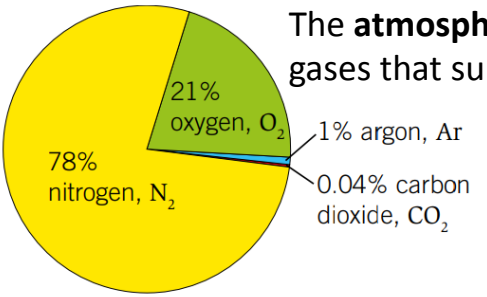
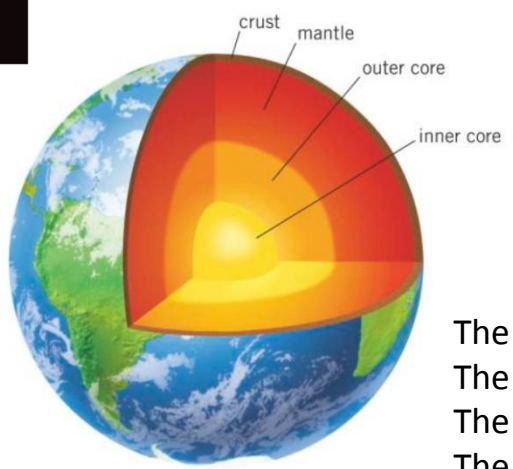


Section 1 - Earth and Atmosphere



The **atmosphere** is a mixture of gases that surrounds the Earth.

◀ The most common substances in the Earth's atmosphere, by volume.

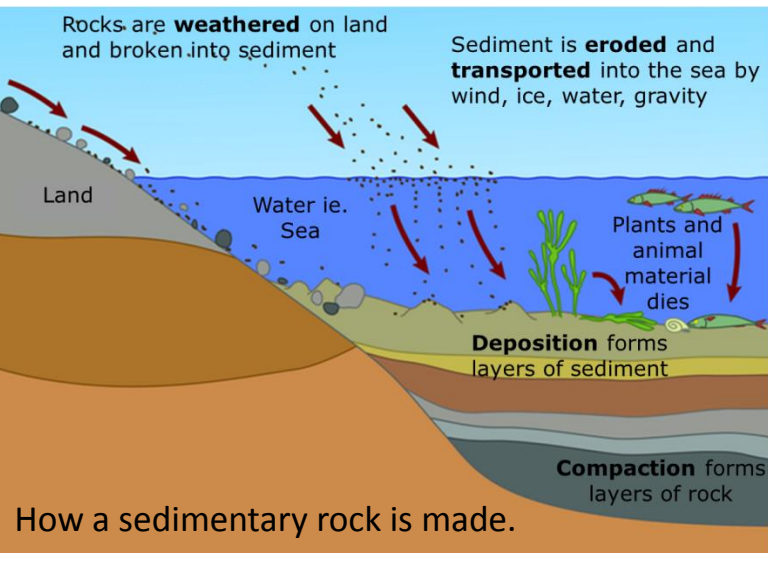
The **crust** is rocky and solid.  
 The **mantle** is solid rock, but can flow.  
 The **outer core** is liquid metal  
 The **inner core** is solid metal

Section 2- Sedimentary Rocks

Sedimentary rocks are made from sediments formed by weathering and erosion of existing rocks or dead plants and animals, e.g. limestone, chalk, sandstone



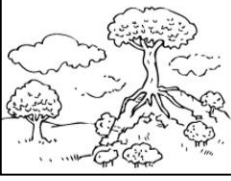
Weathering occurs in three ways:



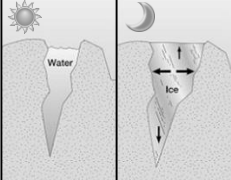
How a sedimentary rock is made.



