

تم تحميل هذا الملف من موقع المناهج الإماراتية



أسئلة مراجعة نهائية هيكل منهج انسابير

موقع المناهج ← المناهج الإماراتية ← الصف السابع ← علوم ← الفصل الأول ← ملفات متنوعة ← الملف

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ملفات اكتب للمعلم اكتب للطالب الاختبارات الكترونية الاختبارات ا حلول اعروض بوربوينت ا أوراق عمل
منهج انجليزي ا ملخصات وتقارير ا مذكرات وبنوك الامتحان النهائي للمدرس

المزيد من مادة
علوم:

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التواصل الاجتماعي بحسب الصف السابع



صفحة المناهج
الإماراتية على
فيسبوك

الرياضيات

اللغة الانجليزية

اللغة العربية

التربية الاسلامية

المواد على تلغرام

المزيد من الملفات بحسب الصف السابع والمادة علوم في الفصل الأول

الهيكل الوزاري الجديد المسار العام منهج انسابير

1

الهيكل الوزاري الجديد المسار العام منهج بريدج

2

اختبار القياس الدولي IBT متبوع بالإجابات

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ملخص وأوراق عمل الدرس الأول Ecosystems in Resources منهج انسابير

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عرض بوربوينت درس المخاليط

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مراجعة هيكل العلوم صف سابع

انسبير

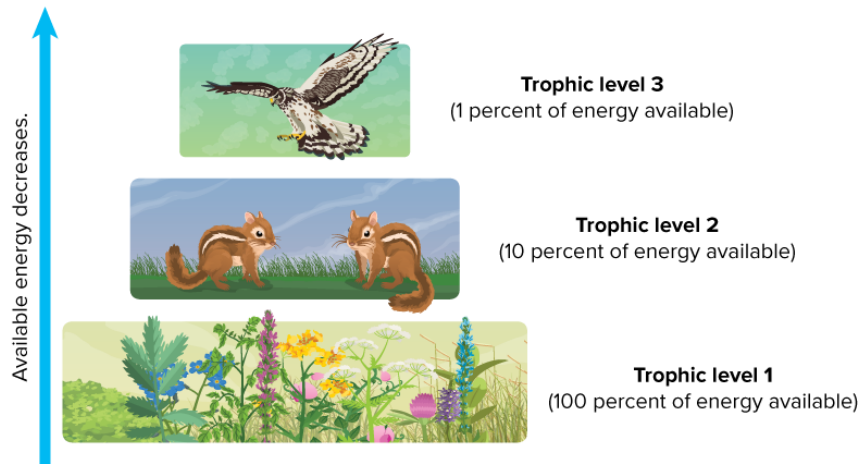
EOT REVISION Grade 7 T-1

Answer

الحلول



Grade 7 Inspire Science
Term 1 EOT Coverage



19. Which of the following is TRUE about an energy pyramid?

- a) It shows how energy decreases at higher trophic levels
- b) 90 % of energy is transferred from one trophic level to the next one.
- c) It includes only herbivores
- d) It includes decomposers

20. How much energy is typically transferred from one trophic level to the next in an energy pyramid?

- a) 1%
- b) 10%
- c) 25%
- d) 50%

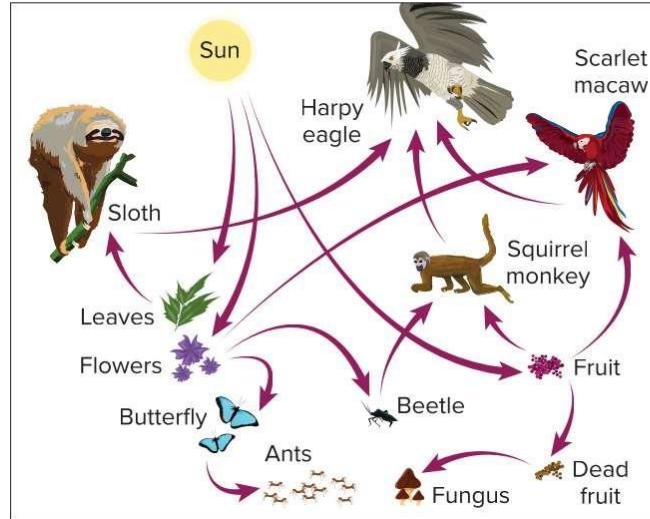
21. Why is less energy available at higher trophic levels?

