**Citrus County Regional Science and Engineering Fair (RSEF)**

**Research Plan Template**

**Protocol Project - Vertebrates**

Any student wanting to participate in the Citrus RSEF must read and follow the International Science & Engineering Fair(ISEF) Rules, the State Science & Engineering Fair (SSEF) of Florida Rules, and the Citrus RSEF Rules. Read pages 12 – 14 in ISEF Rules and page 3 and 4 in FL SSEF Supplement for specific vertebrate project requirements.

 All paperwork needs to be approved prior to any experimentation.

The entire process of the project should be documented in the student’s log-book – from the research of the topic to experimentation to conclusion and application.

The student should research the scientific topic they want to design an experiment on. Be sure to document all sources used to complete this plan. You will need it for the bibliography at the end.

**RATIONALE** (*Explain the reason you want to do this specific project. Include a brief synopsis of the background that supports why you choose this topic. Explain why this research is important scientifically and if applicable, explain any societal impact and application of your research.)*

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**HYPOTHESIS or ENGINEERING GOAL** *(Prediction of your outcome -or- What you are building or improving. How is this based on the rationale described above?)* You only do one of these.

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**PROCEDURE** *(Detail all procedures and experimental design including methods for data collection and all materials. All measurements should be in metric units. BE SPECIFIC ON EVERYTHING) Research plan should include what will happen to the animal(s) after the research. Alternatives to the use of vertebrate animals for research must be explored and discussed in the research plan. All students doing projects involving non-human vertebrates must have daily care and feeding documented in their log book*

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**RISK & SAFETY** *(Explain every aspect of the experiment that could be classified as a risk, and explain the precautions you will take to minimize all risks.)*

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**DATA ANALYSIS (***Describe the procedures you will use to analyze the data/results that answer research questions or hypothesis)*

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**DISCUSS OF RESULTS** *(What does the data need to illustrate to prove or dis-prove the hypothesis to determine the conclusion.)*

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**BIBLIOGRAPHY** *(List at least five (5) major references (e.g. science journal articles, books, internet sites) from your literature review. For all projects using vertebrates the bibliography MUST include an animal care reference. Include the ISEF Rules and SSEF of Florida Supplemental Rules, for a total of 7 references. Citation style should be in APA or MLA)*

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