Year 3 - Science - Summer 2 - Rocks, Fossils and Soils

In the folder, you will find 7 presentations. This is for your child to complete one science lesson per week, or you can complete them in one block if you would prefer! In the table below, the first column will give you points to discuss, and the second column will give you a task for your child to complete. This can be done on paper or however you wish!

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	To be able to identify naturally accurring rocks and	Take a walk around your home, garden and local
Lesso n 1	 To be able to identify naturally occurring rocks and explore their uses. What is a rock? Where do rocks come from? Talk about their ideas, then go through the information on the slides. Show children the picture on the slide and see if they can spot any rocks. Which occur naturally and which do not? Explain that there are lots of different types of rock and that they can be used for many different things. Lots of naturally occurring rocks can be used as they are. Some other materials that look like rocks (e.g. bricks and concrete slabs) are actually man-made. Go through each example on the slides. Is this natural or man-made? Children to offer ideas then go through the answers. Go through some different types of naturally occurring rock and their uses on the slides. 	 Take a walk around your home, garden and local environment. Look out for as many examples of rock as you can and think about how the rock is being used. While you walk, collect some samples of different rocks. Record your findings and tell me: Where is it? What is it being used for? Describe the rock – texture, weight, colour etc. Is it natural or man made? Research Stonehenge online. Is this structure natural or man-made? Discuss and explain that these rocks are natural but they have been placed and positioned by humans. How do you think they got there? Explain that no one is really sure!
Lesso n 2	 To be able to group rocks according to their characteristics. Show children the pictures of the different rocks on the slides. How could you organise these rocks into groups? Show children how the rocks have been grouped. What criteria has been used to group these rocks? Children to offer ideas then go through the answer on the slides. Show children how different diagrams and charts can be used to organise rocks into categories. Show children the Venn diagram on the slides. Can you think of a rock that would go in the middle of the two circles? On the next slide, ask children to see if they think the rocks have been sorted correctly on the Venn diagram. Can you spot the rock in the wrong place? Why do you think it is important to be able to group rocks according to their characteristics? Invite children to share their ideas. 	 With the rocks they collected yesterday, challenge children to separate the rocks into two categories (e.g. rough and smooth). Give children a time limit to sort their rocks into these two categories then discuss how each group grouped them. Repeat this several times with different categories (e.g. colour, arrangements of particles, shape, etc.).
Lesso n 3	To be able to plan, carry out and evaluate experiments to compare rocks. To be able to plan, carry out and evaluate experiments to compare rocks. Watch this video:	 Plan and conduct a permeability experiment. Write in full sentences to tell me: What you will need (include a list) What types of rock are you testing? What will you need to do? How will you make your experiment a fair test? What do you predict will happen? Why?

	https://www.bbc.co.uk/bitesize/topics/z9bbkqt/article	- What happened?
	s/zsgkdmn	 What happened? Was your prediction correct? What does this tell you?
	Do you know what the word 'erosion' means? Share your ideas.	Use a selection of rocks, and water. Test each of
	 Explain that although rocks are generally very hard and strong, it is possible to wear them away. Show children the pictures of 	the rocks to see if the rock absorbs the water or if it just runs off. Challenge: order the rocks from the most permeable
	the Grand Canyon on the slides and explain how the formations were formed over thousands of years by water wearing away (eroding) the rock.	to the least permeable.
	 How do you think we could set up an experiment to test different rocks to see how much they wear away? 	
	 Go through the suggestion on the slides. Do you know what the word 'permeable' means? Go through the explanation on the slides. 	
	 How could you test the permeability of different rocks? Again, children to think, pair, share their ideas then go through the explanation on the slides. 	
Lesso n 4	To identify rocks that are used for particular purposes.	Use the internet to research one particular type of rock and its properties and uses.
	What have we found out about rocks and their characteristics so far?	Create a mini project (present this however you like!) about their rock. This could be a poster, fact
	 How many rocks can you name? Today they will be carrying out some research to find out how different rocks are used and why they are used for that 	file, piece of artwork, word document. Use one sheet of paper and include images, drawings, and lots of information. Be sure to share these with us on Class Dojo so we can collate them into a class
Lesso	purpose. To explore soil and how it is formed. To explore soil	project folder. Go out on a walk around your garden or local area
n 5	and how it is formed	to look at some different soil samples. If you have containers, you could even collect some!
	Watch this video:	
	https://www.bbc.co.uk/bitesize/topics/zjty4wx/article s/ztvbk2p	Make a note of the different types of soil you have looked at and where it was found (e.g. in a flower bed, under a tree, etc.).
	What is soil? What is soil used for? Invite children to share their ideas. Read the facts about soil on the	Think about and discuss: - What colour is it?
	slides. From what we have read, why is soil	- How big are the particles?
	important? Go through the information on the slides about what soil is, how it is formed and why it is	- Is it wet or dry?
	important Just like rocks, there are different types of	As you discuss the soils, compare: - Which soil was the darkest/lightest?
	soil. Show children the pictures of different soils on the slides. What differences can you see between these different types of soil?	 Which soil was the grainiest/smoothest? Which soil was the wettest/driest?
	 Show children the suggestions for how you could order the soil samples, e.g. by colour. 	
Lesso	To explore what fossils are and how they are	Watch these videos:
n 6	formed. Can you remember how rocks are formed? Share	https://www.bbc.co.uk/bitesize/topics/z9bbkqt/article s/z2ym2p3
	ideas, then go through the slides about the rock cycle and the different types of rock (i.e. igneous, sedimentary and metamorphic). - Show children the picture of a fossil on the	https://www.bbc.co.uk/bitesize/topics/z9bbkqt/article s/z22g7p3
	slides. What is this? Go through the information on the slides about how fossils are formed.	Now use the internet to research and make a colourful and informative poster about fossils, telling me as much information as you can. Be sure to
		share your posters with us on class dojo!

	 Show children the pictures of different fossils on the slides. What do you think we can find out from these fossils? Discuss ideas then explain how palaeontologists use fossils to help them find out about living things from millions of years ago. 	
Lesso n 7	To be able to identify fossilised remains.	Art Project!
	 Can you remember what a fossil is? How are fossils formed? Explain that in order for an organism to become fossilised it needs certain conditions. This is why not all prehistoric animals became fossils. Show children the common fossils on the slides. For each one, ask children what kind of animal they think it was and then go through the information for each. What do you think we would know about dinosaurs and other prehistoric organisms if we didn't have fossils? Share ideas. 	Research fossils on the internet and choose your favourite one. Can you replicate it for your fossil art project? Can you make a model of a fossil using clay or dough? What about a drawing or a painting? Use any medium you like to create a piece of art based on your chosen fossil.