





Digestion Experiment: Amylase

Objectives:

To understand how the digestive system mechanically and chemically breaks down food to provide energy by chewing and saliva.

To understand that in humans, digestion begins in the mouth.

Materials:

- 1 lodine bottle
- 1 Dropper
- 3 Petri dishes
- 1 unsalted cracker

Preparation:

1.	Think about the last this you ate. Why did you eat? (other than being hungry)

2. The process of digestion starts in the mouth. Make a quick labelled sketch of how you think that works.

3. Mechanical D	Igestion. Expi			int mean.	
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. Chemical dige	estion. Expiair 		ink this might	mean. 	
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Procedure / Method:

- 1. Label the three petri dishes, for example, A, B, and C.
- 2. Put 1 TBSP of water in each petri dish.
- 3. One petri dish will contain only water this is the control.
- 4. Crumble one saltine cracker into one petri dish and stir / mix.
- 5. Chew one saltine for two minutes without swallowing and then spit it out into the last petri dish. Stir with a clean stirrer.
- 6. Wait for at least five minutes.
- 7. Add three drops of iodine into each Petri dish and stir/ mix.

Results:

Petri Dish	Observations		

Explanation:
Digestion begins in the mouth.
Amylase, an enzyme found in saliva, converts starch to sugar as a chemical digestion.
Crackers, along with bread and pasta, contain a lot of starch.
lodine turns dark (brown / blue / purple) in the presence of starch.
Conclusion:
Explain how the digestive system starts within the mouth, including evidence from the experiment. Draw diagrams if it helps.