Rocks & Minerals

3-3.1 Classify rocks (including igneous, sedimentary, and metamorphic) and soils (including humus, clay, sand, and silt) on the basis of their properties.
Taxonomy level: 2.3-B Understand Conceptual Knowledge

3.3.2 Identify common minerals on the basis of their properties by using a minerals identification key.
Taxonomy level: 1.1-A, B Understand Factual, and Conceptual Knowledge

Marie Porter
3rd grade
WVES
2010

. What are the three types of rocks?

A) igenous B) sedimentary C) metamorphic

igneous
sedimentary
metamorphic

2. Rocks are classified by their **properties**.

3. Properties of rocks can be

how they are formed.
visible crystals
minerals.
grain pieces
patterns in the rock like stripes.

Igneous Rocks

4. Igneous is a rock that was once melted but it has cooled and hardened.

5. The melted material is called magma or lava.

6. What are some properties of igneous rocks?

may be glassy or grainy with crystals of different types of minerals in them

Igneous Rocks

7. Name an example of an igneous rock.

_____

Basalt

Obsidian

granite

Granite

gneiss

sand

Mount Rushmore

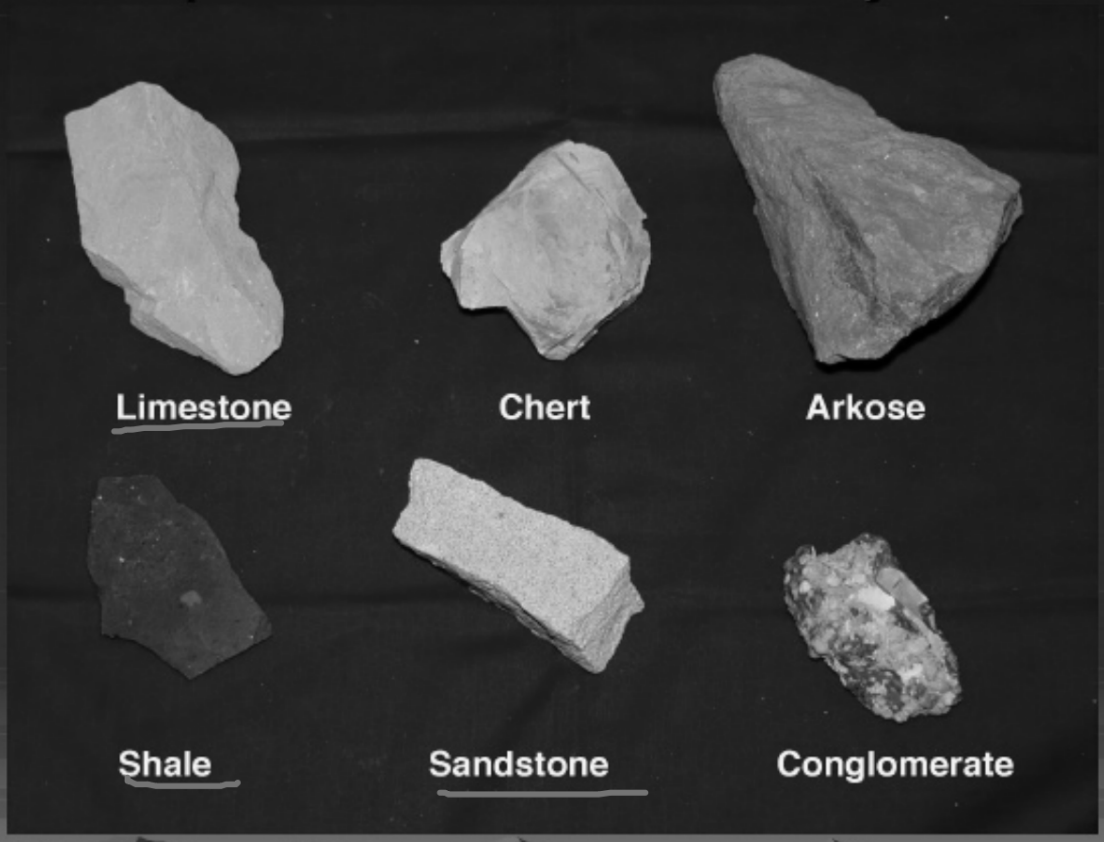
Sedimentary Rocks

8. Sedimentary rocks are ususally made up of pieces of rock called sediments that have been pressed and cemented together.

9. What are some items that sedimentary rocks may contain?

pieces of animal shells or skeletons or other plants and animals (sediments)

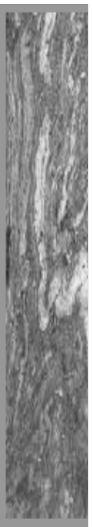
Examples of Sedimentary Rocks



Click to go back to sedimentary rocks information

Quit

Metamorphic Rocks



11. Metamorphic rocks are rocks that were once another type of rock deep inside the Earth, but heat and pressing of the rocks caused the minerals to change.

12. What physical feature do metamorphic rocks have that could indicate that it has been pressed? Rocks that were pressed down could have the minerals line up in rows or bands.

13. True or False: Sometimes heat just changes the size of the mineral crystals.

Metamorphic Rocks

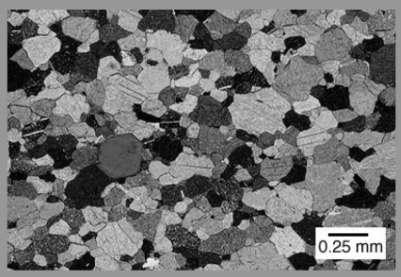
14. Name some examples of meatmorphic rocks.

_____marble_____ and _____slate_____

hornfels

migmatite

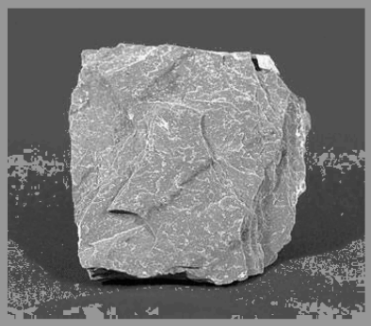
marble



phyllite

schist

slate



Minerals

15. What are minerals? solid nonliving substance found in nature, they have properties they can be indentified by

16. There are four ways we can identify minerals. They are streak, luster, color, hardness.

17. Hardness refers to whether the mineral can be scratched or can scratch something else.

18. The **harder** / **softer** the mineral, the fewer things can scratch it.

19. What is the number scale that ranks the hardness of the minerals? Mohs Hardness Scale

20. According to the scale, diamond is the hardest mineral.

21. Besides hardness, color is another way to identify minerals.

22. Since many minerals have the same color, it cannot be used as the only property for identification.

23. Luster describes how minerals can be shiny, pearly, glassy, or dull.

24. What would happen if vinegar (acid) is placed on certain minerals? it may bubble or fizz

25. What are two other special properties that some minerals can do?

a.) split into thin sheets

b.) they can have magnetic properties

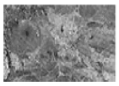
26. What is a mineral identification key?

a chart that will give information about the properties of the minerals listed on the key

Sample: Minerals Identification Key

Mineral	**Properties**			
	Hardness (scratch test)	Color	Luster	Special Properties
Calcite				
Feldspar				
Mica				
Talc				
Gypsum				
Quartz				
Fluorite				

Mohs Hardness Scale

Mineral	Mohs Hardness	Image
Talc	1	
Gypsum	2	
Calcite	3	
Fluorite	4	
Apatite	5	
Feldspar	6	
Quartz	7	
Topaz	8	
Corundum	9	
Diamond	10