

Enzyme Studies Worksheet

Part I. The Tests

Test Tube #	1	2	3	4	5	6	7
Distilled H ₂ O	3 mL		3 mL		4 mL		1 mL
Benedict's Solution	1 mL	1 mL	1 mL	1 mL			
Sugar			Pinch		Pinch		
Starch Solution		3 mL		1 mL		4 mL	1 mL
Amylase				2 mL			2 mL
Initial Color							
Color After Test							

Questions

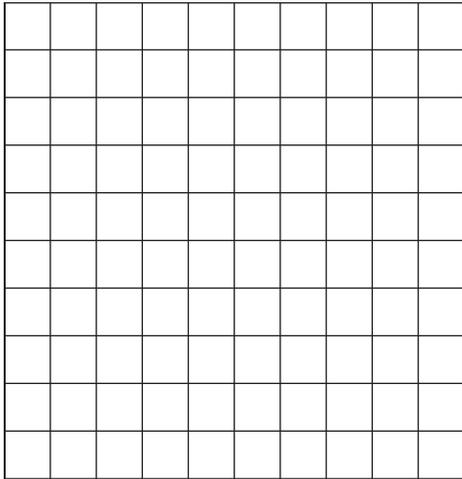
1. Describe a positive test for sugar with Benedict's solution.
2. Describe a positive test for starch using iodine solution.
3. Which test tubes served as controls in your tests? Explain.
4. Use your results to defend the statement — Amylase digests starch into sugar.

Part II. Enzyme Concentration

		Time in Seconds												
		0	15	30	45	60	75	90	105	120	135	150	165	
Amylase Concentration	10%													
	20%													
	30%													
	40%													
	50%													

Part II. Enzyme Concentration (cont.)

Graph your results below and write a statement about the relationship your graph depicts.

**Part III. pH**

Well #	pH	Observations
1		
2		
3		

Question: What can be stated about pH and amylase activity?

Part IV. Temperature

Well #	Water Condition	Observations
1		
2		
3		

Question: Does temperature seem to influence amylase activity? Explain.