- a) Energy is lost as heat
- b) Producers do not store energy
- c) Only herbivores can use the energy
- d) Energy is used for reproduction only



Three-Dimensional Thinking

2. Analyze the food web. Which statement is correct?



- A The model tracks the transfer of energy as energy flows in this ecosystem.
- B The transfer of matter back into the environment occurs only at the detritivore level.
- C The model shows the transfer of matter only.
- D The decomposers in the model use matter but not energy for their life processes.
-
3. In an energy pyramid, approximately 10 percent of the energy available in one trophic level is transferred to the next level. Which statement helps explain why this occurs?
- A Consumers eat both producers and other consumers.
- B Organisms use most of the available energy to fuel their own life processes.
- C Predators eat more organisms in their own level than organisms in other levels.
- D Producers exist in only the lowest level of the pyramid.

Which of the following is an example of resource extraction that can disrupt ecosystems?

- A) Using solar panels for energy
- B) Planting more trees in urban areas
- C) Mining for minerals and deforestation
- D) Practicing crop rotation on farms



How can oil drilling negatively impact aquatic environments?

- A) By providing more habitats for marine animals
- B) By causing soil erosion along coastlines
- C) By leading to oil spills that devastate aquatic life
- D) By creating more food resources for fish

What effect can air pollution from human activities have on ecosystems?

- A) It provides additional nutrients for plant growth.
- B) It causes harmful gases to enter the atmosphere, impacting plant and animal life.
- C) It improves the reproductive rate of native species.
- D) It only affects human health and no other organisms.

What is eutrophication, and how does it relate to pollution?

- A) It is the process of removing nutrients from soil, caused by natural disasters.
- B) It is the accumulation of pollutants in water that leads to an excess of nutrients, harming aquatic ecosystems.
- C) It is the introduction of nonnative species that reduces biodiversity.
- D) It is the recovery of ecosystems after a natural disturbance.

Which of the following is a direct consequence of introducing nonnative species into an ecosystem?

- A) Increased food sources for native predators.
- B) Stabilization of the ecosystem by filling empty niches.
- C) Disruption of existing populations and potential extinction of native species.
- D) Reduced competition and increased cooperation among species

Which of the following is **NOT** from the negative impacts of sedimentation?

- A. Coastline alteration
- B. Increase visibility for animals to find food in water
- C. Cover habitats of fish or other animals
- D. Clog waterways and flooding

Which of the following is an example of a **natural disruption** that can change an ecosystem?

- A) Deforestation
- B) Drilling for oil
- C) Forest fire
- D) Building a dam

How can natural disturbances like forest fires **benefit** an ecosystem?

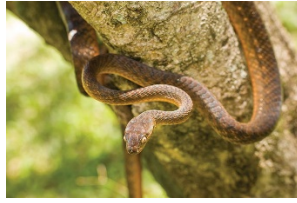
- A) By decreasing the diversity of plant life
- B) By increasing the number of pollutants
- C) By controlling the size of certain populations and allowing new plant growth
- D) By causing habitat loss and soil erosion

What is one major consequence of habitat loss due to deforestation?

- A) Increased food sources for animals
- B) Disruption of forest ecosystems
- C) Decreased extraction of natural resources
- D) Improved air quality

How does pollution typically affect populations in an ecosystem?

- A) It increases the variety of species in the area.
- B) It decreases the amount of available nutrients for organisms.
- C) It prevents nonnative species from entering the ecosystem.
- D) It causes a more stable environment for native species.



What impact do nonnative species typically have on ecosystems?

- A) They help native species thrive by providing additional food.
- B) They usually decrease competition among native species.
- C) They can lead to overcrowding and competition, disrupting native populations.
- D) They always benefit the ecosystem by increasing biodiversity.

What does the *Law of Conservation of Energy* state?

