**Motion and Position**

**What is Motion?**

Motion is the \_\_\_\_\_\_\_\_\_\_\_\_\_ in position over \_\_\_\_\_\_\_\_\_\_\_\_\_.

**So… What is Position**?

The position is the \_\_\_\_\_\_\_\_\_\_\_\_ of an object or \_\_\_\_\_\_\_\_\_\_\_\_\_\_. Often, you describe where something is by \_\_\_\_\_\_\_\_\_\_\_\_\_ it to \_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_ or the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of another object or place.

**Conclusion:**

A change in position is \_\_\_\_\_\_\_\_\_\_\_\_\_\_ that \_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_

**Quick Review:**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is the change of position over time. When describing \_\_\_\_\_\_\_, the answer depends on the \_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_ of the person observing you.

\_\_\_\_\_\_\_\_\_\_\_\_ describes where an object is.

**What is a reference point?**

A \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (the object’s or place’s position) to which you \_\_\_\_\_\_\_\_\_\_ other locations (or \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_).

**What characteristics do good reference points have?**

They are \_\_\_\_\_\_\_\_\_\_\_ (they do not move themselves!)

**Why are reference points important to scientists?**

They help \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ if an object is in \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

**What is a reference direction?**

A \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ used to \_\_\_\_\_\_\_\_\_\_\_ motion.

**Relative Motion**

Sometimes different people will say different things about the \_\_\_\_\_\_\_\_\_\_ of the same\_\_\_\_\_\_\_\_\_\_\_. This is not because one of them is wrong, but because they are using different \_\_\_\_\_\_\_\_\_\_ of \_\_\_\_\_\_\_\_\_\_\_\_.

**Frame of Reference:**

Just as position is described by using a \_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_ is described by using a \_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

**What is a frame of reference?**

You can think of a \_\_\_\_\_\_\_\_\_\_\_ \_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_ as the location of the \_\_\_\_\_\_\_\_\_\_\_\_\_\_.

**Quick Review:**

Reference point: a \_\_\_\_\_\_\_\_\_ object/place that you use to describe \_\_\_\_\_\_\_\_\_.

Frame of reference: \_\_\_\_\_\_\_\_\_\_\_ of the observer who may or may not be \_\_\_\_\_\_\_\_\_\_\_\_\_.