Turn Milk Into Plastic!

Student quiz — Answer key

Directions: Circle the best answer for each question below.

1. Polymerization is…
   a. ...a chemical reaction where long chains called polymers break apart into individual molecules called monomers.
   b. …a chemical reaction where individual molecules called monomers join together to form long chains called polymers.
   c. …a scientific term for the industrial production of milk.
   d. …the conversion of petroleum into gasoline.

2. What happens when you add vinegar to milk and stir?
   a. The milk changes color.
   b. Gas bubbles are formed.
   c. Nothing happens—the milk remains unchanged.
   d. The milk turns into a solid called curd.

3. Which is the important ingredient in milk that is responsible for its transformation into a plastic?
   a. Milk fats
   b. Water
   c. Casein proteins
   d. Lactose (milk sugar)

Turn Milk into Plastic!—
Page 2

Directions: Circle the best answer for each question below.

4. Which natural resource is most often used to make synthetic plastic materials?
   a. Oil
   b. Milk
   c. Water
   d. Gold

5. What are some potential consequences of the widespread use of plastic materials?
   a. Depletion of natural resources such as petroleum and oil.
   b. Pollution of the environment due the buildup of non-degradable plastic waste.
   c. Negative health effects due to long-term exposure to potential harmful chemicals used to make plastic.
   d. All of the above