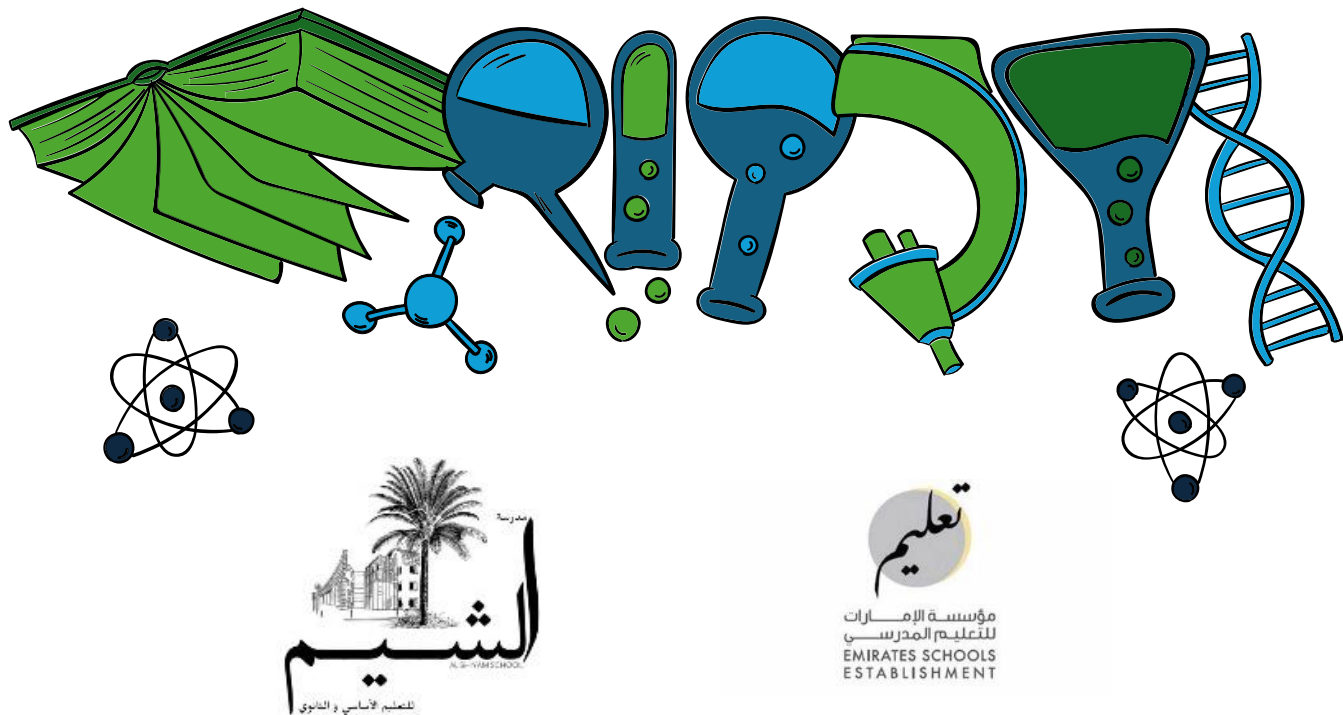




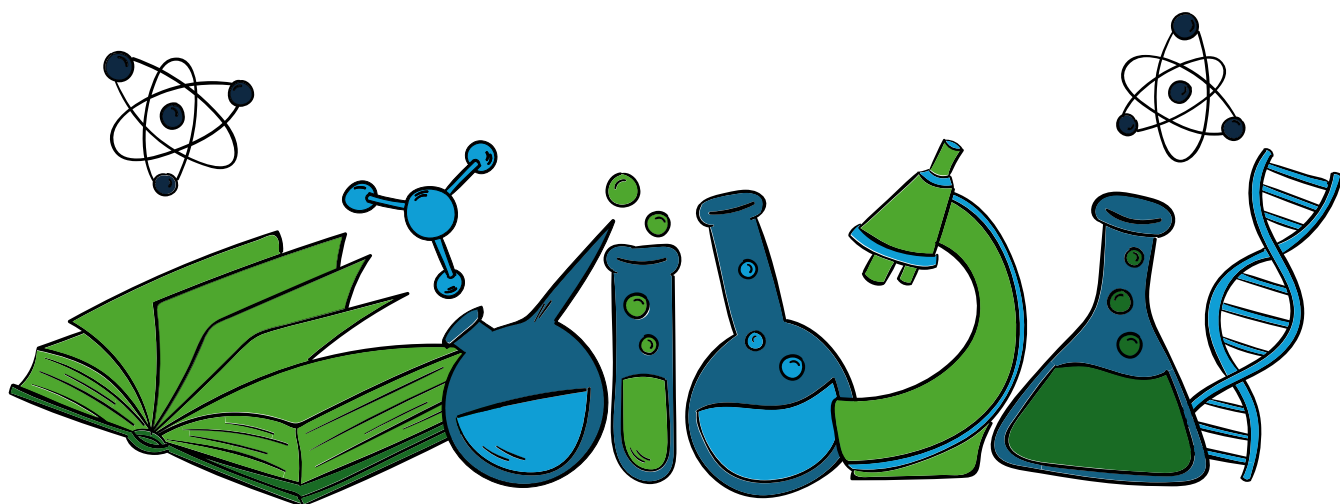
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Science

