

Name: \_\_\_\_\_

## Minerals

Minerals are naturally occurring substances formed by geological processes. They are usually solid and have a crystalline structure. Examples of some minerals are: calcite, gypsum, halite, pyrite, gold, quartz, diamond, mica, hematite, fluorite.

**Directions:** - Choose one mineral to study. - Complete the data below for the mineral you chose.

mineral name

color

luster

shape of crystal

cleavage

Mohs scale

transparency

**Words to use for luster:**  
dull/matte, waxy, greasy/oily, pearly, silky, glassy/vitreous, resinous, adamantine (diamond-like), metallic

**Words to use for crystal shape:**  
acicular (fine needles), block (round blocks), botryoidal (bunch of grapes), concretion (spherical), dendritic (branch-like), dog-tooth (like a tooth), fibrous (fibers), octahedral (8-sided), massive (chunk with no crystal shape), tabular (thin sheets)

**Words to use for cleavage:**  
perfect 1 way: breaks on one perfect cleavage plane  
perfect 2 ways: breaks into elongated boxy shapes, 90-degree angles  
perfect 3 ways: breaks into pieces that look like perfect boxes  
no cleavage: does not break regularly

**Words to use for transparency:**  
transparent: clear, see-through when sliced thin, called "gemmy"  
translucent: see shapes & shadows through it when sliced thin, may be cloudy  
opaque: can't see through it at all when sliced thin, rarely used for gemstones