

Earth Science Chapter 3 Study Guide

Name _____

1. Minerals are formed in nature, have a _____ structure, are nonliving, are solid, and have definite chemical makeup. These are their characteristics.
2. Chemical makeup means that the chemical elements a mineral has, must be the _____ throughout the element.
3. An _____ is the smallest piece of matter that anything can be made of.
4. Atoms that are arranged in _____ patterns can form crystals.
5. Crystals are only found in _____.
6. All minerals have five characteristics.
7. Minerals' properties are luster, crystal shape, hardness, streak, and cleavage.
8. _____ is a way to describe how light shines off of a mineral.
9. Minerals of the same kind will have the same crystal shape.
10. _____ is the measure of how easily a mineral is scratched.
11. _____ is the color of powder a mineral leaves when rubbed on a streak plate. If the mineral is softer than the plate, it will leave a streak of color. If the mineral is harder than the plate, it will scratch it.
12. _____ is the way a mineral breaks along the surfaces called cleavage planes.
13. Rocks are natural solids made up of materials from the Earth's crust.
14. Almost all rocks are made of _____.

15. The _____ of the planet is made of rocks and minerals.
16. Loose pieces of rocks, minerals, bits of dead plants and animals, water, and air all make up _____.
17. Scientists classify, or group, rocks into three types based on _____.
18. Igneous rocks form when _____ rock material cools and becomes solid, either on the Earth's surface or below it. They are made of individual mineral crystals locked together.
19. Igneous rocks do not contain fossils because the hot melted rock would have destroyed any traces of _____.
20. _____ rocks are made of up of broken rock bits pressed together, broken apart by wind or water, then cemented together over time, on top of older layers of rock.
21. Some sedimentary rocks contain traces of plants and animals called _____.
22. _____ rocks form from igneous, sedimentary, or other metamorphic rock because of increased temperature, (heat) and pressure.
23. Rocks do not melt as they become metamorphic. The minerals and crystal shape change, but the rock stays _____.
24. The series of changes from one type of rock to another is called the _____.
25. Any type of rock can change into any other type of rock, but most of these processes take millions of years to happen.
26. If sedimentary rock melts, it becomes igneous.
27. _____ and _____ can change sedimentary rock into metamorphic rock.