

**Project FOCUS
Best Lessons
THIRD GRADE**

Title of Lesson: Magnets in Stations

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):

Magnets
Magnetism
Poles

Learning Activity (Description in Steps)

Abstract (limit 100 characters): Students will rotate through stations to investigate the properties of magnets.

Details:

Divide the class into 4 groups. Allow 10 minutes per station.

1. Station One → Which pole is stronger? The north pole, the south pole, or the middle?

Students will see how many paper clips they can hang from each pole.
They will record their results on their worksheet.

2. Station 2 → Is the force of magnetism strong enough to go through cardboard, plastic, and paper?

The students will place the maze on top of each type of material. They will place the paperclip on top of the maze and hold the bar magnet underneath. The students will test if

they can pull the paperclip through the maze with the different types of material in between. Upon completion the students should check yes or no for each material on their worksheet.

3. Station 3 → Can the force of magnetism go through water and glass?

The students will put their paperclips in their glass of water. They will take a bar magnet and from the outside of the glass, test to see if they can pull the paperclips out of the glass **ONE AT A TIME**. They will put a check next to yes or no on their worksheet.

4. Station 4 → What kinds of metals are magnetic?

The students will use their bar magnets to see which of the metal objects it will pick up. When they figure out which objects are attracted by the magnet they should look on the list provided to see what each material is made of. On their worksheet the students should write which metals they found that the magnet attracts.

Materials Needed (Type and Quantity):

Station 1:

- Bar magnets
- paperclips

Station 2:

- Squares of cardboard, plastic (can use a plastic folder), and construction paper.
- A hand-drawn maze the same size as the squares of material
- paperclips
- bar magnets

Station 3:

- A glass
- water
- 5 paperclips per glass of water
- Bar magnets

Station 4:

- Bar magnets
- Pennies
- Nickels
- Dimes
- Quarters
- Thumb tacks
- Metal Ties
- Nuts and Bolts
- List of what each material is made of

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

Sources/References:

- 1) Originally submitted by Kellie Burrell, edited by Jessica Valle (2010)
- 2)
- 3)