

## Try This

# Firefighting

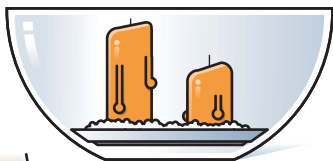
*A fire needs oxygen to burn, and if you can cut off a fire's oxygen, it stops burning.*

## You'll need

- Small dish
- Large bowl
- Short candle, about 4 in. (10 cm) long
- Candle about 2 in. (5 cm) long
- Vinegar
- Baking soda
- Adult helper



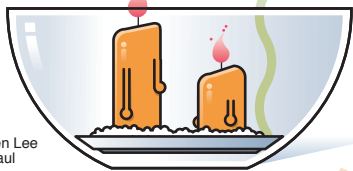
Graphic: Helen Lee  
McComas, Paul  
Trap/TNS



baking  
soda.



- 1 Fill dish with baking soda, put dish in bowl; stand candles upright in baking soda
- 2 Ask adult to light candles



- 3 Pour a little vinegar onto soda in dish

Watch what the candle flames do

## What happened?

The short candle burns less and less, then goes out; in a minute more, the taller candle goes out

Mixing soda and vinegar makes carbon dioxide, a colorless gas that is heavier than air

Carbon dioxide fills up the bowl and pushes out the oxygen

Source: Reeko's Mad Scientist Lab

*First the short candle runs out of oxygen and stops burning, followed by the taller candle*

O<sub>2</sub> O<sub>2</sub> O<sub>2</sub> O<sub>2</sub> O<sub>2</sub> O<sub>2</sub> O<sub>2</sub> O<sub>2</sub>

CO<sub>2</sub>

CO<sub>2</sub>

CO<sub>2</sub> CO<sub>2</sub>

CO<sub>2</sub> CO<sub>2</sub>

CO<sub>2</sub> CO<sub>2</sub>

CO<sub>2</sub>

