

Topic 1: Hazardous Earth

1. Fill in the gaps in the following paragraph:

Global Atmospheric Circulation

_____ air _____ at the _____:
_____ pressure. Cool air falls: _____ pressure. As the air
_____ it warms again and flows _____ to complete the cycle.

back high equator warm
low air rises falls

2. Number the following sentences so they're in the correct order.

Convection Currents

- () Heated rock from the mantle rises to the Earth's surface.
() The core heats the rock in the mantle to create a convection current.
() At the surface the convection current moves the tectonic plates in the crust.

Which of the following is the main heat source that powers convection currents? Tick the correct answer.

- magma
 continental drift
 radioactive decay
 subduction

3. Fill in the gaps in the following paragraph:

Ocean Currents

Ocean currents transfer _____ around the globe. Some _____ currents are powered by the _____, resulting from the _____ circulation of cells. In the Arctic and _____ the water gets very _____. This cold, salty, _____ water sinks. As it _____, warmer water from lower latitudes is _____ in. This is also cooled by the _____ temperatures – and the _____ continues.

cycle heat ocean atmospheric wind Antarctic
cold polar sinks dense pulled

4. Fill in the gaps in the following paragraph:

Global Warming

Global warming is associated with _____ levels of _____
Dioxide. This is a powerful _____ gas and is released by many
_____ activities such as _____, transport, _____
and energy production.

industry **rising** **farming**
human **greenhouse** **Carbon**

5. Fill in the gaps in the following paragraph:

Tropical Cyclones

Tropical cyclones, also known as _____, only form where seawater
_____ are above 26.5 degrees. Cyclones only occur either side of the
_____ and in the _____ and late autumn when seawater gets
warmest. Cyclones get _____ when they reach land because they lose
_____ – they are powered by warm _____.

warmest **energy** **temperatures** **equator**
weaker **summer** **hurricane** **water**

6. Match up the layers of the Earth with their descriptions.

Tectonics

The Earth is made up of a series of layers. There are four main layers:

Is solid and rigid – tectonic plates make up this layer.
Liquid magma layer at 3000°C
Made of liquid iron and nickel. Temperatures are between 4000-6000°C
Made of solid iron. Temperatures are between 5000-6000°C.

Outer Core

Crust

Inner Core

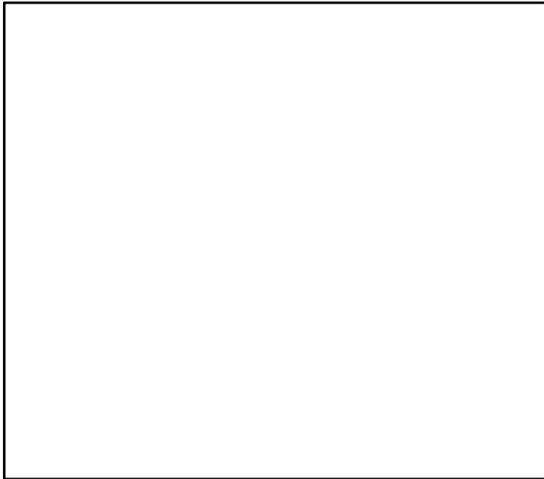
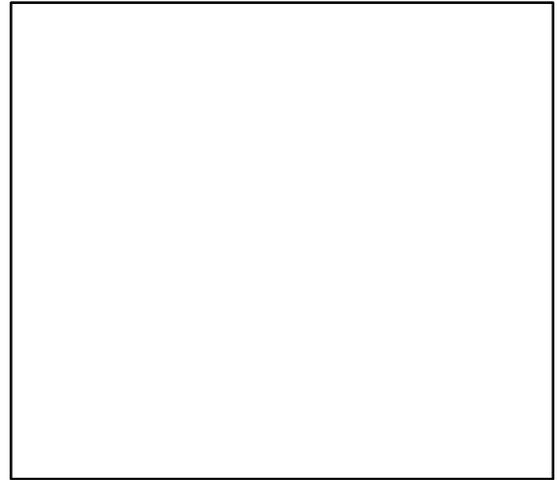
Mantle

7. Draw a diagram of the following plate boundaries:

Plate Boundaries

Convergent Plate Boundary

Two plates collide, one plate flows under the other. Many earthquakes and volcanoes.



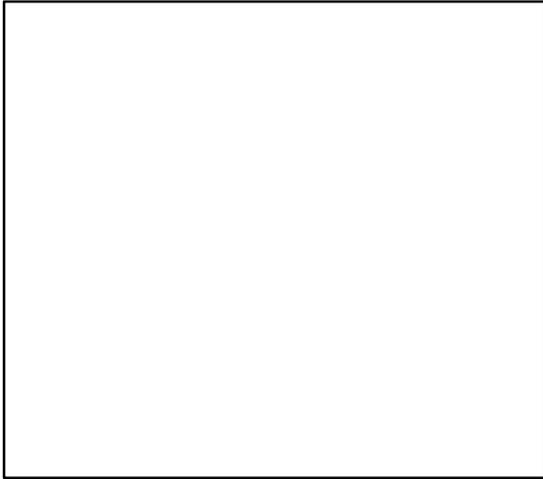
Divergent Plate Boundary

Rising convection currents pull the crust apart. Magma (molten rock) rises from the mantle to fill the gap and cools, creating new crust.

Conservative Plate Boundary

Where two plates are moving sideways past each other or are moving in the same direction but at different speeds. Causes earthquakes.





Collision Plate Boundary

Two continental plates collide and both plates buckle. This causes many earthquakes.

8. Fill in the gaps in the following paragraphs:

Earthquakes

Epicentre – the point on the surface directly _____ the _____.

Focus – the _____ point of the earthquake deep under the _____, where the earthquake actually happens.

central

surface

focus

above

Japan: CASE STUDY

In _____ 2011, a powerful _____ truck north-_____
Japan. It _____ 9.0 on the _____ scale and triggered a
_____ that overwhelmed the coast and inland areas.

tsunami

east

march

earthquake

Richter

measured

9. Highlight the PRIMARY and SECONDARY impacts:

Primary impacts: things that happen straight after an earthquake

Secondary impacts: the after-effects of earthquakes

- Deaths and injuries
- Spread of disease when sanitation breaks down
- Destruction or damage to roads, railways and bridges
- Destruction or damage to buildings
- Fires caused by gas or electricity supplies that are broken

Which of the following is the main cause of tsunamis? Tick the correct answer.

- volcano
- tropical storm
- tornado
- earthquake