- A) Energy can be created but not destroyed.
- B) Energy cannot be created or destroyed, only transferred or transformed.
- C) Energy can be destroyed but not transferred.
- D) Energy is always lost in every transfer.

How does the *Law of Conservation of Energy* relate to maintaining the human body temperature of 37 degrees Celsius?

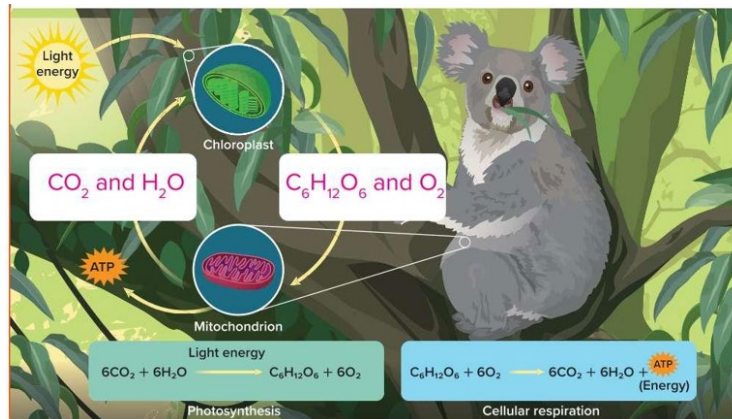
- A) The human body generates new energy to maintain its temperature.
- B) Energy consumed as food is converted to maintain body functions, including temperature.
- C) Energy is continuously lost, and new energy is created to sustain body temperature.
- D) The body does not need energy to maintain its temperature.

How do different organisms obtain energy?

- A) All organisms get energy directly from the Sun.
- B) Only plants get energy from the Sun;
animals get energy by consuming other organisms.
- C) Organisms get energy by absorbing it from the air.
- D) Plants and animals both directly consume get energy by photosynthesis.

**Why does energy flow in an ecosystem rather than cycle?**

- A) Energy flows because it eventually returns to the Sun.
- B) Energy flows because it moves from one organism to the next and does not return to its original source.
- C) Energy cycles because it is reused by each organism.
- D) Energy cycles between the Sun and organisms continuously.



What are the main *reactants* in photosynthesis?

- A) Glucose and oxygen
- B) Carbon dioxide and water
- C) Oxygen and water
- D) Carbon dioxide and glucose

What are the *products* of cellular respiration?

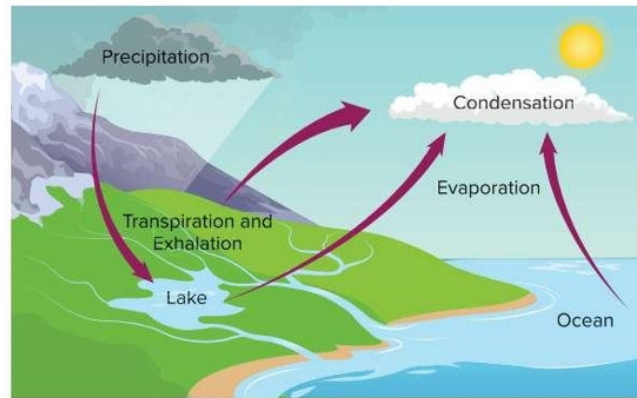
- A) Oxygen and glucose
- B) Carbon dioxide, water, and energy
- C) Water and oxygen
- D) Carbon dioxide and glucose

Why is cellular respiration essential for animals?

- A) It releases oxygen needed by animals to survive.
- B) It breaks down food to release energy for bodily functions.
- C) It helps animals produce their own food.
- D) It stores food for later use.

How do photosynthesis and cellular respiration relate to each other in plants?

- A) Photosynthesis provides the energy directly used by plants.
- B) Cellular respiration allows plants to use the energy stored in the glucose made during photosynthesis.
- C) Photosynthesis and cellular respiration are completely separate processes with no interaction.
- D) Cellular respiration produces oxygen, which plants use for photosynthesis.



Which of the following processes contributes to water vapor entering the atmosphere from plants?

- a) Evaporation
- b) Condensation
- c) Precipitation
- d) Transpiration

What happens to water after it falls to Earth's surface as precipitation?

