***Please read and fill out this form completely. Type your answers directly into the form. Submit a printed copy to Ms. Breinlinger in room 2132 by the deadline below.***

* *Forms must be received by* ***Thursday, February 14th, 2019*** *to compete in the fair.*
* *If you want approval to work on your project over February break, be sure to submit your form to Ms. Breinlinger by* ***Thursday, February7th, 2018.***

**PROJECT TITLE:**Click here to enter text.

**PARTICIPANTS: Fill out chart below.**

|  |  |  |
| --- | --- | --- |
| **Name**  \*If you are working with a partner, list BOTH names here. Submit only 1 form to Ms. Breinlinger. | **Grade Level** | **Science Teacher (Spring 2019)**  \*if you are not enrolled in a science class this semester, please list your A-block teacher. |
| Click here to enter text. | Click here to enter text. | Click here to enter text. |
| Click here to enter text. | Click here to enter text. | Click here to enter text. |

1. RATIONALE: Explain why this research is scientifically important and how it could impact society.

Click here to enter text.

1. ENGINEERING GOAL: What real world problem is being addressed by this project?

Click here to enter text.

1. BIBLIOGRAPHY: List 5 references that you have used to find background information about your project. (These may be journal articles, books, internet sites, etc.)

Click here to enter text.

1. PROTOTYPE: Describe what you are building as your working prototype. Be detailed. You **must** include diagrams of the prototype.

Click here to enter text.

1. EXPECTED OUTCOME: What do you expect the prototype to be able to do when it is built?

Click here to enter text.

1. RESEARCH METHODS:
   1. List the materials that you will need to build and test the prototype.

Click here to enter text.

* 1. Write a detailed step-by-step procedure that you will use to test the effectiveness of the prototype.

Click here to enter text.

* 1. Describe how you are going to analyze the data you collect in order to accurately assess the effectiveness of your design.

Click here to enter text.

Please check **YES** or **NO** for each of the following statements.

|  |  |  |
| --- | --- | --- |
|  | **Yes** | **No** |
| I will be using human subjects in my research. |  |  |
| I will be using vertebrate animals in my research. |  |  |
| I will be using explosives, flammable chemicals, or toxic chemicals in my research. |  |  |
| I have all the materials needed to conduct my research. |  |  |
| I have enough time to conduct my research (The science fair is April 4, 2017) |  |  |

If you answered **YES to questions 1, 2 or 3** or **NO to questions 4 or 5**, you must complete the corresponding sections below:

**HUMAN SUBJECTS**

1. Describe who will participate in your study (age range, gender, racial/ethnic composition, etc)

Click here to enter text.

1. Where will you find your participants? How will they be invited to participate?

Click here to enter text.

1. What is the frequency and length of time required by your research subjects?

Click here to enter text.

1. What are the risks or potential discomforts to participants?

Click here to enter text.

1. Will any identifiable information be collected from participants? Will the data be confidential or anonymous? Explain.

Click here to enter text.

1. How will you inform participants about the purpose of your study and make sure that they know that their participation is completely voluntary and that they have the right to stop at any time?

Click here to enter text.

**VERTEBRATE ANIMALS**

1. Briefly discuss any alternatives to vertebrate animal use and present a justification for the use of vertebrate animals in your study.

Click here to enter text.

1. Detail animal species, numbers, sex, age, source, etc.

Click here to enter text.

1. Describe the housing and daily care of the animals.

Click here to enter text.

1. Describe the disposition of the animals at the termination of the study.

Click here to enter text.

**HAZARDOUS CHEMICALS**

1. List all hazardous chemicals being used (include concentrations for any solutions).

Click here to enter text.

1. Describe safety precautions and procedures needed to minimize risk.

Click here to enter text.

1. Describe the method of disposal.

Click here to enter text.

1. Attach a copy of the MSDS (Material Safety Data Sheet) for each hazardous chemical. (These can be found online).

**MATERIALS**

1. What materials do you currently NOT have access to?

Click here to enter text.

1. Describe how you plan to get these materials.

Click here to enter text.

**TIME**

The science fair date is set for April 4th and 5th, 2017. If you don’t have enough time to complete your experiment, you need to pick a different topic!