



Here are three fun ways that you can teach Builders about magnets. Adapt the activities to meet the needs of your Builders or create your own activities.





The following activities partially fulfill the requirement for My World III: The World of Nature and partially complete the Magnet Fun I award. See the Builder Activity Book for accompanying worksheet(s).

ACTIVITY

1

Draw Near to God Magnet Art

15
MINUTES

MATERIALS NEEDED

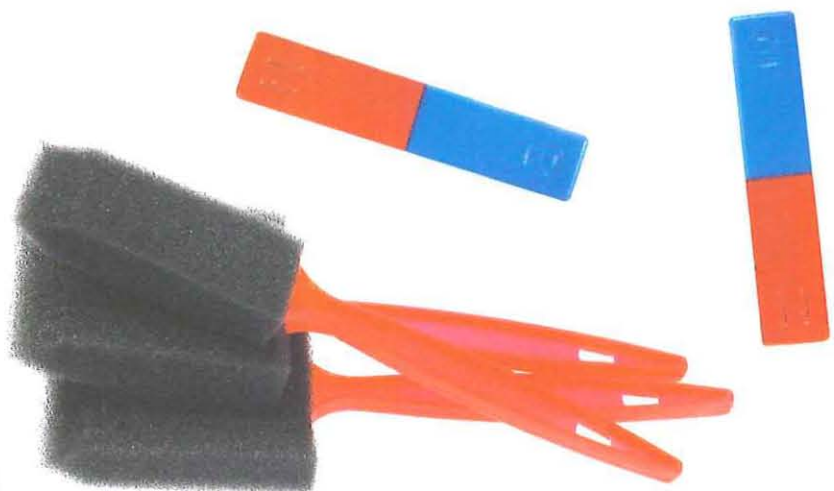
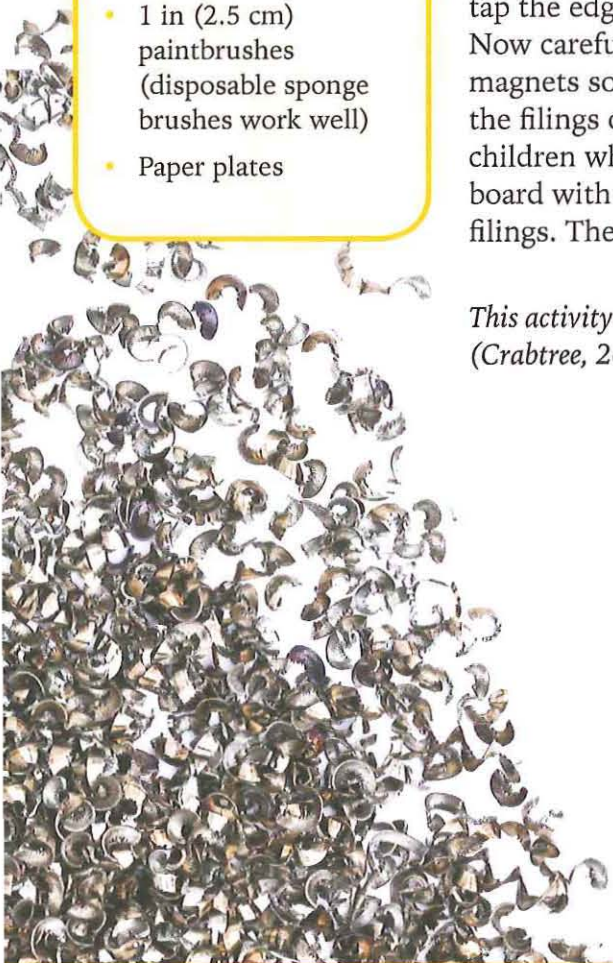
- Iron filings (optional: make your own by filing an iron bolt or nail)
- Baggies
- Bar magnets, two per child
- Tag board, 12 × 9 in (30.5 × 23 cm), two sheets per child
- Craft glue
- 1 in (2.5 cm) paintbrushes (disposable sponge brushes work well)
- Paper plates

WHAT YOU DO

Read James 4:8 (NET): “Draw near to God and he will draw near to you.” Discuss with the Builders what this means and ways they can be near God. Demonstrate how the metal filings (in a plastic baggie) are drawn to the magnet. State that just as the filings are pulled toward the magnet, so people are pulled closer to God through prayer and the Bible.

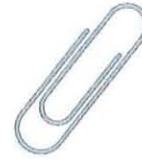
Give each Builder a baggie with metal filings and two bar magnets. Give the children a couple of minutes to play with the filings while they are still in the bag. Have the children put the magnets next to each other with their poles facing the opposite directions. The magnets should be far enough apart that they don’t attract each other. Place a sheet of tag board on top of the magnets. Then slowly sprinkle the filings onto the cardboard. Gently tap the edge of the tag board. Ask the children what happens to the filings. Now carefully lift the tag board and filings off of the magnets. Arrange the magnets so the poles are facing the same direction. Place the tag board with the filings on top of the magnets and gently tap the tag board. Again ask the children what happens to the filings. Next, completely paint a sheet of tag board with craft glue. Place the tag board, painted side facing down, onto the filings. Then lift straight up and the children will have a magnetic art design.

