

## Science KS3 Assessment Framework

	Beginning Grade 1	Working Towards Grade 2-3	Expected Grade 4-5	Exceeding Grade 6-7	Excelling Grade 8-9
<b>Structure of the Earth and Universe</b>	I can:  Name the layers of the Earth.	I can:  State a property of sedimentary rocks.	I can:  Design a simple model of the Earth using information about its structure.	I can:  Explain why a rock has a particular property based on how it was formed.	I can:  Describe advantages and disadvantages of a given model of the Earth's structure
	State what a mineral is.	State one difference between igneous and metamorphic rocks.	Describe properties of the different layers of the Earth's structure.	Make an experimental prediction.	Compare the different layers of the Earth in terms of their properties.
	List some uses of ceramics.	State what happens to wax in a model rock cycle.	Explain that most rocks are mixtures of minerals	Explain why a sedimentary rock has a particular property based on how it was formed.	Interpret data about the elements that make up the Earth's crust.
	Name some objects seen in the night sky.	Give simple facts about how a rock can be changed from one type to another.	Explain why a rock has a particular property based on how it was formed.	Identify the causes of weathering and erosion and describe how they occur.	Explain why models are good or poor representations of the Earth's structure in terms of materials used.
	Explain how we see planets.	List the properties of ceramics.	Identify the causes of weathering and erosion and describe how they occur.	Explain how a given model represents a particular process in the formation of sedimentary rock.	Identify circumstances that indicate fast processes of change on Earth and those that indicate slower processes.
	Name some objects in the Solar System.	Identify some patterns in the Solar System.	Describe how sedimentary rocks are made.	Explain in detail how igneous and metamorphic rocks form.	Predict planetary conditions from descriptions of rocks on other planets.
		Describe how objects in the Solar System are arranged.	State the processes shown by different models of the stages in sedimentary rock formation.	Explain why igneous and metamorphic rocks have particular properties based on how they were formed.	Evaluate strengths and weaknesses for models of sedimentary rock formation, giving reasons.
		Explain why we see objects in the Solar System, and describe how they appear to move.	Describe how igneous and metamorphic rocks are formed.	Predict observations when a substance representing lava is cooled at different temperatures.	Discuss examples of rocks that illustrate the different methods of formation of igneous and metamorphic rocks.
			Describe what you see when a substance representing lava is cooled.	Give a detailed description and explanation of the journey of material through the rock cycle.	Identify circumstances that indicate fast processes of change on Earth and those that indicate slower processes.
			Use the rock cycle to explain how the material in rocks is recycled.	Justify decisions made from property data about which materials might be ceramics.	Predict observations when a substance representing lava is cooled, using knowledge about igneous rock formation to explain the answer.
		Describe how changes in the wax used to represent a rock represent the real rock cycle.	Suggest how ceramic materials might be similar to some types of rock.	Suggest similarities and differences between the rock cycle and everyday physical and chemical processes.	
		Suggest a simple method for comparing the strength of ceramic materials given a choice of apparatus.	Identify scientific evidence from secondary evidence.	Plan a method for comparing the strength of ceramic materials, justifying choices of experimental techniques, apparatus and the measures to control risk.	
			Explain the choice of light years as a unit of measuring distances in astronomy.	Use the speed of light to describe distances between astronomical objects.	
			Draw valid conclusions that utilise more than one piece of supporting evidence.	Assess the strength of evidence, deciding whether it is sufficient to support a conclusion.	
			Describe the structure of the Universe in detail, in order of size and of distance away from the Earth	Explain how the properties and features of planets are linked to their place in the Solar System.	
		State a unit that astronomers use to measure distance.	Explain why we see objects in the Solar System, and why they appear to move as they do.		
		Describe how space exploration is affected by the scale of the Universe.		Make deductions from observation data of planets, stars, and galaxies.	