Candle Burning Experiment

Fire is a chemical reaction that creates light and heat from oxygen and fuel. A lit candle needs to draw oxygen from the air in order to continue burning. If you limit the amount of air available, the candle's flame eventually goes out once it uses up all the oxygen. Here's a science experiment that gives your child a chance to see this concept in action, with a little math and writing practice thrown in.

What You Need:

- Tea candles
- 4 glass jars in different sizes (make sure they're large enough to fit over the tea candle)
- Matches
- Permanent marker
- Pen or pencil
- Paper
- Stopwatch

What You Do:

1. Begin by explaining to your child that fire needs oxygen from the air in order to burn. Ask your child what they think will happen if you limit a candle's oxygen supply.
2. Light the candle and place one of your jars over it. Watch and wait until it goes out. Was this what your child expected to happen? What does your child think will happen if you place a larger jar over the candle? How about a smaller jar?
3. Put the jars in a row from smallest to largest, and help your child write the numbers 1, 2, 3, and 4 on the sides in permanent marker.
4. Ask them to estimate how long it will take for the candle to go out as you place each jar over it. Make a table like the one below to record their estimates.

	Time Estimate	Actual Time
1		
2		
3		
4		

5. Light the tea candle, and place the first jar over it. As you do so, have your child start the stopwatch. How long does it take for the candle to go out? Record the actual time next to the estimate.
6. Repeat step four with the three remaining jars.
7. Compare your child's estimate to the actual length of time each candle burned. Did they predict that the candle would burn longer under larger jars? If not, point the pattern out and explain that the more air inside the jar, the longer the candle is likely to burn.

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