

## “Ecosystems as Open Environment”

### Choose the correct answer

**1. What two things must an organism exchange with the environment to be considered an open system?**

- A. Heat and Waste
- B. Energy and Matter
- C. Carbon Dioxide and Water

**2. What is the ultimate starting source of new energy for almost all ecosystems?**

- A. Food
- B. Heat
- C. The Sun

**3. What happens to most of the energy every time it moves along the food chain (e.g., when a deer eats grass)?**

- A. It is converted to matter.
- B. It is stored for later use.
- C. It is lost as heat into space.

**4. How does the flow of energy differ from the flow of matter (like water or dirt) in an ecosystem?**

- A. Energy is recycled, but matter is a one-way street.
- B. Energy is a one-way street, but matter is recycled.
- C. Both energy and matter are entirely lost and must be replaced.

**5. Besides recycling materials internally, what can bring in new matter from the outside?**

- A. By releasing heat.
- B. By losing matter like a river flowing out.
- C. By bringing in new water (rain).



**Are the following statements true or false?**

The "materials" or "matter" in an ecosystem, such as carbon and water, are constantly being recycled.	<b>TRUE</b>	<b>FALSE</b>
An ecosystem can lose some of its matter to the outside, such as when a river flows out, which is why it is considered an open system.	<b>TRUE</b>	<b>FALSE</b>
When an animal eats a plant, most of the plant's energy is retained by the animal and is passed on to the next consumer.	<b>TRUE</b>	<b>FALSE</b>
An organism is considered an open system because it only exchanges energy, not matter, with its environment.	<b>TRUE</b>	<b>FALSE</b>
The energy an ecosystem gets from the Sun is recycled and reused constantly as it moves through the food chain.	<b>TRUE</b>	<b>FALSE</b>

