

Name: \_\_\_\_\_ Ecology Quiz (9/25) - Guided Notes for Studying

**BE SURE TO USE YOUR SCIENCE COMPOSITION NOTEBOOK WHEN STUDYING!**

Identify the 6 characteristics of all living things and the 6 needs that they have in order to stay alive

Characteristics of Living Things	Needs of Living Things
1) _____	1) _____
2) _____	2) _____
3) _____	3) _____
4) _____	4) _____
5) _____	5) _____
6) _____	6) _____

Explain the difference between biotic and abiotic factors in an ecosystem

	Abiotic	Biotic
<b>Definition</b>		
<b>Examples (4 for each term)</b>	- -	- -

Name and describe the ecological levels from organism to biosphere

### Ecological Levels of Organization

	Level	Definition/ Description of Level	Example
<b>smallest</b>			A single rabbit
			All the deer living in an area
			All the giraffes, trees, grass, hyenas, and lions living in an area
			Animals, plants, bacteria, rocks, sun, air, clouds
			Deciduous Forest, Tropical Rainforest, Desert, Grassland, etc.
<b>largest</b>			Earth's land and oceans

## Analyze how abiotic and biotic factors may limit the size of a population

1) Define Limiting Factors: \_\_\_\_\_

2) Read the story below, then fill out the chart.

Farmer Jones raises chickens on his farm. However, he has recently been experiencing several problems on his farm that could affect his animal's population. First, the coyotes that live in the nearby woods have been coming down at night and trying to attack the chickens. Also, it has been raining much more than usual. This has caused parts of the chicken coop to flood. Therefore, the chickens do not have a lot of room to walk around or lay their eggs. This is causing them to fight and peck at each other. Farmer Jones is very frustrated and needs to figure out how to prevent these limiting factors from causing his chicken population to decrease!

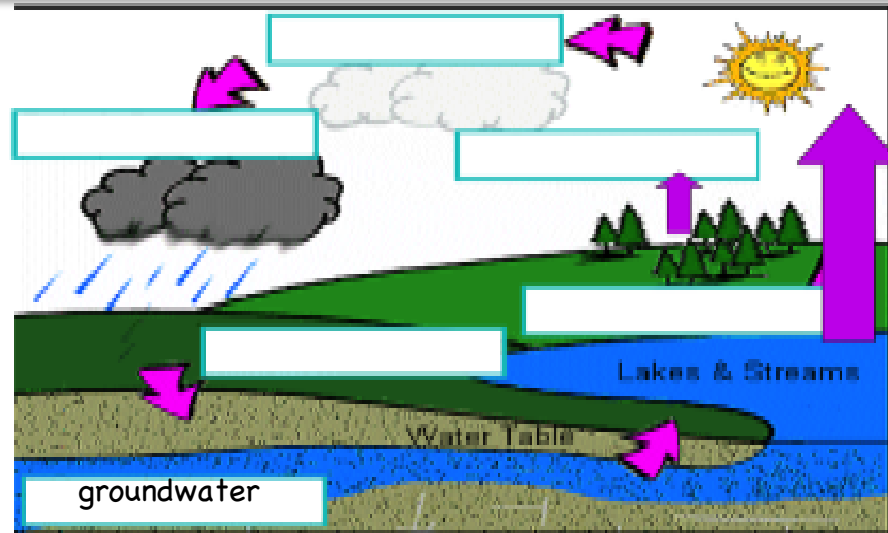
<b>Abiotic Limiting Factors that may cause the population of species to decrease</b>	<b>Biotic Limiting Factors that may cause the population of species to decrease</b>
1)	1)
2)	2)

Identify and describe the steps of the water cycle to explain how water cycles through an ecosystem using the Sun's energy

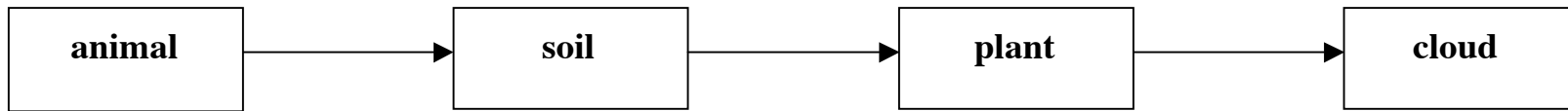
1) Complete the water cycle diagram by writing the correct process in each box.

**Word Bank:**

condensation  
 evaporation  
 runoff  
 precipitation  
 transpiration



2) On each arrow, write the correct process that causes a water droplet to travel from one place to another.



Explain how carbon and oxygen cycle through an ecosystem.

1) Name two carbon sources: \_\_\_\_\_, \_\_\_\_\_

2) Name two carbon sinks: \_\_\_\_\_, \_\_\_\_\_

2) What is the name of the process in which plants remove carbon dioxide from the air and release oxygen? \_\_\_\_\_

3) Explain both the beneficial AND harmful effects of carbon on the Ocean. \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Identify how nitrogen cycles through an ecosystem by decomposition and nitrogen fixation.

Place the pictures/descriptions in order

1st	
2nd	
3rd	
4th	
5th	
6th	



Animals get nitrogen by eating plants.



Bacteria break down wastes and dead matter, releasing usable nitrogen compounds into the soil and nitrogen gas into the air.



Animals release waste/ feces



Plants and animals die and decompose.



Nitrogen-fixing bacteria in the soil (and in root nodules) turn nitrogen gas into usable nitrogen compounds



Plants absorb usable nitrogen through their roots.