

BOOMbox at Home

DIY Fire Extinguisher

Want to make your own basic fire extinguisher? This experiment is no replacement for a real fire extinguisher, but it is a fun way to put out a candle and learn about the science of combustion.

Supplies

- plastic bottle
- vinegar
- baking soda
- tea light candle
- safety goggles or safety glasses

*Matches can be very dangerous.
Younger scientists should have adult assistance
with this project.*



Instructions

- Light the tea candle.
- Pour vinegar into the bottle until it is around half full.
- Quickly pour the baking soda into the water bottle.
- Carefully hold the bottle at an angle to let the carbon dioxide escape and put out the fire. Be careful to not spill it!

Want to explore more?

Wondering how this works? When vinegar and baking soda are combined, they react to create carbon dioxide. Carbon dioxide is heavier than oxygen, so when you release carbon dioxide from the bottle, it sinks into the place of the oxygen surrounding the flame. This starves the fire of oxygen and puts out the flame.

What will you learn today?