



# Magnets and Heat

## Grade Levels: 1-4

### Background

Almost half of the energy that we use in our houses is used for heating and for cooling. The hot or cool air can sneak out of our house through doors, windows, and even the walls. If we try harder to keep the air in, we will use less energy for heating and cooling. This can save money.

### Question

Does temperature affect the force of a magnet?

### Possible Hypothesis

Temperature does/does not affect the force of a magnet.

### Materials

- Magnet
- Paper clips
- Hair dryer
- Pot holder or gloves (optional)

### Procedure

1. Record the number of paper clips the magnet can lift at room temperature.
2. Place the magnet in a freezer for 15 minutes. Record the number of paper clips the magnet can lift.
3. Use a hair dryer to warm the magnet. Use gloves or a potholder if the magnet gets too hot. Record the number of paper clips the magnet can lift.

### Analysis and Conclusion

Does changing the temperature of a magnet affect its force?

