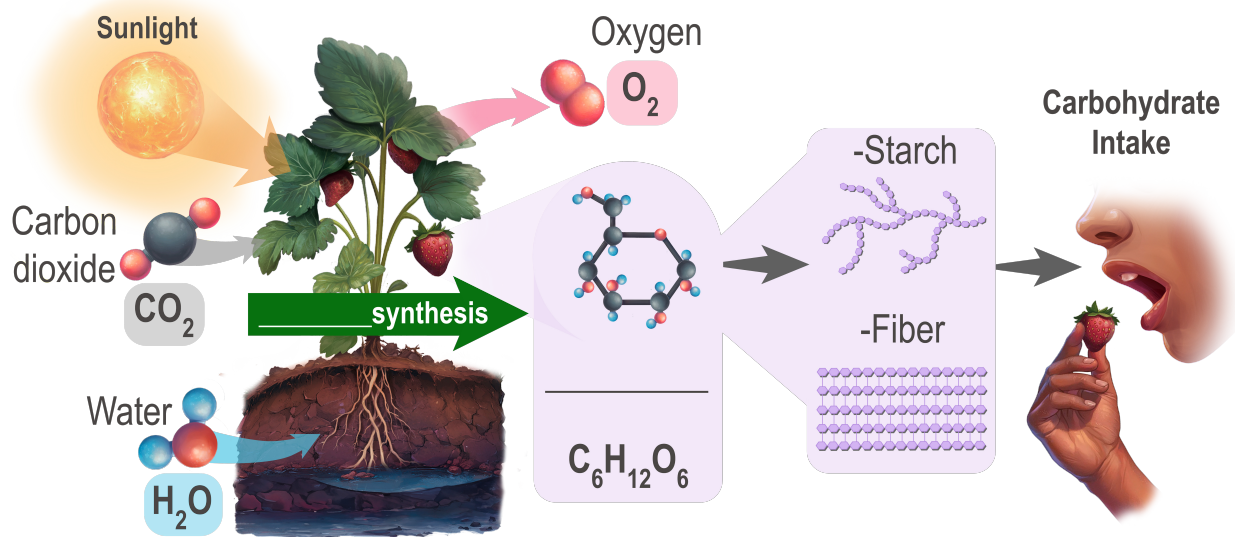


TOPIC: INTRODUCTION TO CARBOHYDRATES

What are Carbohydrates?

- ♦ **Carbohydrates:** a class of molecules *usually* with a ratio of _____.
- Carbs are made of *saccharides* or “_____” & *glucose* is the most biologically relevant sugar.
 - Sugars are the smaller building blocks of larger carbs (e.g. starch, fiber).
- Carbs are our _____ source of *energy* & most in our diet are derived from *photosynthetic* plants.



EXAMPLE

Which of the following chemical formulas represents a carbohydrate?

- | | |
|-------------------------|--|
| a) CO_2 | c) $\text{C}_{12}\text{H}_{22}\text{O}_{11}$ |
| b) H_2O | d) $\text{C}_5\text{H}_{10}\text{O}$ |

PRACTICE

Carbohydrates always contain:

- | | |
|--------------|-------------|
| a) Nitrogen. | c) Iron. |
| b) Oxygen. | d) Glucose. |

TOPIC: INTRODUCTION TO CARBOHYDRATES

Sources of Carbohydrates

- ◆ What food sources can we obtain carbohydrates from?
 - A wide _____ of foods can serve as a source of carbohydrates in our diet.
 - Common sources include fruits, dairy products, vegetables, grains & sugary foods.
- ◆ Pure protein (e.g. plain chicken or fish) & pure fat foods (e.g. butter, oil) are NOT sources of carbs.



NOTE: Not all carbohydrates are equal; nutrient-_____ sources are more healthful.

PRACTICE

Which of the following foods would provide the fewest carbohydrates per gram?

- a) Oatmeal with milk & honey.
- b) Strawberries
- c) Wild-caught salmon.
- d) A chocolate chip cookie.

PRACTICE

Which of the following is the most healthful source of carbohydrates, & why?

- a) Pancakes with maple syrup, because it provides carbohydrate from 2 different sources.
- b) A small portion of french fries paired with a protein-dense meal, because it is low-calorie.
- c) A bowl of whole grain cereal with low-fat milk & fresh berries, because it's nutrient-dense.
- d) A large chocolate milkshake with extra whipped cream, because it provides a lot of calcium.