**Chemical.**  
 Acids in rain react with substances in the rock.



**Biological.**  
 Animals and plants break up the rock.



**Physical.**  
 Due to temperature changes, water freezes and melts.

Section 3 - Igneous rocks

Igneous rocks are molten (melted) rock known as magma and lava which cools to form a rock with lots of crystals which lock together tightly, e.g. granite, obsidian, basalt.



| Time to cool | Size of crystal | Rock type |
|--------------|-----------------|-----------|
| Slow         | Large           | Granite   |
| Moderate     | Medium          | Basalt    |
| Fast         | Small           | Obsidian  |

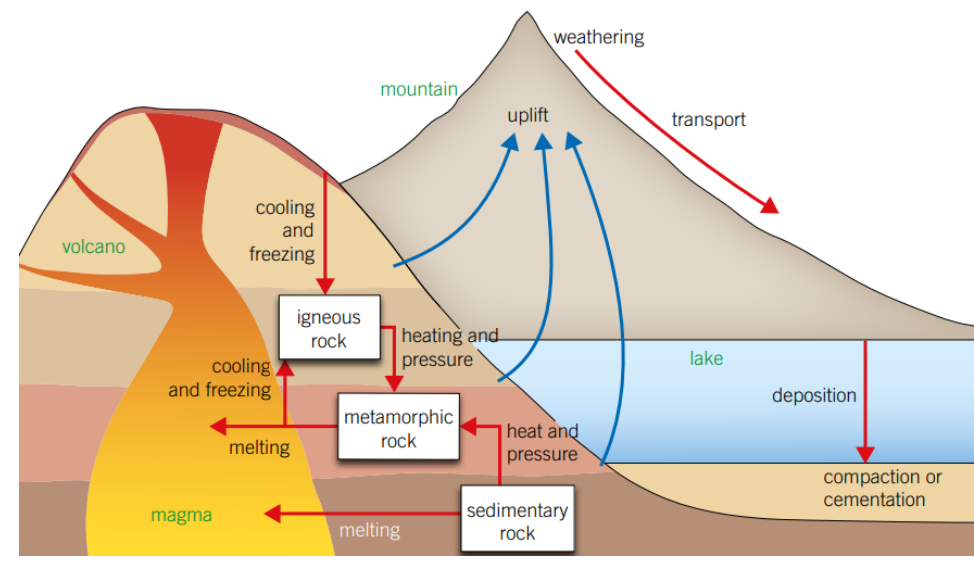
Section 4 - Metamorphic rocks

When any existing rock is under both heat and pressure it transforms into a new rock made of different crystals, e.g. marble, slate, gneiss.

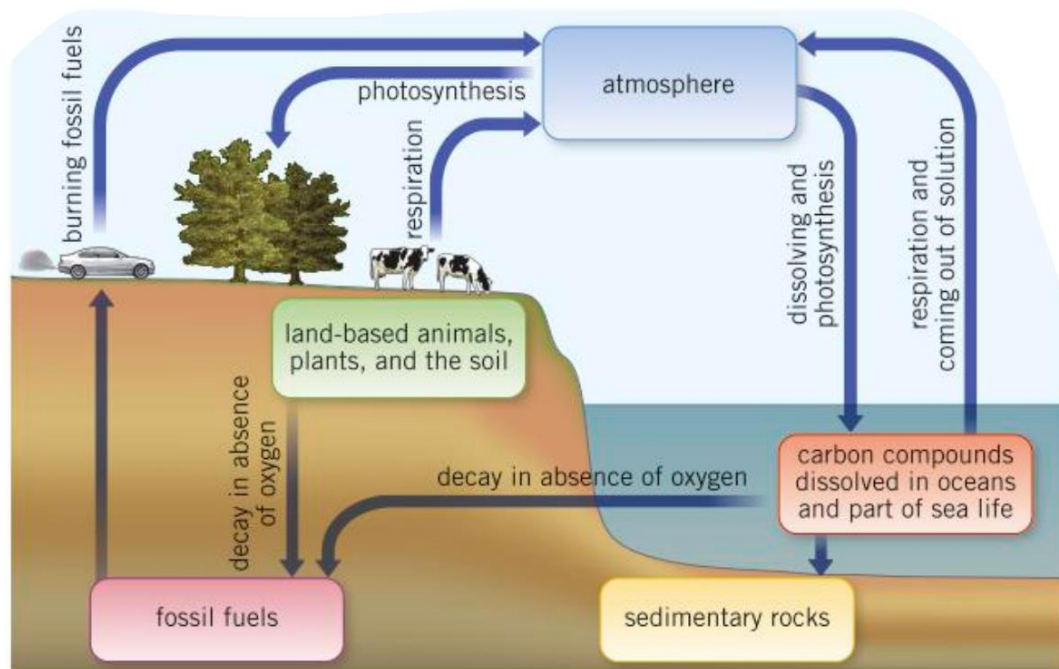


| Original Rock      | Metamorphic rock |
|--------------------|------------------|
| Limestone or chalk | Marble           |
| Mudstone           | Slate            |
| Granite            | Gneiss           |

