

## Strategy Scenario

**Strategy:** Chunking

**Content:** Geology

**Title:** Geological time scale

**Time Required:** 50 minutes

**Number of Participants:** 20-30 students

**Target Audience:** From high school students to college students.

**Goal of Activity:** To memorize each period of the geological time scale.

**Purpose of Script:** To demonstrate the use of narrative chunking to help students organize and memorize the information.

**Learning Outcome(s), Gagne's Taxonomy:** Verbal information

**Learning Outcome(s), HEO Taxonomy:** Knowledge

**Learner Characteristics:** Average high school and undergraduate students.

**Entry Skills:** Average high school level of reading and writing skills.

**Setting:** Classroom

**Media:** A live teacher, overhead projector, transparency pens, transparency which lists the geological time periods, and transparency which lists 3 geological eras.

### **Process:**

1. An instructor will first tell students to memorize 12 periods of geologic time by the next test. Then, place the transparency of the geological time periods on the overhead projector.
2. The instructor will say that one way to remember all the periods is to classify the periods according to the eras.
3. Then, the instructor will place the new transparency on the previous one. The new transparency has names of 3 geological eras in three different colors.
4. The instructor will explain which periods are classified according to the geological eras, circling the group of the periods with the transparency pens of the era-heading colors.
5. The instructor will ask the students to make index cards to remember the periods according to each geological era. (He or she might recommend that the students can use different color cards or inks to group the periods.)

**Strategy Assessment:**

After the test, ask the students to orally describe how they remember the geological time scale. Then, assess whether the students have chunked the periods according to the eras.

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**References:**

West, C. K., Farmer, J., & Wolf, P. (1991). *Instructional Design: Implications from Cognitive Science*. Englewood Cliffs, NJ: Prentice Hall.

**Examples of Transparencies:**

Transparency of the eras

Cenozoic

Mesozoic

Paleozoic

Transparency of the periods

Quaternary

Tertiary

Cretaceous

Jurassic

Triassic

Permian

Pennsylvanian

Mississippian

Devonian

Silurian

Ordovician

Cambrian