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)