

Formative Assessment #1

Concepts Assessed

Magnetism is a force that exerts a push or pull. Like poles of a magnet repel. Opposite poles of a magnet attract. A compass is an instrument that uses a freely moving magnetic needle to indicate direction.

Time

45 minutes

Materials

Individual
Prompt

Advance preparation

1. Duplicate the Formative Assessment for each student

Procedure:

1. Explain that this assessment is to help the teacher and the students tell what they know about magnetism and compasses.
2. Explain that you will use the information from this assessment to help determine how best to help students learn more about magnetism and compasses.

Formative Assessment #1

1. What are magnets attracted to?
2. Explain how you could make your own compass to find your way if you were lost.
3. Can magnets be natural, or made by people, or both? Explain your answer.
4. What happens when opposite poles of bar magnets come together? What happens when like poles of bar magnets come together?
5. In the iron filings investigation, how did you know where the magnetic field was the strongest on the bar magnet? Where is Earth's magnetic field the strongest?

Formative Assessment #1
Answer Key

1. What are magnets attracted to?

Magnets are attracted to some metals and other magnets

2. Explain how you could make a compass to find your way if you were lost.

I would magnetize a needle and place it on a small piece of styro-foam. I would place the styro-foam in a cup of water. The needle will point to the north.

3. What happens when opposite poles of bar magnets come together? What happens when like poles of bar magnets come together?

Opposite poles of magnets attract. Like poles of magnets repel.

4. In the iron filings investigation, how did you know where the magnetic field was the strongest on the bar magnet? Where is Earth's magnetic field the strongest?

There were more iron filings at the poles of the magnet. Earth's magnetic field is also the strongest at its poles.