

SWEET TOOTH SLEUTHING

PART 1: Sugar Origins

Food companies will often use a variety of sweeteners in a single food product, allowing food scientists to optimize sweetness for each product and minimize product costs. Using your textbook (pg. [217-222 only available to PCSD students](#)) and/or online resources, describe each of the following sources of sugar below in terms of its source, color and/or texture in its natural form, and general uses in baking.

(1 pt each row)



SUGAR	PLANT SOURCE	COLOR & TEXTURE IN NATURAL FORM (EITHER PHOTO OR DESCRIPTION)
Granulated sugar		
Brown sugar		
Molasses		
Confectioners' sugar (powdered sugar)		
Sugar beets		
Maple syrup		
Corn syrup		
Sorghum		
Honey		
Isomalt		

FUNCTIONS OF SUGAR

Using pg. [222-229](#) (only available to PCSD students), list the 6 main functions of sugar in food preparation and give a brief description of how it is used in this capacity: (1 pt each)

Function of Sugar	Description of how it is used in this function:
1.	
2.	
3.	
4.	
5.	
6.	

PART 2: Chemistry of Candy Making

Read the following [infographic](#) and [Crystallization of Sucrose](#) presentation to answer the following in **complete sentences**.

1. What is the difference between a crystalline and noncrystalline candy? Be specific. 1 pt.
2. What is the purpose of using an interfering agent in candy making? 1 pt
3. What are the four main interfering agents? 2 pt
4. List at least 3 other factors that affect crystallization. 1 pt