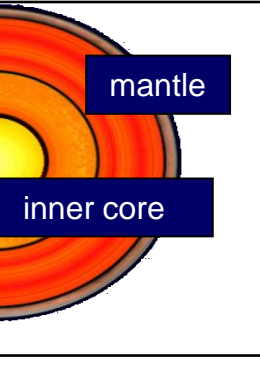
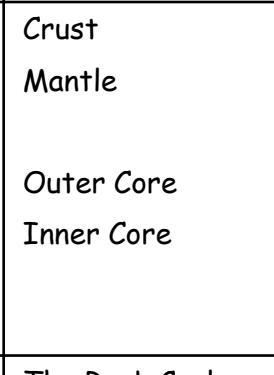
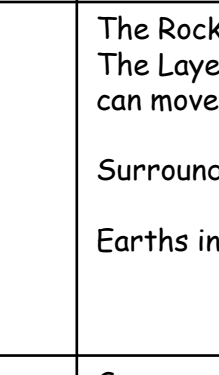
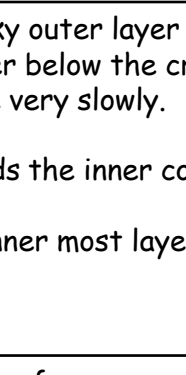
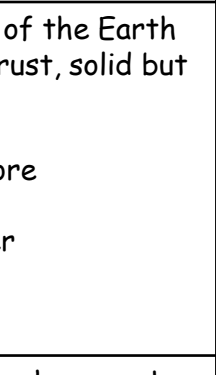


Rationale

In this topic students will study the structure of the Earth and the Earth's Atmosphere. They will explore how we use Earth's resources (including metals) and the impact this is having on our planet. Therefore the importance of sustainable development will be studied.

Diagrams	Keywords	Definitions
 <p>The diagram shows a cross-section of the Earth with four concentric layers. From the outside in, they are labeled: crust (outermost), mantle, outer core, and inner core (innermost). The layers are color-coded: crust is thin and light brown, mantle is thick and orange-red, outer core is a darker red, and inner core is a bright yellow.</p>	<p>Crust Mantle Outer Core Inner Core</p>	<p>The Rocky outer layer of the Earth The Layer below the crust, solid but can move very slowly. Surrounds the inner core Earth's inner most layer</p>
 <p>The diagram illustrates the rock cycle. It shows a mountain with extrusive igneous rock on top and intrusive igneous rock below. Processes include: weathering and erosion of the surface; slow uplift to the surface; transportation and deposition of sediments; sedimentation and compaction and cementation into sedimentary rock; burial under high temperatures and pressures leading to metamorphic rock; and melting of metamorphic rock back into magma from the mantle. The cycle is continuous.</p>	<p>The Rock Cycle Sedimentary Rock Metamorphic Rock Igneous Rock</p>	<p>Sequence of processes where rocks change from one type to another over millions of years Formed from layers of sediment and can contain fossils e.g. limestone and chalk Formed from existing rock exposed to heat and/or pressure over long periods of time e.g. marble Formed when lava or magma cools and freezes e.g. granite</p>
 <p>A photograph showing several tall industrial smokestacks emitting thick, dark plumes of smoke or steam into a hazy, overcast sky.</p>	<p>Fossil Fuels Renewable Non renewable/Finite</p>	<p>Non renewable fuels formed over millions of years from dead plants and animals An energy source that can be replaced and will not run out. An energy source that cannot be replaced once it has run out</p>
 <p>A wide-angle photograph of a large open-pit mine or quarry. The landscape is filled with terraced levels of earth and rock, with several roads and tracks winding through the site. The background shows a range of mountains under a clear blue sky.</p>	<p>Metals Properties of metals</p>	<p>Elements on the left hand side of the periodic table Most metals are shiny, good electrical and heat conductors, malleable, ductile and solid at room temperature.</p>
 <p>A photograph of a person in a white shirt and dark pants using a hand-operated well to collect water. The person is leaning over a large yellow plastic container. The background shows a dry, open landscape with some sparse vegetation and a clear sky.</p>	<p>Sustainable Development Reduce Reuse Recycle</p>	<p>development that meets the needs of the present without reducing the ability of future generations to meet their own needs Creating less waste Finding a new use for items rather than throwing them away Recycling resources</p>