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| **Outcomes** |
| * Can order the layers that are found within the Earth * Can give properties of each layer (state of matter, composition and thickness) * Describe the concept of a tectonic plate. * Give evidence of tectonic plate movement (fossils and coast lines fitting like a jigsaw). * Explain how convection currents are responsible for tectonic plate movement. * Define convergent and divergent plate boundaries |
| * Label the main vent, dike, sill, magma chamber, lava flow, crater and ash cloud on a volcano diagram * Describe the difference between lava and magma * Describe causes of volcanoes (both convergent and divergent boundaries) * Explain why the majority of volcanoes are found around the ring of fire. * Explain what causes an Earthquake * Name the device used to measure earthquakes (seismometer) and briefly describe how it works. |
| * Use diagrams to help explain the difference between syncline, anticline and monocline folds. * Describe the difference between a normal fault, a reverse fault and a slip fault. * Identify, from diagrams, what type of fault or fold has occurred in the crust. |
| * Define a mineral * Describe common minerals including quartz, mica, feldspar. * Describe the ways minerals are classified; colour, streak, Moh’s hardness, lustre, cleavage and polarising light * Explain the role of rate of change in temperature in determining crystal size |

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| **Outcomes** |
| * Define a rock * Describe common features of igneous sedimentary and metamorphic rocks * Describe the formation process for igneous rocks; intrusive and extrusive types. * Can name the common igneous rocks; pumice, basalt and granite. * Describe the formation process for metamorphic rocks; requirements for heat and pressure and how the amount of each will affect which rock is formed. * Can name common metamorphic rocks and where they come from; marble from limestone, quartzite from sandstone, slate from mudstone. |
| * Describe each stage of the formation process for sedimentary rocks; weathering, erosion, deposition and cementation * Can identify the relative age of rock layers within a core sample through application of the law of superposition. |
| * Can draw a flow diagram and describe the rock cycle * Use a classification key describing physical and chemical properties to help identify rock types |
| * Define an ore * Can name the important minerals in the following ores:   + Iron ore: hematite and magnetite   + Aluminium ore: bauxite   + Uranium ore: uraninite * Describe environmental concerns of mining and how certain techniques and practices can mitigate the damage (assessing environmental conditions before operations, minimising water and energy use, recycling products rather than mining more). |