Grade 5G

Term 3 2023-2024

Done by: Eiman Alshamsi & Reem Alrashdi



ابنتي الغالية

قطعنا شوطا كبيرا هذه السنة

تغيرنا جميعنا

تعلمنا شيئا جديدا

اكتسبنا مهارة جديدة

نحن نتطور وما زلنا نتطور

وها هنا نحن على أشرف النهايات

نهاية عام 2023-2024 الدراسية

نتطلع إلى نهاية سعيدة لتفوق مستحق ونجاح مستحق

فليكن شعارك:

1. أنا أقرأ

2. أنا أفهم

3. أنا أحدد المطلوب

4. أنا أعرف مفتاح الحل

5. أنا أختار الاختيار الصحيح وأكتب الإجابة الصحيحة

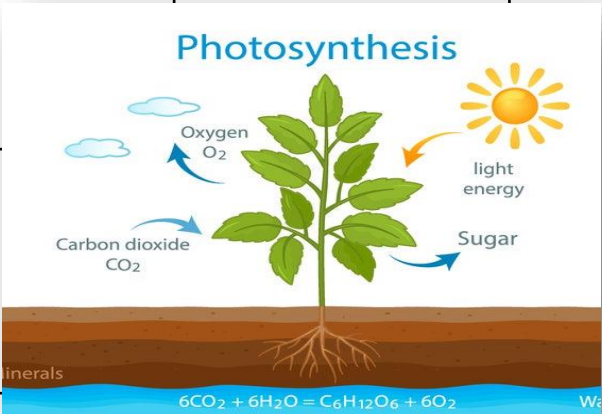
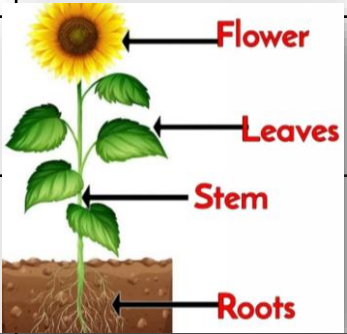
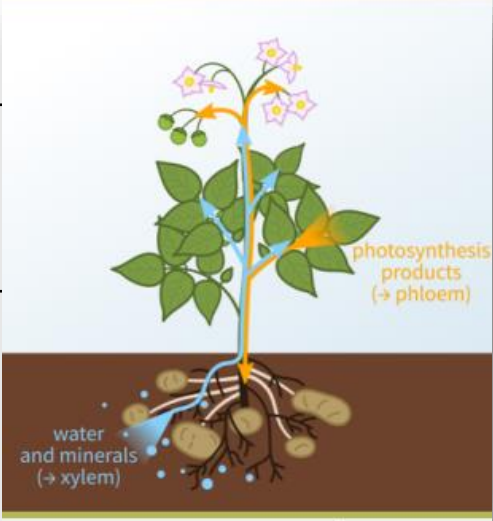
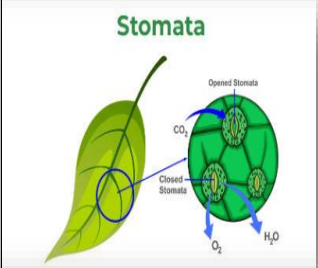
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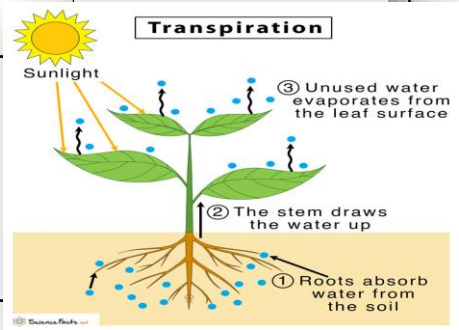
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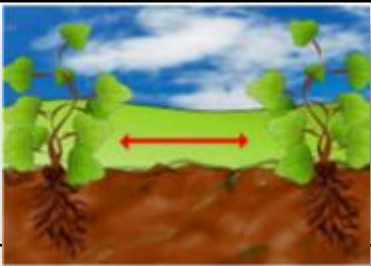
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على الإطلاق

