Microbial Processes & Products in Biotechnology

Watch the video and complete the tasks.

Viewing: Comprehension Check

Ex 1. Choose the correct answer:

1. Which of the following is **not** mentioned as a product of biotechnology?

   A) Beer B) Diapers C) Plastic bottles D) Solar panels

2. Why are microbes used in the paper industry?

   A) To print books faster

   B) To reduce harmful chemicals during production

   C) To make the paper white

   D) To save water

3. What is one environmental benefit of biotech diapers?

   A) They are cheaper to produce

   B) They use fewer microbes

   C) They can be composted

   D) They clean themselves

4. How does biotechnology help fuel and rubber production?

   A) By using artificial intelligence

   B) By using microbes to make materials more efficient

   C) By recycling old products

   D) By importing cheaper fuel

5. What makes blue jeans look "stonewashed"?

   A) A protein from bacteria

   B) A washing technique

   C) Special dye

   D) Bleach

6. Why do people genetically modify crops?

   A) To make them look more colorful

   B) To improve growth, size, and disease resistance

C) To sell them at higher prices

D) To remove all natural traits

7. What is one way biotechnology is used in making furniture?

A) By printing 3D plastic chairs

B) By replacing all wood with recycled metal

C) By growing furniture directly in labs

D) By using natural plant ingredients to create renewable materials By growing furniture directly in labs

Ex 2. Mark the following statements as *True* or *False*?

1. Fungi are used to create certain cheese flavors. **T / F**
2. All plastics are made using biotechnology. **T / F**
3. Biotechnology can reduce emissions during manufacturing. **T / F**
4. Cosmetics made with biotech are more likely to cause allergies. **T / F**
5. Some food additives made with microbes include vitamins and thickeners. **T / F**
6. Biotechnology is used to make some fabrics more environmentally friendly. **T / F**
7. Detergents that use biotechnology work better in cold water. **T / F**
8. Biotechnology has no connection to fuel or energy production. **T / F**

Ex 3. Match the words to their definitions:

fermentation ***additive*** ***yeast*** ***GMO*** ***selective breeding***
biodegradable ***compostable*** ***emissions***

A. choosing specific organisms to reproduce for desired traits

B. organisms whose DNA is changed for specific traits

C. a fungus used in baking and brewing

D. can break down naturally and safely in the environment

E. something added to improve or change a product

F. gases or pollutants released into the air during production

G. a process where microbes break down substances, often to produce gases or alcohol

H. able to decompose naturally without harming the environment

Ex 4. Complete the sentences using the words below. Some words may be used more than once.

GMO, detergents, biotechnology, agriculture, production, emissions, cosmetics, composted, fungi, containers, microbes, yeast

1. Modern _____ often relies on genetically modified crops to improve food security.
2. Bread rises because of the action of _____, a microorganism that produces gas.
3. Blue cheese gets its flavor from certain types of _____.
4. Your shampoo and makeup may contain ingredients created using _____ to avoid skin irritation.
5. The use of _____ in laundry helps remove stains more effectively, even at lower temperatures.
6. Using microbes in industrial _____ can help reduce harmful chemical waste.
7. Some diapers today can be _____ instead of ending up in landfills, thanks to biotech.
8. Factories try to lower _____ by using environmentally friendly methods.
9. Many cleaning and personal care products come in plastic _____ made with biotech.
10. A _____ is a plant or animal whose DNA has been changed to have new traits.
11. _____ help create cheese, beer, yogurt, and other fermented foods.
12. Everyday items like beer, blue jeans, and furniture are made with the help of _____.