

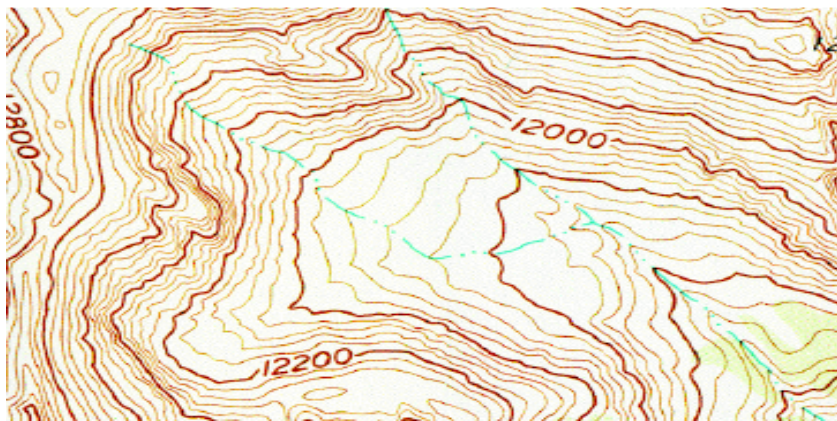
Earth & Space Science: 1st Semester Final Study Guide

Scientific Method

1. List the 5 steps of the scientific method
2. Define Hypothesis
3. Define Theory
4. What is the difference between the responding and manipulated variable?

Chapter 1: Introduction to Earth Science

5. List and define the 4 branches of Earth science
6. What line is 0° longitude?
7. What line is 0° latitude?
8. What different things are satellites used for?
9. What are the different kinds of map projections and which is most accurate?
10. What is the name of the type of map below?



11. What is the contour interval of the map above?

Chapter 2 & 3: Minerals & Rocks

12. What are the 5 characteristics of all minerals?
13. What is a crystal?
14. What are characteristics of the following groups of minerals?
 - a. Carbonates
 - b. Silicates
 - c. Oxides
 - d. Sulfates & Sulfides
 - e. Halides
 - f. Native Elements
15. What are the 2 most common elements in the Earth's crust?
16. Describe the following properties of minerals.
 - a. Color & Streak

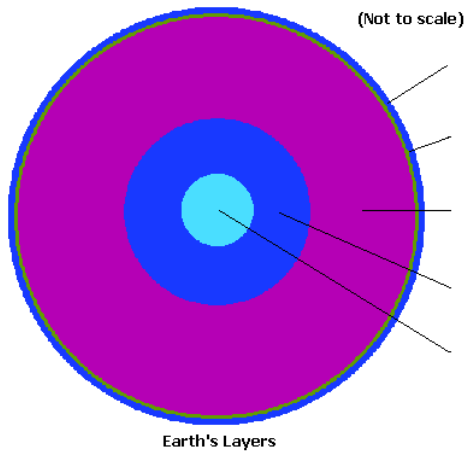
- b. Luster
 - c. Cleavage & Fracture
 - d. Crystal Form
 - e. Hardness
 - f. Density
 - g. Special Properties
17. Describe how each of the following rock types form.
- a. Sedimentary
 - b. Metamorphic
 - c. Igneous
18. Give examples of each type of rock.
- a. Clastic Sedimentary
 - b. Chemical Sedimentary
 - c. Contact Metamorphic
 - d. Regional Metamorphic
 - e. Intrusive Igneous
 - f. Extrusive Igneous
19. Describe the rock cycle.

Chapters 5, 6, & 7: Shaping Earth

20. What is the difference between mechanical and chemical weathering?
21. List and describe the 3 types of chemical weathering.
22. List the 6 parts of the water cycle and describe them.
23. Define the following:
- a. Gradient
 - b. Channel
 - c. Discharge
 - d. Drainage Basin
24. What is Karst Topography?
25. Describe glacial erosion.
26. What is the major difference between dunes and loess?

Chapter 8: Earthquakes

27. Where do most Earthquakes occur?
28. What is the difference between an epicenter and a focus?
29. Describe each type of seismic wave and what makes them different from one another.
30. Name and describe the way movement occurs for the following faults.
- a. Normal -
 - b. Reverse -
 - c. Strike-slip -
31. How is a fault different from a plate boundary?
32. Draw and Label the diagram below of interior Earth.



Chapter 9: Plate Tectonics

33. What are the two bodies of land as Pangaea broke up?
34. All the oceans of Earth during Pangaea was called?
35. What evidence is there for continental drift?
36. How is fossil evidence used to show the continents have moved?
37. What is sea-floor-spreading?
38. Where is the newest material according to sea-floor-spreading?
39. Define Sonar
40. What causes plate tectonics?
41. What are the 10 major plates?
42. Which plate do we live on?
43. What are the effects of plate tectonics?
44. Describe the movement of the plates of the following boundaries.
 - a. Convergent
 - b. Divergent
 - c. Strike-slip
45. What is a subduction zone?
46. What type of rock material is continental crust? Oceanic crust?

Chapter 10: Volcanoes

47. Describe the process of volcano formation at a subduction zone.
48. What causes magma to reach the surface of Earth?
49. What are the types of lava and how are they different from one another?
50. Compare and contrast basalt and granite rock layers.
51. List several examples of pyroclastic materials.
52. Describe the 3 types of volcanoes and give examples below.
 - a. Cinder-cone
 - b. Shield
 - c. Composite