

Candles Reignite

Action

A recently extinguished candle will reignite when a lit match is held in the smoke stream.

Grade Level

Units discussing changes of state.

Materials

- 1 candle
- A book of matches
- A room without any air currents

Instructions

- Light the candle and allow it to burn for a minute or two to develop a pool of wax.
- Light another match. Quickly pinch out the flame and look for the stream of smoke coming from the wick of the candle.
- Move the lit match into the stream of smoke that is coming from the candle. The flame will jump from the match to the wick and reignite it.

Safety

Be cautious of burns when lighting the candle and match.

Hints

- Do not blow out the candle or lick your fingers to put it out because it will affect the wax vapour trail. Blowing out the flame will spread the vapour and licking your fingers will dampen the wick too much.
- If there are excessive air currents in the room, the vapour will disperse and the experiment will not work.

Science Principle

The students will be able to observe the three phases of wax: the solid form of the candle, the melted wax as a result of the candle being lit and then the vapour that is present and causes the candle to reignite. The vapour itself is highly combustible, and when the lit match is introduced, it provides the needed energy for the candle to ignite.