Name:

Period:

**Directions: Identify a suitable, testable hypothesis for each experimental scenario:**

1. Sally wants to test the effectiveness of two different fertilizers on the growth of her daisies. She picks nine nearly identical daisy flowers and puts them in pots of the same size. She gives three of her daisies a dose of Miracle Grow. The gives three more daisies a dose of the Wal-mart brand of fertilizer. She leaves the last three daisies without any fertilizer at all. She gives all of the daisies the same amount of water, sunlight and keeps them at the same temperature.
2. A runner wants to test two pairs of running shoes to determine which pair will help her run faster at her upcoming track meet. She puts on the first pair of shoes and runs a lap around the track. She sits down, changes to the second pair, and runs a second lap. She repeats this process over the next two days, for three total trials per pair of shoes.
3. A group of students wanted to find out if a particular species of fish will grow faster in warmer water. The students put three fish in a tank at 260C and three more fish in a tank at 220C. They tested a third group of three fish at 240C. The fish were fed the same amount of food and exposed to the same amount of light during the experiment. The students weighed each fish every other day throughout the experiment.
4. Medical researchers are studying a new drug to treat anemia. Eligible patients are asked if they would like to participate in the study. If a patient does participate, there is a 50% chance that the patient will receive the actual anemia medication and a 50% chance that the patient will receive a placebo, or sugar pill. The placebo is not meant to have any effect on the patient’s anemia. The study is double-blinded, meaning that neither the researchers nor the patients know which kind of pill is being taken—the actual medication or the placebo. Once a week, patients go to the doctor’s office to have a blood test performed.
5. Jacob wants to test three different brands of ice cream to see which brand will last the longest without melting. He puts one ice cream scoop of the first brand of ice cream (Breyer’s Vanilla) into three different bowls. He does the same for his other two brands of ice cream (Haagen-Daz Vanilla and Ben and Jerry’s Vanilla). He then uses a timer to see how long each bowl of ice cream lasts before it is entirely liquid.