

Section 5 – answer questions 1-10

Figure 13 shows the pattern and ages of magnetic stripes in the ocean crust at a mid-ocean ridge.

Key

normal magnetic polarity



reversed magnetic polarity



mid-ocean ridge



oceanic crust

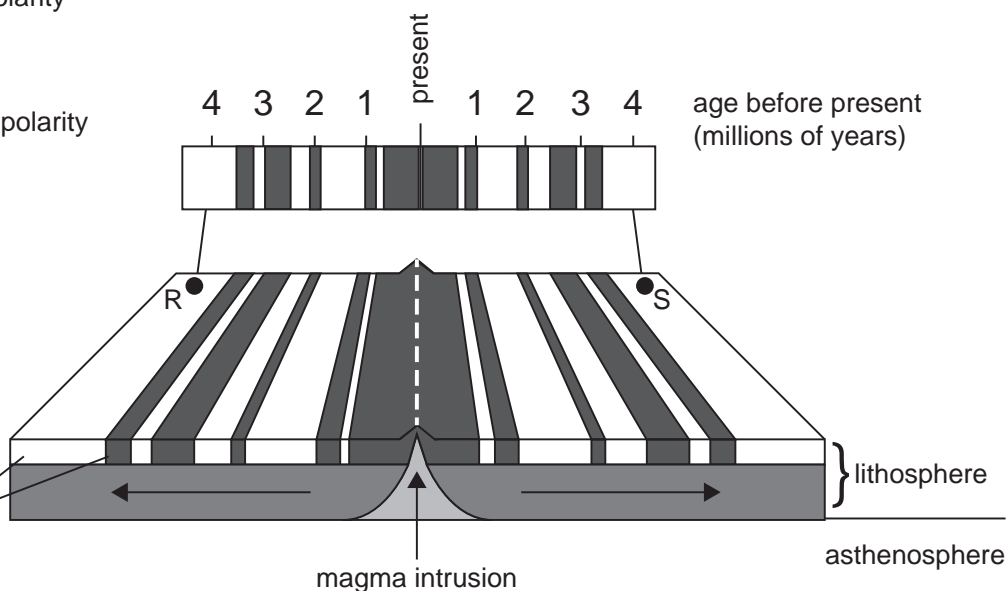


Figure 13

1. Name the type of plate boundary shown in Figure 13. Tick (✓) only **one** box.

[1]

convergent (destructive) ocean-ocean

convergent (destructive) ocean-continental

divergent (constructive)

conservative

convergent (destructive) continental-continental

2. Locations **R** and **S** in **Figure 13** are 800 km apart on the ocean floor. How fast are **R** and **S** spreading apart from each other? Show your calculation below. Tick (✓) only **one** box. [2]

Calculation

10 cm per year

32 mm per year

100 cm per year

10 mm per year

20 cm per year

3. Which **two** of the following are associated with mid-ocean ridges? Tick (✓) only **two** boxes. [2]

basalt pillow lavas

thrust faults

andesitic lava

high heat flow

deep focus earthquakes

regional metamorphism

4. Name the main feature that is found along the centre of mid-ocean ridges. Tick (✓) only **one** box. [1]

ocean trench

island arc

mountain chain

rift valley

oceanic plateau

5. Explain how the magnetic stripes in **Figure 13** have formed. QWC [4]

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Figure 14 is a map showing the plate boundaries around Japan and the epicentre of a magnitude 9.0 earthquake which generated a large tsunami in 2011.

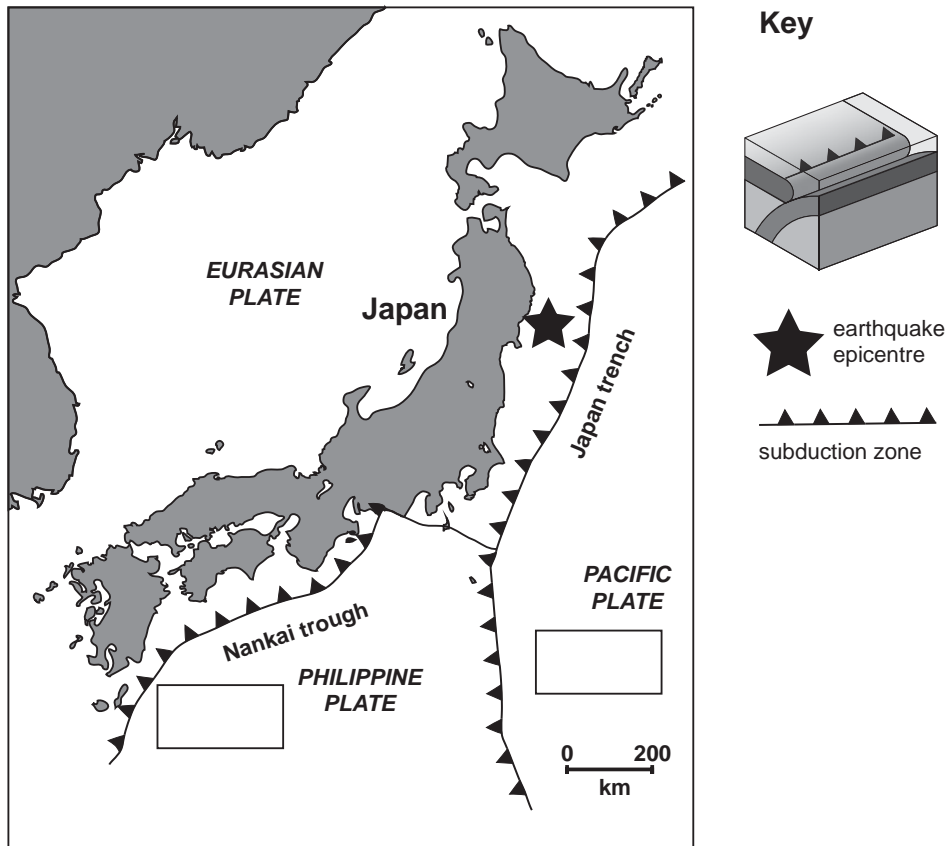


Figure 14

6. Selecting from the choice below, draw an arrow in each of the empty boxes in **Figure 14** to show the direction of plate movement at those locations. [1]

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