

CONTINENTAL DRIFT OF PLATES

Welcome to GCSE Geography



225 Million Years Ago



150 Million Years Ago



100 Million Years Ago



Earth Today

Where will it take us today?

CONTINENTAL DRIFT OF PLATES

TOPIC 1.2: GLOBAL HAZARDS

1.2a: What processes occur @ plate boundaries

225 Million Years Ago

150 Million Years Ago

aii) Let's investigate4 plate boundaries and hot spots

100 Million Years Ago

Earth Today

Let's get thinking



1. Swap books. List as much geo-lingo as you can relating to the structure of the Earth and the plates **in the back of your partner's book**
2. Return the books to their owners. Who's got the most words?
3. How confident are you on defining these words 😊 😐 😞?
4. Take your domino and listen carefully for your **CUE**



Plate Boundaries

Learning is successful when I can:

- Name the four types of plate boundary
- Explain what is happening at each of these plate boundaries
- Explain what hot-spots are and account for their existence

Impressive Vocabulary

Plume
rift

Keywords

Constructive
Destructive
Collision
Conservative
Hot spots

Geography Skills:

Scale
Conceptual
understanding

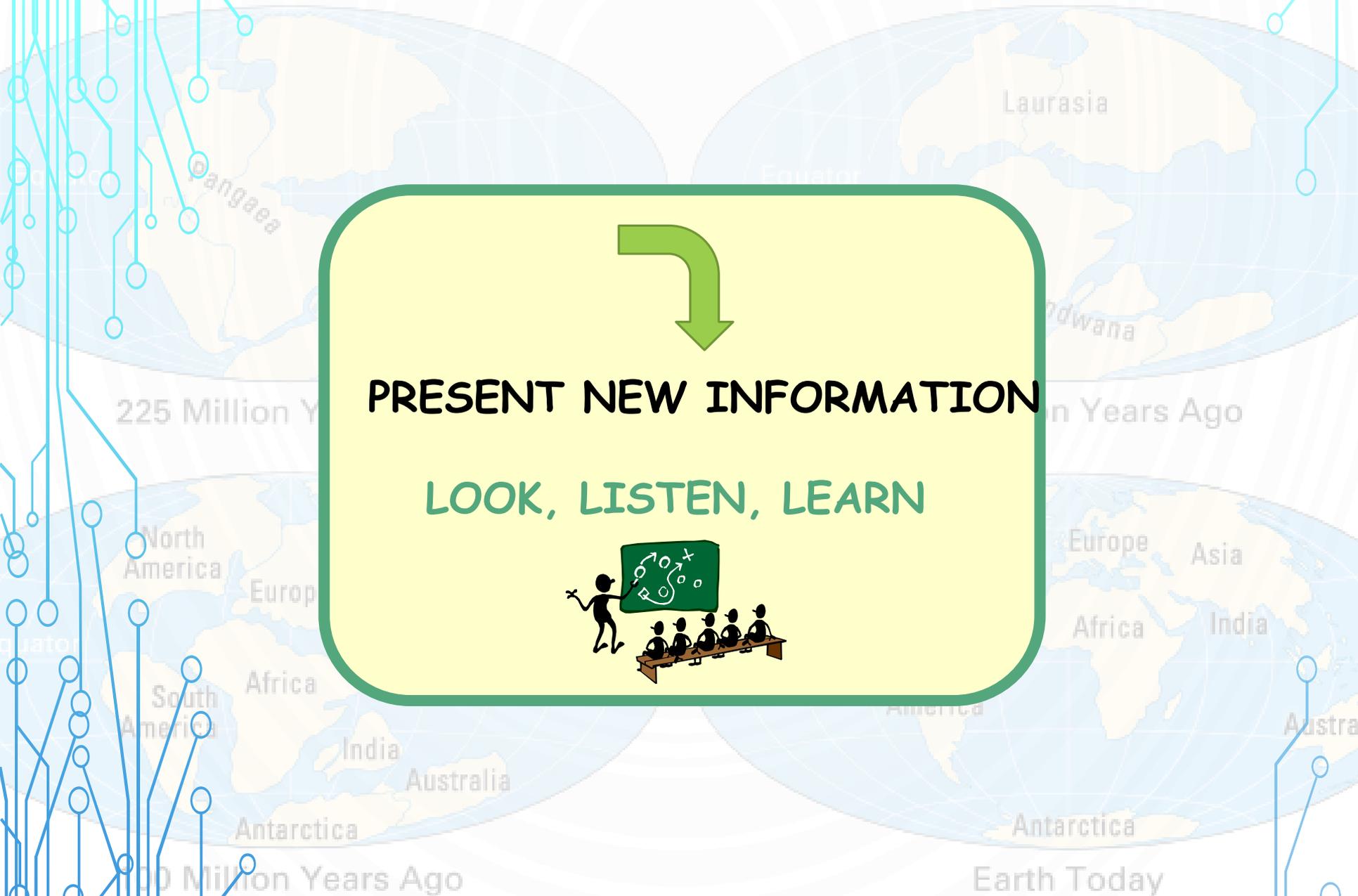
Literacy Skills:

Reading for meaning
Exam writing
Evaluation

Employability Skills:

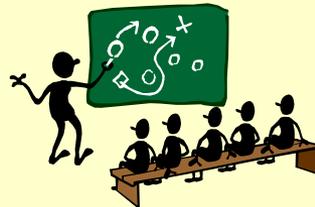
Independent thinking
Time management

CONTINENTAL DRIFT OF PLATES

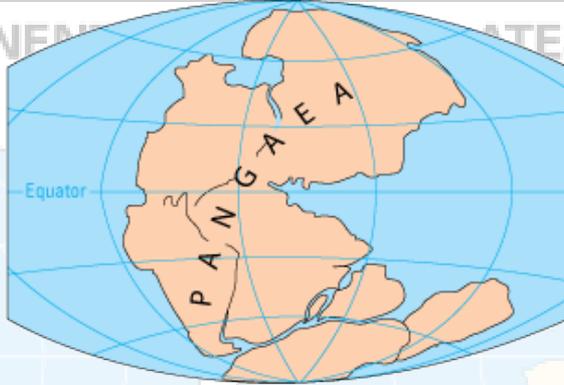


PRESENT NEW INFORMATION

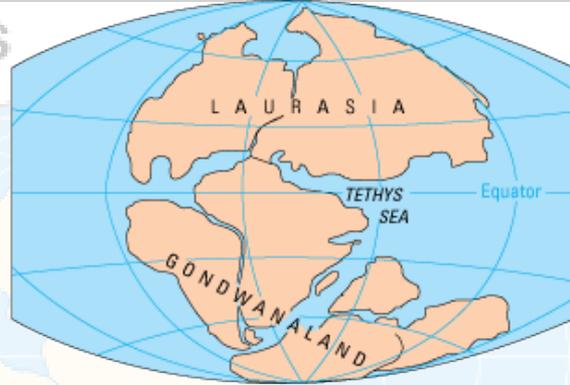
LOOK, LISTEN, LEARN



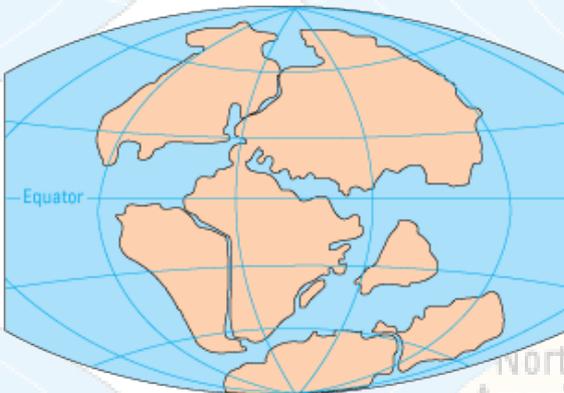
A quick reminder
How did we get from...?



