

To complete this worksheet, see the instructions in the textbook (Chapter 4 Investigation).

Table 1. Identification of Common Minerals

Examine the photograph of each mineral in the textbook (smaller versions are provided here), and note any conspicuous features you see. Identify each mineral by comparing the characteristics provided below with characteristics in the textbook (see Sections 4.3, 4.5, 4.8, and 4.9). Your instructor may provide you with actual minerals.



Characteristics of this mineral: six-sided crystal, hardness of 7, conchoidal fracture instead of cleavage, partially transparent, does not effervesce with dilute HCl.

Mineral identification:



Characteristics of this mineral: hardness of 3, three directions of cleavage (cleaves into rhombs), partially transparent, effervesces with dilute HCl without being pulverized into a fine powder.

Mineral identification:



Characteristics of this family of minerals: very soft (but not listed on Moh's Hardness Scale), feels sticky when wet, does not effervesce, can expand when wet. It is not talc or graphite.

Mineral identification:



Characteristics of this mineral: hardness of 2 (can be scratched with a fingernail), cream-colored to partially transparent, does not effervesce.

Mineral identification:



Characteristics of this mineral: sheet-silicate mineral with one dominant direction of cleavage (breaks into flakes and sheets), thin sheets are silvery gray and partially transparent, does not effervesce.

Mineral identification:



Characteristics and identification of these minerals: contain copper and include malachite (green copper-carbonate mineral), azurite (blue copper-carbonate mineral), and native copper (a metallic, copper-colored mineral).



Characteristics of this mineral: can be black, brown, silvery gray, or earthy red, but consistently has a red streak, can have a metallic or earthy luster, is nonmagnetic, and does not effervesce.

Mineral identification:

Table 2. Description of Each Part of House

Below is a description of the function of each part of a house. Use the characteristics of each mineral, and the uses of minerals in Section 4.14, to decide which minerals or materials can be used to build each part. Write the name of the mineral or material in the space provided.

Part of House	Function	Mineral or Geologic Material Used
Roof	A roof is a barrier to rain and snow. Some type of mineral product is used to cover the plywood sheets on the roof.	
Insulation	To keep the house at a comfortable temperature, a material that slowly conducts heat is placed outside, inside, or within the exterior walls. Commonly, this material is fiberglass, which is produced by melting a common and inexpensive silicate rock and turning the melt into glass fibers.	
Exterior walls	The outside walls act as a barrier to rain and snow and to support the roof and rest of the structure.	
Windows	These let in visible light and other solar energy and provide visibility to the outside.	
Electrical wiring	A material that conducts electricity is used for electrical wiring. Most wire is made from a metal because metals are conductive and ductile (can be shaped easily into wire).	
Plumbing	Metal pipes are commonly used to carry fresh water into the house and from one part of the house to another.	
Inside of walls	Interior walls separate the house into rooms, but commonly do not support the structure. They typically have vertical beams (called studs) of a strong material that supports sheets of wallboard that form the actual wall. The interior walls should be soft enough so holes can be cut for electrical outlets and switches.	
Cement slab	Cement is used to make a fairly smooth, stable base for floor tile, wood, or carpet. It is also used as a foundation to support the walls.	

Reference Page (you can print out this page for reference, but you will not turn it in)

The figure below identifies the different parts of a house. In Table 2, write the name of the mineral or material used to build each part of the house. Table 2 describes the function of each part of the house.