Plant survival pages10-11

Question	Answer key	Note
What is Energy ?	ability of work	
Which type of energy does plant need to make it is own food or sugar ?	Plant need sunlight energy to do sugar	
Which type of energy does plant need to survive and grow ?	Plant use sunlight energy to make sugar then use sugar energy to survive and growth	
Plant structure: plant part	Root ,stem,leave,stomata ,xylem,phloem	
What is the role of root ?	Take in water from soil Take in nutrient from soil	
What is the role of stem ?	Transport water	
What is the role of leave ?	Make sugar	
What is the role of xylem ?	Is Tissue that Transport water Found in stem	
What is the role of phloem ?	Is Tissue that Transport sugar Found in leaves	
What is the role of stomata ?	Is tinny opening allowing air to enter found in leaves Air : 1. Carbon dioxide in 2. Oxygen out	
What is the Transpiration ?	Evaporation of water from plant's leave Water vapor Happen by Stomata	



Question	Key words	Note
How does leave make sugar ?	<u>Water and carbon dioxide combine with presence of sunlight to produce sugar and oxygen</u> Water + carbon dioxide + sunlight =sugar + oxygen	So, sugar is making in morning
What does plant need to live and grow?	1. Water 2. Air 3. Sunlight 4. Space 5. Nutrient	
Why plant need enough space ?	1. Spread out their roots to get enough water and nutrients from soil	
What affect plant growth ?	1. Amount of sunlight 2. Amount of water 3. Amount of air	
Why is soil important for plant growth ?	Give nutrient to plant	
Why are water and air important for plant growth ?	To make energy or sugar or food	

	Root	stem	Leave
matter	Absorb : 1. Water 2. nutrients	Transport water	Take in sunlight energy Take in carbon dioxide Take out oxygen Take out water vapor Make sugar

	Xylem	Phloem	Stomata
Matter	water	sugar	Air Carbon dioxide Oxygen Water vapor

Question 1

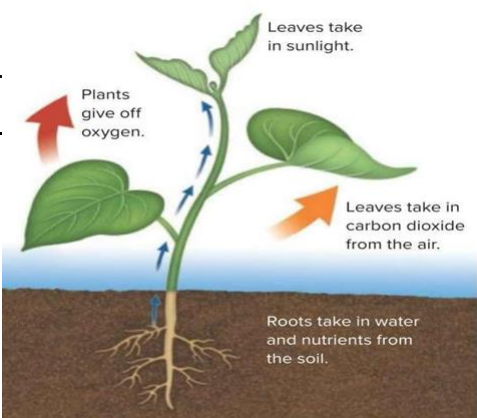
which plant parts have a role to obtain energy, water, and air?

In which tissue of plant does water transportation occur?

In which tissue of plant does sugar transportation occur?

which plant structure provide movement of matters such as oxygen, carbon dioxide and water vapor?

Which is the name of process of releasing water vapor from plant's leaves?



Some plant like cacti can survive in hot area and adapt to little rain. why would be an advantage that cacti has a waxy stem?

.....

.....

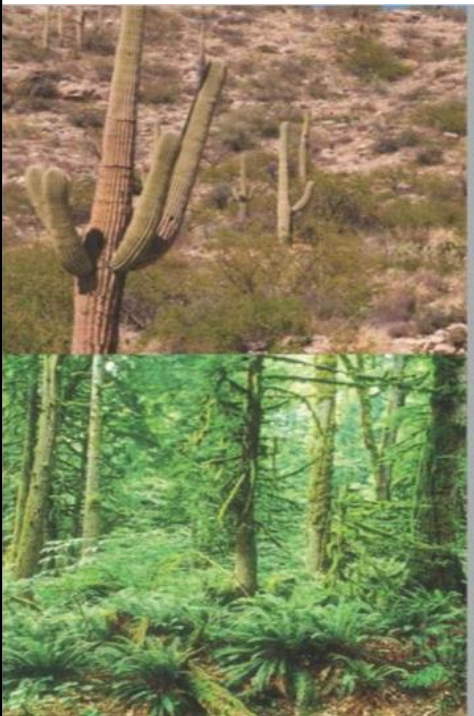
.....

In the rain forest some plant climb high into the tree canopy .why this would be an advantage?

.....

.....

.....



4. **MATH Connection** Parker investigated how the amount of sunlight affects plant growth. Using his data below, calculate the average growth of each plant. Assume that each plant was provided 20 mL of water per day.

	Amount of Sunlight Per Day	Height in Week 1	Height in Week 2	Height in Week 3	
Plant A	4 hours	1 cm	3 cm	6 cm	
Plant B	8 hours	1.5 cm	4 cm	8 cm	
Plant C	16 hours	1 cm	2 cm	3 cm	

Which is the **highest** plant?

