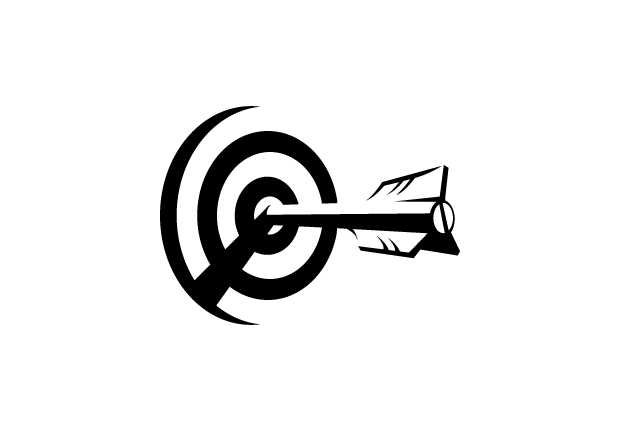
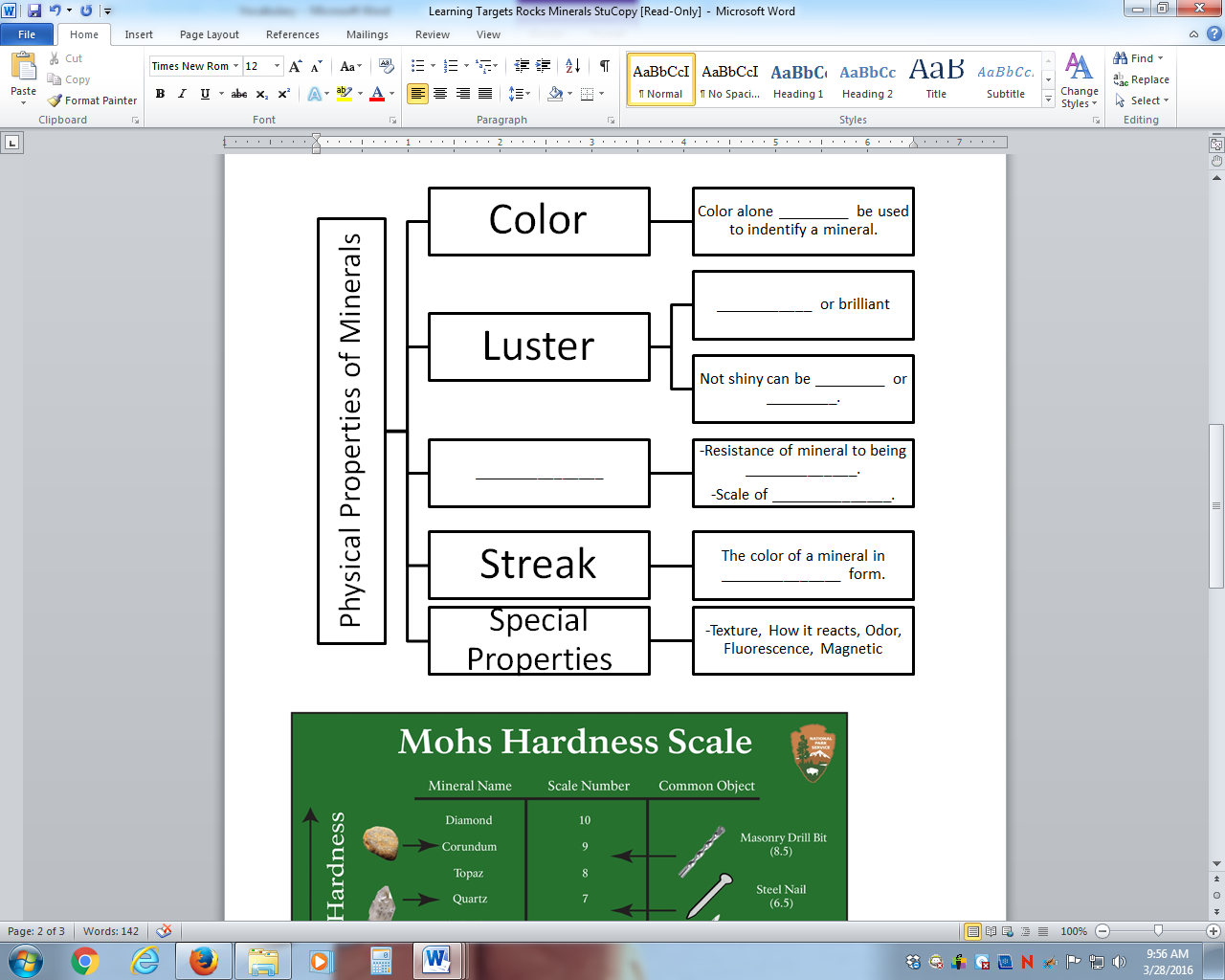
**Rocks and Minerals Learning Targets**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Target** | **Before we start** | **With Help** | **On My Own** | **Teach It** |
| 1. I know that hardness, color, luster, and streak are physical properties of minerals. |  |  |  |  |
| 2. I can use the Mohs’ Hardness Scale to predict the hardness of a mineral. |  |  |  |  |
| 3. I can use the physical properties hardness, color, luster, and streak to identify specific minerals. |  |  |  |  |
| 4. I can test the physical properties of minerals. |  |  |  |  |
| 5. I can describe how a metamorphic rock is formed. |  |  |  |  |
| 6. I can describe how an igneous rock is formed. |  |  |  |  |
| 7. I can describe how a sedimentary rock is formed. |  |  |  |  |
| 8. Using the rock cycle I can correctly predict what processes will produce each type of rock. |  |  |  |  |

