

Burning Candles Underwater



This unique 5th grade physical science activity shows kids how to burn a candle underwater.

You will need:

- Candle
- Duct tape
- Bowl
- Cold water
- Cigarette lighter or matchbox
- Scissors



Instructions:

- Use the scissors to snip off 4 inch lengths of the duct tape.
- Bind the candle with the tape to the bottom of the bowl.
- Fill the bowl with water but make sure the top is dry and the wick isn't submerged.
- Light the candle.
- Observe how the candle burns differently - all the way to the bottom leaving a thin wax tube behind.

Explanation:

A candle burned in a waterless bowl would have been consumed entirely by the flame. This would have been due to the high temperature of the flame and the heat flow. Water, especially cold water, can absorb large amounts of heat energy. Burning a candle in a water-filled bowl will dissipate the heat energy and cause it to have far less impact on the candle's outer surface. The candle will thus burn in a different manner.