Mineral Crystal Structure and Internet Investigation ES0506

Geology 1P and Earth Science (1st Part Only) Mr. Traeger

Name: _____ Period: _____ Date: _____

Purpose

The purpose of this activity is to become familiar with the crystal structure and formation of minerals.

Materials

- Computer with Internet Connection
- Pencil or pen
- Traegerôs Internet Investigations page with links

Procedure

1. Go to Traegerôs Website at http://home.lcusd.net/lchs/ttraeger/ or Google ñTraeger 311.ò Click on Geology. Then click on Internet Investigations. The links for this assignment will be found here.
2. Answer the Questions that follow.

Part 1: Internet Investigation ES0506: How Do Crystals Grow?

1. Complete the questions on the back of this handout using the first link under Internet Investigations.

Part 2: Crystal Structures

1. Click on second link for the 7 Crystal Systems. Tell me what is different about each crystal system by using the animation.
2. Using the animations and mineral sites (remaining links), find one mineral for each crystal structure. Describe what the mineral looks like on its atomic scale and on its actual scale.

Crystal Structure	Description of sides a, b, and c (ex: a = b = c)	Description of angles α, β, and γ (ex: α = β = γ = 90°)	Description or Drawing of Appearance of crystal system	Name of any mineral that has this crystal structure	Description or Drawing of appearance of atomic scale (element bonding) of mineral	Description or Drawing of actual appearance of mineral
Cubic						
Tetragonal						
Orthorhombic						
Monoclinic						
Triclinic						
Hexagonal						
Trigonal						

Conclusion: How do minerals form? What are the three ways in which mineral crystallization can occur? How does the crystallization of the mineral and chemical bonding affect the appearance of the mineral? Attach separate paper.