on the IWB. Select one of the properties such as 'hard' – <b>Are all rocks hard? What about clay?</b> Discuss how different rocks have different properties.</p>	
	<p><b>Properties of Rocks:</b> Introduce children to the scientific terms they will be using to describe the properties of rocks.</p>	
	<p><b>Carousel of Activities:</b> Children record observations and make notes from each activity on the differentiated <b>Properties of Rocks Activity Sheets</b>. <b>Permeability and Durability Group:</b> This should be a teacher led activity. Using a selection of different rocks, children to make observation in relation to their permeability and durability. To test permeability add a few drops of water using the pipette onto the rock and ask the children to observe whether it is absorbed. Use a small square of sandpaper to test how durable the rocks are. Children record their observations. <b>Books Group:</b> Using a selection of age-appropriate books on rocks, children to make notes about the properties of rocks. <b>Density Group:</b> Children test the buoyancy of different rocks using a large container full of water to decide which rocks have higher and which have lower density and take notes. Conduct a mini-plenary to check and assess the children's understanding based on the activities they have completed. Address any misconceptions or errors.</p>	
	<p><b>Grouping Rocks:</b> Children use their notes on the differentiated <b>Properties of Rocks Activity Sheets</b> to group rocks based on their properties on the differentiated <b>Grouping Rocks Activity Sheets</b>.</p> <div> <div></div> <div>Children group rocks based on permeability and one other property of their choice.</div> <div></div> <div>Children group rocks based on two properties of their choice and then answer questions.</div> <div></div> <div>Children group rocks based on all four properties. Children label the rocks by their type and then write a paragraph on the relationship between rock type and the various properties. If children have not already identified the type of rock allow them to do so using books or the Internet while grouping the rocks on their activity sheet.</div> </div>	

### Task

**Posterit:** Children select a rock and create a poster adding factual information about the type of rock it is, its properties and its uses.

**Identifyit:** Using the [Everyday Uses of Rocks Activity Sheet](#), children to walk around the school or their local area finding the different types of rocks used in buildings and outdoors. Children name the rock, its type and the properties that make it suitable for that particular use.