

# **X**periments with **Magnets**

## #1 MAKE A MAGNET

**TURN AN ORDINARY OBJECT INTO A TEMPORARY MAGNET!**

### **NEEDED:**

- one or more magnets  
\*If you want to purchase a magnet from Dowling, try our item # 902.
- a ferrous metal object such as scissors, paperclip, or a nail

### **INVESTIGATION:**

Hold the object to be magnetized with between two of your fingers. Rub the magnet across the surface of the metal in one direction only, lifting the magnet at the end of each pass. (Do not use a back and forth motion.) Do this exact procedure 50 times or more. Test the new magnet by trying to pick up a non-magnetized metal object such as a paperclip. Congratulations, you have just made a temporary magnet!

### **EXPLANATION:**

When you rub the metal object with a magnet, the iron particles are rearranged into straight, parallel lines. This is a process called polarizing. When iron, nickel or cobalt is polarized, it becomes a permanent or temporary magnet.