**Subject area/course**: Science/Earth Science

**Grade level/band**: 7th

**Task source**: Summit Public Schools

**Geology Comic Book**

**STUDENT INSTRUCTIONS**

1. **Task context**:

A local textbook publisher has hired you to write a comic book for elementary students. The goal is to help them learn about features of weathering, erosion, deposition, and plate tectonics and their formation in the landscapes of the earth. It is important for us to know that the Earth is constantly changing! Have you ever experienced an earthquake? Have you ever visited the California coast and seen Big Sur? Both of these are the results of Earth's constantly changing surface. In California, people must know about how the Earth changes to determine where they live and if their homes are safe. Your comic book will help elementary students understand how and why the Earth is changing.

*Essential question:* How can I use patterns and clues in nature to help me figure out how diﬀerent natural features formed?

1. **Final product**:

*Objective*: Students will identify patterns and relationships of geological processes in order to explain the formation of Earth's geologic features.

In order to practice the cognitive skill of making connections and inferences, you will find two photos of specific locations in the world that represent weathering, erosion, or plate tectonics and you will research and use your knowledge of geology to determine how these land features were formed.

Using this information, you will practice the cognitive skill of narrative, modeling, & precision by creating a comic strip, which will explain the terms, the formation of the feature shown in the image, and the age of the feature. The picture will be the inspiration for your comic strip, but you do not need to include that picture in the comic. These pictures can be found online or can be pictures you have taken!

Your task is to select two images that are examples of the following:

* Weathering
* Erosion
* Land movement because of plate tectonics (mountain ranges, volcanoes, earthquakes, fault lines)

For each example, you will do a minimum of one page that is a comic explaining the following:

1. Define the term and explain how it works/what it does
2. Explain how the feature shown in your picture was formed
3. Explain how old the feature is and how long it took to form

*Final Product*

A comic book with a minimum of 3 pages describing 3 of the following: erosion, weathering, deposition, or plate tectonics. You may have more than 3 pages. The comic book must be colored and contain at least one line of narration or dialogue in each square. There will be a gallery walk to allow students and teachers to see all the comic books.

*See the Instructional Materials for each portion of the task for additional details and directions about each step leading up to the final product.*

**Additional Information**

1. **Knowledge and skills you will need to demonstrate on this task:**

*Enduring Understandings:*

Features on Earth's surface are formed by natural processes and cycles. These processes and cycles follow set patterns and rules, and leave tell tale clues of their actions. People can use the clues they find on diﬀerent features as evidence to figure out how those features were formed.

In addition, see the Geology Comic Self-Assessment & Peer Review handouts (in the *Instructional Materials*) for more details about task expectations.

1. **Materials needed:**

* Instructional Materials for each part of the task
  + Introduction – Project Scavenger Hunt
  + Modeling Practice – Modeling Deposition Student Instructions & copy of Modeling Workshop PPT slides
  + Part 1: Geology Lab – Geology Stations PPT and Lab Station Task Cards (see task cards for more detail about materials for each station)
  + Part 2: Making Inferences & Connections PowerPoint, Task Cards, and Whodunit? Handout
  + Part 3: Finding Images - Student Directions
  + Rough Draft: Comic Book Storyboard Handout, Rough Draft Peer Review & Self-Assessment guidelines
  + Presentation & Gallery Walk: Gallery Walk & Project Reflection PPT, Gallery Walk Report, and Presentation Sheet

1. **Time requirements:**

This task is designed to take place over 10 instructional days, with pieces of the task to be completed at certain checkpoints along the way. Your teacher will provide you with more information about the timing of each part of the task.

1. **Scoring:**

Your work will be scored using the Scientific Practices rubric. You should make sure you are familiar with the language that describes the expectations for proficient performance.