



BIG IDEA

Wearing a mask can help stop the spread of some viruses, but make sure the material works!

MATERIALS

- Various materials that you might make a mask with (scarves, cloth etc)
- Candle and lighter

INSTRUCTIONS

1. Gather supplies that you want to use for a mask. These could be various scarves, face/head coverings, cloths etc.
2. To test them out, wrap the material around your face. Remember to cover your nose and to have it tucked tight around your face.
3. Light a candle. Be careful!
4. Try blowing the candle out with a strong breath. Did your breath extinguish the flame? If so, maybe try another material. If not, congrats! You might have found a good material. Try it a few more times to make sure.
5. Go ahead and blow the candle out (if you didn't already). Even if you are changing materials, it's best to relight the candle each time to be safe.

THE SCIENCE

Infectious diseases like colds, the flu or COVID-19 can be spread through various ways. These can include direct contact, airborne transmission, droplets, vectors or even indirect contact. We can take steps to reduce the spread of a diseases by making it harder for them to be transmitted. Each disease should be handled differently depending on how its transmitted, but there are some steps (like frequently washing hands) that are good practices for reducing transmission of most diseases.

One of the ways COVID-19 is transmitted is through droplets. These droplets are microscopic and are sent into the space around us when we cough, sneeze or even just talk. Droplets can be picked up by another person via their eyes, nose or mouth.

By wearing a mask, we can protect ourselves by making it much harder for the droplets from other people to reach our nose and mouth. Wearing a mask can also make it much harder for your droplets to get out and reach another person, which is why it's important for the mask to be tight around your face.

In this experiment, you can test out if your droplets are actually getting blocked by the material of your mask. If your breath can blow a candle out, maybe droplets could get out too.