

Activity 24: Reducing Sugars

Learning Objectives

Identify reducing sugars based on carbohydrate structure

Estimated Completion Time 20 Minutes

Instructor Information

Prior to this activity, the structure of polysaccharides should be reviewed. Cellulose and starch appear in the skill development.

ANSWERS TO QUESTIONS

1. C1 gains an oxygen. Oxidation.
2. Cu^{2+} goes to Cu^{1+} , so it gained an electron. Reduction.
3. Anomeric carbons are the C1s on glucose and lactose. The anomeric carbon on fructose is C2. Sucrose has two anomeric carbons: C1 on the glucose unit and C2 on the fructose unit.
4. They are all reducing except for sucrose, which has both anomeric carbons bonded.

Activity 24: Skill Development

1. a. Yes b. Yes c. Yes d. Yes e. No f. No