

CONTINENTAL DRIFT OF PLATES

Welcome to GCSE Geography



225 Million Years Ago



150 Million Years Ago



100 Million Years Ago



Earth Today



TOPIC 1.2:
GLOBAL HAZARDS

1.2a: What processes occur @ plate boundaries

225 Million Years Ago

150 Million Years Ago

ai) How is the Earth structured? How is this linked to plate tectonics?



100 Million Years Ago



Earth Today

Let's get thinking



Similarities?
Differences?
Relevant Geo-lingo?

100 Million Years Ago

Earth Today

How is the Earth structured?

Learning is successful when I can:

- name the 4 layers of the earth.
- describe what each layer is like [thickness and consistency].
- understand how the layers interact and the outcomes of this

Impressive
Vocabulary
buoyant

Keywords

Lithosphere
Oceanic
Continental
Mantle
Core
Crust
Molten
Tectonic

Geography Skills:

Scale
Conceptual
understanding

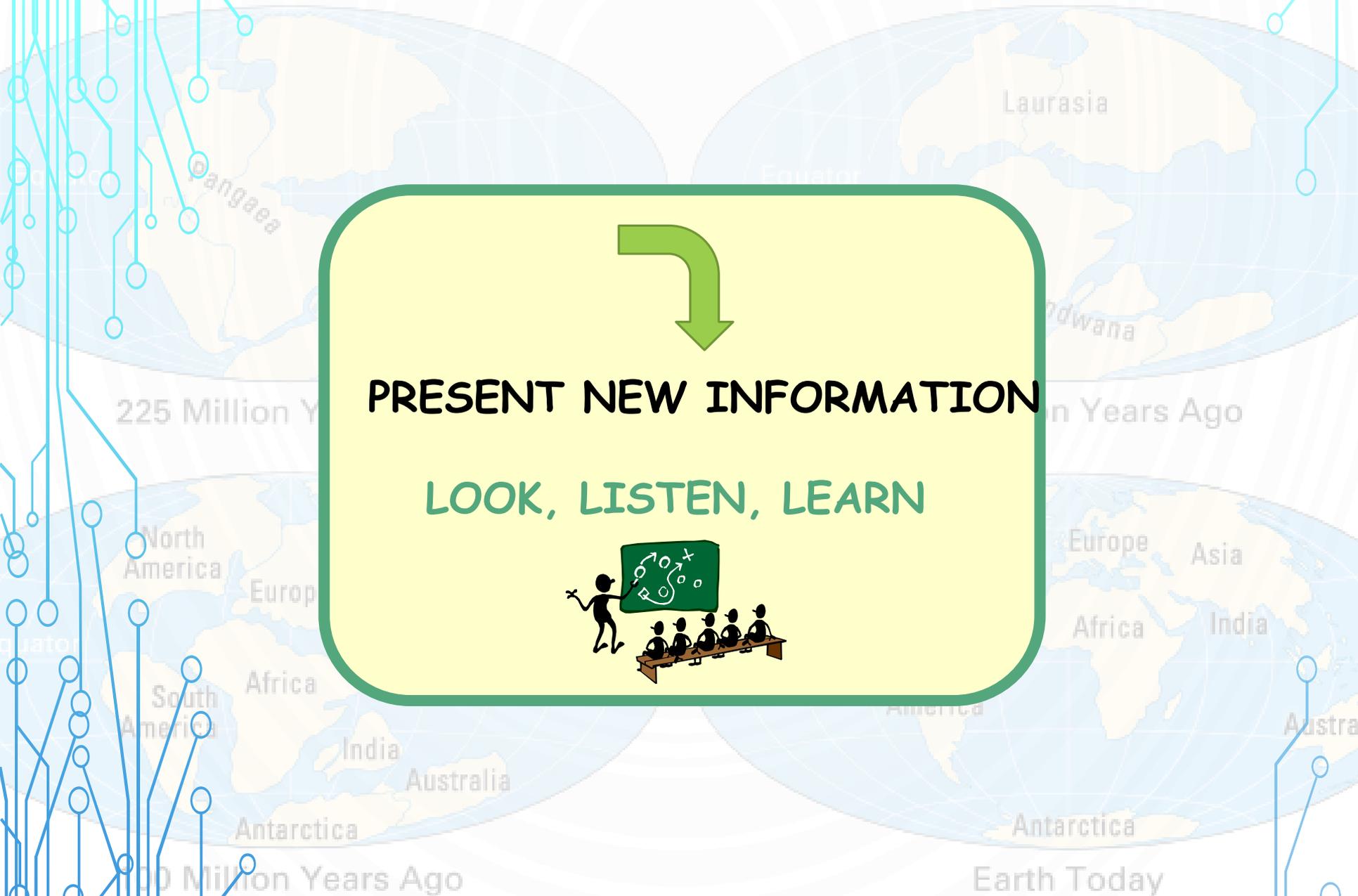
Literacy Skills:

Use of terminology

Employability Skills:

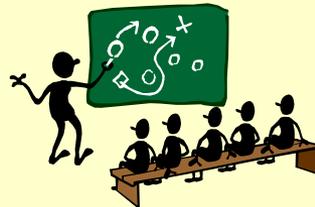
Independent thinking
Time management

CONTINENTAL DRIFT OF PLATES



PRESENT NEW INFORMATION

LOOK, LISTEN, LEARN



The Earth's Structure

- Draw a diagram of the Earth, showing its four layers
- Annotate each of the layers with at least two facts eg depth, temperature and composition

225 Million Years Ago

150 Million Years Ago



What's the lithosphere?

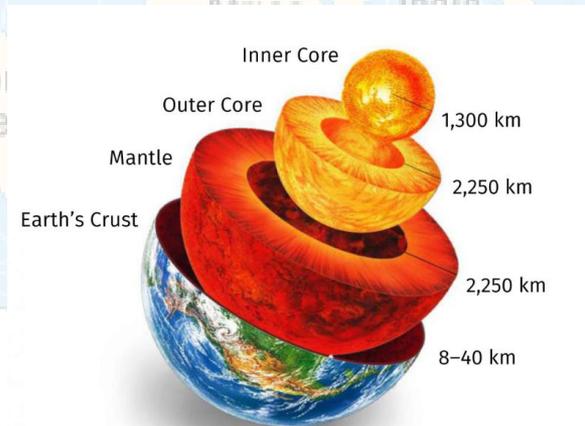
Who is Alfred Wegner?

What links him to this topic?



JOE software/bdwks
update/plate tectonics

100 Million Years Ago



There are two types of crust



- What's the obvious difference (look beyond the toppings!!)
- One represents oceanic crust, one continental crust— what do you reckon?

100 Million Years Ago

Earth Today



Oceanic v Continental



- Forms relatively quickly (due to renewal & recycling)
- Newer – less than 200 million years old
- Denser (due to heavy iron & magnesium content)
- Thinner
- Can sink

- Takes a long time to form
- Older – most over 1500 million years old
- Less dense (more buoyant)
- Thicker
- Cannot sink
- Cannot be renewed or recycled

