Research Plan – Science Project

**Title**

**Rationale (Problem)**

A few sentences explaining why you are doing the research and background information on it.  
- why is it interesting to you.  
- why is it important or should others care about the research.

**Variables**

Independent (what we are changing and testing)  
  
Dependent (what we are measuring)

Controls (what we are keeping the same)

**Hypothesis/es**

Your prediction on what the outcome of your testing will be.

(Suggestion: If, then format. If something is done, then something will result.)

**Materials**

What do you need to do your project.

**Procedure**

Sequentially numbered steps that cover the procedure from beginning to end. The steps should be detailed enough for someone else to be able to replicate the study from your steps. This section is divided into multiple sections.

**Safety**:   
These steps will vary according to the types of projects. These steps must be a part of the research plan as well as being on the Form 3. Some examples are:

**PHBA (Bacteria)**: Aseptic technique, including, but not limited to, goggles, type of gloves, closed toe shoes, working conditions (BSL cabinet, etc), disposal

**Hazardous chemicals or devices**: Safety equipment used, including, but not limited to, (goggles, gloves, closed toe shoes), working conditions (fume hood, etc), fire extinguisher if there is a fire danger.

**Experimentation:** These sequential, numbered steps should continue from safety. This must thoroughly cover the entire study. Make sure to include the experiment design and data collection procedures.

**Measurements:**

What are you going to measure and how? What tools are needed?

**Data Analysis:** Include a description of the techniques or statistical tests that will be employed to analyze the results of the experimentation.

**Disposal**

This is necessary for PHBAs, chemicals or materials that require special handling for disposals.

**Summary or addendum**

Necessary if experimentation changed through the course of the research. If additional SRC or IRB approval was needed, you must also provide a letter from the SRC, explaining the changes which is signed and dated. If new IRB approval was necessary, the new Form 4 and informed consents must be included with the paperwork.

**Bibliography**

Sources on your topic.