

**Project FOCUS
Best Lessons
THIRD GRADE**

Title of Lesson: Magnets - Magnetic Field Model

Theme: Physical Science

Unit Number: **Unit Title:** Magnets and Magnetism

Performance Standard(s) Covered (enter code):

S3P2. Students will investigate magnets and how they affect other magnets and common objects.

- a. Investigate to find common objects that are attracted to magnets.
- b. Investigate how magnets attract and repel each other.

Enduring Standards (objectives of activity):

Habits of Mind

- Asks questions
- Uses numbers to quantify
- Works in a group
- Uses tools to measure and view
- Looks at how parts of things are needed
- Describes and compares using physical attributes
- Observes using senses
- Draws and describes observations

Content (key terms and topics covered):

Magnet
Magnetic field
Attract
Repel

Learning Activity (Description in Steps)

Abstract (limit 100 characters): Students will examine a magnet's effects on iron filings.

Details:

1. Use the permanent marker to print students' names on the bottom of the small or large petri dishes.
2. Cut the pipe cleaner so that it can be wedged between the two halves (this will prevent the iron filings from spilling out).
3. Measure out a 1/2 teaspoon of iron filings per student.
4. Pour the filings into the small side of the petri dish.
5. Wrap the pipe cleaner between the small and large petri dish.
6. Masking tape the two sides of the petri dishes together.
5. Place the magnet on the underside of one of the petri dishes.
6. Move the magnet around and observe what happens to the iron filings.

Materials Needed (Type and Quantity):

- Iron filings - 1/2 tsp per student
- Small petri dishes - 1 per student
- Pipe cleaners - 1 per student
- Magnet - 1 per student
- Scissors
- Masking tape - approximately 6 inches per student
- 1/2 teaspoon measure
- Permanent marker

Notes and Tips (suggested changes, alternative methods, cautions):

- **Caution:** Make sure the metal filings are well-contained.
- **Tip:** This activity is best performed in small group settings.

Sources/References:

- 1) Originally submitted by Dvijal Patel, edited by Jessica Valle (2010)
- 2)
- 3)