

Summer 1 Year 3 Rocks

Year 3 Summer 1		Bold = objective for this lesson Normal = Overall objective that they are working towards.	Subject Knowledge	Pedagogical Content (how you will teach)
	<p>Animals, including humans.</p> <p>Science Week</p>	<p><u>Lesson 1</u> I am learning to identify rocks by their appearance. I am learning to compare and group rocks based on their appearance and physical properties, giving a reason.</p> <p><u>Lesson 2</u> I am learning to identify the different types of natural rock. I am learning describe and explain the difference between sedimentary and igneous rock.</p> <p><u>Lesson 3</u> I am learning to set up simple practical enquiries, comparative and fair tests I am learning to make careful observations using a range of equipment I am learning gather, record, classify and present data in a variety of ways to help in answering questions I am learning to record findings using simple tables I am learning to report on findings through conclusions and discussions</p> <p>I am learning to compare and group rocks based on their appearance and physical properties, giving a reason</p> <p><u>Lesson 4</u> I am learning to describe how fossils are formed</p> <p><u>Lesson 5</u> I am learning to recognise that soils are made from rocks and organic matter</p>	<p>I know the different types of rocks and name their physical properties. I know what a fossil is and how they are formed. I know what soil is, what it is made of and how it is formed. I know how sedimentary and igneous rocks are formed.</p>	<p><u>Lesson 1 KQ: Are all rocks the same? How do you know?</u> Learning walk around the school: <i>What can you find that is made out of rock?</i> Chn could take pictures of what they found or draw and label what they found. Get chn to feel the rocks they find and think of adjectives to describe them – Write these next to the picture/drawing. If chn don't use this vocabulary, task them to now use this vocabulary to describe the rocks they found: hard, soft, shiny, rough, smooth. Back in class, ask chn what they have discovered about rocks from their learning walk. Chn to understand there are many different types of rocks. Explain that in small groups (possibly groups of 3), chn will be given samples of rocks and a name card with descriptions on. Explain their task is to match the rock with the correct description. Chn are to use magnifying glasses to help with their observations. Chn can complete this as a group and picture can be put in their book. Use the rock detectives sheet for the labels. For a 'post it' task the chn to explain what they had to do and give an example. E.g. <i>we had to match the rocks to the correct name, by observing their properties. For example, the marble looked like it had veins in and it was hard</i> <u>Lesson 2 KQ: How can we classify rocks?</u> Start by recapping previous lesson. <i>What did we learn?</i> 'There are so many different types of rocks' Task chn to group the rocks on their table. They can choose any categories that they wish, but must be able to explain their reasoning. After the discussion from this, task to group them into 3 categories: sedimentary, igneous & metamorphic. Once chn have attempted this, explain that by the end of the lesson they will know how to do this. Give groups the diagrams on the 'Types of Rocks' document and the mixed up explanations. Task the groups to read the explanations and match them to the correct diagrams and in the correct order: <u>Lesson 3 KQ: Do all rocks have the same properties?</u> Chn to carry out investigations and look for properties of igneous, sedimentary and metamorphic rocks:</p> <div style="background-color: #f0f0f0; padding: 10px; border: 1px solid #ccc;"> <p>Scientific question Do all rocks have the same properties?</p> <p>You will need:</p> <ul style="list-style-type: none"> 8 different rocks (numbered 1-8) A nail (for the scratch test) A teat pipette (for the porosity test) A stopwatch/watch/clock (for the porosity test) A container of water (for the flotation test) <p>Method For each rock, predict and then observe what will happen when you perform these three tests:</p> <p>1. Can it be scratched with a nail? Scratch the rock with the nail and observe whether it leaves a mark on the rock.</p> <p>2. Is the rock porous? Use the teat pipette to place one drop of water onto the rock. Observe whether the water is absorbed by the rock after 60 seconds (showing that the rock is porous).</p> <p>3. Does the rock float? Place the rock in the container of water and observe whether or not it floats.</p> </div> <p>Children to record results in the table provided in your resource folder. You could also use the venn diagram to show their findings from these results. Conclusion: <i>Do all rocks have the same properties? Do all rocks of the same type have the same properties? Did all the rocks have anything in common? Can you think of any other tests that we could perform on these rocks?</i></p> <p><u>Lesson 4</u> Start lesson by revisiting previous learning this week. Focus on different types of rocks and how they're made. Move on to given chn the Fossil Discussion Image (or something similar) Ask chn: <i>What is going on in the picture?</i> This will allow you to assess chn's prior knowledge about fossils. As you go through the PPT (Fantastic Fossils), give chn the images of fossils (Fossil Examples). Task them to identify which image belongs to which fossil type as you or a child is reading out the definitions. Task is to show the order of fossil formation. You can use the fossilisation process document to help support with this and for differentiation.</p> <p><u>Lesson 5: What is soil?</u> Start by asking chn the KQ, to assess prior knowledge. Then, watch this video: https://www.bbc.co.uk/bitesize/topics/zitv4wx/articles/ztvbk2p.</p>
Week 1 6.5 hours				

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				Take the children outside for a walk to find soil. Chn can gather a soil sample using trowels and can try to spot any parts of the 'ingredients'. The sample can be put in see through jars. Take a picture to put in books, which chn can label.
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Vocabulary

Rock, sandstone, limestone, chalk, granite, slate, marble, classification, observation
man-made rocks, brick,
tile, concrete, igneous, sedimentary, metamorphic, permeable, impermeable, acid,
erosion, marble, chalk, limestone, slate, Granit, sandstone, identification, key

Resources

Rock samples, pipettes, trowels, see through jars, resources in the folder