.....

Why is the plant C shorter than plant A?

.....

In general, what could you **conclude** from the result?

.....

.....

What other factors can **affect plant growth**?

.....

Why **sunlight** is important for plant survival?

.....

Some farmers growing plants without soil, how will plant survive without **soil**?

.....

.....

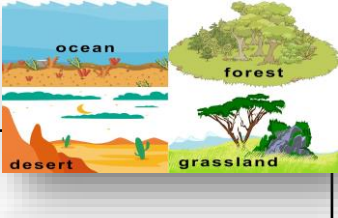
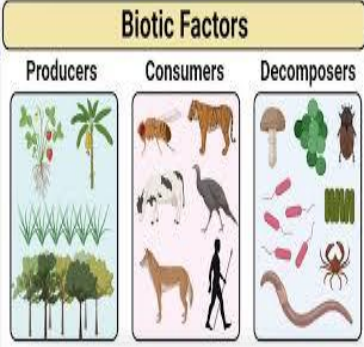
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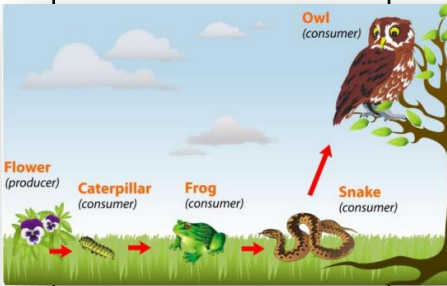
Some plants spread it is **root in air**, how could this plant get **water and nutrients**?

Plants that are spreading their roots in air ,grow in **very wet area** and their **leaves absorb water and nutrients**



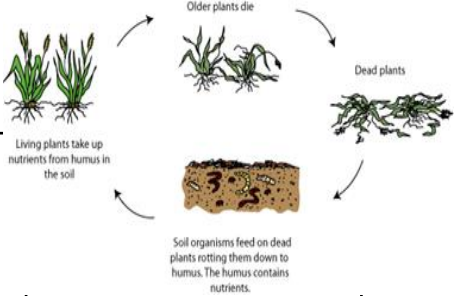
Interactions of living things pages 26-31

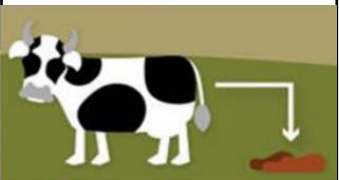
Question	Answer key	Note
What is ecosystem?	made up living things and nonliving things in an environment	
What is biotic factors?	living things or organisms Animal+plant+human	
What is abiotic factor?	non-living things water +air+sun+soil	
What is habitat?	the place in an ecosystem where an organisms live	
What is niche?	special role of organisms in the habitat	
What is producer?	make it is own food Plant	
What is consumer?	need food from other living things Animals + human	
What is predator?	organisms that hunt for food	
What is prey?	the organisms that eaten or hunted by predator	
What is herbivore consumer?	eats plant	
What is carnivore consumer?	eats others animal (meat)	
What is omnivore?	Eats both plant and animal	

Why is predator important in ecosystem?	to control number of prey so plants or producers and other nonliving resources like water and air are save or not run out	
Why is important to control number of prey population?	to save resources of earth like water and plants Because prey eats plants	
What would happen to the population of rabbits if number of foxes increased?	rabbits is a prey that will be hunted by fox predator, so number of rabbits in the ecosystem will decrease	Increase = زيادة Decrease = نقصان
What is the niche of earthworm in the forest?	Break down plant matter	
How does living things interact with each other in ecosystem?	living things interact with each other by giving energy or nutrients to each other Like rabbit eat plant to get energy from plant Rabbit give energy to fox when fox eat rabbit	
How does living things and nonliving things interact with each other in ecosystem?	Living things can cycle the matter of nonliving things Like water cycle through transpiration happen by plant's leaves Nitrogen cycle through bacteria Oxygen cycle and carbon dioxide cycle through plant and animal	Nonliving give resources to living thing survive Like water Shelter Air

Question	Answer key	Note
What is invasive species?	an organisms that is introduced to a new ecosystem and causes harm	 The cone toad (ضفدع) was introduced to Australia to eat beetles (خنفساء)because beetles were eating sugar cane crops محاصيل قصب السكر Cane toad has toxic skin so no predator will eat the cone toad
What harms could cause by invasive species?	1. health 2. environment 3. economy	
How does organisms become invasive ?	When No one can hunt it or eat it so number of invasive organism increasing with out control	
Why invasive has bad or negative impact in ecosystem?	Compete other organisms for food resources ,water and shelter or habitat	
What does interaction mean?	1) explain how living things need other living things to survive .Like rabbit eat plant 2) Explain how living things need nonliving to survive Like rabbit need water or home	

