

CONTINENTAL DRIFT OF PLATES

Welcome to GCSE Geography



225 Million Years Ago



150 Million Years Ago



100 Million Years Ago



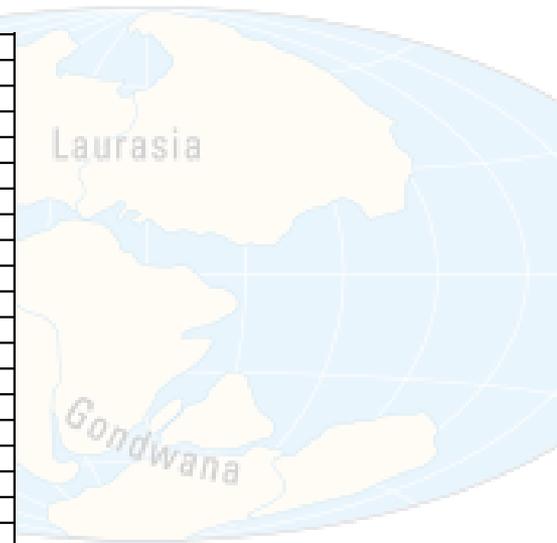
Earth Today

Where will it take us today?

CONTINENTAL DRIFT OF PLATES

	A01: Knowledge	A02: Understanding	A03: Application of K&U
Comprehensive	good range detailed and accurate fully relevant to the Qn	good range detailed and accurate fully relevant to the Qn	detailed & accurate analysis substantiated judgements substantiated evaluation
Thorough	range accurate relevant to the Qn.	range accurate relevant to the Qn.	accurate analysis supported judgements supported evaluations
Reasonable	some relevant to the Qn.	some; relevant to the Qn	some accuracy partially supported judgement partially supported evaluation
Basic	limited relevant knowledge	limited but relevant	limited analysis unsupported judgement unsupported evaluation

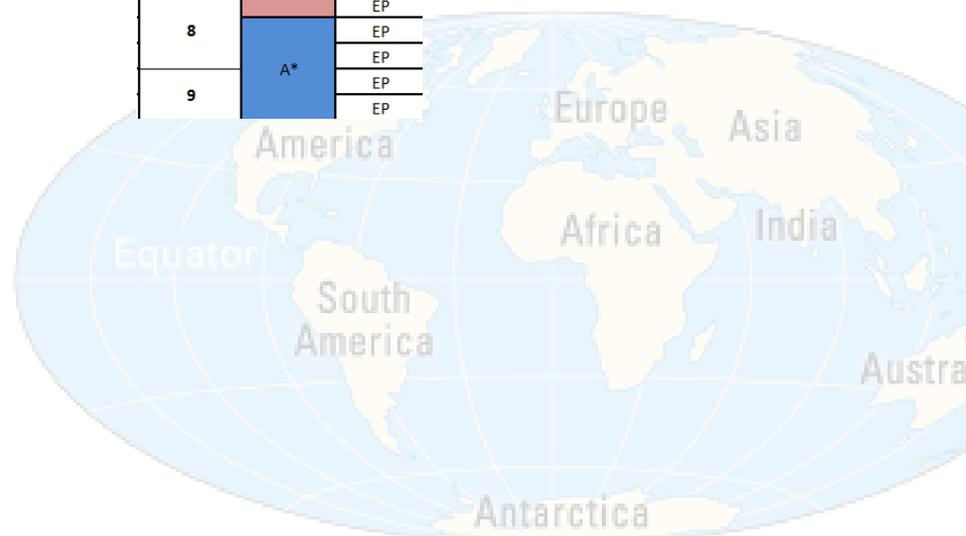
1	G	3c
		3b
		3a
2	F	4c
		4b
		4a
		5c
3	E	5b
		5a
		5c
4	D	6b
		6a
		7c
5	C	7b
		7a
		8c
6	B	8b
		8a
		EP
7	A	EP
		EP
		EP
8	A*	EP
		EP
		EP
9		EP