100 Million Years Ago

Earth Today



Oceanic v Continental



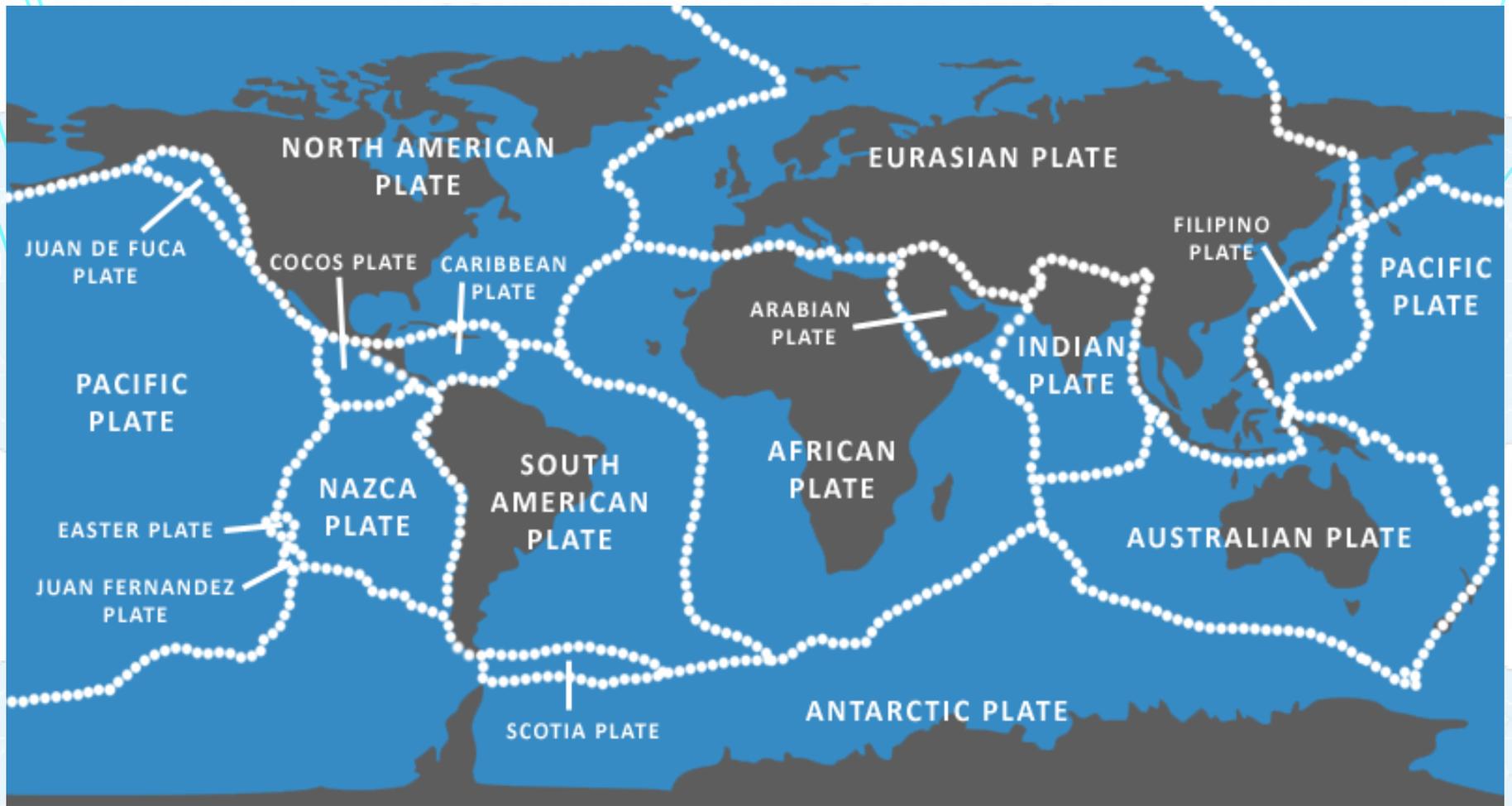
Oceanic	Characteristic	Continental
	Age	
	Density	
	Thickness	
	Able to sink?	
	Renewable & Recyclable?	

Where and why do oceanic plates get 'renewed' and 'recycled'?

100 Million Years Ago

Earth Today





TIP1: What do you notice about the majority of the plate names?

SKILL1: Why is this **KNoTS** a top quality map? [What's missing?]

TIP: Don't PANIC in the exam if you see this



TIP: This is an American map, we know this because.....

Over To You Find an example of: (a) two plates converging (b) two plates diverging (c) two plates sliding parallel *confused.com? No problem 😊 see page 30*

