

Planet Earth Review

What do we know about the Earth we live on-about its <u>surface</u> and <u>what lies below</u> . What evidence do we have, and how do we use this evidence in developing an understanding of the earth and its changes?	
Key Concepts (Unit At A Glance Science Focus 7 p. 438) Links to Topic Notes provided	Guiding Questions and Activities to Help you Study
Topic 1 Elements (pure substances) Properties of minerals	- What are minerals? - How is the hardness of a mineral determined? - What are the 6 major crystal types? - What properties of minerals enable us to identify them?
Topic 2 The Rock Cycle How rocks form Identifying rocks Sedimentation and soil profiles	- Describe igneous, metamorphic and sedimentary rock in terms of how they were formed and how they can be identified. - Draw a scientific illustration of the rock cycle identifying the type of change that the rocks undergo. - How can rocks be identified? - What is a soil profile?
Topic 3 Erosion Types of weathering - biological, mechanical and chemical (slowly) - Glaciers (quickly) - Flash Flooding	- Explain the differences between mechanical, biological and chemical weathering, giving examples of each. - What are some examples of incremental and sudden changes of erosion? - Give operational definitions for erratics, moraines, striations and meandering.
Topic 4 Layers of the Earth Theory of Continental Drift Theory of Plate Tectonics Evidence for these theories Convection currents and plate zones	- Draw and label a scientific illustration showing the layers of the Earth - Explain the Theory of Continental Drift and the evidence that was collected to support this theory. - Explain the Theory of Plate Tectonics and the technologies used to gather evidence to support this theory. - Describe what forms convection currents in the mantle. - Explain the difference between diverging and converging continental plates and the zones these create.
Topic 5 Earthquakes Measuring force and magnitude Locating epicenter Earthquake zones and faults Tsunamis	- What causes earthquakes? - How are earthquakes measured (intensity and magnitude)? - Describe the three types of earthquake waves and their effects. - Identify the steps needed to locate the 'focus' (epicenter) of an earthquake. - Identify the different types of rock movement causing an earthquake. - What is a tsunami?
Topic 6 Volcanoes and the Ring of Fire	- Identify the main types of volcanoes and provide some examples of some current or famous volcanoes. - What is the Ring of Fire? - Where else in the universe can volcanoes be observed?
Topic 7 Mountain formation, age and types	- How are mountains formed? - What types of mountain formations are common in particular parts of the world? - How is the age of a mountain range determined?
Topic 8 Types of fossils Moulds and casts	- Identify the different types of fossils that have been found and classified. - Describe the formation of a fossil (mould and cast methods)

<p>Topic 9 Radiometric and radiocarbon dating Geological Time Scale</p>	<ul style="list-style-type: none"> - What is the principle of superposition? - Explain the relative dating technique, used to identify the age of a fossil. - Explain the techniques and differences, between radiometric and radiocarbon dating. - Briefly review the geological time scale, noting how the time scale is divided into eons, eras and periods.
<p>Topic 10 Locating fossil fuels</p>	<ul style="list-style-type: none"> - What is petroleum and how is it located?

Design a Concept Map linking the ideas introduced and reinforced in this Unit on Heat and Temperature

Try some of the [Practice Quizzes](#) to see how much you have recalled from this Unit

These Internet links may help you find out more information about the key concepts from this Unit.

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| <ul style="list-style-type: none"> ~ strata ~ rocks and minerals ~ rock cycle: formation of igneous rock, metamorphism and sedimentary processes ~ incremental change ~ mountain formation: folding and faulting | <ul style="list-style-type: none"> ~ chronological time scale ~ fossil formation ~ development of models based on evidence ~ crust movement/plate tectonics observation and evidence ~ weathering and erosion |
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