Magnetism – Student sheet

Experiment 1: Magnet Properties

1. Describe how it feels when magnets attract and repel each other.

   Attract -

   Repel -

2. Which objects were attracted to the magnet?

3. Which objects were not attracted to the magnet?

4. Is everything that contains iron attracted to a magnet? Explain.

5. Did the objects respond as strongly to the magnet as to the magnetite? Explain.

Experiment 2: Finding the North Poles of Your Magnets

1. Explain why we call one end of a magnet the North Pole.

2. Describe what your magnet did when you dangled it from the thread.

3. Explain what happens when you put the two North **or** the two South poles near each other.

4. Explain what happens when you put one North Pole and one South Pole near each other.

Experiment 3: Magnetic Fields of Permanent Magnets

1. Draw the pattern the iron filings made when the poles of the magnets attracted each other. Label the poles of your magnets on your drawing.

2. Draw the pattern the iron filings made when the poles of the magnets repelled each other. Label the poles of your magnets on your drawing.

3. What are the differences between the two drawings?

Experiment 4: Making a floating compass

1. Explain what happened to the needle when you placed it on the water.

2. Draw and label your magnetized needle. Show the North and South poles on your needle.

3. After you brought your second magnetized needle up to the first, describe what happened when you tried to touch both ends of the floating needle.

4. Compare the two needles. Which is the North Pole of the needle you are holding? How do you know? Explain.