

## Lesson Two: *Where is glucose in food?*

# Student Sheet 2

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Period: \_\_\_\_\_

### Student Sheet 2: *Is there glucose in milk?*

1. Fill in the sugars listed on the food labels, if any, for each type of milk on Table 1.

**Table 1 – Types of sugars**

Sample	Type of sugar(s) Listed on Label	Do you think the Diastix strip will turn a dark with no enzyme? Why or why not?
Milk (regular)		
Chocolate Milk		
Lactose-free milk		

2. Proceed with the lab, as instructed on *Lesson Two Student Lab Instructions*. After completing the first part of the lab (mixing the milk and enzymes), make predictions about which solutions will test positive for glucose after incubation. If you think the solution will test positive, darken the corresponding rectangle on Table 2.

**Table 2 – Prediction**

Sample	No Enzyme	+ Sucrase	+ Lactase
Milk (regular)			
Chocolate Milk			
Lactose-free milk			

3. Complete the lab and record your results on Table 3. Using the Diastix results as evidence, record which types of sugar(s) were present in each milk.

**Table 3 – Results**

Sample	Diastix Color / Glucose Concentration			Sugar(s) Present
	No Enzyme	+ Sucrase	+ Lactase	
Milk (regular)				
Chocolate Milk				
Lactose-free milk				

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**Answer the following questions:**

1. How did your results compare to your prediction?
2. Which solutions contained glucose before adding either of the two enzymes?
3. What is glucose?
4. Do you have to eat pure glucose to raise glucose levels in your blood? Why or why not?
5. What are examples of other carbohydrates you could eat? Are they all sweet?
6. Based on your experimental results and the sugars listed on the food labels, are there any surprises or unexpected differences (e.g., lactose is milk sugar, but is lactose listed on the food label for milk)? If so, please explain.