

**Project FOCUS
Best Lessons
FIRST GRADE**

Title of Lesson: Magnetic Attraction

Theme: Physical Science

Unit Number: 3 **Unit Title:** Magnets

Performance Standard(s) Covered (enter codes):

S1P2

S1CS3

S1CS5

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):

Essential Questions: (1)What objects will magnets attract (pull)?

(2) What objects will not be attracted by magnets?

(3) What objects will magnets repel?

(4)What materials can magnets attract objects through (air, water, cloth, wood, paper, etc.)?

Enduring Understanding: Magnets exert forces and can make some things move (push or pull). All magnets have a surrounding region where their effects can be felt. This is called a magnetic field.

Magnets attract (pull on) or repel (push on) some things, but not others.

Content: If two magnets are set close to each other, they will be attracted or repelled. Not all metals are attracted to magnets. Only objects that contain some form of iron (including steel) will be attracted by magnets.

Key Terms: magnet, magnetic field, force, attract, repel, metal, iron, north and south pole

Learning Activity (Description in Steps)

Abstract (limit 100 characters): The purpose of this activity is to impart an understanding of magnets and their properties.

Details:

* To introduce the topic of magnets, often a children's book on magnets is helpful.

Background:

After introducing the topic of magnets, make sure to review important terms such as attract, repel, pole, and force.

Preparation:

Make sure to collect all materials necessary along with printing out the table at the end of this lesson plan. The best way to set up the activity is to allow the students to move to stations in groups of 4 or 5. It works best to set up the stations before the students arrive.

Procedure:

Before beginning the activity, make sure that each student fills in his or her prediction on the table printed out before class. Assign each student to a group and initial station. Then, supply each student with a magnet to test his or her predictions with each item at all of the stations.

Possible Assessment Questions:

- What types of things does a magnet attract?
- What is it called when a magnet pulls an item toward/away from itself?
- How many poles do magnets have?

At the end of a magnet unit, some helpful and fun you tube videos can be incorporated into a lesson. The students really enjoy interactive videos. Some links to youtube videos on magnets are listed in the Sources/References section. Also, a laptop will be required to show any videos on the school grounds. In the Notes and Tips section, a detailed entry can be found on how to avoid the blocked websites by the school districts.

Materials Needed (Type and Quantity):

- Magnets (one for each student or group of students)
- paper clip
- thumb tack
- pencil
- copper wire
- paper
- feather
- penny
- dime
- marble
- nail
- bouncy ball
- scissors
- staples

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

Make sure your laptop is compatible with the smartboard apparatus at your school. Also, in preparation for this lesson, I had to learn how to download videos to my laptop. Most schools block sites like youtube and also do not allow you to open links to sites like youtube. I used a feature called "kickyoutube" to download the youtube videos to my laptop. Find the video "Magnet Vs.

Egg" and type "kick" in front of "youtube" of the url address, i.e. www.kickyoutube.....etc. After typing kick in the url, press the enter button. Next, find the download option compatible with your computer. You will then just download the video to any media player you have on your desktop.

Sources/References:

- 1) "Magnet vs. Egg"- <http://www.youtube.com/watch?v=PYuV6UiQvnE>**
- 2) "Magnetic Levitation" - <http://www.youtube.com/watch?v=nWTSzBWEsms>**
- 3) "Magnets Have Memory" -http://www.youtube.com/watch?v=CV9nS_5kYgM**