

IGCSE Biology

Name: _____ Score: _____

1. The original source of energy for almost all ecosystems is the:

- ☐ Sun
- ☐ water
- ☐ soil
- ☐ wind

2. In a food chain, the arrows show the direction of:

- ☐ energy flow (from eater to food)
- ☐ energy flow (from food to eater)
- ☐ water movement
- ☐ oxygen flow

3. A trophic level is:

- ☐ a habitat
- ☐ a feeding stage in a food chain
- ☐ a type of producer
- ☐ a decomposer

4. Which process removes carbon dioxide from the air?

- ☐ decomposition
- ☐ combustion
- ☐ respiration
- ☐ photosynthesis

5. Why can't plants use nitrogen gas from the air directly?

- ☐ there is too little of it
- ☐ it is too heavy
- ☐ it is poisonous
- ☐ it is unreactive

6. Which are limiting factors on a population? (Select all that apply.)

- ☐ predators
- ☐ sunlight on the Moon

☐ food supply

☐ space

Tick every correct option.

7. Energy is recycled within an ecosystem, just like nutrients.

☐ True ☐ False

8. Decomposers break down dead matter and recycle nutrients.

☐ True ☐ False

9. Roughly what percentage of energy is passed to the next trophic level?

10. Burning fossil fuels releases extra carbon dioxide into the air.

☐ True ☐ False

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1. **Sun**

Producers capture the Sun's energy.

2. **energy flow (from food to eater)**

Arrows point from the eaten to the eater.

3. **a feeding stage in a food chain**

Each feeding stage is a trophic level.

4. **photosynthesis**

Photosynthesis fixes CO₂ into glucose.

5. **it is unreactive**

N₂ is unreactive; it must be turned into nitrates.

6. **predators; food supply; space**

Food, space and predators limit growth.

7. **False**

False. Energy flows through an ecosystem and is lost as heat at each level, so it must be resupplied by the Sun. Only nutrients are recycled.

8. **True**

Bacteria and fungi recycle nutrients back to the soil.

9. **10**

About 10% is passed on; the rest is lost.

10. **True**

It frees carbon locked away for millions of years.