Science 8 – Quiz 4.3 Study Guide

Ms. Martel

4.3 Quiz Outline

Section 1: Multiple Choice – 3 marks

Section 2: Matching – 8 terms, 4 marks

Section 3: Diagram – 4 marks

Section 4: Short Answer – 10 marks

TOTAL: 21 marks

Questions To Help Review Major Concepts

1) What happens at a fault?
   The break where movement happens in a rock due to build up of pressure.
2) Where is the epicentre of an earthquake?
   The point on the surface of Earth that is directly above the focus.
3) What is a volcano?
   Anywhere magma from the mantle reaches Earth's surface can be called a volcano.
4) What is a hotspot?
   An unusually hot region of Earth's mantle where magma rises to the surface breaking through weak parts of the lithosphere.
5) How does the ground motion of a P-wave compare to the ground motion of an S-wave?
   P-wave: causes rock particles to move forward and backward.
   S-wave: causes rock particles to move up and down.
6) What causes earthquakes?
   A release of built up pressure between two tectonic plates.

7) When continental plates collide, does subduction occur? Explain your answer.
   No subduction does not occur, instead uplift occurs forming mountain ranges.

8) What is a seismometer?
   A seismometer is part of a seismograph which detects ground motion.

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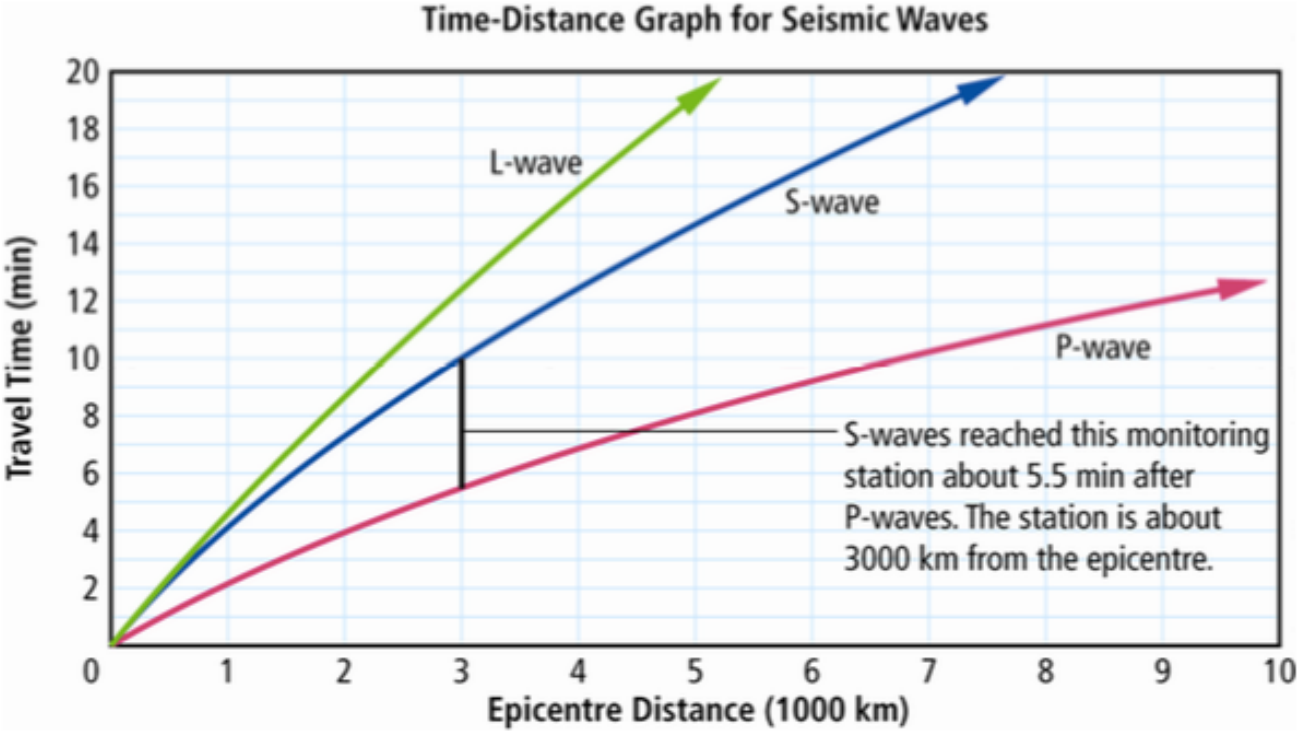
9) Refer to the *Time-Distance Graph for Seismic Waves.* How far does each seismic wave travel in 10 mins?



L-wave: ***~ 2250 km***

S-wave: ***~ 3000 km***

P-wave: ***~ 6600 km***

Fill-In The Following Table

Wave Type	Characteristics	Effect on Rock Particles	Where They Travel
Primary Waves **(P waves)**	***-Move the fastest*** ***-Are the first ones detected in an earthquake***	***-Cause rock particles to move forward and backward***	***-Can travel through both solids and liquids***