Moving plates

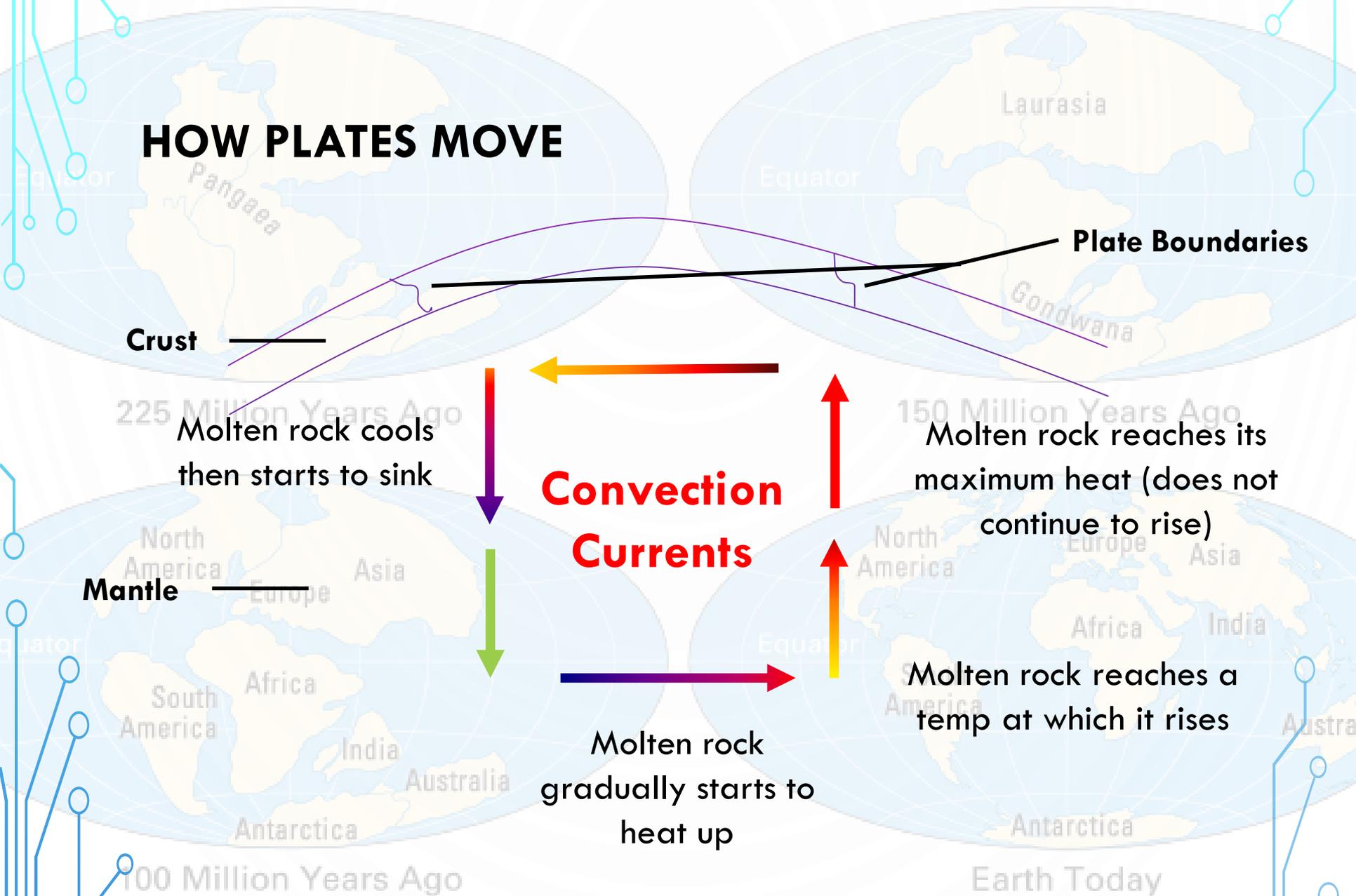
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- Nothing to do with spinning or humans!!!
- Scientists USED to think that H from the C caused CCs in the M which drove the P to move, but they don't currently have enough evidence for this.
- Current Thinking: **Ridge Push and Slab Pull**. CC's in the M cause SM rock to rise to the surface of the Earth as it is W and T. This pushes older crust away. Older crust is C and T than the M so sinks.
- Ridge push happens at ConPBs and Slab pull at DPBs.
- CollPBs only occur on land where two ConPs collide.

