

**Project FOCUS
Best Lessons
FIRST GRADE**

Title of Lesson: Magnets: Make a Compass

Theme: Physical Science

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

Performance Standard(s) Covered (enter codes):

S1P2

S1CS1

S1CS3

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 poles, and what materials a magnet is attracted to

Learning Activity (Description in Steps)

Abstract (limit 100 characters):

Details: First, I showed my students a video about magnets from BrainPop Jr. but this is an optional step. Next, I asked them questions to test their understanding of the video. Once I felt like they understood, I began handing out the small magnets. I asked them to play with them and tell me what they felt like. I focused on talking about the different poles of a magnet and how opposite poles attract and same poles repel. Next, I asked if anyone knew what a compass was, and asked them to name the four cardinal directions. Then, I showed them the compass I bought at the store, and explained how it worked. I then told them that we would be making our own compass using a needle, styrofoam ball, and a bowl of water. I cut the styrofoam ball in half with scissors and stuck the needle in the ball parallel with the flat side. Next, I placed the styrofoam and needle into the water and told the students to watch it and compare it to the real compass. The homemade compass should also point north because of the magnetic pole that is made by the center of the earth. The needle points north quicker if it is magnetized before hand, by rubbing a magnet on it several times. The next part of the lesson, I talked to the students about what materials a magnet is attracted to. The video already explained that magnets are only attracted to an object with iron in it. I told them to look in my plastic box of stuff and guess which objects would be "caught" by our "fishing" poles. I used dowel rods with yarn attached and the magnet at the end of the yarn to make fishing poles before class. I also made little fish out of construction paper to attach to the magnets, but this is

optional. Next, I handed out the poles and told them to start fishing for the objects. After all the metal objects had been caught, we talked about why the other objects were still in the box.

Materials Needed (Type and Quantity):

- 1. Thick sewing needle**
- 2. Small, shallow bowl with water**
- 3. Small styrofoam ball cut in half**
- 4. A compass**
- 5. Several small magnets**
- 6. Several dowel rods**
- 7. Yarn or other string**
- 8. Plastic box (optional)**
- 9. Various objects including some that the magnets will pick and some that the magnets won't pick up**

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

Sources/References:

- 1)**
- 2)**
- 3)**