

Backward Design

Stage 1: Desired Results

Content Standard: Grade 5 Standard 12: Forces in Nature

Conceptual Strand 12: Everything in the universe exerts a gravitational force on everything else; there is an interplay between magnetic fields and electrical currents.

Essential Question: What are the scientific principles that explain gravity and electromagnetism?

Understandings: 1. The student will be able to recognize that the earth attracts objects without directly touching them. **Science Lab Magnetic Poles; Magnet Worksheet ;Earth's Gravity Wordfile; The Untouchables Wordfile; Create a Compass**

2. The student will investigate how the shape of an object influences the way it falls toward the earth. **Gravity Promethean Flipchart; Partner Science Lab Shapes**

3. The student will provide examples of how forces can act at a distance. **Science Lab Magnetic Poles; Magnet Worksheet ;Earth's Gravity Wordfile; The Untouchables Wordfile;**

4. The student will design and explain an investigation exploring the earth's pull on objects. **Magnetism Promethean Flipchart; Magnet Movers. ; Science Lab Magnetic Poles;**

Stage 2: Assessment Evidence

Performance Tasks

Magnet Worksheet

Gravity Worksheet

Stage 3: Learning Plan and Activities

Textbook – Houghton Mifflin Harcourt Tennessee Science

Chapter 10 Lesson 3 p. 376-383 (Gravity in Lesson 1)

Directed Inquiry – What Forces Come from Magnets? P. 376-377

Exploring Magnets in Textbook and using Science Journal.