Role of decomposers pages 42-43

Question	Answer key	Note
What is decomposition ?	is breaking down or decaying of plant and animal material .	
What is decomposers ?	are organisms that break down plant and animals matter	
What are examples of decomposers ?	earthworm Insects Bacteria Fungi	 Worm Mushroom Insects Bacteria
What is bacteria ?	Bacteria are a type of organism made up of a single cell	
What is fungi ?	is a type of decomposer comes in many forms	
What are examples of fungi ?	Yeast Mushroom Mold Mildew	
What are the differences between fungi and plant ?	- plant makes its own food Fungi break down plant and animal matter to make food	
What is the role of decomposers in ecosystem?	Break down plant and animal matter to return nutrients to the soil	 Nodules can appear on roots where bacteria change nitrogen.
What is the role of bacteria that live in root ?	change form of nitrogen to new form that can plant absorb by roots	
How adding molded fruit or waste food can benefit to soil health ?	Mold is a fungi which is type of decomposers that help to give nutrients to soil	

What is compost heap ?	Waste from food or animal's waste	سماد
Why compost heap is important to soil?	because compost heap have large number of decomposers like mold ,bacteria and fungi which help breaking down dead matter and giveback nutrient to soil	

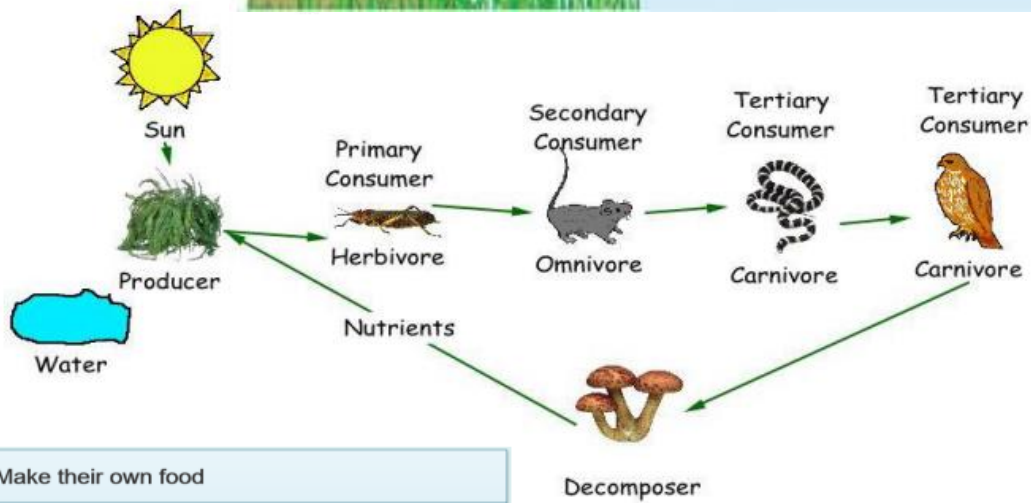
Summary

- 1. ecosystem= biotic +abiotic factors
- 2. **Biotic** like plant +animal+human+decomposers
- 3. **Abiotic** like water+air+rocks +sun light
- 4. All factors are interacting with each other to **provide life**
- 5. All factors are important because each factors have **niche (job)**
- 6. Plants do it is own food or energy,
- 7. **plants give energy** to other living things because they are

producer

- 8. **Animals and humans** either **give or take** energy because they are **consumer**

- 9. **Decomposers** give **nutrients**



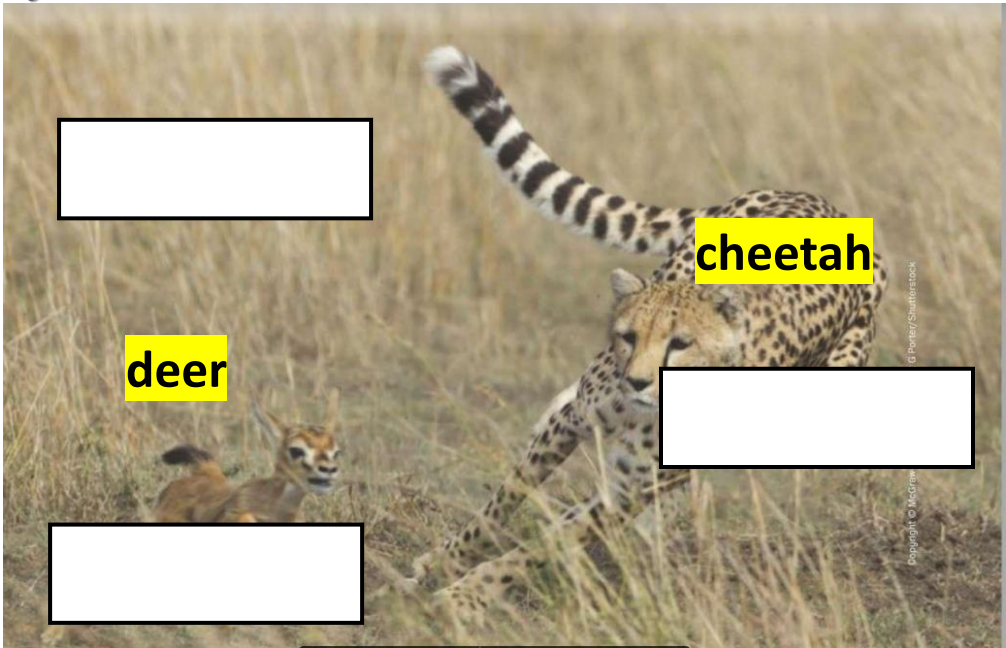
Producers	Make their own food
Consumers	Needs food from other sources
Herbivores	Eat plants
Carnivores	Eat other animals
Omnivores	Eat both plants and animals
Predators	An animal that hunts other animals for food
Prey	Animals that are eaten by other animals

