

**Project FOCUS
Best Lessons
FIRST GRADE**

Title of Lesson: What kind of objects do magnets attract?

Theme: Physical Science

Unit Number: 3 Unit Title: Magnets

Performance Standard(s) Covered (enter code):

S1P2

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, magnetic properties

Learning Activity (Description in Steps)

Abstract(limit 100 characters): This lesson introduces students to the idea of magnetic forces.

Details: First, I began by seating the children in a circle and asking them where they see magnets every day. We talked about what those magnets all have in common, most importantly the materials from which these magnets are made and why they are magnetic. Next, I introduced terms such as attract, repel, magnetic poles, and magnetic strength. I found that understanding poles was made easier by allowing each student to try putting two identical poles together and then two opposite poles together and observing what happens. This reinforced the idea of attraction and repulsion of magnets in relation to north and south poles.

Next, I laid out a mixture of different small objects, both plastic and metal, and allowed each student to pick one of their own. Knowing at this point which types of materials are attracted to magnets, each student predicted whether or not their object would be picked up by their magnets. We tested our predictions and discussed any confusion about incorrect predictions. Then I let them experiment more with all of the materials for a few minutes on their own. This was a great time to think of other points of discussion, because the students were very inquisitive and began asking great questions about magnets as they played with them.

Finally, I presented a container that had a mixture of salt and iron shavings inside. The students then differentiated between the two materials, and recognized that one was metal and

that the other was not. I then asked them to think of a way to separate the salt from the iron shavings without touching the mixture with their hands. Some of them guessed correctly, and others did not. I explained how to do this and why it would work, and ended the lesson by allowing them to each pick a magnet and collect iron shavings out of the salt with it. This was just another way for them to recognize how magnets attract some things and not others.

Materials Needed (Type and Quantity):

- Various magnets of different strengths (enough for each students to get one of their own)
- Paperclips, bobby pins, or other small objects that will be attracted to a magnet
- Marbles, plastic clips, or other small objects that will NOT be attracted to a magnet
- Iron shavings
- Salt
- 1 average-size Tupperware container

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

Some of

the kids asked if the salt was “clean” enough to consume after extracting the iron, so just warn them that it is not. Make sure that they do not touch the iron shavings themselves, because it is messy. I asked them not to clean their own magnets after collecting iron shavings with them, and I did it myself after the lesson was finished.

Sources/References:

- 1)
- 2)
- 3)