INV. 2 ACTIVITY—INVESTIGATING MAGNETS AT HOME

Focus question: How strong are magnets used at home?

Materials:

- Common household magnets

Suggested procedure:

- Collect any magnets you have at home and compare the strength of each.
- What items are attracted to the magnets? Can you attract more than one item to the magnet?
- Compare two magnets and what is attracted to them. Are there any differences? Why do you think?
- Make a drawing and label the system you used to test the magnet strength.

INV. 2 ACTIVITY—USING MAGNETS OUTDOORS

Focus question: What outdoor materials stick to magnets?

Materials:

- Common household magnets

Suggested procedure:

- Take some of your magnets and go outside.
- Test things right outside your front door, your building, and/or house.
- Test what human-made objects and natural objects stick to your magnet.
- Make a list in your notebook and record your results.
- Were you surprised by any of the objects you tested?
  Did you notice any patterns?

INV. 2 ACTIVITY—MAKE A COMPASS

You can make a simple compass by turning a sewing needle into a permanent magnet. Here's how to do it.

Materials:

1 Steel sewing needle

1 Permanent magnet

1 Steel paper slip

1 Piece of plastic foam or cork

1 1/2 liter container or cup

- Water
- Thread

What to do:

1. Tie one end of the thread to the paper clip
2. Tie the other end of the thread around the piece of plastic foam or cork
3. Using a permanent magnet, rub the sewing needle several times in one direction. Now the needle has two poles, just like every magnet.
4. Push the needle through the piece of plastic foam or cork
5. Put the needle-and paper clip system in the center of the container of water.

Which way is north?

The needle will float in the cup of water and rotate to line up with Earth's magnetic field. The needed is a compass?
The paper clip acts as an anchor os that the needle can freely rotate and won't get stuck on the side of the container.

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