Name _____ Period_____

1. Use the following vocabulary words to create a Minerals Crossword to study:

Solid
Inorganic
Naturally occurring
Crystal structure
Definite chemical composition
Color
Streak
Luster
Density
Hardness
Crystal systems
Cleavage
Fracture
Tenacity

2. Know the five basic characteristics for defining a mineral:

3. Name some special properties of minerals:

Be able to identify a mineral based on its properties:

Mineral	**Color**	**Streak**	**Luster**	**Hardness**	**Density (g/cm3)**
Pyrite	Yellow	Greenish	Metallic	6-6.5	5.0
Gold	Yellow	Yellow	Metallic	2.5-3	19.3
Silver	Silver	Silver to light gray	Metallic	2.5-3	10.0
Galena	Lead gray	Lead gray	Metallic	2.5	7.4
Quartz	White, colorless, other colors	White	Glassy	7	2.6
Fluorite	Light green, yellow, purple	Colorless	Glassy	4	3.0
Calcite	Colorless, white	White to grayish	Glassy	3	2.7
Halite	Colorless	White	Glassy	2.5	2.1

4. How is gold different from pyrite?

5. What tests could you use to tell the difference between gold and pyrite?

6. Of the metallic minerals given, which is the densest?

7. Which of the glassy minerals given could scratch all of the others?

8. You find a glassy mineral that is light green. You think it may be fluorite, but you know that quartz is one of the most abundant minerals and can be found in different colors. How could you tell which mineral?

9. Use the following words in a sentence (your sentence cannot be its definition):
Weathering, erosion, mechanical weathering, abrasion, ice wedging, chemical weathering, oxidation, acid rain, permeable, bedrock, humus, soil, fertility, loam, soil horizon, topsoil, subsoil, litter, decomposers, sod, natural resource, Dust Bowl, soil conservation, contour plowing, conservation plowing, crop rotation

10. What is the difference between weathering and erosion?

11. 5 causes of mechanical weathering

12. 5 causes of chemical weathering

13. Factors that affect the rate of weathering—in which type of climate would you expect to find more weathering? Which rock weathers faster?

14. 5 components of soil

15. How does soil form? Which layer forms first? Which layer forms next? Which layer forms last?

16. How do scientists classify the type of soil?

17. What soil type is where we live? Be able to recognize other soil types.

18. What is the role of living organisms in the soil?

19. List some organisms involved in the formation of soil.

20. Why is soil a natural resource?

21. How does soil lose its fertility?

22. Who was George Washington Carver?

23. What happened during the Dust Bowl?

24. What are three methods of soil conservation?

25. What are the layers of the Earth, from the outside to the interior?

26. What is the major difference between the inner core and the outer core?

27. If we could travel from the crust to the inner core, how would temperature change?

28. Why is the inner core of the Earth solid?

29. Which layer of the Earth is the thinnest?

30. Continental crust consists mainly of this type of rock
31. Oceanic crust consists mainly of this type of rock
32. What is the transfer of energy through space?

33. In a convection current (like in a pan of soup), the cooler, denser fluid floats or sinks?
34. What do we need to set convection currents in motion?

35. Geologists are?

36. Who first proposed the idea of continental drift?

37. What evidence did Wegener have for his hypothesis?

38. Why did scientists reject Wegener's idea?

39. What erupts through the valley of the mid-ocean ridge?

40. What is subduction?

41. The theory of plate tectonics attempts to explain what?

42. What are plates?

43. What are faults?
44. Minerals must be made of non-living things, also called this.

45. This means a mineral can only be found in nature
46. A mineral is called this because it has a definite shape and volume.
47. This property of a mineral describes how its particles line up in a repeating pattern.

48. Because of this property, we know that a mineral's atomic proportions will always be the same.

49. When a mineral breaks apart along flat surfaces, it is said to have this characteristic.
50. This is how light reflects off of a mineral - it can be shiny, waxy, dull, earthy, etc...
51. This property is the powder left behind after you rub a mineral on an unglazed tile.
52. We use Mohs scale to find out about this property.
53. The hardest mineral.
54. This property compares mass with volume - you might find out if something sinks or floats!
55. All rocks are heavy. -True of False
56. This type of rock has different materials pressed and cemented together.
57. This rock is made from cooled magma or lava.
58. Any rock can change into this one as a result of lots of heat and pressure!
59. This process causes sediments to move from one place to another, often by water or wind, to form sedimentary rocks.
60. This series of processes slowly changes rocks from one type to another.
61. This type of igneous rocks cools quickly on Earth's surface.
62. This type of sedimentary rock is formed from pieces of broken rocks that are squeezed together.

63. This type of sedimentary rock has the remains of plants or animals in its layers.

64. This word describes a metamorphic rock with grains arranged in parallel layers or bands.
65. The look and feel of a rock's surface.
66. Geologists describe these three features of grains when observing a rock's texture.

67. In your own words, describe the four processes involved in the formation of sedimentary rocks.