

Hand Sanitizer V.S Hand Soap

A dark blue diagonal shape, resembling a stylized wave or a corner cut, occupies the bottom half of the slide. It starts from the bottom left corner and extends towards the top right, creating a clear separation between the title and the rest of the page.

BIG QUESTION

What works better;
washing your hands
or using hand
sanitizer?

Why it's important to test?

I chose this topic because I want people to know if hand sanitizer or soap is more useful and so it can protect us from getting covid, a virus or a sickness. It could impact the world.

Research For Hand Sanitizer

- Alcohol-based hand sanitizers work pretty well and kills about 99.99% of the germs. (**Canr 2021**)
- Hand sanitizer kill lots of viruses that are similar to coronavirus. (**Canr 2021**)
- Hand sanitizer that has at least 60% alcohol works one of the best. (**Cdc 2021**)
- According to germ experts sanitizer works for about two minutes. (**Cbsnews 2021**)

Research For Soap

- Washing your hands with soap removes germs and kills about 90% of the germs. (**Cdc 2021**)
- Soap and water is very effective at removing such as common illness causing germs like cryptosporidium, norovirus and Clostridium difficile. (**Tomsofmaine 2021**)
- Washing your hands with soap and water could cause less deaths from diarrheal disease by up to about 50%. (**Tomsofmaine 2021**)

Hypothesis

Washing your hands will remove all types of germs from your hands, but hand sanitizers will remove less germs than soap and water.

Materials For Soap and Hand Sanitizer

- **Good Soap brand**
- **Good Hand Sanitizer brand**
- **2 Bowls**
- **Pepper(model of germs)**
- **Water**
- **Measuring tape**

Procedure For the Soap

- 1. Get all your materials (soap, water, measuring tape, bowl and pepper).**
- 2. Pour your water in the bowl.**
- 3. Put pepper (model of germs) in the bowl with the water.**
- 4. Dip you finger in soap next, dip your finger in the water and watch the pepper move away from your finger.**
- 5. Finally, for data measure how many inches of pepper there is at the end of the Procedure.**

Procedure For Hand Sanitizer

- 1. Get all your materials (hand sanitizer, water, measuring tape, bowl and pepper).**
- 2. Pour your water in the bowl.**
- 3. Put pepper (model of germs) in the bowl with the water.**
- 4. Dip you finger in hand sanitizer, next dip you finger in the water and watch the pepper move away from your finger.**
- 5. Finally, for data measure how many inches of pepper there is at the end of the Procedure.**

Pictures of the experiment

Before:



Pictures of the experiment

After:



Measurement Recorded



First Test :

Soap - 3 inches

Sanitizer - 4 inches

Second Test :

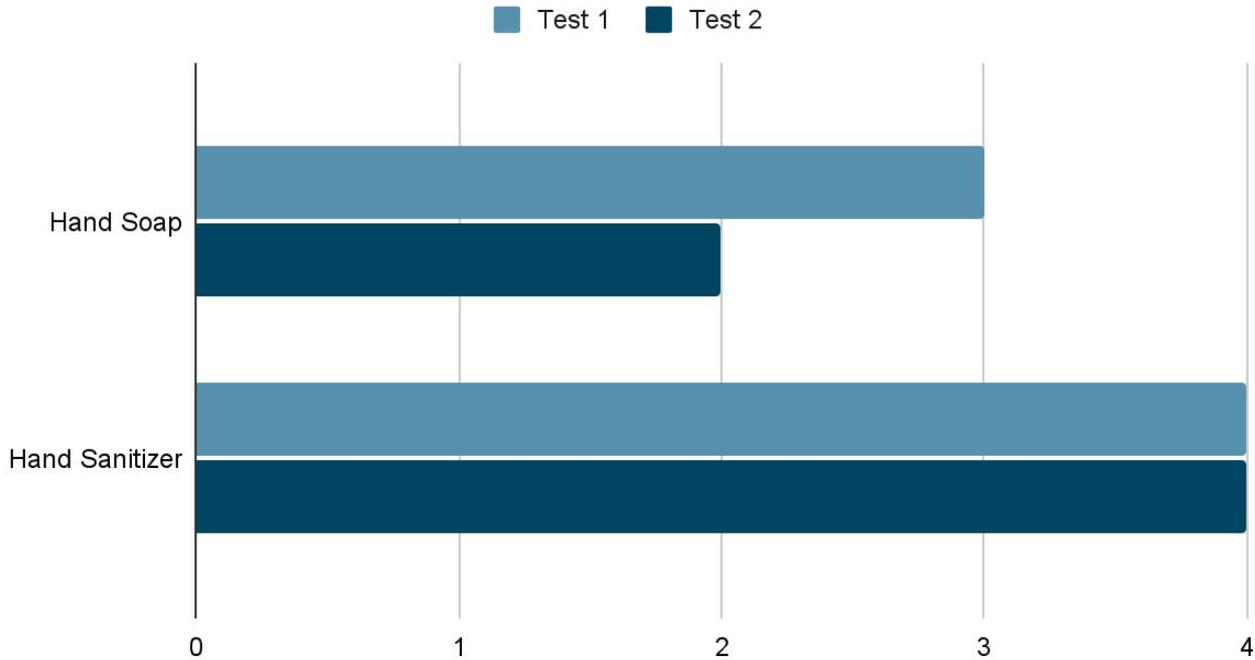
Soap - 2 inches

Sanitizer - 4 inches

Data and Results

The one with less inches works better because the pepper(model of germs) was pushed away farther

Points scored



Conclusion:

Soap works better than sanitizer. This will affect the way we use soap because the pepper spreaded farther away as a result soap works better. Washing your hands will remove all types of germs from your hands, but hand sanitizers will remove less germs than soap and water.

Resources:

- How long does hand sanitizers work?
www.cbsnews.com 2021
Date : 1 - 27 - 22
- Which works better Hand sanitizer or Soap?
www.cdc.gov 2021
Date : 1 - 27 - 22
- How does hand soap kill bacteria?
www.tomsofmaine.com 2021
Date: 1- 28 - 22
- How effective is hand sanitizer?
www.canr.msu.edu 2021
Date : 2 - 1 - 22