

## Enhancement Activities/Strategies for Gifted/High Ability Learners: Sample Science Learning Plan

### Big Idea/ Topic

- Rocks and Soils of Georgia

### Standard Alignment

S3E1. Obtain, evaluate, and communicate information about the physical attributes of rocks and soils.

a. Ask questions and analyze data to classify rocks by their physical attributes (color, texture, luster, and hardness) using simple tests. (Clarification statement: Mohs scale should be studied at this level. Cleavage, streak and the classification of rocks as sedimentary, igneous, and metamorphic are studied in sixth grade.)

b. Plan and carry out investigations to describe properties (color, texture, capacity to retain water, and ability to support growth of plants) of soils and soil types (sand, clay, loam).

c. Make observations of the local environment to construct an explanation of how water and/or wind have made changes to soil and/or rocks over time. (Clarification statement: Examples could include ripples in dirt on a playground and a hole formed under gutters.)

Crosscutting Concepts: Patterns, Cause and Effect, Structure and Function, Stability and Change

Connections to Other Content Standards:

ELAGSE3RI4: Determine the meaning of general academic and domain-specific words and phrases in a text relevant to a grade 3 topic or subject area.

ELAGSE3SL1: Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 3 topics and texts, building on others' ideas and expressing their own clearly.

c. Ask questions to check understanding of information presented, stay on topic, and link their comments to the remarks of others.

d. Explain their own ideas and understanding in light of the discussion.

### Advanced Research

You are part of a team to determine the best possible site for a copper mine by conducting “authentic tests that exploration geologists, environmental scientists, and mining engineers” do as they “explore potential mine sites.” Research this with a partner.

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<b>Communication</b>
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How can you use a cooking task to model the rock cycle or demonstrate the different types of rocks? Research and plan a cooking show in which you are the chef competing. Choose one concept to present. What recipe will you use? How will you demonstrate the characteristics of rocks or something else? Check online to find samples of children with cooking shows. You may create your own video to show your work. Your video should be a maximum of five minutes.
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<b>Critical Thinking and Critical Problem-Solving Skills</b>
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Create a mystery box about a special rock that was “found.” Develop clues (at least 10) that describe this special rock and place in your box. Other classmates will guess the name of the rock from your clues. Take turns with the different boxes.
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<b>Creative Thinking and Creative Problem-Solving Skills</b>
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Encourage students to make a digital (or draw your own) trading card depicting a rock or mineral often found in Georgia. Use a photograph or draw a picture on the front. On the back, add the type of rock or mineral along with characteristics and other information. Have students share their rock trading cards with classmates in small groups.
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<b>Awareness of Self—Student’s Well-being</b>
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Give students an opportunity to create and hide rocks with encouraging words in the community or on the school grounds. Encourage others by adding an encouraging word painted on a rock and hidden where someone else might find it. You can add your school’s social media account or a class website to the back-encouraging others to post a picture when they find the rock. Challenge students to think of words, phrases, or pictures that would brighten the day of someone else.
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