 **Study your vocabulary flashcards for this unit.**

**Target 1**:

**Target 2**:   
-Purpose of Mohs’ Hardness scale is to test whether one mineral will \_\_\_\_\_\_\_\_\_\_\_\_\_ another.

-Range of Mohs’ Hardness Scale: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

-Softest mineral on scale:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Hardest mineral on scale:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |  |
| --- | --- |
| **Hardness of Common Minerals** | |
| **Mineral** | **Hardness** |
| topaz | 8 |
| calcite | 3 |
| galena | 2.5 |
| quartz | 7 |
| feldspar | 6 |

-If you have an unknown mineral with a hardness of 5, circle all the minerals in the chart that it will NOT scratch.

**Targets 3 & 4**:

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Mineral** | **Hardness** | **Color** | **Streak** | **Luster** | **Density** | **Other** |
| **Calcite** | 3.0 | clear, white, pink | white | glassy | 2.7 | fizzes in acid |
| **Corundum** | 9.0 | white, brown, red | white | glassy | 4.0 |  |
| **Gold** | 2.5–3.0 | bright yellow | golden yellow | metallic | 19.0 |  |
| **Gypsum** | 2.0 | clear, white, gray | white | glassy to pearly | 2.32 |  |
| **Halite** | 2.5 | clear, white | white | glassy | 2.2 | fluorescent |
| **Magnetite** | 6.0 | black | black | metallic | 5.2 | magnetic |
| **Pyrite** | 6.0–6.5 | bright gold, gold | green to brown-black | metallic | 5.0 |  |
| **Quartz** | 7.0 | clear, white, pink | white | glassy | 2.6 | does not fizz in acid |

-Which is the hardest mineral listed on this chart? \_\_\_\_\_\_\_\_\_\_\_\_\_\_ Softest? \_\_\_\_\_\_\_\_\_\_\_\_\_\_

