

Name: _____

Date: _____

Period: _____

Liver Lab

Background Information:

- The liver is an organ in the digestive system
- The function of the liver is to remove toxins, store nutrients and make bile
- The liver breaks down toxins, such as H_2O_2 into harmless substances in a chemical reaction
- Endothermic chemical reaction takes in heat energy, it will feel cold to the touch
- Exothermic chemical reaction releases heat energy, it will feel warm/hot

Question: What will happen when we put liver into a test tube of Hydrogen Peroxide?

Prediction/Hypothesis (If...Then...Because...)

Experiment:

Safety: Do not eat or drink, wash hands before and after, goggles and aprons are optional

Materials: 2 test tubes, 2 thermometers, 1 beaker or test tube rack, graduated cylinder, 30 cc of H_2O_2 timer, test tube brush, slice of liver

Procedures:

1. Obtain and set-up all materials, with the exception of the liver
2. Pour 15 cc of H_2O_2 into each test tube
3. Put a thermometer in each test tube, record which is the control and which is the experimental variable
4. Measure the starting temperature of each solution and record.
5. Bring the test tube for the liver to the teacher and obtain the slice of liver
6. Take the time and temperature readings, for each sample, every $\frac{1}{2}$ minute for 8 minutes.
7. When done with the lab, 1-pour the H_2O_2 into the sink, put the liver in the trash can, rinse off all materials, and use the test tube brush to clean both test tubes.
8. Return all materials to their proper location
9. Wash your hands
10. Complete the graph and conclusion questions