Section 5 - The Rock Cycle



Section 6 - The Carbon Cycle

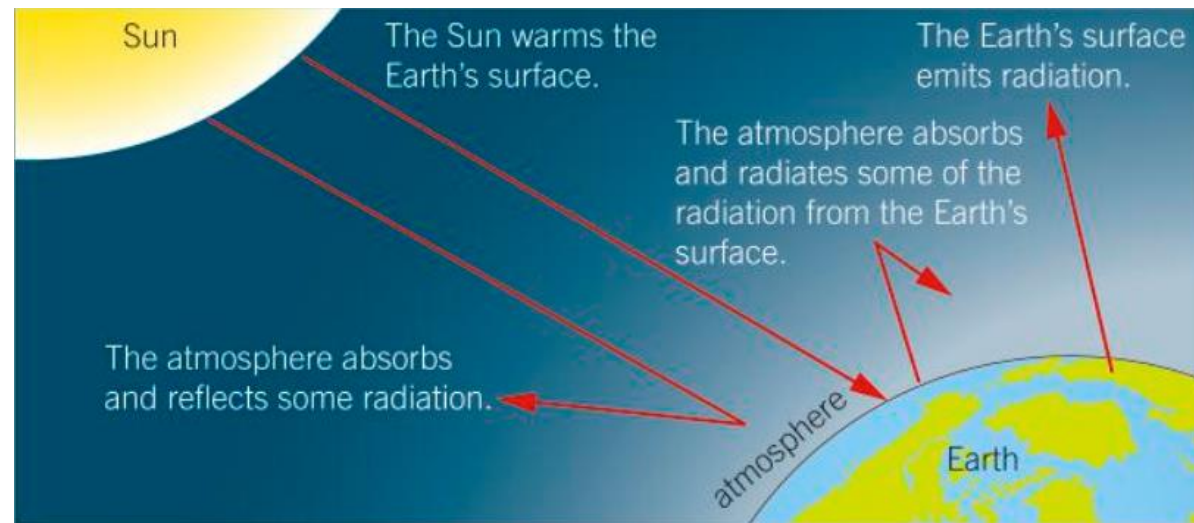


Section 8 - Recycling

**Recycling** means collecting and processing materials that can be used again. The most common recycled materials are, glass, paper, plastic and metals.

| Advantages to recycling  | Disadvantages to recycling  |
|--|---|
| <ul style="list-style-type: none"> <li>Resources will last longer.</li> <li>Uses less energy than using new materials.</li> <li>Reduces waste and pollution.</li> <li>Doesn't need landfill.</li> <li>Cheaper products.</li> <li>Reduces litter on the streets.</li> </ul> | <ul style="list-style-type: none"> <li>You have to separate your rubbish which is time consuming.</li> <li>The lorries that collect recycling use fuel and create pollution.</li> <li>Some materials are costly to recycle.</li> <li>If people don't buy the recycled materials, recycling doesn't work.</li> </ul> |

Section 7 - Climate Change



| Keyword                  | Definition  |
|--------------------------|---|
| <b>Global Warming</b>    | The increase in the global average air temperature  |
| <b>Greenhouse Effect</b> | Gases in the atmosphere which trap heat and increase the average air temperature, for example carbon dioxide. |
| <b>Climate Change</b>    | Changes to long term weather patterns.  |

Evidence for the enhanced greenhouse effect is shown by the impacts of global warming and climate change:

| Keyword               | Impact   |
|-----------------------|--|
| <b>Global Warming</b> | If air temperatures rise the ice caps will melt. Sea-levels will rise and wildlife habitats will be lost. Low lying areas will flood.                          |
| <b>Climate Change</b> | Different weather patterns, can mean heat waves and droughts which leads to failed crops and loss of wildlife habitats <b>or</b> very heavy rain and flooding. |