

Name: \_\_\_\_\_

Partner(s): \_\_\_\_\_

### Homework Questions for Investigation #12

1. Did all of the metals you tested stick to a magnet? If not, which metals did and which did not?
2. Do magnetic forces appear to penetrate through materials that themselves are not magnetic? Provide an example of how you know?
3. What test(s) could you perform in order to tell the difference between an actual magnet and an object that is merely made of a magnetic material?
4. Suppose you have two iron bars that appear to be identical, except that one is a bar magnet and the other is not. How would you be able to tell them apart if you had no other materials to help you? A sketch might be helpful here. (**Hint:** Where are the poles of a typical bar magnet?)
5. What is the basic difference between a generator and a motor?
6. Why can it be said that you constructed a simple *electric motor* in **Part V**?

