

INSPIRE GK12 Lesson Plan



Lesson Title	Earth History Part I (Paleozoic & Precambrian)
Length of Lesson	One (50 minute) class period
Created By	Will McBryde, Rob Thornton
Subject	Earth Science
Grade Level	8 th grade
State Standards	8 th : 1b (Inquiry); 4a, b (Earth Science)
DOK Level	DOK 3
DOK Application	Investigate, Identify, Hypothesize, Differentiate, Compare
National Standards	5-8: A (Inquiry); D (Earth/Space)
Graduate Research Element	Understanding and general knowledge of earth's history throughout its various stages is a fundamental concept in geology.

Student Learning Goal:

MS 8th Grade:

1(b) Make inferences based on observations 4(a) Density of continental crust and ocean crust (b) Modern distribution of continents to the movement of lithospheric plates since the formation of Pangaea.

National Science Education Standards of Content 5-8:

A: Inquiry: Abilities necessary to do scientific inquiry; Understandings about scientific inquiry; Students will learn about the vastness of earth's history through a PowerPoint lecture and capture activity.

D: Earth and Space Science: Earth history; Students will learn about earth's history through a timeline exercise and lecture.

Materials Needed (supplies, hand-outs, resources):

PowerPoint file (INSPIRE_McBryde_09.15.10_PP); note-taking sheet (INSPIRE_McBryde_09.15.10_Sheet) laptop; projector; toilet tissue roll (INSPIRE_McBryde_09.15.10_TP)

Lesson Performance Task/Assessment:

The whole class will observe and participate in a capture activity demonstrating geologic time using toilet tissue. These tasks will be assessed through observation of students' note-taking sheets. In addition, the instructor will lecture, observe, ask, and answer questions regarding the lesson.



Lesson Relevance to Performance Task and Students:

The capture activity demonstrating geologic time will help students grasp how far back geologic time goes. A PowerPoint lecture will give students some details about early earth history from the point just after the earth formed up to the present. This will take into consideration the Paleozoic and Precambrian. The students will follow along filling-in their note-taking sheets.

Anticipatory Set/Capture Interest:

A roll of toilet tissue will be unrolled from one side of the class and back until it's all unraveled. Many, if not all, of the students will get to handle the toilet tissue. By using a 176-sheet toilet tissue, each sheet represents 26 million years. At different points or "sheets" along the way, the instructor will highlight certain milestones in geologic time.

Guided Practice:

The whole class will observe/participate in the capture activity using toilet tissue. After this, the students will be given a note-taking sheet (INSPIRE_McBryde_09.01.10_Sheet). Students will then observe a PowerPoint lecture on earth's history.

Independent Practice:

Students will observe PowerPoint on earth's history and fill out note-taking sheets.

Remediation and/or Enrichment:

Remediation – Individual IEP; Make PowerPoint presentation, note-taking sheet available to resource teacher.

Enrichment- Have students construct a timeline of events on their own.

Check(s) for Understanding:

Observe students during lecture, review students' note-taking sheets and ask questions.

Closure:

Ask students questions.

Question 1: About how old is the earth?

Question 2: Ask students the definitions of eon, era, period and epoch.

Possible Alternate Subject Integrations:

Math, Chemistry, Astronomy

Teacher Notes:

This lesson serves as an introduction to earth history. Lessons on continental drift could be given after this lesson.

http://www.windows2universe.org/earth/past/geologic_time.html