1. Use word bank to label each elements of the picture below

producer

predator

prey



What is the **habitat** of deer and cheetah?.....

Which is an example of **carnivore's consumer**?.....

What is the **niche** of **grasses**?.....

Which is an examples of **abiotic factors**?.....

Which are an examples of **biotic factor**?.....

Name a **producer**.....

Name an **herbivore**.....

What would happen to deer and cheetah population if an **invasive species** of **plant** was introduced into the ecosystem that **competed** with **deer food**

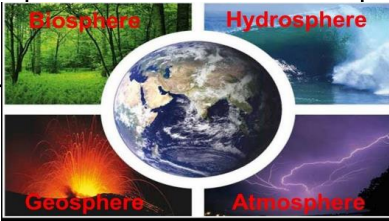
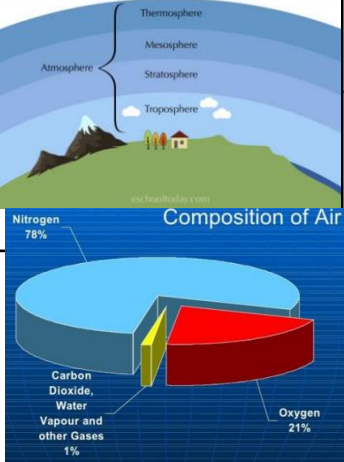
.....
.....
.....
.....

How **many consumers** in the picture?.....

what would happen to the **body of cheetah** after

die?.....
.....

Earth’s system page 66

Question	Answer key	Note
What are Earth’s system?	Systems are a collection of different components that all work together	
Are all Earth’s system work together?	yes all Earth’s system work together Interact with each other	
What is atmosphere?	is layer of gases surrounding Earth	
What are examples of atmosphere?	Nitrogen Carbon dioxide Oxygen Water vapor	
What is geosphere?	solids and molten rocks inside Earth	
What are examples of geosphere?	Soil Rocks Land features like: mountain, hills ,volcanoes	
What is hydrosphere	Liquid and solid water found in Earth	
What are examples of hydrosphere?	Ocean River Glaciers Ice caps	Covers more than 70% Salt water (ocean) Fresh water (ice)
What is biosphere?	all living things	
What are examples of biosphere?	Plants Animals Human Decomposers	



Which type of **earth's system** does **river** belong to?.....

List examples of **geosphere components** from the picture above

- 1.
- 2.
- 3.

Which best describe the system **of gases** that surrounding earths
?.....

List examples of **biosphere** components from the picture above

- 1.
- 2.

Cycles of matter in Ecosystem

pages 82-84

Question	Answer key	Note
What is the water cycle ?	Continuous movement of water between earth's surface or air	Water changes among three states of matter Gas, liquid and solid
What is evaporation ?	water change from liquid to gas in the form water vapor	Water goes to atmosphere Liquid to gas
what is transpiration ?	water evaporates from plant's leaves	One way water vapor returns to atmosphere
Which energy cause water evaporates	Sun energy	
What is condensation ?	Water vapor cools(gas) and changes to liquid Forms clouds	Gas to liquid
What is precipitation ?	water falls from clouds	Water return to the Earth's surface
What are forms of precipitation ?	1. Rain 2. Sleet 3. Snow 4. Hail	Sleet :solid Snow: solid Hail: solid Rain: liquid
What is runoff ?	Water flows on earth and gathers in lakes, streams, ocean and groundwater	
Which type of water could plant absorb from the soil ?	Groundwater	



1. Complete the diagram above with missing vocabularies in the blank boxes
2. Which **earth's system** does **water vapor** rise into?.....
3. Which **type of water** does plant absorb from the **soil**?.....
4. Which the **name of this cycle**?.....
5. Which is the main source of **energy** needed for this cycle?.....
6. Which best describe the process of **falling liquid water from clouds** such as rain ?.....
7. Which best describe the process of **forming clouds** ?.....
8. Which **plant's structure** release **water vapor** during **transpiration**?.....

