Use your notes and candle lab observations from Episode 101 as you answer the following questions.

**Observations vs. Conclusions**

In most labs, you will make observations and conclusions. What is the difference? Observations are made using the senses and devices while conclusions are statements based on observations as well as previous knowledge. A conclusion is often called an inference.

For each of the following statements, write “O” if it is an observation and “C” if it is a conclusion.

- **O** 1. The temperature outside is 95 ºF.
- **C** 2. I see smoke coming from the engine so the car must be overheating.
- **O** 3. The eggs stink.
- **C** 4. The eggs are rotten.
- **C** 5. Vinegar tastes sour so it must be an acid.
- **O** 6. The coin is copper colored.
- **C** 7. Because it is copper-colored, the coin is a penny.
- **C** 8. It looks like it is going to rain.

Now, write two observations and two conclusions of your own.

*Any two valid observations and conclusions will do.*

Do you understand what happens when a candle burns? Answer the following questions as best you can, using your general knowledge.

What is produced when a candle burns? 
*Student’s answers may include smoke, fire, etc.*

What is necessary for a candle to burn? 
*Student’s answers may include wax, flame, wick, oxygen, etc.*

What is the purpose of the candle wick? 
*Most students will answer that the wick holds the flame.*

As a candle burns, it becomes shorter. Where does the wax go? 
*Most students will answer that the wax melts down the side of the candle and then hardens again. In fact, some of the wax burns, while some does melt down the side.*