

Lab 3: Properties of Enzyme Action

Purpose - The purpose of the fat with pancreatic lipase and bile salts lab is to study the digestion of fats.

Procedures -

1. Add just enough litmus powder to a container of dairy cream to produce a medium blue color. Pour 3 ml of the litmus cream into 4 separate test tubes. Into two additional test tubes pour 3 ml of 2% pancreatin. Preincubate the litmus cream and the pancreatin separately in a 37°C water bath for 5 minutes. Then prepare four test tubes as follows:

Tube #1: 3 ml cream + 3 ml pancreatin

Tube #2: 3 ml cream + 3 ml distilled water

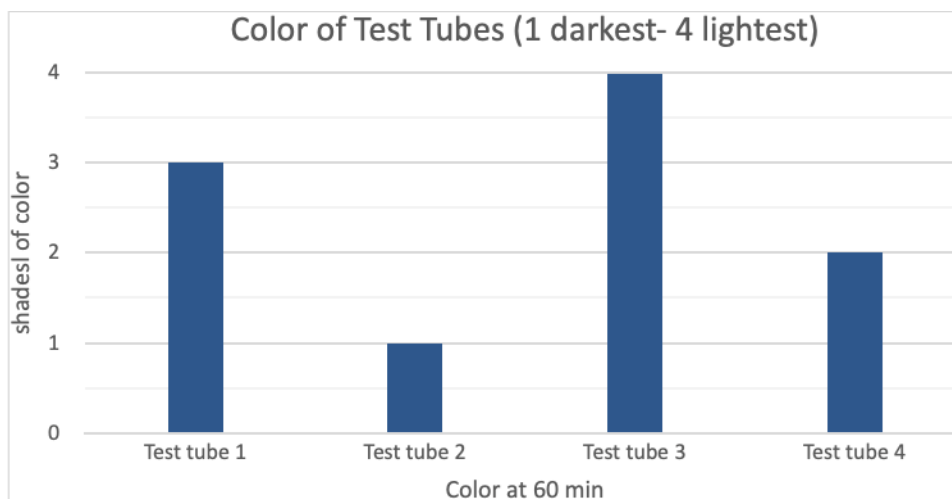
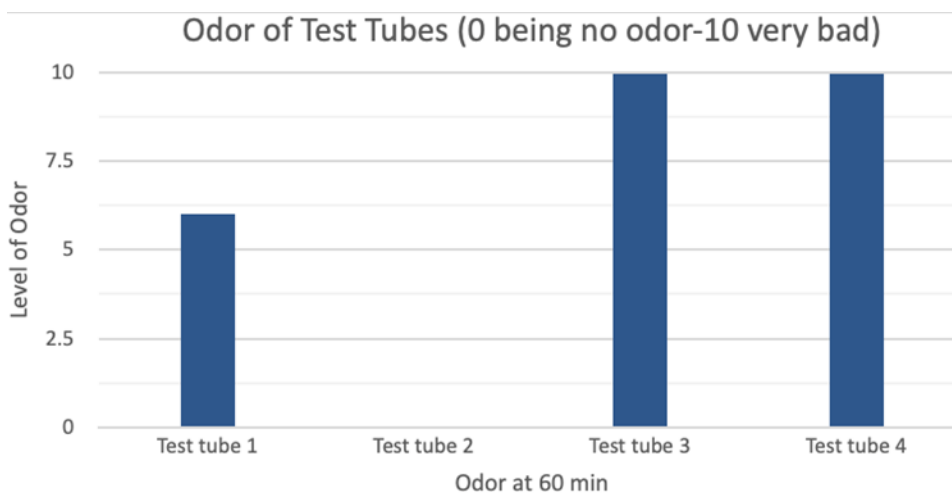
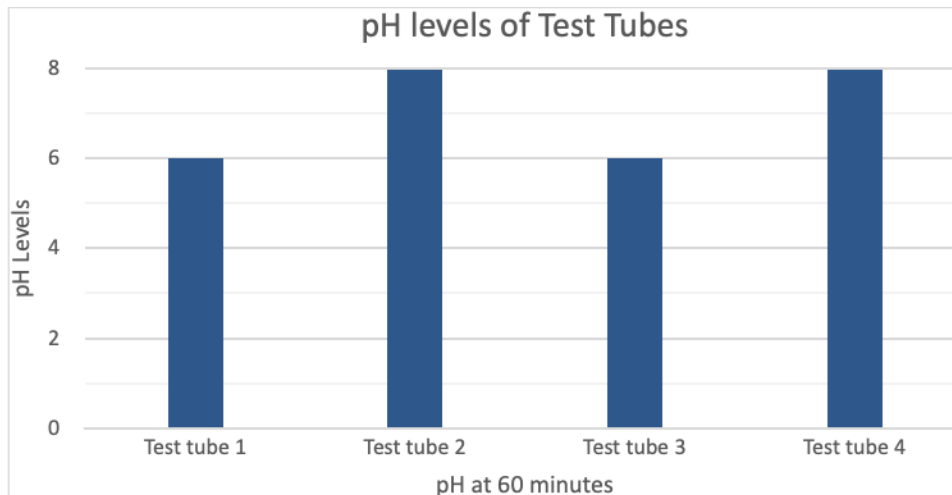
Tube #3: 3 ml cream + 3 ml pancreatin + pinch of bile salts

Tube #4: 3 ml cream + 3 ml distilled water + pinch bile salts

2. Gently shake each tube for 30 seconds to mix in the bile salts. Incubate all four tubes in a 37°C water bath for 1 hour, checking every minute for the first 5 minutes or until the first tube changes color, then every 15 minutes for the rest of the hour. Record the time and number of the tube. Continue checking for the remainder of the hour.

3. Remove the tubes from the water bath. Test the pH of each tube using pH paper and note the odor and color of each tube. NOTE: Blue litmus will turn pink in an acidic environment.

Results -



Discussion: There was a lot of waiting and checking results with this lab, it was interesting to see the colors and smell change. My favorite part of the lab was watching Justin smell the baby puke vile.

Conclusion: In this lab we got to see how our bodies digest and absorb fats. This is done by bile salts produced by the liver that help emulsify fats. Bile salts aid pancreatic lipase, which is produced by the pancreas, to break down fats.