Question	Answer key	Note
What is the nitrogen cycle ?	Continuous circulations of nitrogen from air to soil to organisms and back to air or soil	Air is made up 78% of nitrogen(gas) not all living things can take nitrogen gas
Which nitrogen form can be absorbed by roots in plant ?	plant can not take nitrogen gas from air but take nitrogen liquid form from soil	 Nodules can appear on roots where bacteria change nitrogen.
Why nitrogen is important for plant growth ?	nitrogen is important for plant to make protein Protein and nitrogen are parts of nutrients	
How does plant can take in nitrogen?	Bacteria build up nodules appear in roots where can change nitrogen gas into a form plants can use	
Which process could fix nitrogen gas to form can plant absorb ?	Bacteria that live in the roots Volcanic activity and lightning	
How does nitrogen go to animals ?	Animals that eats plant such as cows ,will get nitrogen from plant they ate	Herbivore consumer take nitrogen from plant
How does nitrogen return to soil again ?	As animals eats plants after eating , animals release waste that have nitrogen	
How does nitrogen return to the air or atmosphere again ?	Decomposers also break down dead matter of plant and animal and give back nitrogen to air	

Summary

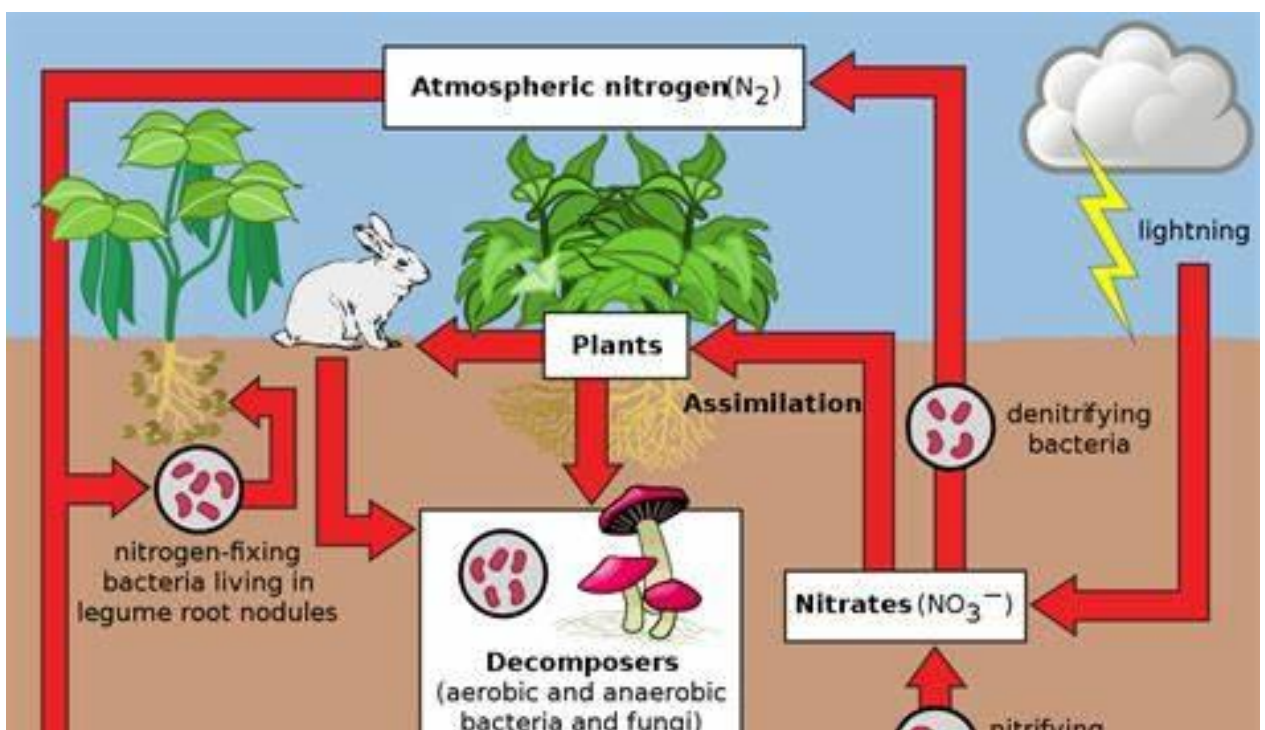
Nitrogen is existing in air need to be fix before other organisms take or can use

It can be fix into two ways:

1. Bacteria live in roots (nodules)
2. Volcanic and lightning

Nitrogen return to soil or geosphere because of animal waste

Nitrogen return to air or atmosphere because of decomposers





☐ How can nitrogen be absorbed by plant?

