

Year 3 Autumn Term 1	<h1>Knowledge Organiser Rocks and Fossils</h1>	
	Key vocabulary igneous extrusive intrusive metamorphic sedimentary sedimentation cementation compaction sediment fossil bone natural manmade permeable palaeontology ammonite belemnite mould trace body (fossils)	
Key people	Mary Anning 1799 -1847 Lyme Regis, Dorset	
<i>I can..</i> <i>National Curriculum</i>	<ul style="list-style-type: none"> • <i>compare different kinds of rocks based on their appearance and simple physical properties e.g. natural or manmade.</i> • <i>group together different kinds of rocks on the basis of their simple physical properties in the context of natural rocks.</i> • <i>describe in simple terms how fossils are formed when things that have lived are trapped within rock</i> • <i>explain Mary Anning's contribution to early palaeontology</i> • <i>recognise that soils are made from rocks and organic matter</i> 	
Types of rock and how they are formed		
Metamorphic	Formed by the effect of heat (not melting) and pressure on existing rocks.	
Sedimentary	Formed when eroded sediments end up in the water and begin to settle (sedimentation). With time, more layers pile up and presses down the lower layers (compaction). More layers (strata) and further compaction forces water out of the layers. Salt crystals glue the layers together (cementation). Rock mass formed is sedimentary. Fossils are found in sedimentary rock.	
Igneous	<i>Formed in two ways:</i> Extrusive igneous rocks cool quickly and as a result these rocks are fine grained or have a lack of crystal growth. Intrusive igneous rocks are formed from magma that cools slowly and as a result these rocks are coarse grained.	
Types of Fossils		
Body fossils are the remains of animals or plants. <ul style="list-style-type: none"> • Mould fossils • Cast fossils • Replacement fossils • Whole body fossils 	Trace fossils show animal activity. <ul style="list-style-type: none"> • Footprints • Track ways • Coprolites 	Chemical fossils are matter containing carbon.
Challenges Here are some challenges that you might like to try to be an independent learner: <ul style="list-style-type: none"> • Be a rock hound! Find a variety of different types of rock. Can you name them? • Find a fossil - the beach is a great place to start. Don't climb on the cliffs though, as they aren't stable and might collapse. Be safe! • We will be finding out about Mary Anning. Can you research another paleontologist who has worked in the past or someone who is working as a paleontologist now? • Find out about more recent discoveries have been made in the field of paleontology. Write about it! 		
Learn-its Autumn 1 in Year 3: Practise these to make maths easier and more fun! Addition and subtraction: Count in 1s, 10s and 100s to, from and across 1000. 1,2,3,4,.... 99, 100, 101,102... 10, 20, 30, 40.... 90, 100, 110, 120... 500, 600, 700, 1000, 1100, 1200 Add + 3 = __, 329 - 4 = __ etc. Multiplication: Count in multiples of 3 to x12 with fluency. 0, 3,6,9,12,15 18, 21, 24, 27, 30, 33, 36 and back!		