**Vocabulary:** **Identifying Nutrients**

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**Vocabulary**

* Carbohydrate – an organic molecule containing hydrogen, carbon, and oxygen.
  + Carbohydrates are produced by plants during photosynthesis.
  + Carbohydrates include monosaccharides, disaccharides, and polysaccharides.
  + Carbohydrates are a major source of energy in the diet.
* Disaccharide – a sugar formed when two monosaccharide molecules are joined.
  + Sucrose, or table sugar, is a disaccharide. Other examples are lactose (milk sugar) and maltose.
  + None of the tests available in the *Identifying Nutrients* Gizmo can identify disaccharides.
* Lipid – a fat.
  + A lipid molecule usually consists of three *fatty acids* bonded to a “backbone” of *glycerol*.
  + Lipids are used as an energy source and as a building material for cells.
  + In the presence of lipids, Sudan Red solution will show concentrated spots of color.
* Monosaccharide – a simple sugar such as glucose or fructose.
  + A monosaccharide molecule usually consists of a ring of five or six carbon atoms that are bonded to hydrogen atoms and hydroxyl groups.
  + In the presence of monosaccharides, Benedict solution will turn from blue to orange.
* Polysaccharide – a complex carbohydrate such as starch or cellulose.
  + Polysaccharides are chains or branching structures composed of 40 or more monosaccharide molecules.
* Protein – a molecule composed of a chain of *amino acids*.
  + Proteins are an essential building block of muscles, skin, bone, hair, and most other body structures.
  + In the presence of proteins, Biuret solution will turn from blue to bright purple.
* Starch – a type of polysaccharide found in potatoes, rice, pasta, bread, and other plant-based foods.
  + In the presence of starch, Lugol’s solution (iodine) will turn from yellow-brown to dark purple.