Science Fair Project - Final Proposal

Your finial project proposal is a minimum 200-word document that should include the following:

Question

The *question* that you are trying to answer (你想回答什么问题) should be relevant to your course and related to a topic that we are trying to cover in this semester. You need to keep in mind that your question is something that is 'testable' and will provide you with useful data that you can analyse.

Introduction

The *introduction* includes the background information (背景信息) relevant for your topic. Here you should also explain the rationale for why you picked the topic and what answers related to your topic you already know about (你选的题目与课上所学的哪些内容相关). Make sure you include in-text citations (参考文献) if you use any secondary data.

Your introduction should also include your **variables** (变量). The variables are the 'things' that you are changing, recording, and keeping the same in order to answer your question. An independent variable (自变量) is the <u>one thing</u> that you will be changing in your experiment. A dependent variable (因变量) is the <u>one thing</u> that you will be measuring as a result of what you have changed. The control variables (控制变量) are <u>several things</u> that you should keep the same so they will not influence your results.

Hypothesis

The *hypothesis* (假设) is what you think the answer to your *question* will be (你觉得会出现什么 样的结果) based on prior knowledge <u>and</u> information that you have researched online. The hypothesis should relate to your independent (what your change) and dependent (what you receive) variables (变量).

Materials

For *materials* (材料) you should include a basic list of the supplies that you will need to perform the experiment. It does not need to be purchased right away, but keep in mind that you should stay within a 200RMB budget a most.

Check mark once you have completed the following:

- We have researched and decided all the materials needed to perform the experiment
- \circ $\,$ We have listed all of the materials needed for our experiment in our proposal $\,$
- \circ We have listed the price and source from where the items will be purchased
- Our/My total budget does not exceed 200 RMB
- We have checked that all of the materials can be purchased, are safe for use, and are not prohibited items
- We have checked with my teacher/Lab Assistant/Science DH if it's possible to borrow the item(s) needed and will be in contact with them and give them enough notice ahead of time to set up a time when we can use/borrow the materials

Procedure and Timeline

The procedure (程序) is how you plan to carry out the experiment (我们该怎么进行实验). How many trials will you perform? How will you prove/disprove your hypothesis? Describe, in general terms, what you will do to answer your question. We are not looking for a detailed step-by-step instructions here, but more of a guideline to what you will try to do and within what timeframe. You can include diagrams (图表) or pictures to help explain your set-up.

Results

Here you should give an example of what the tables will look like that you will be using to collect and display your data. <u>Note: you do not have to include any data</u> in your proposal, just what the tables look like.

References (参考文献)

You should find <u>at least 3 references</u> that have information related to your question. The references should be listed in <u>APA format.</u> See examples below:

APA For Books:

Author, A. (Year of publication). *Title of work: Capital letter also for subtitle*. Location: Publisher

For example:

Burke, K. (1966). *Language as symbolic action: Essays on life, literature, and method*. Berkeley, CA: University of California Press.

APA For Websites:

Author, A. (Year of publication). *Title of work: Capital letter also for subtitle*. Retrieved from <u>website URL</u>

For example:

Burke, K. 1966. *Language as symbolic action: Essays on life, literature, and method*. Retrieved from <u>www.sciencefair-fakewebsite.com</u>