- a) It only enters bodies of water
- b) It only soaks into the soil
- c) It either enters bodies of water or soaks into the soil
- d) It remains in the atmosphere

Which process in the water cycle involves water vapor cooling and forming clouds?

- a) Evaporation
- b) Precipitation
- c) Condensation
- d) Transpiration

Which stage of the water cycle can involve snow or hail?

- a) Evaporation
- b) Transpiration
- c) Precipitation
- d) Condensation

Which term describes a species that **no longer has any living individuals**?




- A) Threatened species
- B) Endangered species
- C) Extinct species
- D) Overpopulated species

Why did the population of the giant moa bird in New Zealand become **extinct**?

- A) They were overhunted by humans.
- B) A natural disaster wiped them out.
- C) They migrated to a different area.
- D) They lost their food supply due to climate change.

What is an **endangered species**?

- A) A species whose population is stable and thriving.
- B) A species that is at risk of extinction.
- C) A species that is overpopulated.
- D) A species that faces no environmental threats.

Type	Definition	Example	Benefits to One Species	Harm/Benefit to the Other Species
Mutualism 	Both species benefit from the relationship.	Clownfish and sea anemone	Clownfish gains protection from predators.	The anemone receives energy from clownfish waste.
Commensalism 	One species benefit, and the other is neither helped nor harmed.	Epiphytes (plants growing on tree trunks)	Epiphytes gain more space and sunlight.	The tree is neither helped nor harmed.
Parasitism 	One species benefit (parasite), while the other species is harmed (host).	Hunting wasp and spider	Wasp larvae feed on the spider for survival.	The spider is harmed by being paralyzed and eaten.

1. What type of symbiotic relationship exists between the Barbell fish and the hippos?

- A) Commensalism
- B) Parasitism
- C) Mutualism
- D) Predation

**2. Which of the following best describes mutualism?**

- A) One species benefits while the other is harmed.
- B) Both species benefit from the relationship.
- C) One species benefits while the other is unaffected.
- D) Both species are harmed in the relationship

3. In the relationship between clownfish and sea anemones, how does the sea anemone benefit?

- A) It receives protection from predators.
- B) It receives energy from the clownfish's waste.
- C) It is unaffected by the clownfish's presence.
- D) It uses the clownfish as food.

4. Which of the following is an example of commensalism?

- A) A hunting wasp laying eggs in a spider's body.
- B) Epiphytes growing on tree trunks for more space and sunlight.
- C) Barbel fish cleaning hippos' mouths.
- D) Clownfish living among sea anemone tentacles.

5. How does parasitism differ from mutualism?

- A) Both species are harmed in parasitism, while both benefit in mutualism.
- B) One species benefits and the other is harmed in parasitism, while both benefit in mutualism.
- C) One species is unaffected in parasitism, while both are unaffected in mutualism.
- D) Both species benefit in parasitism, while one benefits and the other is harmed in mutualism.

6. What is the role of the Barbel fish in its relationship with the hippos?

- A) It harms the hippos by feeding on their flesh.
- B) It benefits by cleaning the hippos and feeding on parasites.
- C) It is unaffected by the hippos' presence.
- D) It lays eggs inside the hippos to provide food for its larvae.

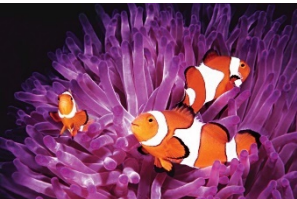



7. Which of the following describes a parasitic relationship?

- A) A bird building its nest in a tree.
- B) A wasp laying eggs inside a paralyzed spider.
- C) Barbel fish following and grooming hippos.
- D) A clownfish living among sea anemone tentacles.

8. In commensalism, how is one species affected?

- A) One species benefits, while the other is harmed.
- B) One species benefits, while the other is unaffected.
- C) Both species are harmed.
- D) Both species benefit.