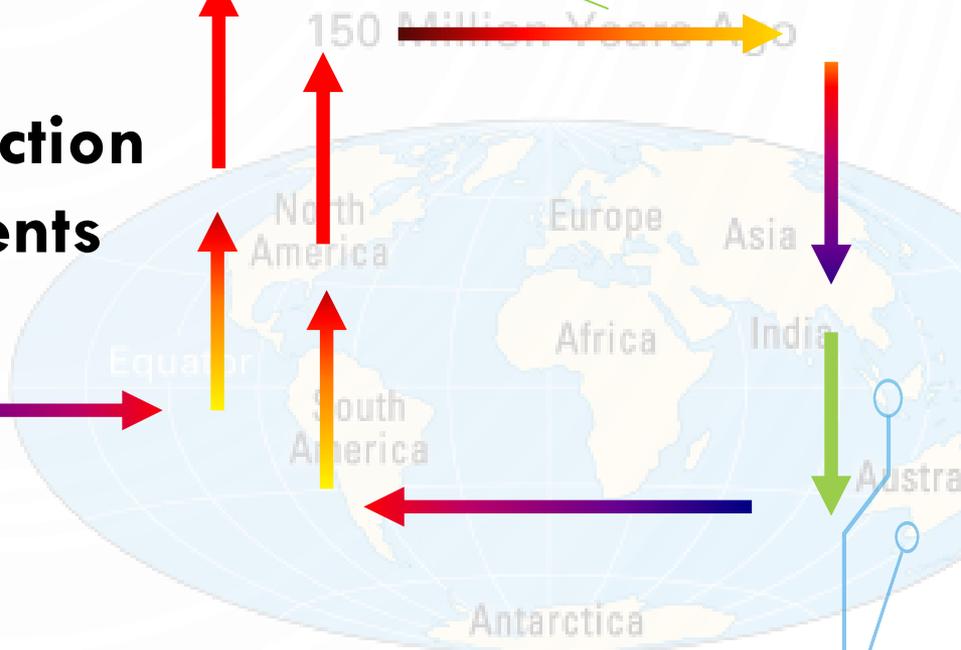
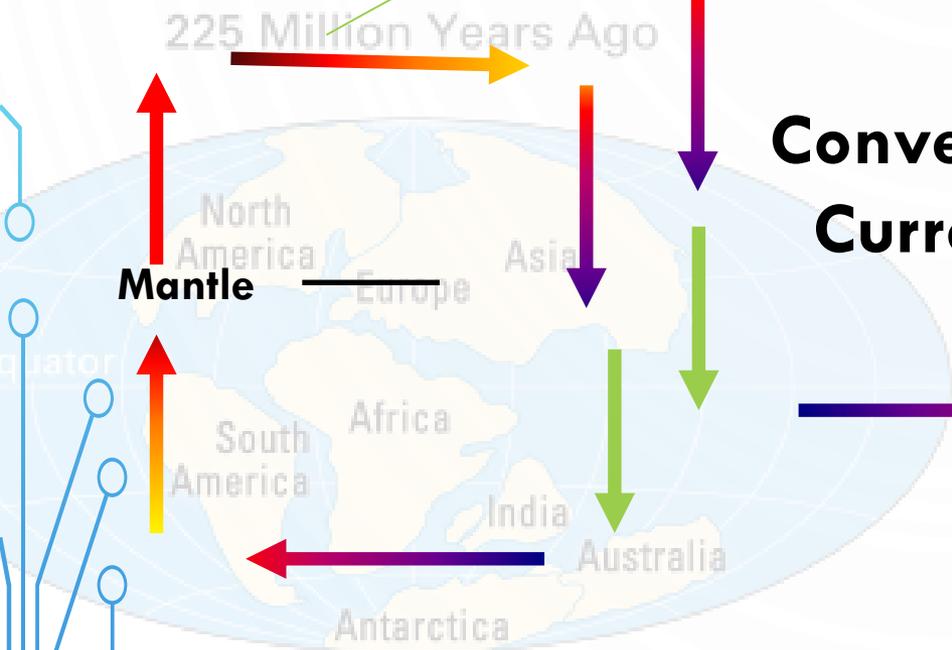
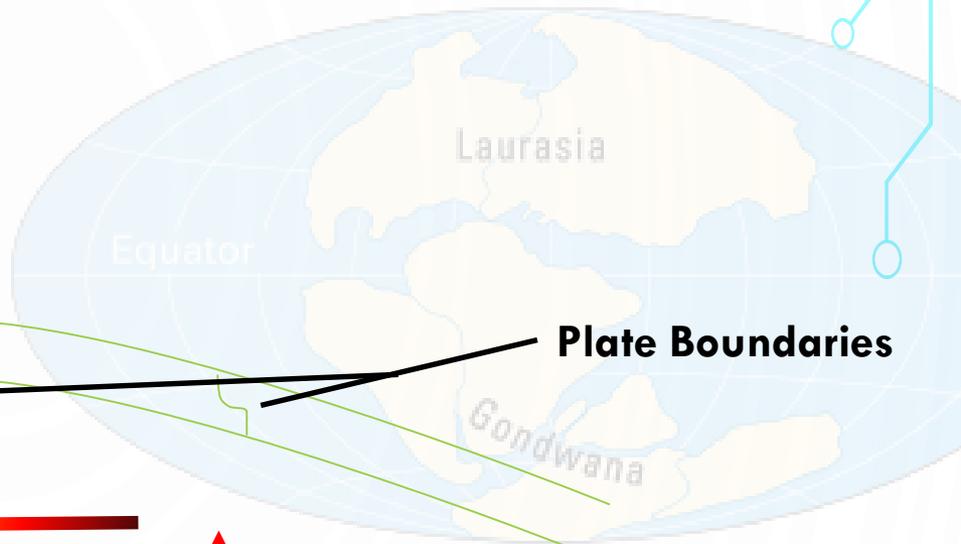
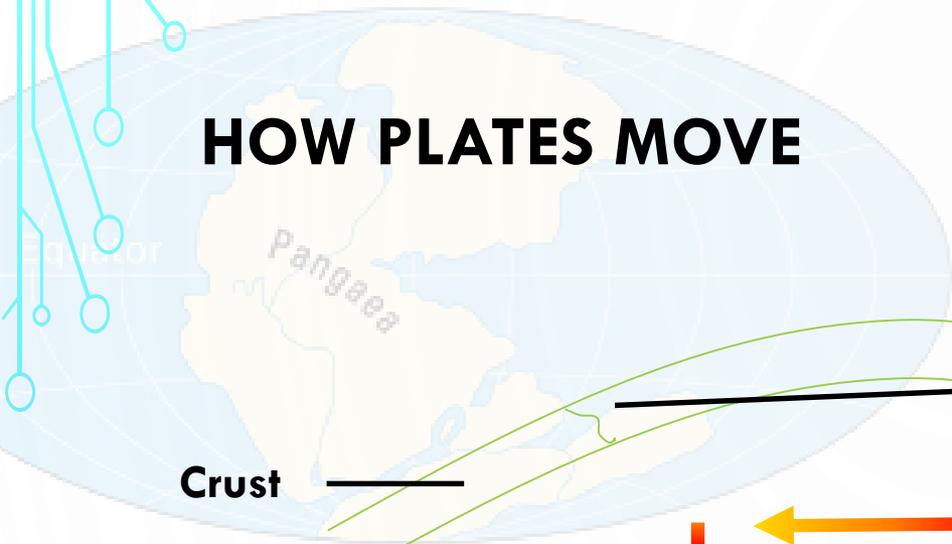
CONTINENTAL DRIFT OF PLATES

