

# DRAFT

## Georgia Performance Standards

### 6<sup>th</sup> Grade Earth Science

#### **The task**

Students were asked to develop graphic models of the rock cycle as the culmination of six weeks of study. During those six weeks, classroom lessons and laboratory experiences were conducted to study the three major rock groups; and the class went on two field trips to observe rock formations and collect rocks. In developing their graphic models, students were asked to include any forces and processes that cause rocks to change.

#### **Circumstances of performance**

This sample of student work was produced in class, with teacher feedback, and an opportunity for revision.

#### **What the work shows**

##### **Characteristics of Science**

##### **SCSm1. Students will understand important features of the process of scientific inquiry.**

- e. Computers are valuable scientific instruments because they speed up and extend people's ability to collect, store, compile, and analyze data, prepare research reports, and share data and ideas with investigators all over the world. Science is often stimulated by developments in technology and mathematics to address old questions in new ways.

##### **SCSm5. Students will be able to communicate scientific ideas and activities clearly.**

- b. Understand and describe writing for scientific purposes that incorporates circle charts, bar and line graphs, two-way data tables, diagrams, and symbols.

**A** Examples of the rocks were chosen by the student, using an internet web site: [www.calvin.edu](http://www.calvin.edu). The pictures were reduced on a photocopier to fit into the diagram.

**A** The student effectively blends a concept map and downloaded images to convey understanding of the rock cycle.

##### **Content**

##### **S6E6. Students will be familiar with the scientific view of how the earth's surface is formed.**

- b. Students will classify the types of rocks.
- d. Students will describe the role of energy in the processes that change rocks and the surface of the earth.

**A** The student shows a clear understanding of the cyclical relationship that exists between igneous, sedimentary and metamorphic rocks, and many of the forces that cause these changes.

**B C D** The student correctly shows that forces such as subduction, volcanic eruptions, etc. are cause agents for change in the rock cycle.

**B C D** The student uses the concept of Earth processes (Standard **S3b**) to explain how rocks change from one form to another. In a revision, the student should be asked to rethink the order of erosion and weathering in both places where these processes are noted.

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