

# The ~~Teach~~ Cheat Sheet



Episode 1 is a look at the way minerals form crystals. It briefly touches on the advanced geometry of **crystal systems**.

Our activity is making rock candy. Over a week students can watch the crystal grow and get a treat at the end. Rock candy also demonstrates the chemical property of a super-saturated solution. A similar, but not edible, crystal growing can be done with salt crystals or borax.



Episode 2 is a look at the way rocks are formed. It looks at the **rock cycle**. This cycle includes volcanic action, plate tectonics, and erosion.

<https://geologyscience.com/geology/the-rock-cycle/>

Our activity is to use crayon shavings to recreate the processes different rocks go through to help students understand better through a visual/physical example.

<https://www.sciencebuddies.org/stem-activities/crayon-rock-cycle>



Episode 3 is a look at local geology. Vittoria talks to us about the rocks beneath us and how they got there. Includes geologic ideas like underwater volcanoes and mountain forming events.

Our activity is looking at how rocks and minerals are identified. There is a sheet on identifying each, and we encourage students to get outside and find a new rock. The hobby of rock collecting is also known as **rockhounding**.

<https://minerals-identify.com/> <https://rockhoundresource.com/>



Episode 4 is a look at different **types of mines** and some of the geology that might effect them. Ryan tells us about the need to find areas with lots of resource, and how we ourselves might need to be resourceful in the collecting.

Our activity explores three types of force. Students can try abrasion, compression, and impact.... on cookies! We also provide two recipes that use cookie crumbs so they won't go to waste.

Another cookie-based experiment that looks deeper into some of these topics is Cookie Mining: <https://www.rom.on.ca/en/learn/activities/classroom/delicious-mine>



Episode 5 finishes up our week by thinking about local mining and the importance of mining in a **sustainable** way that protects our future and the planet's.

Our activity looks at the unique properties of gold that make it special and important to mine. Students are invited to test different household items for some of those properties. (Requires an adult as reactive test suggests bleach and conductive test requires a closable circuit device.)

<https://www.scientificamerican.com/article/which-materials-conduct-electricity/>