HOW PLATES MOVE



CONTINENTAL DRIFT OF PLATES

HOW PLATES MOVE

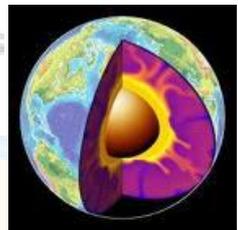


Convection Currents

Ridge Push and Slab Pull

The Structure of the Earth Quiz

1. What is the name of the layer immediately under the crust?
2. What is the hottest layer of the earth?
3. What are the pieces that the earth's crust is split into called?
4. How hot is it in the Mantle?
5. How thick is the outer layer of the earth?
6. What is the point at which plates meet called?
7. Which two hazard types are you likely to find here?
8. State/Explain two differences between oceanic and continental crust



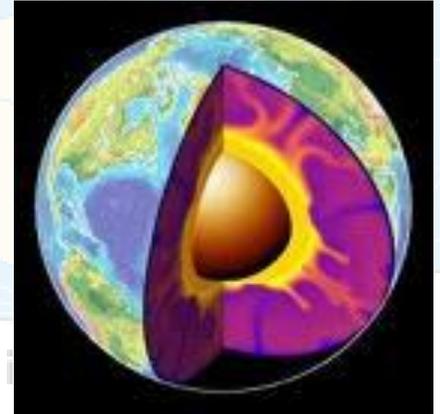
The Structure of the Earth Quiz

1. What is the name of the layer immediately under the crust?
 - a) Core
 - b) Mantle
 - c) Plate
2. What is the hottest layer of the earth?
 - a) Core
 - b) Mantle
 - c) Crust
3. Which crust type is thicker, less dense, and can't sink?
 - a) Continental
 - b) Oceanic
4. The earth's crust splits in to areas called
 - a) Saucers
 - b) Cups
 - c) Plates



The Structure of the Earth Quiz

5. What is the mantle made of?
 - a) Solid rock
 - b) Molten rock
6. Oceanic Crust is newer than continental crust?
 - a) True
 - b) False
7. The outer layer of the earth is the thickest layer?
 - a) True
 - b) False
8. Where plates meet is called a?
 - a) Plate joining point
 - b) Plate boundary
 - c) Plate meeting point
9. Where the plates join you are likely to get?
 - a) Volcanoes
 - b) Earthquakes
 - c) Both of these



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