



## JUMPING (1 of 2) FLAMES

 5 minutes +  
questions and journal time

 Follow all safety instructions from LearnLibre.com  
during the experiment.

### **Before the Experiment**

Ask an Adult. This experiment should be performed by an adult who has read and understands all fire safety considerations found with this experiment at LearnLibre.com.

### **Materials**

- Candle
- Long lighter
- Contained fireproof surface

### **Procedure**

#### **Part 1**

1. Put your candle on the fireproof surface.
2. Light your lighter, and hold the flame near the candlewick without touching it.
  - Did it light the candle?

#### **Part 2**

1. Light your lighter, and touch the flame to the wick.
  - Did it light the candle?

#### **Part 3**

1. Light your candle if it is not already lit. Let it burn for 60 seconds.
2. Blow it out.
  - What did you see?

Watch Lesson



## JUMPING (2 of 2) FLAMES

### Part 4

1. Light your candle again, and let it burn for 60 seconds.
2. Light your lighter.
3. Blow the candle out, and quickly put the lighter flame near the candle, but not touching it. You want it to be in the line of smoke coming from the candle.
  - What did you see? Try it a few more times and watch the flame closely.



### Questions

1. What part of a candle flame is burning?
  - Hint: Is it the wick, the liquid wax, the solid wax, or the wax gas?
2. What kind of wax is your candle made out of? Would this demonstration work with a different kind of candle wax like soy or beeswax?
3. How far can a flame jump? Does it depend on the amount of smoke? The size of the candle? Something else?
4. Do jumping candle flames have any “real-world” applications other than being a cool trick?

[See answers and learn more about how this experiment works by scanning the QR code at the top of the 1st page.](#)

### Clean-up

Wash and dry any tools you used, put materials back where you got them from, clean your work station.

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