



SFU SCIENCE IN ACTION

PEPPER EXPLOSION

Try out this simple experiment to watch an explosion of pepper on your plate!

Allergy risks and safety:

Do not consume any liquids that have come into contact with soap

Ground black pepper
Water
White plate (or lightly coloured)
Dish soap
2 cotton swabs
A responsible adult

Procedure:

1. Pour water into a plate enough to cover the bottom
2. Sprinkle ground black pepper on the water evenly (but not too much!)
3. Dip a cotton swab into the center of the plate

4. Add a drop of dish soap to the tip of another cotton swab
5. Dip the cotton swab into the center of the plate

What happened to the pepper this time?

6. What happens if you add different amounts of pepper? How far does the pepper end up spreading?

What happened?

When the black pepper was sprinkled onto the water notice that it simply sat on top of

words, water molecules like to stay together with other water molecules and not let the pepper mix in easily. When we add the soap, the surface tension of water breaks and the water molecules on top move outwards carrying the pepper!