**Step 1:** The list of statements here (all true and based on several years of experiments) can be categorized into three groups. Read all of the statements, and categorize them. Once your group has made its decision, record A, B, or C on the blanks provided.

Hint: All statements are scientific (and true), and you may not be familiar with some of the information. Don’t rely on the content of the statements to make your groups. It helps to look at the sentence structure of the statements.

1. \_\_\_\_\_\_ For every action, there is an equal and opposite reaction.
2. \_\_\_\_\_\_ A force is equal to an object’s mass multiplied by its acceleration.
3. \_\_\_\_\_\_ Water freezes at 32° F
4. \_\_\_\_\_\_ The universe is expanding.
5. \_\_\_\_\_\_ All living organisms are made of one or more cells, which are the basic units of function in an organism.
6. \_\_\_\_\_\_ Matter is comprised of atoms.
7. \_\_\_\_\_\_ Momentum is the product of a body’s mass and its velocity; F= ma
8. \_\_\_\_\_\_ The pressure of a gas results from the bombardment of the gas molecules on the side of the container. As you increase the temperature on a gas, you increase the rate of motion of the molecules of gas, thus, you increase the bombardment
9. \_\_\_\_\_\_ The core of the Sun has a temperature of 14.5 million Centigrade.
10. \_\_\_\_\_\_ The Milky Way is a spiral-type galaxy.
11. \_\_\_\_\_\_ Gravitational equations and Newton’s laws of motion explain why orbits are ellipses
12. \_\_\_\_\_\_ The surface of the Earth is broken into large plates. The size and shape of these plates change over time. The edges of the plates, where they move against each other, are sites of intense geologic activity, such as earthquakes, volcanoes, and mountain building.
13. \_\_\_\_\_\_ As the temperature of a gas increases, the pressure of that gas also increases.

**Step 2:** Next, describe your groups. Why do the statements you chose belong in a group together? What do they have in common? What sets your three groups apart from one another?

Group A:

Group B:

Group C:

**Step 3:** Rotate tables such that you are now working with students from three other groups (as per directions in class). Repeat the process to categorize the statements with the new group.

Describe the groups again.

Group A:

Group B:

Group C:

Make up a working name for each of your groups.

A: B: C:

**Step 4**: Take notes from class discussion in the space below.