EARTH SCIENCE SHARE-A THON

Title: Classification of Information

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Subject: Rock Classification

Materials needed: Earth Science Reference Table I **pp** 6 t 7

Teacher Procedure:

before class begins:

1. Reproduce copy of first page of lab for each student to complete

2. Reproduce copy of rock statements. I have these Xeroxed on heavier paper and then cut the statements out and place them in an envelop.

during class: (30 minutes)

1. give each student a copy of the handout and an envelop with the 40 statements.

2. students are to use their Reference table to sort the cards into three categories.

3. they record their data and answer the questions.

uses for this activity:

1. introductory lesson to topic on Rocks. Use as inquiry-hands on lesson. In this way students become familiar with the Reference Table Charts on their own.

2. as a review for quiz or test

3. assessment tool after lesson on rock cycle and/or rock identification labs.

4. devise similar statement cards for other topics, ex: erosional features from glaciers, rivers, wind; galaxy types; star types; planets; seismic waves.

Name _____ Date _____

Classification of Information

Introduction: Classification is a useful skill that finds its way into many aspects of out lives. You find examples of classification when you go to the grocery store, library, or music store. Items are grouped in categories so that you can find them easily.

The skill of classification is also helpful when preparing for a test. When you classify information, you organize it in a meaningful way. This helps you understand and remember the information.

This topic on rocks contained a lot of information. The information can be put into a list of statements. A list of forty statements about rock characteristics have been prepared for you and placed onto separate cards. Read each statement. Then classify each one by placing the statement into one of the three rock categories.

Observations and Classification of Rock Statements:

Rock Type	Statement # Numbers
Igneous	
Sedimentary	
Metamorphic	

Questions:

1. On what basis are tocks classified into three categories?

2. How did you decide on which statements went into each category?

3. Which would you rather study for a test: the statements as listed, or the classified statements? Why?

4. For each rock type, list at least five major characteristics?

1. Formed by the cooling and hardening of molten rock materials.	2. Change in pre-existing rock when exposed to intense heat and/or pressure.	3. Sediments transformed into rock by compaction or cementation.
4. Rock made of minerals that were once dissolved in water.	5. Foliated rock.	6. Mineral crystals are arranged in parallel layers.
7. Plutonic rock.	8. Light-colored, coarse grained with felsic composition.	9. Recrystallization of rock when it comes into contact with intruding magma.
10. Intrusive rock forms by slow cooling of magma and has large mineral crystals.	11. Flattened or elongated crystals, distorted layers, and high density.	12. Dark colored, dense rock with small mineral crystals.
13. Organic material is compressed and compacted into a rock.	14. Volcanic	15. Water, ice, and wind deposit sediments that are cemented into rock.
16. Banding of minerals.	17. Rocks over a large area are subjected to great heat and pressure from deep burial.	18. Movements in the Earth's crust place intense pressure on rocks.
19. Sediments are joined together by minerals deposited between them.	20. Clastic rock particles are compacted together.	21. Non-foliated, monominerallic rock.
22. Fossils, ripple marks and mud cracks are evident in the rock.	23. Rock formed by chemical precipitation of minerals out of evaporating sea water.	24. Rock is non-crystalline and glassy in texture.

25. Bioclastic rock.	26. Rock composed of sand-sized particles.	27. Many gas pockets (holes) appeared in rock as it formed.
28. Vesicular	29. Pegmatite	30. Dolostone
31. Phyllite	32. Marble	33. Siltstone
34. Breccia	35. Andesite	36. Slate
37. Shale	38. Gypsum	39. Rhyolite
40. Granite	41. Scoria	42. Basalt