Practice for Writing Hypotheses

When writing a hypothesis, it must start with the word **IF**. This part of the hypothesis tells you what the experiment is.

The second part of the hypothesis starts with the word **THEN**. This indicates the prediction portion of the hypothesis.

**IF** = experiment

**THEN** = prediction

1. **Is there a connection between how long you run and how fast your heart beats?**

   **IF** I take two 11 year old males, one average and one athletic, and two 11 year old females, one average and one athletic, and have them run 75 yards outside at an average speed of 5 mph and with an average outdoor temperature of 70 F and take their heart rate before and after the run, **THEN** I believe the 11 year olds' heart rates will increase on average by 20 beats per minute with the athletic kids' heart rate lower on average.

2. **Will the number of books I read help make me get smarter?**

   **IF** I take an AR test before and after I read 5 Harry Potter books over a 3 month period, **THEN** I believe that my score will increase by 6 percent.

3. **Will my plant grow if I add sunlight, fertilizer, and water?**

   **IF** I take six petunia seeds and place three in a gallon pot in the dark without sunlight, fertilizer, or water, and three seeds in a gallon pot with half a pound of nitrogen fertilizer, regular sunlight exposure, and one cup of tap water twice a day with both pots indoors at 72 F, **THEN** I believe after one week the plants receiving the sunlight, fertilizer, and water will grow 3 inches taller than the other plants.