

Name_____

SWEETENER STATIONS

Station #1 - What is Sugar?

1. How long have humans been eating sugar?
2. What is the scientific name for sugar?
3. Do humans “make” sugar? Why or why not?

Station #2 - Field-to-Fork

1. Summarize the field-to-table process of sugar cane or sugar beets.
2. How are sugar cane and sugar beets similar? How are they different?
3. What happens to the parts of the plant that are leftover?

Station #3 - Molecular Structure of Sucrose

1. Why do scientists study sugar at the molecular level?
2. List the elements that make up sucrose.
3. Explain how a sucrose molecule is formed from two smaller sugars. What are those two sugars?

Station #4 - Sweet Crops from Around the United States

1. What two main crops are used to produce most of the sugar in the United States?
2. Describe how the growing conditions for sugar beets and sugar cane differ in the United States.
3. Based on the map, what relationship do you notice between where sugar is grown and where sugar processing factories are located?

Station #5 - Alternative Sweeteners

1. What is an alternative sweetener?
2. How are honey and maple syrup made?
3. Why might someone choose honey or maple syrup instead of sugar?

Station #6 - Byproducts of Sugar

1. Why is bagasse considered a renewable source of energy?
2. What is molasses, and at what stage of the sugar production process is it produced?
3. What is filter mud, and what valuable substances does it contain?