225 Million Years Ago



100 Million Years Ago



Earth Today



TOPIC 1.2:
GLOBAL HAZARDS

1.2a: What processes occur @ plate boundaries

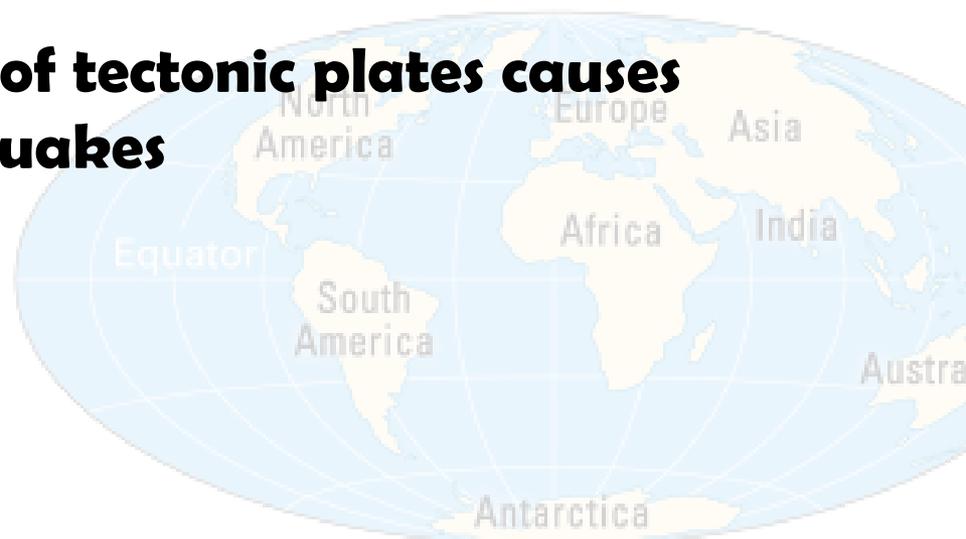
225 Million Years Ago

150 Million Years Ago

aiii) How the movement of tectonic plates causes earthquakes



100 Million Years Ago



Earth Today

Let's get thinking



225 Million Years Ago



150



1. Which of the 'snooker ball' numbers opposite have been of relevance so far this unit?
2. The numbers 10 and 12 will be relevant today which balls can you combine to get 10 and 12 respectively? [the more sophisticated the better]
3. Why might 10 and 12 be relevant today? [Tip – the power-point file name might help you!]

Earth Today

Plate Movement & earthquakes

Learning is successful when I can:

- Explain the cause of earthquakes
- Suggest reasons for the distribution of earthquakes
- Outline the characteristics of deep and shallow focus earthquakes

Impressive
Vocabulary
radiate

Keywords

Focus
Epicentre
Shallow
Deep
Seismic waves
Aftershock
Richter Scale

Geography Skills:

Scale
Conceptual
understanding

Literacy Skills:

Reading for meaning
Exam writing

Employability Skills:

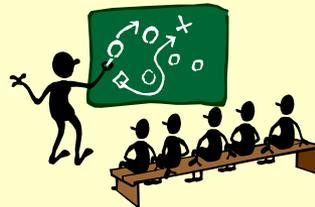
Independent thinking
Time management

CONTINENTAL DRIFT OF PLATES



PRESENT NEW INFORMATION

LOOK, LISTEN, LEARN

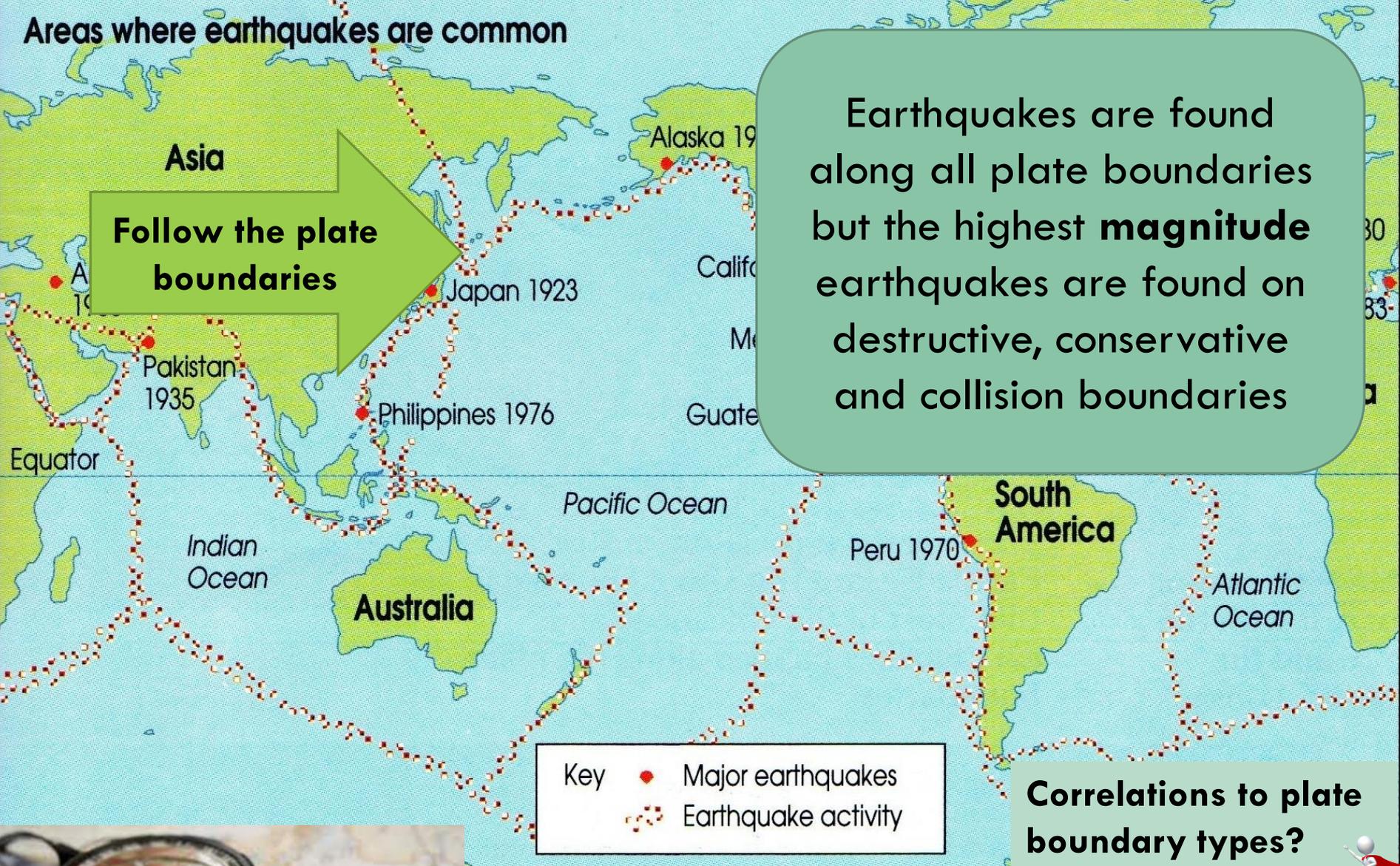


Areas where earthquakes are common

Asia

Follow the plate boundaries

Earthquakes are found along all plate boundaries but the highest **magnitude** earthquakes are found on destructive, conservative and collision boundaries