This activity was adapted from Science Alive by Darlene Laum and Lim Chen Puay (Crabtree, 2002).



Make Your Own Compass

10
MINUTES



2 ACTIVITY

MATERIALS NEEDED

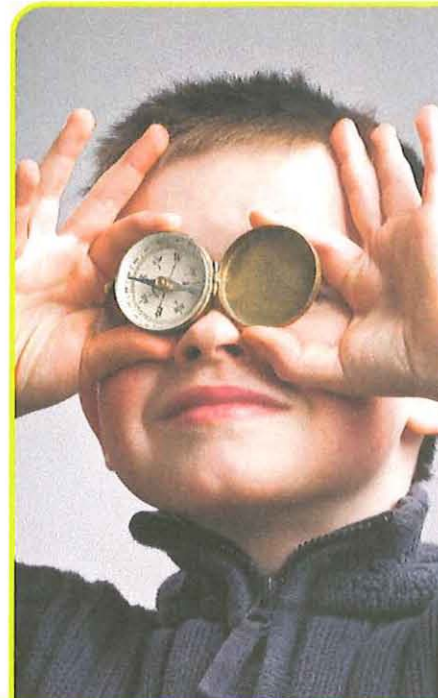
- Needle
- Metal paper clips
- Thin slice of cork
- Modeling clay
- Magnet
- Bowl of water
- Marker
- Compass

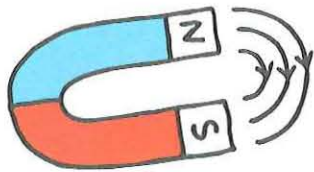
WHAT YOU DO

Briefly explain to the Builders that the earth is a magnet with north and south poles. Show them how a compass always points to the earth's magnetic north pole. Now have the children make their own compass.

1. Stroke a needle 30-40 times on one pole of a magnet. The strokes should be in the same direction. Using a metal paper clip, check to see if the needle is magnetic before going on to step 2.
2. Place a small piece of modeling clay in the middle of the cork and place the needle lengthwise across the modeling clay. Gently push the needle so it is firmly attached.
3. Place the homemade compass onto the water in the bowl. Let the compass stop moving. Using a store-bought compass, check to see if your homemade compass is facing north. Now mark your compass with N, S, E, and W.

This activity was adapted from Science Experiments with Magnets by Sally Nankivell-Aston and Dorothy Jackson (Franklin Watts, 1999).





ACTIVITY

3

Compass Fun

20
MINUTES

WHAT YOU DO

Ahead of time: Set up seven magnet activity centers. Assign one or two adults to each center, giving them instructions for their activity. Visit kidskonnnect.com/science/magnets to find fun facts about magnets to share.

This activity consists of different activity centers where the Builders can play with magnets. Use the following ideas or create some of your own.

MATERIALS NEEDED

- Center 1: Bar magnets, rulers
- Center 2: Magnets, a variety of metal and nonmetal objects
- Center 3: Different types of magnets, paper clips
- Center 4: Strong bar magnet, selection of nonmagnetic materials (paper, tin, wood, etc.), steel paper clips or washers, glass of water
- Center 5: Bar magnets, metal paper clips, string
- Center 6: Magnets, metal objects in a variety of shapes and colors

Center 1: Magnet Action

Put two magnets on the table and see if they pull toward each other. Can they stick together? Place a magnet on the table and use a second magnet to pull it up off the table. Measure how high it jumps.

Center 2: Pick Up

Use a magnet to pick up a variety of objects. Ask the Builders which objects the magnet can attract. What are they made of?

Center 3: Magnet Strength

Predict which magnet is the strongest, then see how many paper clips each magnet can pick up.

Center 4: Invisible Force

Place a non-magnetic item (paper, cardboard, etc.) between the magnet and washer. Move the magnet around to make the washer move. Try it with all the non-magnetic items. See if the magnet will work through a hand or clothes. Drop a washer into a glass of water and try to remove it without putting a hand or the magnet in the water.

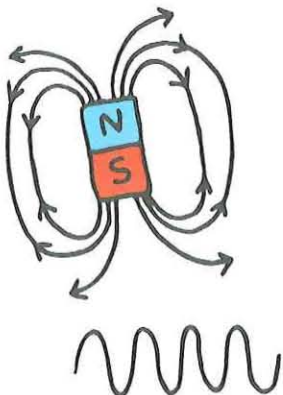
Center 5: Pole Power

Tie a piece of string around the middle of a bar magnet and let it hang freely. Hang paper clips end-to-end from both the north and south poles of the magnet. Keep adding paper clips until they start to fall off. Which pole is stronger?

Center 6: Magnetic Sculpture

Have the children create a sculpture by adding different metal objects to the magnet.

This activity was adapted from Science Alive by Darlene Laum and Lim Chen Puay (Crabtree, 2002) and Science Experiments with Magnets by Sally Nankivell-Aston and Dorothy Jackson (Franklin Watts, 1999).



Award: Magnet Fun I

To complete this award, check the requirements on p. 139 and add activities as needed.



Requirement: My World III