.....

☐ What is the role of bacteria live in plant's roots?

.....

☐ How can nitrogen return to the atmosphere?

.....

☐ How can nitrogen return to soil?

.....

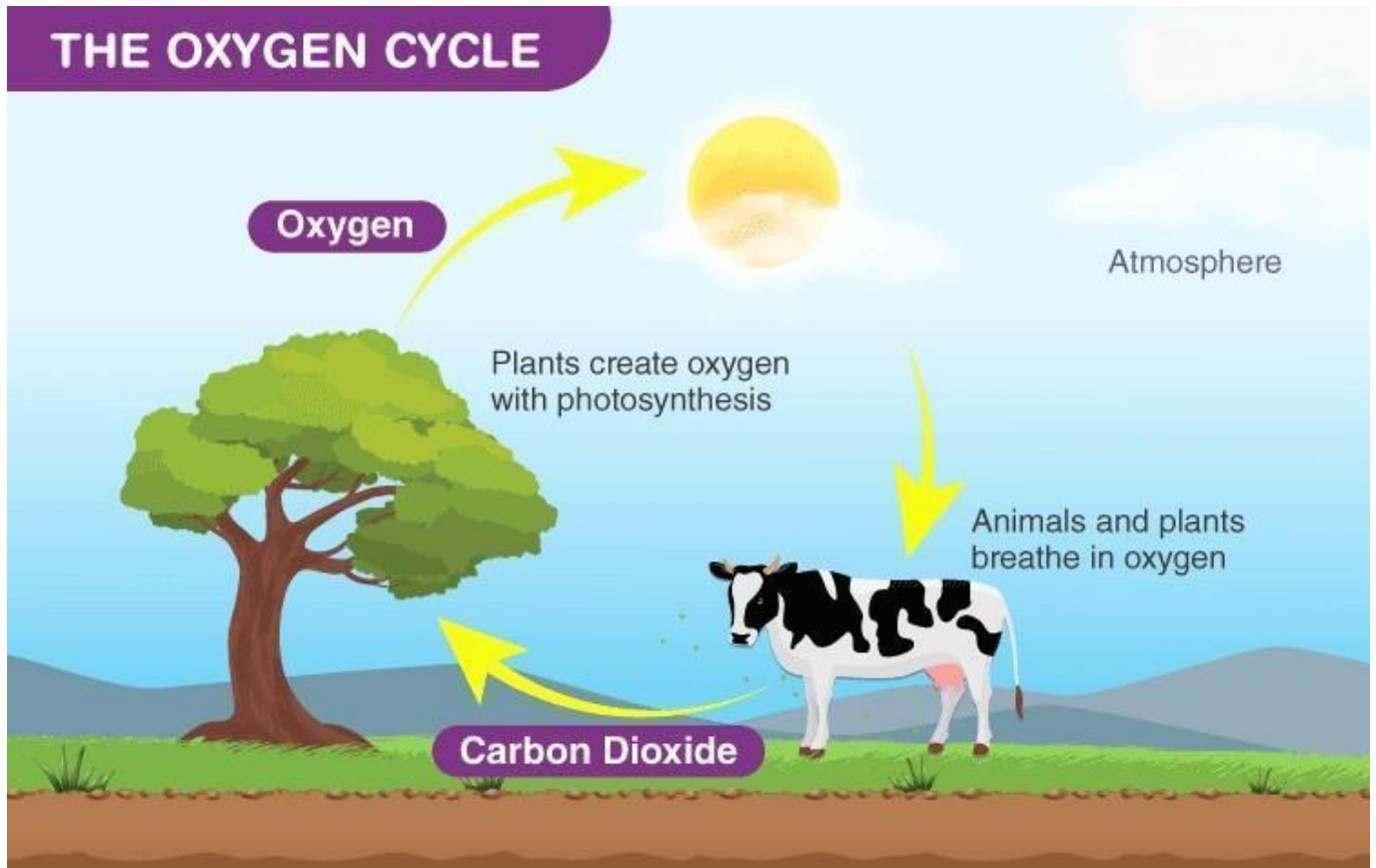
☐ What is the role of decomposers in the nitrogen cycle ?

.....

☐ What is the role of herbivore consumer in the nitrogen cycle?

.....

THE OXYGEN CYCLE



Plant :

1. Take in carbon dioxide to make sugar
2. Take out oxygen as waste

Animal :

1. Take in oxygen to survive
2. Take out carbon dioxide as waste