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

exercises.lol exercises.com.cn

   ☐ 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

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 CO_2 into glucose.

5. **it is unreactive**

   N_2 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.

exercises.lol exercises.com.cn