

Science 10

12.2 Sheet

Name: _____

Date: _____

Instructions: Read pages 518-534 in BC Science 10 and answer the following questions in point form

1. When did geologists really begin to understand the nature of the earth's interior?
2. When did the earth form?
3. Explain how the earth formed in terms of where the lighter and heavier materials ended up.
4. What is the crust made mostly of?
5. What are tectonic plates made up of?
6. How thick are the plates? How many major plates are there?
7. What are the two main types of plates and what type of rock makes up most of each type?
8. Study figure 12.13 on page 519 and complete the chart below.

Earth's layer	Description

9. What is the asthenosphere? Describe it.
10. At what rate do plates move per year?
11. What is the driving force behind plate movement? Describe how it works.
12. What's another name for a spreading centre?
13. What happens to magma as it reaches the earth's surface?
14. What is subduction?
15. What types of "geologic events" tend to occur at subduction zones?
16. Describe "slab pull."
17. Make a quick sketch of figure 12.16 and label where slab pull is occurring and where convection currents are causing plates to spread apart.
18. What is a plate boundary? What are the three main types of plate boundaries?

19. What two things does plate interaction depend on?

20. What's occurring at a divergent plate boundary? Give an example of one.

21. What's the largest mountain range on earth?

22. What occurs at a convergent plate boundary?

23. Read page 524 and fill in the chart below: The first one is done for you

Plate types interacting	Describe interaction	Types of features formed here
Ocean – continent plates	Ocean plate slides under the continent plate	Trenches and volcanic mountains

24. What happens at a transform plate boundary? What two features occur at these types of boundaries?

25. What causes earthquakes? Where do 95% of them occur?

26. How often in B.C. are there major earthquakes?
27. According to First Nation's history when did a major earthquake occur in our region?
28. What is the focus of an earthquake? The epicentre?
29. What does the amount of damage an earthquake causes depend on?
30. Do deeper earthquakes cause more or less damage? Why?
31. What is seismology?
32. What's the difference between body waves and surface waves?
33. Describe what surface (L) waves are like.
34. What are the two types of body waves?
35. Describe P waves. Make a quick sketch of their movement.
36. Describe S waves. Make a quick sketch of their movement.

37. What type of material do S waves NOT travel through?
38. What are some ways that waves are affected as they move through the earth's interior?
39. Why do S-waves disappear at the bottom of the mantle?
40. What are seismometers? What types of movement do they measure?
41. What's a seismogram? What type of information do they provide?
42. What is meant by an earthquake's magnitude?
43. How does a 1 step increase on the magnitude scale relate to the size of seismic waves?
44. What are three types of volcanoes?
45. Describe a composite volcano.
46. What is the magma like in a composite volcano?
47. Are composite volcanoes usually explosive? If so, explain why.

48. Where are composite volcanoes typically found?

49. Where do shield volcanoes typically form?

50. What's the magma like in shield volcanoes?

51. Are shield volcanoes typically explosive?

52. Give three specific examples of shield volcanoes.

53. Where do rift eruptions occur? Are they explosive?

54. Give an example of a place where rift eruptions occur.

Read "Career Connect" on page 536 and answer the three questions on page 536 in the space below

1.

2.

3.