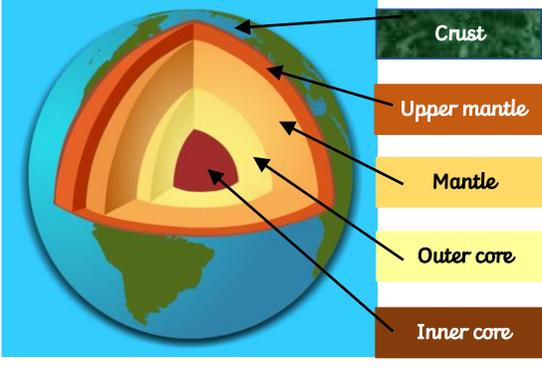
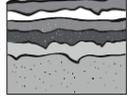


River Bank Primary Knowledge Organiser		Year Three Science		Spring 1		Earth Rocks	
Key Vocabulary				Ores		Crystals	
Mineral	A natural substance that makes up rock .				Copper ore		Quartz
Rock	Made from one or more minerals .						
Permeable	Allows water to pass through.						
Impermeable	Does not allow water to pass through.				Platinum - palladium ore		Amethyst
Crystals	Minerals that join together to make a type of igneous rock .						
Ore	A rock or mineral that contains metal.				Iron ore	Fun Facts <ul style="list-style-type: none"> 4% of your body is made from minerals from rocks. Paper contains a rock called clay. There are more than 1400 earthquakes on Earth every day. The biggest dinosaur fossil is Sauroposeidon: it was as heavy as nine elephants. 	
Igneous rock	Lava or magma that has turned from liquid to solid, forming rock .						
Metamorphic rock	An igneous or sedimentary rock that has been changed by extreme heat and pressure.						
Magma	Hot fluid or semi-fluid material below or within the Earth's crust .						
Lava	Hot motten or semi-fluid rock above the Earth's crust .						
Earth's crust	The outermost solid shell of the Earth.						
Sediment	Matter (e.g. dead animals, plants or pieces of rock) that settles to the bottom of a liquid.						
Sedimentary rock	Rock that has formed from the build-up of sediment at the bottom of rivers/oceans over many years, which has been squashed under the weight of the liquid and more sediment.						
Humus	The part of soil formed by decomposition of leaves and other plant material by soil microorganisms .						
Microorganism	A living thing that is too small to be seen with a naked eye. Examples include bacteria and microscopic animals such as dust mites.						
Fossil	The remains or impression of a prehistoric plant or animal embedded in rock and preserved by minerals replacing decomposed matter.			Fossils		 <p>Cast fossils</p> <ul style="list-style-type: none"> This is a fossil of an extinct sea creature which did not have a backbone, called an ammonite. They are often found in limestone or shale.  <p>Replacement fossils</p> <ul style="list-style-type: none"> Petrified means wood turned into stone. The image shows the middle of a polished slice of a petrified tree from Arizona. It is possible to see the remains of living things deep in the tree. They lived approximately 230 million years ago.  <p>Whole body fossils</p> <ul style="list-style-type: none"> This spider has been made into a fossil and is inside a substance called Amber. Amber is a resin which seeps out of a tree. Resin is very sticky and runny but eventually it dries forming a solid.  <p>Whole body fossils</p> <ul style="list-style-type: none"> This fossil of a mammoth was found perfectly preserved in ice. Mammoths are now extinct. Many of these have been found in Siberia which is part of Russia. 	
Extinct animal	A species having no living members.						
Extinct volcano	Not having erupted in recorded history.						
Paleontologist	A scientist who studies fossils from the Greek for 'ancient' (<i>paleo</i>), 'being' (<i>onto-</i>) and 'study' (<i>-logy</i>).						
Granite	A very hard igneous rock with a grainy and crystalline appearance.						
Marble	A metamorphic form of limestone , typically white and crystalline. The Taj Mahal is made from marble.						
Limestone	A hard sedimentary rock , made from calcium carbonate. It is used in making cement.						
Chalk	A white soft earthy limestone formed from skeletal remains of sea creatures.						
Sandstone	A sedimentary rock consisting of sand cemented together by pressure. Usually it is red, yellow or brown in colour.						
Slate	A fine grained grey, green or bluish-purple metamorphic rock easily split into smooth flat plates. Often used to roofs of buildings.						

