

Smart STEM Challenge

ALOE VERA GEL HAND SANITIZER

Heang Juliya

New Gateway International School

Main Campus

Phnom Penh

Category: Public Health & Social Science

Age Group: Junior (Grade 7-9) Senior (Grade 10-12)

ABSTRACT:

When it comes to staying healthy and avoiding germs, nothing beats good old-fashioned proper hand washing. Soap, water, and scrubbing is one of the best ways to clean your hands of all sorts of bacteria, viruses, or grime. There are a number of reasons that you may want to make your own hand sanitizer at home. One timely reason is the current COVID-19 global pandemic that is happening. Every store and internet outlet is sold out of hand sanitizer. If you're unable to find hand sanitizer in stores or want to avoid the general public there is an effective homemade hand sanitizer recipe you can make to help prevent the spread of disease.

The objective of this project is to create a hand sanitizer that is can easily find at home and is cheaper using aloe vera and alcohol as a main ingredient. Both recipes are strong enough to kill the current corona virus when used correctly.

The procedures are easy, just mix the aloe vera gel, rubbing alcohol, and we can create now a hand sanitizer. Just make sure to wear protective equipment to ensure the cleanliness of the sanitizer.

The results were effective since we used the exact amount of alcohol and aloe vera for the procedure. 91 to 99% strength is preferred. You can also use 70% alcohol if that is all you have, though you won't be able to use as much aloe vera in the recipe – in order to keep the alcohol content up to 60% as desired. Adding aloe vera gel to homemade hand sanitizer provides moisture and nourishment to help balance the harsh drying effects of alcohol. It also adds some thickness to your hand sanitizer for easier and more effective application.

Therefore, I concluded that the materials used for were effective in preventing the harmful effects of viruses.

Organised by



Supported by



Sponsored by

