

Make Mushroom Packaging to Explore Long-Term Ecological Impact

Name: _____

Date: _____

Student quiz

Directions: Select the correct answer(s) for each question below.

1. Which of the following scenarios will influence the life cycle assessment of a plastic fruit container? (Select all that apply.)
 - a. The company producing the containers switches from conventional to renewable electricity sources.
 - b. The message "Please recycle this container" on the container leads to a decrease of 20% of containers ending up as solid waste, and an increase in recycled containers.
 - c. The price of the containers is increased by 10%, leading to a 15% decrease in sales.
 - d. There is a shortage in plastic beads, the raw material of the containers. As a result, the beads are no longer sourced locally. Instead, they are imported from overseas.
2. Which of the claims below are NOT true? (Select all that apply.)
 - a. The issue of trash staying around for many years is hard to capture in a life cycle assessment.
 - b. The management of solid trash is part of a life cycle assessment.
 - c. Mycelium composite material looks promising because it is compostable, and thus reduces the trash problem.
 - d. Growing mycelium composite packaging materials industrially will always be more eco-friendly compared to growing it at home.

Directions: Use the scenario below for question 3.

Scenario: You make birthday cards for your friends. You start by making paper from recycled packaging paper you have at home. You dry the paper in the sun, and dry wildflowers into the paper as decoration.

3. **What factors make this homemade card likely to come out on top of a life cycle assessment compared to a similar store-bought card? (Select all that apply.)**
- a. Per card made, less energy is used in recycling the paper at home compared to industrially.
 - b. Per card made, more water is used in recycling the paper at home compared to industrially.
 - c. You source the raw materials locally.
 - d. Transportation of the final product has been cut out.

Directions: Use the scenario below for questions 4-5.

Scenario: You friend starts a cookie business and claims her cookies are eco-friendlier than store-bought organic mass-produced cookies. She uses only organic ingredients bought at a grocery store. The packaging of both types of cookies is similar.

4. **Use the life cycle assessment tool to explain how your friend's cookies could be MORE ecofriendly compared to the store-bought cookies. Mention at least three stages of the life cycle of the cookies in your scenario.**

5. Use the life cycle assessment tool to explain how your friend's cookies could be **LESS** ecofriendly compared to the store-bought cookies. Mention at least three stages of the life cycle of the cookies in your scenario.