

# Magnetic Magic

*Explore the power of magnets. Create electromagnets and control a compass needle. See a magnetic accelerator in action. Grab a Magnet Lab for some at-home research.*

## **SUMMARY:**

This class reveals the science behind magnet magic and magnetism mysteries. Children use magnetic wands to explore magnetic fields' attracting and repelling forces, confuse compass needles, and magnetize paper clips. Entertaining demonstrations illustrate the magnet's gravity-defying abilities and educate children about the Earth's magnetic properties. Children continue the lessons at home with the Magnet Lab Take-Home.

## **EDUCATIONAL VALUE:**

This class provides the basic physical principles governing magnetism. Children learn how and why magnets behave in such ways. They learn how to create magnets and how magnetism is lost. Children use compasses to gain a better understanding of how humans benefit from the Earth's magnetic force. Hands-on experimenting— from swinging compasses to motorized devices allows children to explore the role of magnetism in our everyday lives.

## **TAKE-HOME MESSAGE:**

- 1 Magnets have a north and south pole.
- 2 A magnetic field stretches between a magnet's north and south poles.
- 3 Some metals rubbed with a magnet, magnetize.

## **TAKE-HOME PRODUCT:**

Magnet Lab

## **NORTH CAROLINA ESSENTIAL STANDARDS:**

- 1.P.1.2 Explain how some forces (pushes and pulls) can be used to make things move without touching them, such as magnets.
- 4.P.1.1 Explain how magnets interact with all things made of iron and with other magnets to produce motion without touching them.
- 4.P.3.1 Recognize the basic forms of energy (light, sound, heat, electrical, and magnetic) as the ability to cause motion or create change.