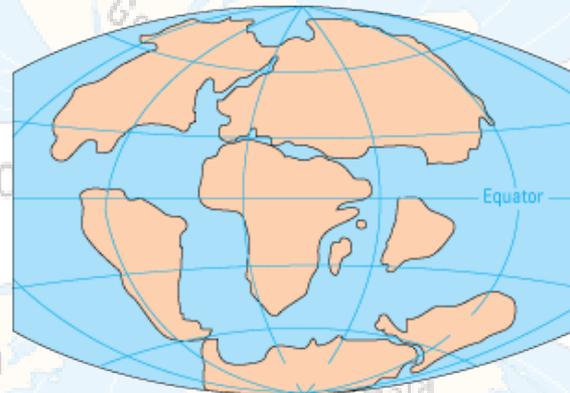
PERMIAN
225 million years ago



TRIASSIC
200 million years ago



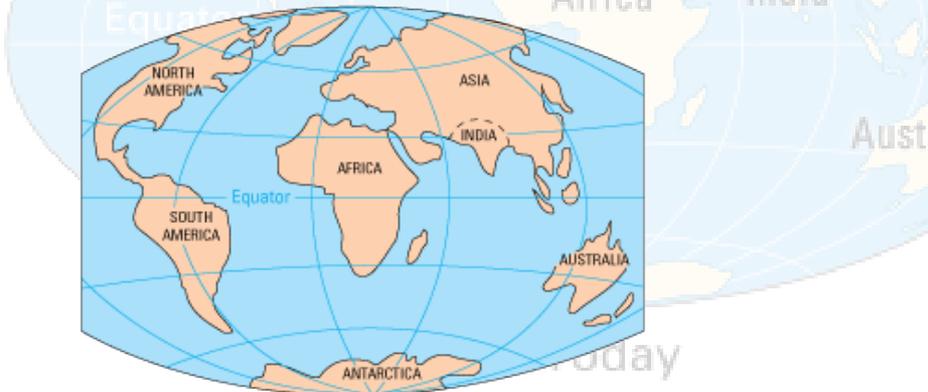
JURASSIC
150 million years ago



CRETACEOUS
65 million years ago



100 Million Years Ago



PRESENT DAY

Plate Tectonics is sometimes a bit like Banger Racing



**constructive; destructive
collision; continental; oceanic; conservative**

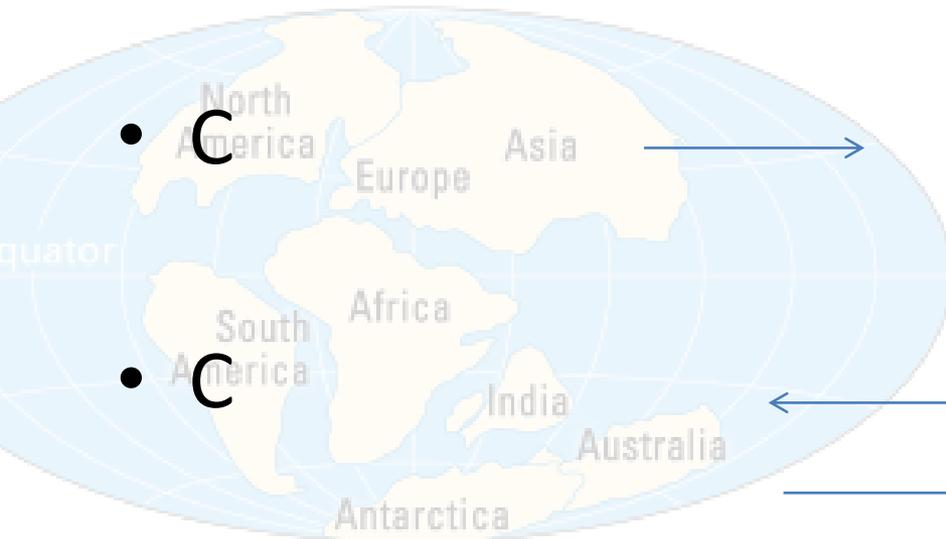
100 Million Years Ago

Earth Today

The Plate Boundaries



• C
225 Million Years Ago



100 Million Years Ago

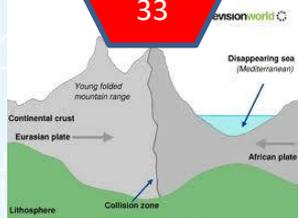
Earth Today

Plate Boundary challenge

- For each boundary type (x4), starting with ‘collision’
- a) Label/annotate the outline diagram, using as much geo-lingo as possible
- b) Complete the ‘characteristics’ and ‘consequences’ section of the table.



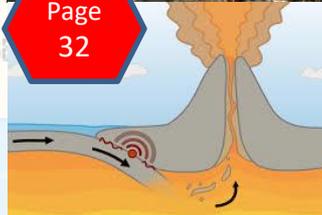
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Collision Boundaries



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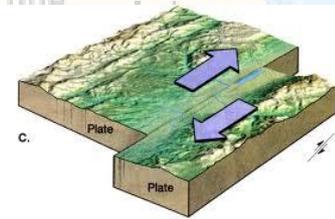
Destructive Boundaries



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Constructive Boundaries



Conservative Boundaries

100 Million Years Ago

Earth Today

What's sunk in or should that be subducted?!

- Without your books, draw and label the following plate boundaries
- You have 30 secs each time to do the best you can remember

- Collision
- Destructive
- Constructive
- Conservative

100 Million Years Ago



Hotspots

- Some volcanoes aren't found on plate boundaries

Why? Mantle plumes (magma is hotter in these than in the rest of the surrounding mantle) burns through the thin oceanic crust above.

For example, the Hawaiian islands

- formed over millions of years by volcanic eruptions
- 3200 km away from the edge of Pacific plate
- Island formation is still happening every time the **shield volcanoes** Kilauea and Mauna Loa erupt.
- As Pacific plate slowly moves over the hotspot, the islands in the Hawaiian-Emperor chain have been built one at a time by numerous volcanic eruptions.



100 Million Years Ago

Earth Today

WHAT WOULD AN EXAM QUESTION LOOK LIKE?



Outline the processes that take place at a constructive plate boundary [4]

6 mins

Steps to Success

1. Box
2. Underline
3. Lingo to include
4. Write it! Remember to Glance back
5. Spell- check

* Point Explain Evidence Evaluation Link

S H E E P

Place Specific Detail

WHAT WOULD AN EXAM ANSWER LOOK LIKE?

Page
n/a

6
mins
peer
assess



Outline the processes that take place at a constructive plate boundary [4]

At a constructive plate margin the plates are diverging or moving apart. This can happen on land or beneath the ocean. [1]

Under the ocean, partly melted mantle comes up through the gaps in the crust or erupts from volcanoes as lava. Over time this makes ridges under the ocean eg the Mid Atlantic Ridge [1] Some can become islands eg Iceland. On land, continental plates expand, bulge, stretch and fracture due to the heating from the mantle [1].

This results in fallen blocks of low land called rift valleys e.g. the Great African Rift Valley [1]



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