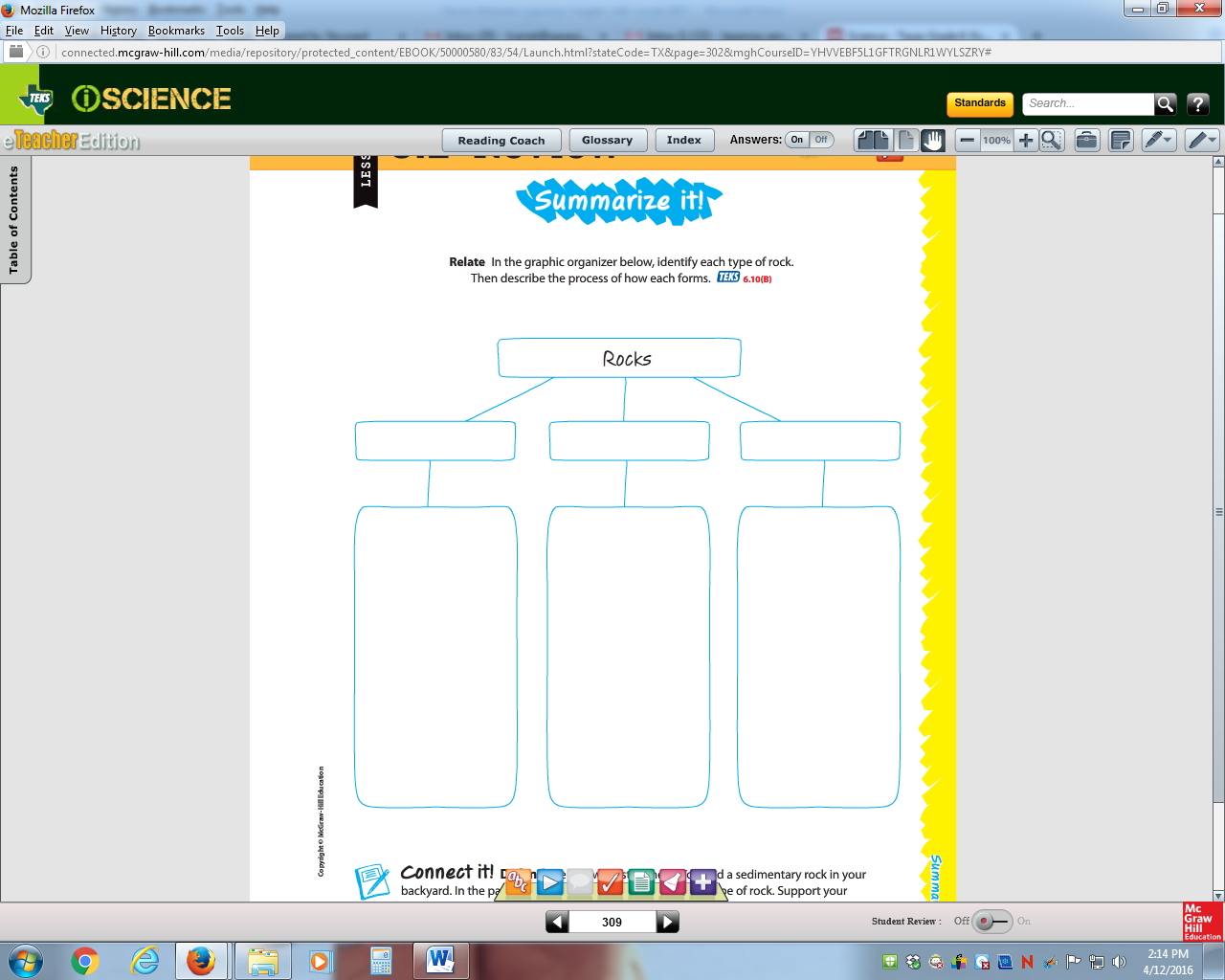
-You have a sample of gold and a sample of pyrite. If you have no way to test density, how might you tell the minerals apart? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

-You have a sample of calcite and a sample of quartz. What test can you perform to tell the minerals apart?\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

-You have a sample of magnetite and a sample of pyrite. What test(s) can you perform to tell the minerals apart?\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

-Which five minerals have similar lusters?\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Targets 5, 6, and 7**:



Igneous

Sedimentary

Metamorphic

Processes:

