**Changing Position Lab**

*On the next blank page of your lab manual set up your lab notebook…*

Instead of writing a procedure, answer the following question in a complete sentence:

* + *How are changes in position observed?*

**Procedure:**

* + Begin walking while tossing a ball straight up and catching it as it falls back down toward your hand. Observe the changes in the position of the ball as you toss it while walking a distance of about 4 m.
  + Make a sketch showing how the position of the ball changed as you walked. Use your own position as a reference point for the ball’s position
  + Watch while the rest of your group walks and tosses the ball. Observe the changes in the position of the ball using your own position as a reference point. Make new sketches showing how the ball moved based on your new point of view for each member of your group. (*You should have the same number of sketches as there are people in your group*)

**What do you think?**

* + Compare your two sketches.
  + How was the change in position of the ball you tossed different from the change in position of the ball that the other members in your group tossed?
  + How did your change in viewpoint affect what you observed? Explain.

**Challenge**

* + *Write your answer to the following question under a “Challenge” heading in your notebook. Then perform the activity.*
    - How would the change in position of the ball appear to a person standing 4 m directly in front of you?
    - Try this with the members of your group.
    - Complete one sketch from this viewpoint in your notebooks.