MAGNETIC MOTION

Explore the power of magnets. Create electromagnets and more! Students explore how electrons and magnets can be used as forces affecting motion!

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. A sparking light demonstration shows the potential electrical power surrounding a generator.

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. Hands-on experimenting— from swinging compasses to motorized devices allows children to explore the role of magnetism in our everyday lives. Children discover an electric charge's basic properties, learn to distinguish between static electricity and electrical current, and explore the science behind these phenomena. This lesson provides an opportunity to develop scientific skills through inquiry based instructional methods.

TAKE-HOME MESSAGE:

1 Some metals magnetize when rubbed with a magnet.
2 Static happens when electrons move from one object to another.
3 An object that has been electrically charged pulls or pushes on all other charged objects, potentially resulting in motion.

TAKE-HOME PRODUCT:

Mad Science® Magnet Lab

North Carolina Essential Standards:

Explain how various forces affect the motion of an object.

- 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.1.2 Explain how electrically charged objects push or pull on other electrically charged objects and produce motion.