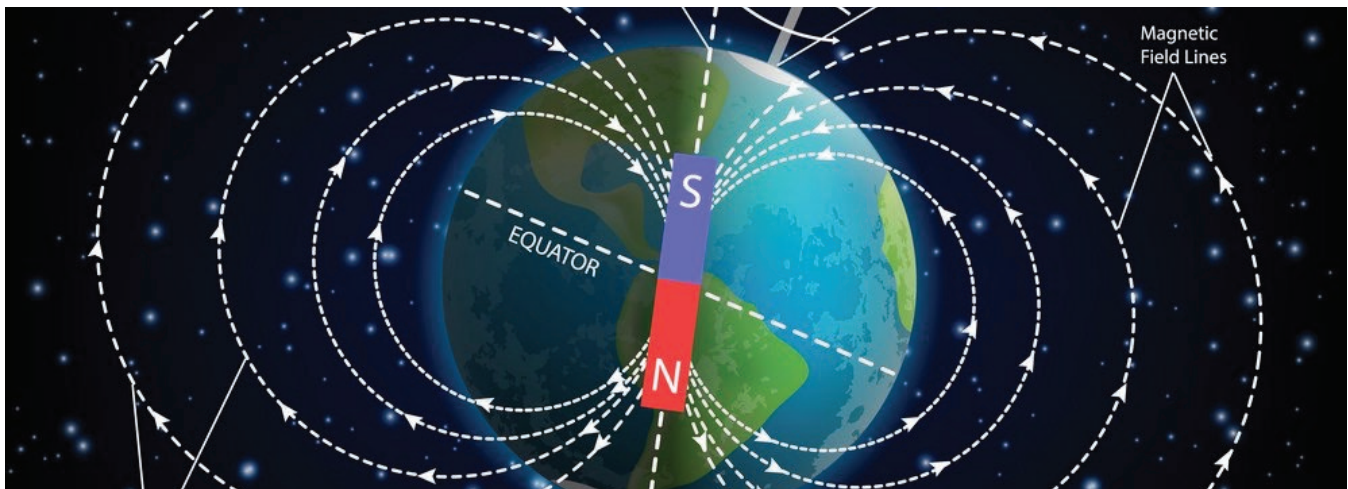


Virtual Field Trip Lesson Overview

Grades
4-6



Our Magnetic World

Students will learn about the inherent magnetism of the Earth and other planets, how magnetism interacts with electricity and how it was used in ancient times to find direction. Students will perform

experiments with and learn about using magnets in motors, and learn how much of our modern society relies upon the power of magnets.

The presenter will explain what makes materials magnetic, discuss the history of magnetic materials and their ancient applications, and cover specific materials that are strongly paramagnetic or diamagnetic. Focus will be given to how the Earth itself is magnetic due to its iron core and how the presence and behavior of the planet's magnetic field was discerned by skilled thinkers over the years. The presenter will convey to attending students how magnets are essential to a tremendous amount of technology that is key to our modern lifestyle. This discussion will be accompanied by experiments that showcase diamagnetism and paramagnetism. The manufacturing of magnets and magnetism's relationship with temperature will also be explored.

Standards Covered:

5.PS2.1 Test the effects of balanced and unbalanced forces on the speed and direction of motion of objects.

5.PS2.2 Make observations and measurements of an object's motion to provide evidence that pattern can be used to predict future motion.

6.NS.C.5 Understand that positive and negative numbers are used together to describe quantities having opposite directions or values (e.g., temperature above/below zero, elevation above/below sea level, credits/debits, positive/negative electric charge); use positive and negative numbers to represent quantities in real world contexts, explaining the meaning of 0 in each situation.

6.37 Explain the major accomplishments of the Han Dynasty, including: the magnetic compass.

To sign up for this virtual field trip lesson, please **fill out this form**, or contact us at education@discoveryparkofamerica.com or 731-885-5455.



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