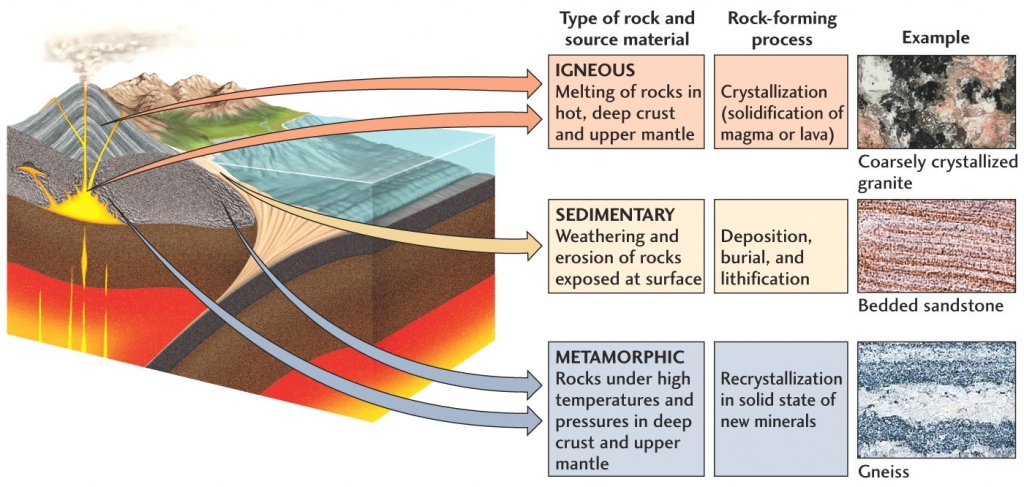
Types:

Processes:

Types:

Processes:

Types:

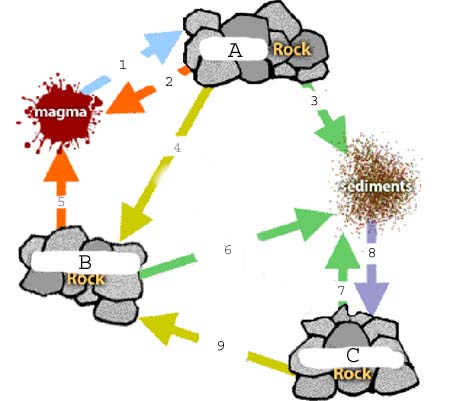


3 Major Types of Rock

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Target 8**:   
  
**Identify the type of rock:**

A:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  
B:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  
C:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  
  
**Identify the processes:**  
1:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  
2:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  
3:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_   
4:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  
5:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  
6:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 7:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  
8:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 9:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Rocks and Minerals**

**Chapter 8, pages 301 – 345 and pages 94-96**

Create flashcards for these vocabulary terms. Some definitions have been given to you below.

**Pages 94-96**  
-Mineral – a naturally occurring, inorganic solid with a definite chemical composition and an   
 orderly arrangement of atoms

-Luster  
-Mohs’ Hardness Scale  
-Hardness  
-Streak

-Color – a property of minerals that you can observe with the unaided eye

**Section 8.1**  
-rock  
-magma

-lava

-sediment

-rock cycle

**Section 8.2**-igneous rock – rock formed from magma or lava that has been cooled and hardened

-extrusive rock – igneous rocks that form as lava cools and hardens on the surface of earth

-2 examples of extrusive rock – page 315 and 317

-intrusive rock – igneous rocks that form as magma cools and hardens underground

-2 examples of intrusive rock – page 317

**Section 8.3**  
-sedimentary rock – rock formed from deposition, compaction and cementation of sediments

-deposition – the laying down (or depositing) of sediments

-compaction

-cementation

-clastic rock (give definition and an example)

-chemical rock (give definition and an example)

-biochemical rock (give definition and an example)

**Section 8.4**

-metamorphic rock – rock formed from extreme temperature and pressure deep inside earth

-foliated rocks (give definition and an example)

-nonfoliated rock (give definition and an example)