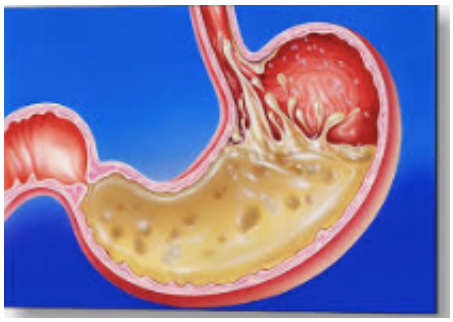
Stomach Lab

Purpose: How do different systems in the body help break down food in the stomach?

Background information:
Churning –



Hypothesis:

Procedures for Churning:

1. Copy down BOTH data tables for this lab.
2. Place 1 saltine cracker into each of the two zip lock bags
3. Fill a graduated cylinder with 40 ml of water from the sink.
4. Poor in 40 ml of water to each of the 2 bags.
5. Squeeze ONE (not both), bag to mimic the churning muscular action performed by the stomach during digestion.
6. Record observations about how the mixture looks over time.
7. Compare the results of the "digested" gab with the "control"
8. Dump the contents out in the container the teacher said to.
   Rinse out the bags with watcher from the sink, you will reuse them.
9. Repeat steps 2-8 for bread

Data Table

	Bread	Crackers
Control		
Churning		

Procedures of Stomach Acid:

1. Copy down the data table
2. Fill a graduated cylinder with 40 ml of stomach acid
3. Poor the stomach acid into a large test tube.
4. Fill a graduated cylinder with 40 ml of water (from the sink)
5. Poor this into the test tube
6. Drop in 1 of the foods that will be used into the bottom of the test-tube.
7. Drop the same food into the "control"
8. Using the dropper "Amylase" drop in 5 drops of amylase into the Stomach Acid test tube
9. Using the little white scoop, scoop 1 spoon of pepsin into the Stomach Acid test tube.
10. Record observations every minutes for 5 minutes.
11. Repeat the steps for remaining foods.

Data Table

	Control	Stomach Acid
Bob's Mint		
Gummy Bear		
Skittle		

Analyzing the data:

1. How did the control compare to the churning?
2. How is churning an important part of stomach digestion?
3. How does the muscular and digestive systems work together?
4. How did the substances in stomach acids break down compared to the control?
5. Do all food break down at the same rate (take the same amount of time)?
6. How is churning an important part of stomach digestion?
7. How does the nervous system work with the digestive system for digestion? Hint: Think about what takes place in the stomach that you don't even have to think about (chemical / mechanical digestion).