Igneous Rock		Sedimentary Rock		Metamorphic Rock		Structure of the Earth	
	<ul style="list-style-type: none"> Igneous rocks like granite are very hard, dark and heavy. They are formed when motten magma from a volcano cools down. 		<ul style="list-style-type: none"> Limestone is a good example of a sedimentary rock. These are formed when small pieces of bones or shells of animals are pressed into layers of rock over many years. 		<ul style="list-style-type: none"> Slate is a good example of a metamorphic rock. These are formed when sedimentary rocks are changed by heat or pressure. 		
type of rock	Appearance	Draw and sample	Draw and sample	Draw and sample	Draw and sample		
Igneous	Hard Dark Heavy May contain crystals or holes No fossils	They do not contain fossils.	Layers Crumbly with round grains Contains fossils Light colour Not heavy	They often contain fossils. Many of these are light in colour and heavy.	Light and dark bands A few fossils 'Clink' when tapped Large grains		
		There are lots of igneous rocks all over the world and in many parts of the world too!					
Examples Granite, Pumice, Basalt			Examples Chalk, Limestone, Sandstone		Examples Granite, Pumice, Basalt		
Sedimentary	Layers						

Quiz

Question 1	Question 2
<p>Complete this sentence: Permeable means...</p> <p>A. a natural substance that makes up rock.</p> <p>B. made from one or more minerals.</p> <p>C. something that allows water to pass through.</p> <p>D. something that does not allow water to pass through.</p>	<p>Complete this sentence: Rock is ...</p> <p>A. a natural substance that makes up rock.</p> <p>B. made from one or more minerals.</p> <p>C. something that allows water to pass through.</p> <p>D. something that does not allow water to pass through.</p>
Question 3	Question 4
<p>Complete this sentence: Igneous rock is...</p> <p>A. rock that has formed from the build-up of sediment at the bottom of rivers/oceans over many years, which has been squashed under the weight of the liquid and more sediment.</p> <p>B. lava or magma that has turned from liquid to solid, forming rock.</p> <p>C. an igneous or sedimentary rock that has been changed by extreme heat and pressure.</p>	<p>Complete this sentence: Sedimentary rock is...</p> <p>A. rock that has formed from the build-up of sediment at the bottom of rivers/oceans over many years, which has been squashed under the weight of the liquid and more sediment.</p> <p>B. lava or magma that has turned from liquid to solid, forming rock.</p> <p>C. an igneous or sedimentary rock that has been changed by extreme heat and pressure.</p>
Question 5	Question 6
<p>Complete this sentence: Metamorphic rock is...</p> <p>A. rock that has formed from the build-up of sediment at the bottom of rivers/oceans over many years, which has been squashed under the weight of the liquid and more sediment.</p> <p>B. lava or magma that has turned from liquid to solid, forming rock.</p> <p>C. an igneous or sedimentary rock that has been changed by extreme heat and pressure.</p>	<p>Fossils are often found in which types of rock?</p> <p>A. Crystals</p> <p>B. Metamorphic rock</p> <p>C. Sedimentary rock</p> <p>D. Igneous rock</p>
Question 7	Question 8
<p>Complete this sentence: Igneous rocks are usually...</p> <p>A. light in colour and weight.</p> <p>B. hard, dark in colour and heavy.</p> <p>C. crumbly and soft.</p> <p>D. in layers.</p>	<p>A whole body fossil can be found in what?</p> <p>A. Amber</p> <p>B. Ice</p> <p>C. Rocks</p> <p>D. A + B</p>