

The Earth's Core

Lesson Overview

In this lesson, students will use their knowledge from previous lessons on the layers of the Earth to critique the science content in the movie “The Core” as scientifically accurate or inaccurate.

Standards Addressed

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| SC 2005 | 8-3.1 Summarize the three layers of Earth—crust, mantle, and core—on the basis of relative position, density, and composition. |
| SC 2014 | 8.E.5A.3 Obtain and communicate information about the relative position, density, and composition of Earth’s layers to describe the crust, mantle, and core. |

Disciplinary Literacy Best Practices

Freeze Frame
Graphic Organizer (T-Chart)
Partner Dialogue

Lesson Plan

Time Required –One 60 minute class period

Disciplinary Vocabulary – satellite, crust, lithosphere, asthenosphere, mantle, outer core, inner core, magnetic field

Materials Needed:

- Movie: **The Core**
- Paper and pencil

Engage

- Teacher will explain the freeze frame strategy to the students. In Freeze Frame, a short clip of a video is watched, then paused for analysis before watching the next clip.
- Teacher will explain that students will be using their science knowledge to determine the accuracy of the science in the movie **The Core**. As we view movies or find information on the internet, it is important to be able to compare the information with our knowledge about science to make good judgments about what to believe.

Explore

- Students will watch 8 movie clips using a freeze frame approach. After each clip, students will record in their t-charts what they observed in the video. They will then compare the video evidence to the evidence from their science notes to make a determination about the accuracy of the video.
- Movie clips to show:
 - Clip 1: 0:30—2:45
 - Clip 2: 7:19—9:26
 - Clip 3: 23:17—27:55
 - Clip 4: 29:00—32:48
 - Clip 5: 47:15—49:57
 - Clip 6: 53:09—58:36
 - Clip 7: 1:05:38—1:08:00
 - Clip 8: 1:54:41—1:55:19

Explain

- After all clips are shown, students will pair with a partner to compare notes.
- Class discussion: Which clips are backed up with evidence from our learning about the Earth's Core?

Teacher Reflections and Biographical Information

I enjoyed this lesson because it held student interest. Most students had not seen the movie but come to class with prior knowledge based on movies they see. Several students believe these movies as fact. By freezing the movie and discussing parts, students were able to see that all movies are not accurate. By reviewing and discussing their evidence, students were able to review material they learned and helped them to use the information to evaluate the material. By using freeze frame, students were not overwhelmed with information. I would most definitely use the strategy again in class.

Lesson Author:

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The Core Critique

What I
Saw

Evidence