

NAME: _____ Section: _____

Subject of video(s): mineral cleavage

Purpose(s) of video(s): take notes, record facts from observations, think-pair-share, assemble a concept

YouTube video #1: <https://www.youtube.com/watch?v=iafahWbrK5Y>

YouTube video #2: <https://www.youtube.com/watch?v=X8PXYGfEBHA>

YouTube video #3: <https://www.youtube.com/watch?v=ZCyEEmOxxow>

Video #1: Watch the video and listen to the geologist. Quartz and calcite are both common minerals, and they may appear superficially similar in field samples. Explain procedure(s) by which the geologist distinguished these two minerals.

Video #2: Observe the calcite crystal as it is rotated and notice how the crystal faces reflects light. Describe how the intensity of reflected light changes (the pattern) as the crystal is rotated.

Watch the 3rd video. It shows a close up of a hammer breaking a sample of calcite, make careful observations, and record answers to the following questions.

a. Sketch a few of the shapes of the fragments produced by the fracturing of the mineral.

b. Describe in words the shape(s) of the fragments.

c. Identify and describe characteristics of these fragments that determine whether or not calcite exhibits cleavage?

d. Estimate the number of cleavage directions that calcite exhibits, and at what angle(s)?

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