Name \_\_\_\_\_\_\_\_\_\_

1st Quarter Hypothesis Assessment

A researcher has hypothesized that the chemical tributylin (an anti-fouling agent in boat paint) seeps out of the paint over time into the water and causes reproductive defects in developing marine snails. Design an experiment to test the role tributylin has on snails.

1. A good hypothesis to make is:
   1. If Chemical tributylin is in water with snails, then snails will have more reproductive defects.
   2. If Chemical tributylin is in the water, then marine starfish will have problems.
   3. If Chemical tributylin does not seep out, then the snails will have more reproductive defects.
   4. If Chemical tributylin is in the air, then the snails will have more reproductive defects.
   5. None of these are good choices.
2. In order to carry out the experiment, I will be collecting data
   1. on the temperature of the water to see if the snail prefer warm or cold water.
   2. on how many snails died.
   3. on the defects in the reproductive system of the snails.
   4. on the a how many boats use tributylin paint.
   5. None of these are good choices.
3. The Dependent Variable in my experiment is:
   1. the number of days the experiment is running
   2. use 1.0 gm of tributylin in 100 ml of water for each experiment.
   3. the number of snails that put into each beaker during the experiment.
   4. the number of snails with reproductive system defects.
   5. None of these are the dependent variable.
4. The main Independent Variable in this experiment is
   1. the number of days the experiment is running
   2. use 1.0 gm of tributylin in 100 ml of water for each experiment.
   3. the number of snails that are put into each beaker during the experiment
   4. the number of snails with reproductive system defects
   5. None of these are the independent variable.

Oscar has heard from some of his teammates that taking creatine as a supplement during football training will improve his muscle mass. He decides to test this hypothesis through an experimental study.

1. Which statement is the best hypothesis?
   1. If muscle mass increases during training, then creatine is the reason.
   2. If creatine is taken during training, then there will be an increase in muscle mass.
   3. If creatine is taken during training, then football performance will increase.
   4. If creatine is not taken during training, then athletic performance will decrease.
   5. None of these are good choices
2. What is the independent variable?
   1. Football performance
   2. Muscle mass
   3. Amount of creatine
   4. Amount of time
   5. None of these are good choices
3. What is the dependent variable?
   1. Football performance.
   2. Muscle mass.
   3. Amount of creatine.
   4. Amount of time.
   5. All of these are good choices.
4. Which set of data is best?
   1. Measure body weight before, during and after training to calculate muscle mass
   2. Measure the amount training
   3. Measure the amount of creatine taken during training
   4. Measure the amount of time for training
   5. All of these are good choices