

Name: ANSWERS
Date: _____

SciTec 2

Review: Rocks and Minerals

1. What is the difference between a rock and a mineral?

mineral: pure, inorganic substance that usually has a crystal structure

rock: mixture of minerals (not pure)

2. What are the 3 types of rock and how are they formed?

igneous: cooling magma

sedimentary: debris (sediment) collects at bottom of oceans and over time gets compacted into rocks

metamorphic: igneous or sedimentary rock that has been subjected to high heat + pressure

3. Give the definition for the following words:

- a. Lithosphere

solid outer layer of the Earth (crust and upper mantle)

- b. Fossil

traces of life (bones, foot prints, etc) that have been preserved in rock

- c. Sediment

tiny broken off pieces of rock, coral, etc that collect at the bottom of the ocean

- d. Erosion

weathering: slow breakdown caused by wind, water, ice or other forces.

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4. Examine the Moh's hardness scale below:

Hardness	Mineral	Household Item
1	Talc	
2	Gypsum	
2.5		Fingernail
3	Calcite	
3.5		Copper Penny (pre-1982)
4	Fluorite	
4.5		Paper Clip
5	Apatite	
5.5		Glass/Pocket Knife
6	Orthoclase Feldspar	
6.5		Steel File
7	Quartz	
8	Topaz	
9	Corundum	
10	Diamond	

a. Which substance is harder: Apatite or Fluorite?

Apatite

b. Could Quartz scratch Topaz?

NO

c. Could Calcite scratch Talc?

yes

5. What are the three types of igneous rock and what is the difference between them?

intrusive - cools underground
 extrusive - cools above ground (air or water)
 porphyritic - two cooling phases

6. What are the 8 tests that can be used to identify a mineral?

- crystal structure
 - hardness
 - color
 - lustre
 - streak
 - cleavage
 - fracture
 - density

also:
 - magnetism
 - acid test

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7. Give an example of a rock for each of the following rock types:

	Example
Intrusive Igneous	<i>gabbro</i>
Extrusive Igneous	<i>obsidian</i>
Porphyritic Igneous	<i>granite</i>
Metamorphic	<i>marble, schist, slate</i>
Sedimentary	Limestone

8. Complete the following Rock Cycle.



