

1. Ideas 20/3/2020

I came up with the idea that I wanted to test sunscreen in some sort of way. Next, I had to think of possible experiments that I could use for my scientific inquiry.

These are the ideas I came up with:

- Testing how much sunscreen is needed to be applied to the skin to get the most protection from UV rays
- Testing what types of sunscreens blocked out the most amount UV rays
- Testing what happens to sunscreen’s protection to the skin when left in different temperatures

2. Deciding on the experiment 23/3/2020

Next, I had to decide what experiment I would use for my scientific inquiry. I had to find the pros and cons of each idea and find out any possible problems.

Here are my pros and cons list for each:

**- Testing how much sunscreen is needed to be applied to the skin to get the most protection from UV rays**

Pros

Cons

- The experiment will find how much sunscreen is too much
- The experiment’s results will be able to be used in peoples everyday lives

- It is hard to tell how thick the sunscreen is

Overall there are more pros then cons, but the con is a huge problem. This is because how thick the sunscreen is spread is something that is very important that is needed to be kept constant

**- Testing what types of sunscreens blocked out the most amount UV rays**

Pros

Cons

- The experiment will show what brands will provide the most protection.

- A lot of different sunscreen brands will have to be used, which will be expensive.

Overall it will be very expensive to buy the different sunscreens, but it is still a possible choice.

**- Testing what happens to sunscreen’s protection to the skin when left in different temperatures**

Pros

Cons

- The experiment will find what the effect is when the sunscreen is left in different temperatures, and can be used in everyday situations.

- No cons found

Overall there were no cons found so this is the experiment that is chosen.

3. Research 2/4/2020  
The next step is to research the background information. This will include me finding out some information about how sunscreen works and the UV rays. This will help me out later on in the process.
4. The deconstruction (part 1) 17/5/2020 – 13/6/2020  
I then had to make a deconstruction report to see all my information, hypothesis, method, constants, safety considerations, variables, and equipment.
5. The safety form 20/6/2020  
I filled in the safety form to be sent off to Oliphant Science Awards.
6. Completing the experiment 22/6/2020 – 6/7/2020  
Next, I had to complete the experiment by following the experiment exactly.
7. Interpreting the data 7/7/2020  
Next, I had to use Excel to interpret and organise my data into a clear form. This is what the Excel document looked like:

Temperatures	Amount of UV light let through
4	11.7
20	11.7
30	15.7
90	20.7

8. The deconstruction (part 2) 8/7/2020 – 13/7/2020  
I had to now finish off the deconstruction, by interpreting my data, finding any errors, seeing if the hypothesis was supported or not, and seeing if the data was valid.
9. The final report 16/7/2020  
Next, I had to paste the information from the deconstruction onto the report under the correct headings. After that I just added in the sources I used.
10. Send off  
The final step was to give my report, safety form and this log to my teacher to send off to the Oliphant Science Awards.

A copy of the Safety Form below as well as sent off separately as a document