

Worksheet 1.1

Name: _____

Date: _____

1. What do you notice about the interaction of the bar magnets you were given?

2. What materials interact with the magnets and how do they interact?

Interacts with magnets:

Does not interact with magnets:

What do all the materials that interact with the magnets have in common?

3. What happens when you bring a compass near a magnet? How does it depend on where you place the compass? (Use the back of this sheet if you need more space)

Worksheet 1.2

Name: _____

Date: _____

1. Draw what you hypothesize the magnetic field will look like around a single bar magnet. Include arrows that point in the direction the compass points north (red by convention).

2. Draw how it looks from your measurements with the compass.

3. Draw what you hypothesize the magnetic field will look like around two bar magnets in a configuration (or configurations) of your choice.

4. Draw how it looks from your measurements with the compass:

Worksheet 1.3

Name: _____

Date: _____

1. What did you observe when you sprinkled the iron filings over the paper covering the bar magnet? Draw what you observed.
2. Can you explain why the iron filings behaved that way?
3. Do you see the same patterns as you did with the compass tracings?
4. Draw what you expect to see when you sprinkle iron filings over two bar magnets in a new configuration.
5. Draw what you did, in fact, see with your two magnets in the new configuration. How were your expectations the same or different?