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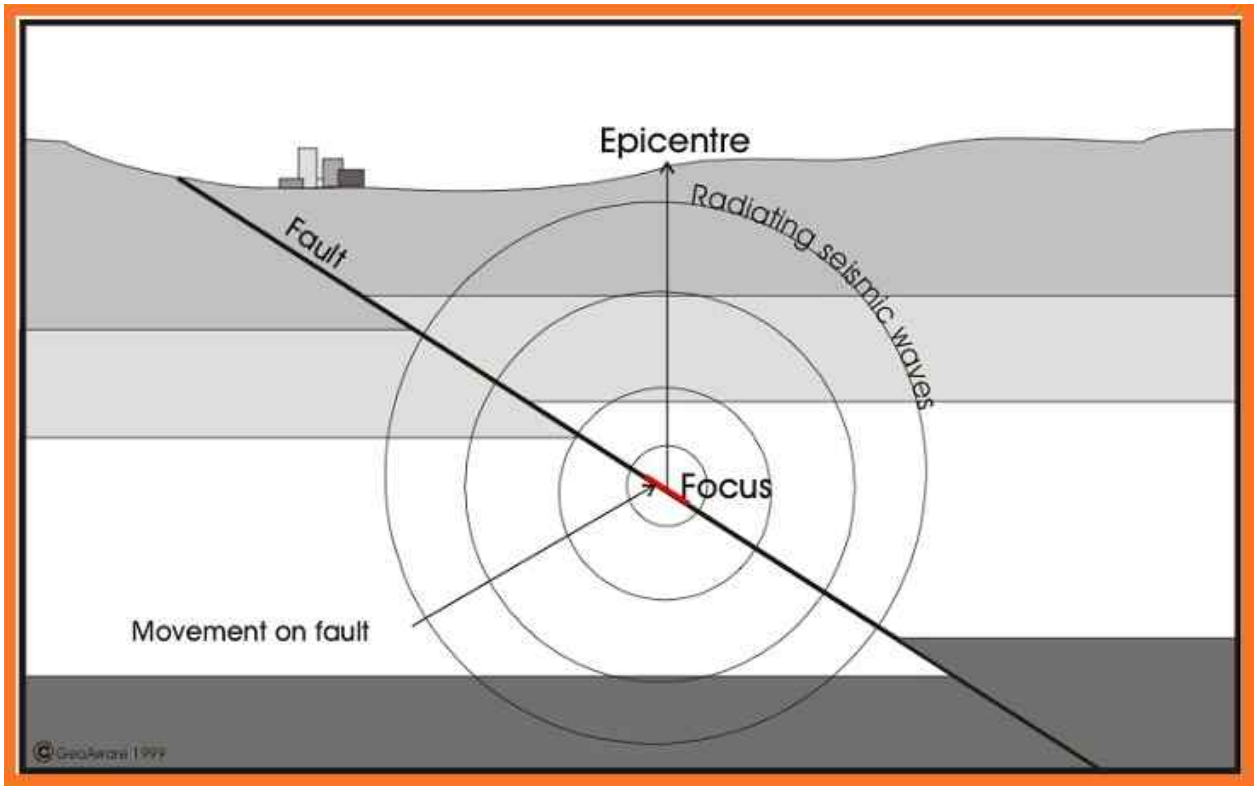
Secondary waves **(S waves)**	***-Move slower than P waves***	***-Cause rock particles to move up and down***	***-Can only travel through solids***
Surface waves **(L waves)**	***-Are the slowest of the three waves*** ***-Are on the surface and often cause the greatest damage***	***-Cause rock particles to move both up and down and side to side***	***Can travel along the surface of Earth and not through Earth's interior***

DIAGRAMS



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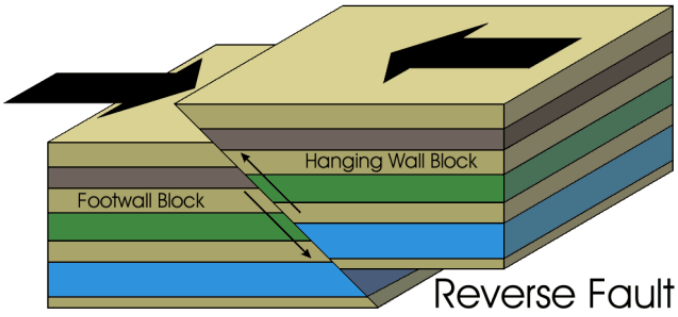
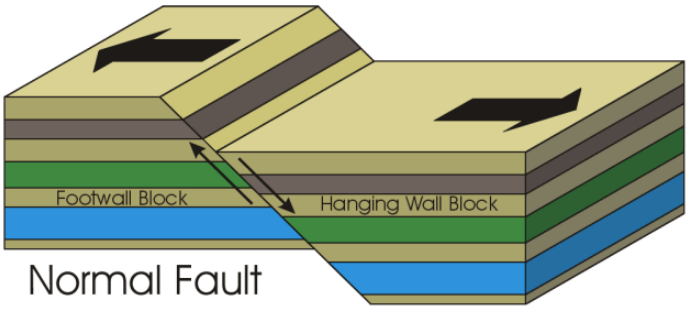
1. Explain what happens at a reverse fault.



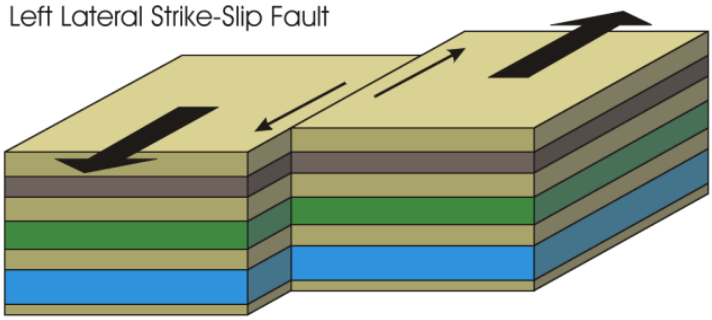
- ***when rock is squeezed together and one block rides up to overlap the other block, a reverse fault forms.***
  - ***The crust is shortened, horizontally.***

2. Explain what happens at a normal fault.



- ***when rock is pulled apart and one block slips downward, a normal fault forms.***
  - ***The crust is lengthened***

3. Explain what happens at a strike-slip fault.



- ***when block of rock move past each other horizontally, a strike-sip fault forms.***

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