9. Which of the following is a parasitic relationship?

A	B	C	D
			

10. Which of the following is an example of a cooperative relationship in ecosystems?

- A) A lion hunting a zebra
- B) Leafcutter ants carrying leaves to grow fungus for food
- C) A wolf competing with a raven for meat
- D) An osprey catching a fish

11. What is the primary benefit of predator-prey relationships in ecosystems?

- A) To increase prey populations
- B) To keep prey populations from growing too large
- C) To help predators find food more easily
- D) To promote competition among prey species

12. Which of the following best describes a competitive relationship in an ecosystem?

- A) One organism hunts and eats another.
- B) Organisms cooperate to find food.
- C) Organisms share the same habitat and compete for resources.
- D) Both organisms benefit from the relationship.

13. How do elephants benefit from cooperative relationships within their population?

- A) They hunt for food more effectively.
- B) They compete for sunlight and space.
- C) They raise their young and watch for predators together.
- D) They reduce their population size.

13. What is the role of predators in maintaining healthy prey populations?

- A) Predators help remove weak or injured individuals from prey populations.
- B) Predators help prey populations grow.
- C) Predators provide food and shelter for prey populations.
- D) Predators compete with prey for resources.

14. What type of relationship exists between leafcutter ants when they work together to carry leaves to their nest?

- A) Predator-prey relationship
- B) Competitive relationship
- C) Cooperative relationship
- D) Commensalism

15. Which of the following is an example of a predator-prey relationship?

- A) A group of elephants raising their young together.
- B) An osprey catching a fish.
- C) Trees competing for sunlight.
- D) Leafcutter ants working together to grow fungus.

16. How does competition affect the organisms involved in a competitive relationship?

- A) Both organisms benefit equally.
- B) One organism benefits while the other is harmed.
- C) Both organisms are harmed.
- D) One organism is harmed, and the other is unaffected.

17. Which of the following scenarios describes a cooperative relationship?

- A) Two trees growing taller to get more sunlight.
- B) An elephant helping another elephant watch for predators.
- C) A lion hunting and eating a zebra.
- D) A spider capturing an insect in its web.

18. What is the main role of predators in predator-prey relationships?

- A) To help the prey population grow larger.
- B) To reduce competition between prey species.
- C) To prevent prey populations from growing too large.
- D) To increase the number of weak individuals in the prey population.

19. Why do trees in a forest compete with each other?

- A) For water and nutrients only.
- B) For space to grow only.
- C) For sunlight, water, and nutrients.
- D) For predators to protect them.

20. How does living in groups benefit squirrel monkeys in a cooperative relationship?

- A) They can compete for the same food source.
- B) They increase the number of predators.
- C) They help each other find food and watch for danger.
- D) They reduce the size of the habitat.

21. Nada plants some flowers in a flower bed and then ignores them. Soon weeds grow and the flowers die. The weeds had been able to get enough resources to survive, while the flowers had not. This is an example of _____.