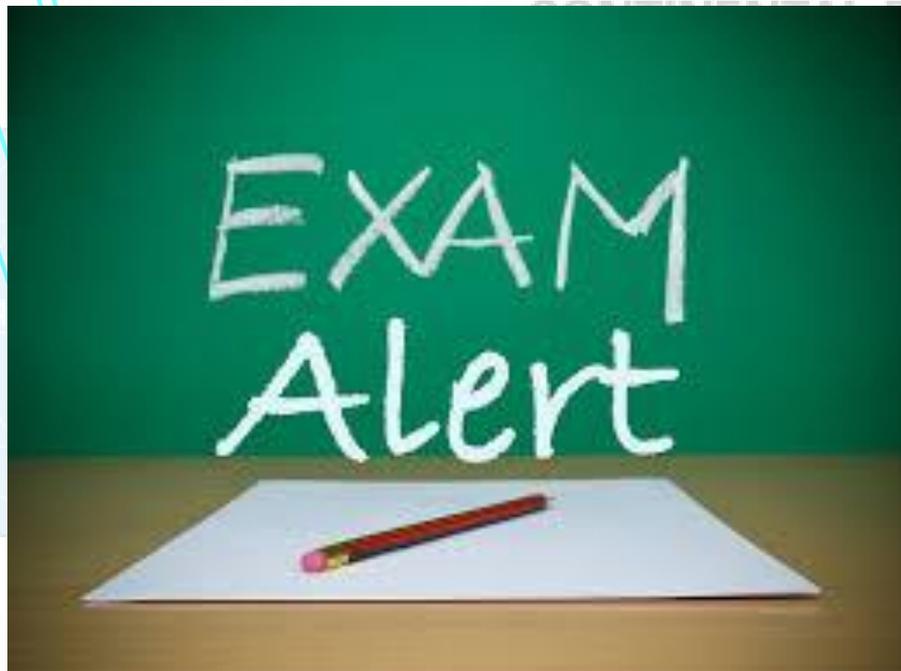


Key
● Major earthquakes
- - - Earthquake activity

Correlations to plate boundary types?

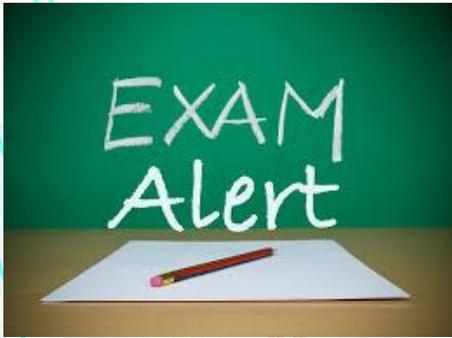
What do you notice about the distribution of Earthquakes?





Draw and annotate a diagram to show the processes happening at a Conservative Plate Boundary (4)

Self Assessment



The plates do not move smoothly and get stuck with pressure building due to friction

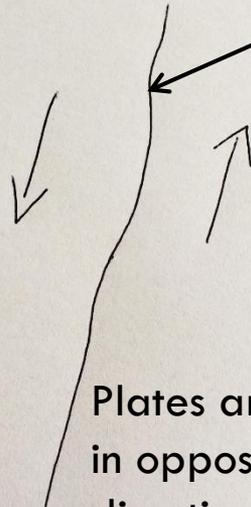


Plate Boundary

Eventually the force is large enough to move the plates

The movement of the plates releases waves of energy which results in an earthquake

1 – Draw a diagram that shows a boundary and indicates that the plates are going in opposite directions

