Chemical Technician's Report Template [Replace this text with an appropriate title.]

Your Names (Alphabetical by Surname. For example: Joe Smith, Jane Thomson)

November 17, 2023

Investigative question

[Replace this text with the guiding question you and your group set out to answer experimentally.]

Claim

[Replace this text with the answer to your investigative question based on the experimental data you collected.]

Evidence

[Replace this text with images of your results: Label each image with a number and provide a clear caption. Example: Fig 1. CVS sunscreen, SPF 30, after 3 minutes of sun exposure]

Reasoning

[Replace this text with a discussion of the data: How do you interpret the images? What do your results mean about the quality of the sunscreen you tested in relation to your investigative question? Etc.]

Recommendations for next steps:

[Replace this text with next step recommendations: What are some possible sources of error and how could you eliminate them in future trials? What is needed to evaluate the product in a more realistic setting? How could you turn this qualitative comparison into a more quantitative one? What is needed to make the experiment more reproducible? Etc.]

Acknowledgements

[Make a brief statement describing the role(s) each member of the group took in completing this experiment and report.]

Analysis questions

1. In this investigation you used a blank microscope slide as your reference. Discuss at least one way in which this is a good model for unprotected skin and one way in which it is not.
2. A technician used the same general procedures you did to evaluate sunscreen samples under an LED light. She took her prepared slides into a dark room without windows. Because there was no sunlight in the room, she decided she did not need a blank microscope slide as reference. She then turned on the LED light. After 30 minutes, the sun paper underneath the slides had not changed color, so she concluded that the sunscreen was very effective.
   (a) What is one problem with her experimental set up? Explain how this could affect her results and conclusions.
   (b) What is one alternative explanation why the paper did not change color?