Course Syllabus: Carbohydrates

- **Chemical structure of carbohydrates**
  - monosaccharides
  - glycosidic bonds
  - polysaccharides
- **Biophysical properties:**
  - optical rotation
- **Carbohydrate metabolism**
  - glycolysis
  - gluconeogenesis
- **Medical significance of carbohydrate metabolism**
  - carbohydrates and nutrition
  - diabetes

Learning Goals: Carbohydrates

- Students can draw glucose.
- Students can recognize fructose, ribose, and saccharose
- Students can define N- and O-glycosidic bonds.
- Students can calculate the energy gained from glucose.
- Students can evaluate whether their own nutrition is healthy.

Collecting concepts: Carbohydrates

Reproduce:

- Students can draw **glucose**.
- Students can recognize **fructose, ribose,** and **saccharose**
- Students can define N- and O-**glycosidic bonds**.

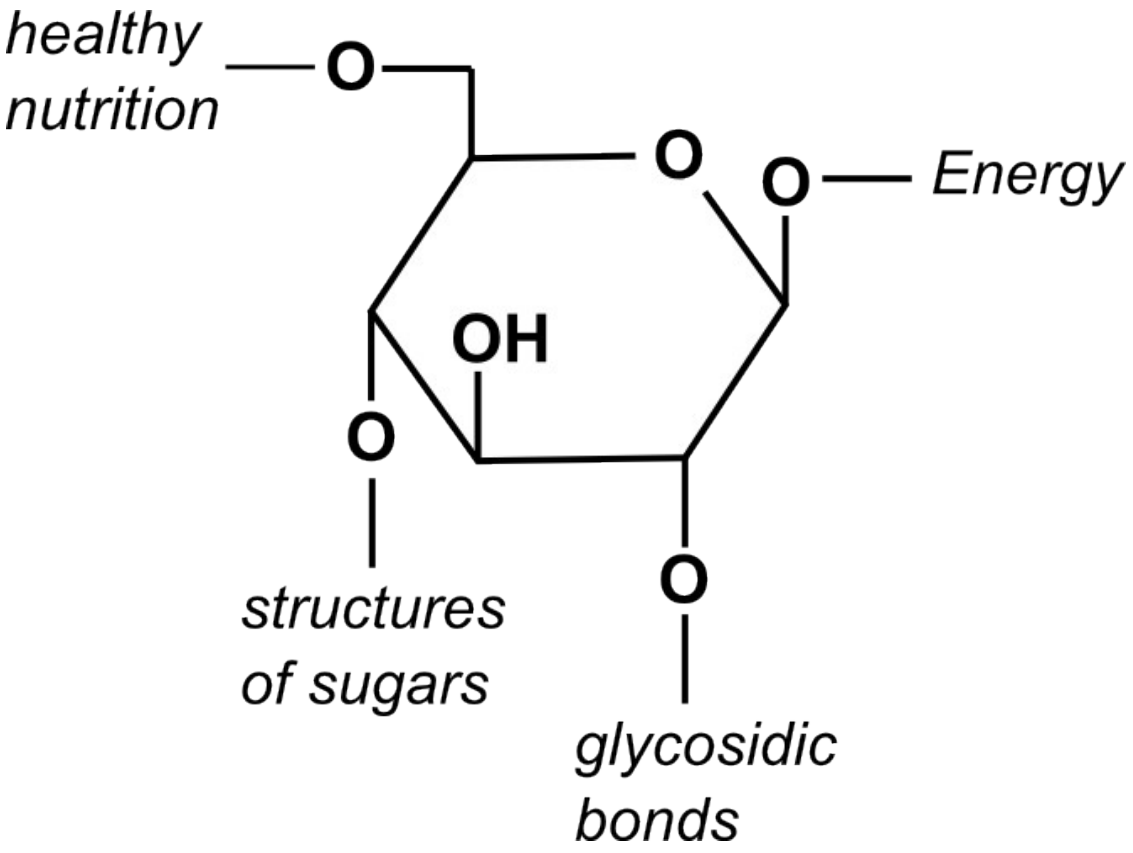
Apply:

- Students can calculate the **energy** gained from glucose.

Evaluate:

- Students can evaluate whether their own **nutrition** is healthy.

Carbohydrates



Lesson Plan: Carbohydrates

time	**topic**	**method**
09:00	What do you know about carbohydrates?	brainstorming
09:05	How do we get the energy our bodies need?	presentation
09:20	Annotate chemical structures	sheet with exercises
09:35	Answer questions	open discussion
09:40	True or false statements	quiz