2 – Label the diagram for these two points

3 – Explanation added about plates getting stuck

4 – Explanation added about plates moving

5 – Explanation added about pressure released as earthquake

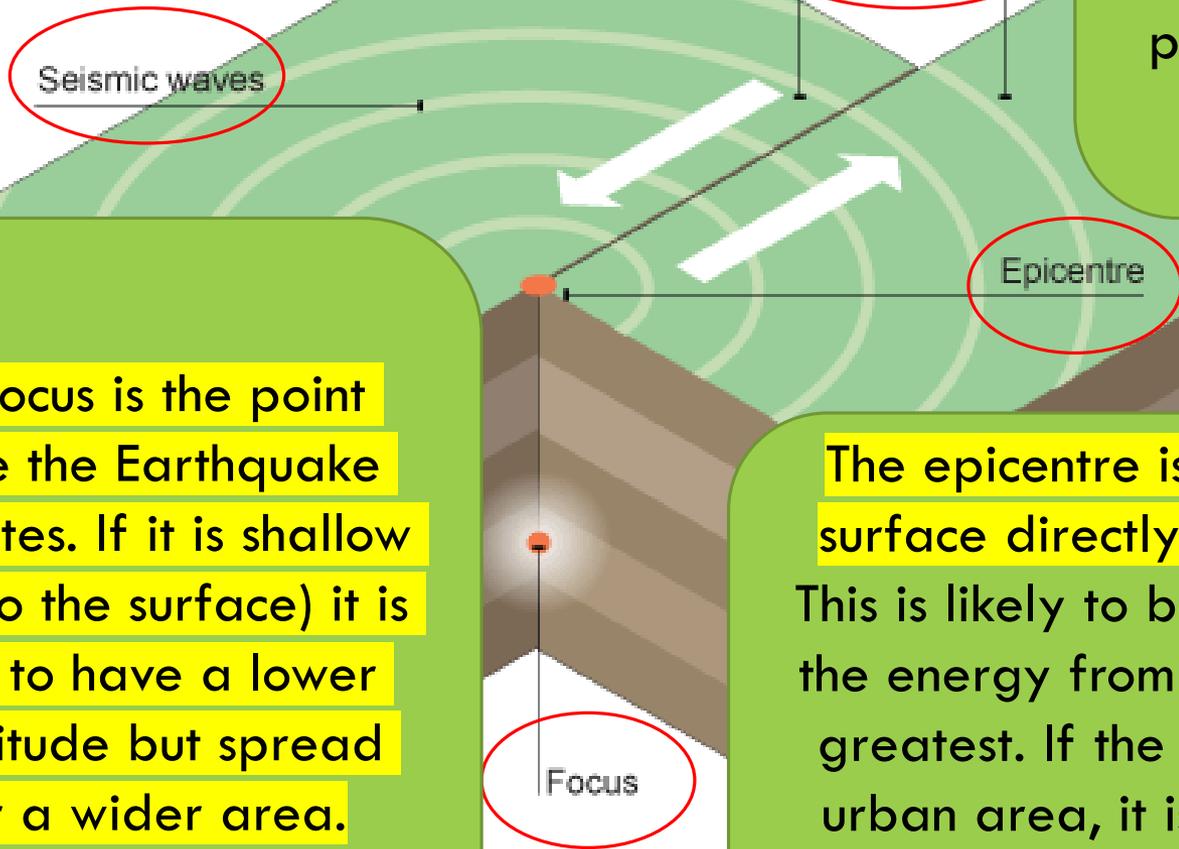
Give yourself a mark out of 4 and add anything you missed in purple pen



Seismic waves are the waves of energy that are released in an earthquake. The size and frequency of the waves determines the size of the earthquake. The energy is recorded on the Richter Scale.

The type of plate boundary affects the amount of pressure that could be released in an earthquake e.g. less pressure build up at a constructive boundary

Draw this
– leave
ann



The focus is the point where the Earthquake originates. If it is shallow (near to the surface) it is likely to have a lower magnitude but spread over a wider area.

The epicentre is the point on the surface directly above the focus. This is likely to be the place where the energy from the earthquake is greatest. If the epicentre is in an urban area, it is likely to have a much greater impact than a rural area.

Deep vs Shallow Focus earthquakes – which is which?

DEPTH: Shallow earthquakes start within ? km of the earth's surface **unlike** deep focus earthquakes

FREQUENCY: ?? Focus earthquakes are common **whereas**

MAGNITUDE: The ?? the focus the greater the magnitude, this is a ? correlation

SEISMIC WAVES: Seismic waves of shallow focus earthquakes radiate ? and therefore create ? damage, **in contrast to**

TIP: What do the lilac words have in common? These are especially useful in compare, contrast and discuss the differences questions

THE RICHTER SCALE



Earthquake magnitude

How many times more powerful is a magnitude 6 earthquake than a magnitude 5 earthquake?

<https://goo.gl/zUqNLg>



Earthquake distribution

Where have the most powerful earthquakes in the past century struck? Patterns?

<https://goo.gl/1FDodt>



Stock-check

Update your keyword list

- Epicentre
- Focus
- Shock-waves
- Richter Scale
- After shock
- Mercalli Scale



✓ Lit. Checklist

Peer assess, get your work checked.

Accuracy



Spelling



Grammar



✓ PLC Checklist

Track your coverage and assess your confidence



America

India

Australia

Antarctica

100 Million Years Ago

Antarctica

Earth Today

WHAT WOULD AN EXAM QUESTION LOOK LIKE?



Explain how the movement of tectonic plates causes shallow focus earthquakes[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
36/37

6
mins
peer
assess



Explain how the movement of tectonic plates causes shallow focus earthquakes[4]

Shallow focus earthquakes happen at ConPB and in the U part of the mantle along DPB and CollPBs. [1] Plates are either pushing together or trying to slide past one another, partly driven by CCs in the M [1]. As the plates try to move past one another they lock together [1]. Pressure builds up, eventually the plates release causing an earthquake [1]. Seismic waves spread horizontally from the focus.

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