Less Croaking in Lake Birkett

The numbers of frogs in Lake Birkett (*the pond behind the main building!*) are decreasing suddenly. You have been asked by Dr. McBride to investigate what is happening to the frogs.

Rumors of what is happening to the frogs are flying around the school:

- Some say bats are eating the frogs.
- Others say someone is dumping chemicals into the water.
- Still others say snakes are eating the frogs.
- Another strong rumor is the water is becoming polluted.

After doing some research you find out the following information to begin your investigation:

- The number of frogs in pond has decreased from 125 to 26 in just two weeks.
- The grass surrounding the pond was sprayed to control weeds about two weeks ago.
- The other animals and fish in the pond are doing fine, their numbers have not changed.
- The last test of the water's condition was made one month ago and everything was normal.

You may use websites, such as *http://www.exploratorium.edu/frogs/index.html* to find out more information about frogs. You need to read carefully…you might even find information about reasons frog populations may decrease!

For this assignment you must do the following:

1. **State a purpose question:** (ends with a question mark – defines what you are attempting to find out)
2. **Write a hypothesis** in the "If and Then" format… remember the general pattern for this is:

   "IF (describe how the **independent variable** is changed), THEN (predict what will happen to the **dependent variable** because of the change to the independent variable)."

   Example: IF Bart **increases the time of microwaving the mice**, THEN the **strength of the mice will also increase**.

3. **Design a controlled experiment** to test your hypothesis. Your experiment should include:
   - Experimental set-up (diagram) that describes/shows what your experimental group AND control group will look like. This should help anyone to set up this experiment to actually run it.
   - Identification of the independent variable
   - Identification of the dependent variable (s)
   - As many constants as you can think of.