- A) competition
- B) population size
- C) habitat
- D) community

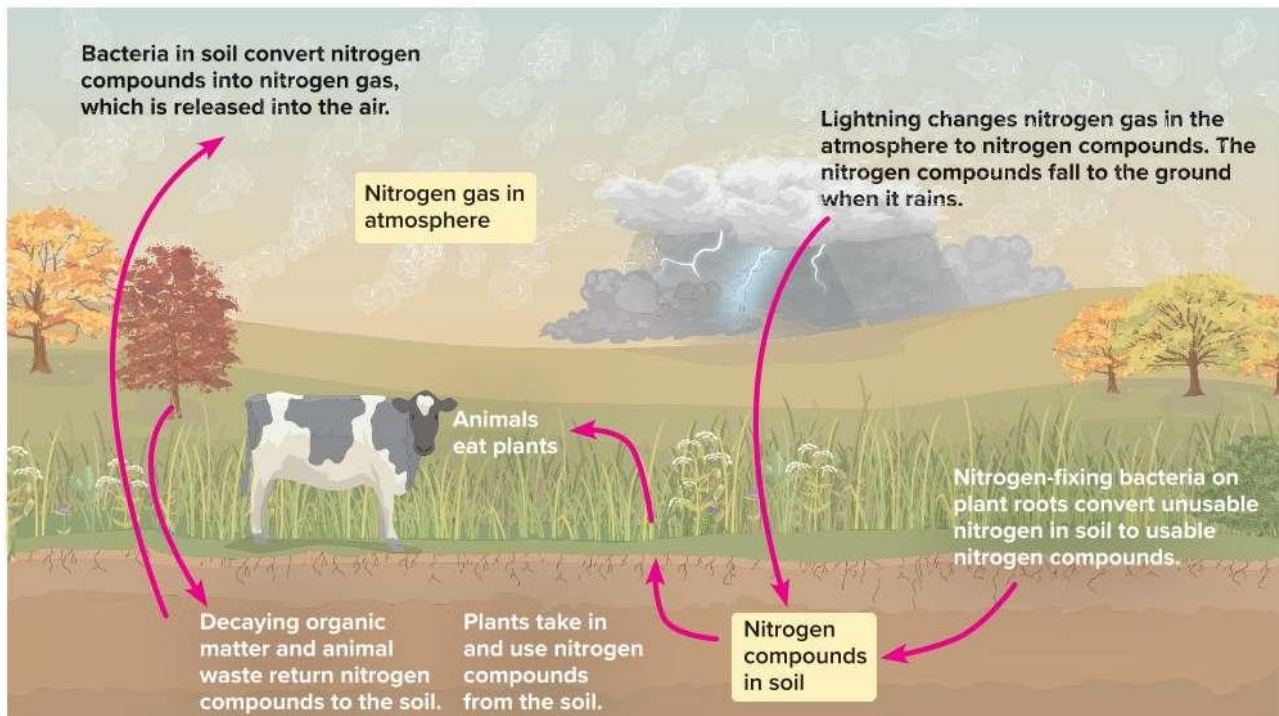
22. Some populations have cooperative relationships. This is where _____.

- A) members of the same species compete for resources
- B) members of different species compete for resources
- C) members of the same species work together for survival
- D) members of different species work together for survival

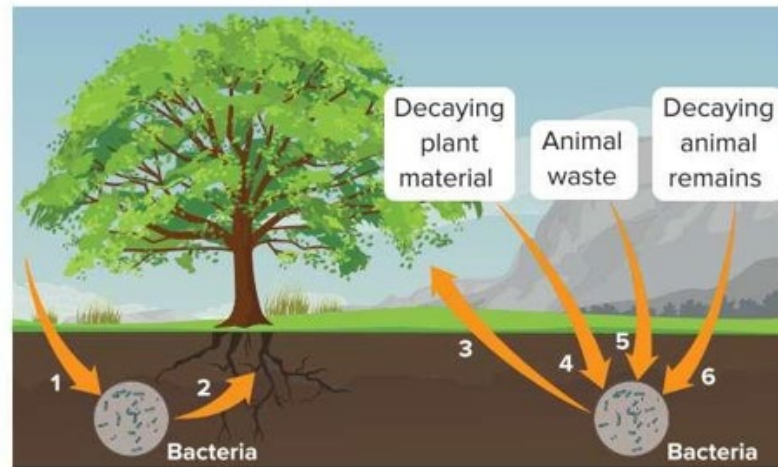
Complete the following table:

Mutualism- commensalism- parasitism - competition - cooperation - predator prey

Type of Relationship	Example 2
	Barbel fish and hippos: The fish clean the hippos' mouths and get food in return.
	Barnacles on whales: Barnacles get transportation, while the whales are unaffected.
	Tapeworms in the intestines of animals: The tapeworms get food, while the host is harmed.
	Trees competing for sunlight in a dense forest.
	Wolves hunting in packs to capture larger prey.
	A lion hunting and eating a zebra: The lion is the predator, and the zebra is the prey.



Keisha and her classmates created a model of the nitrogen cycle. Their diagram is shown below.



2. What is the function of the bacteria shown in the model?

- A They prevent the nitrogen from harming the plants.
- B They remove the nitrogen from the soil.
- C They remove the oxygen from the soil.
- D They return the nitrogen to the system.

What is **eutrophication**?

- A) The process by which soil erosion decreases water quality in rivers and lakes
- B) The introduction of non-native species into an ecosystem
- C) The excessive growth of algae in water bodies due to high nutrient levels, often leading to oxygen depletion
- D) The natural buildup of nutrients in soil from decaying organic matter

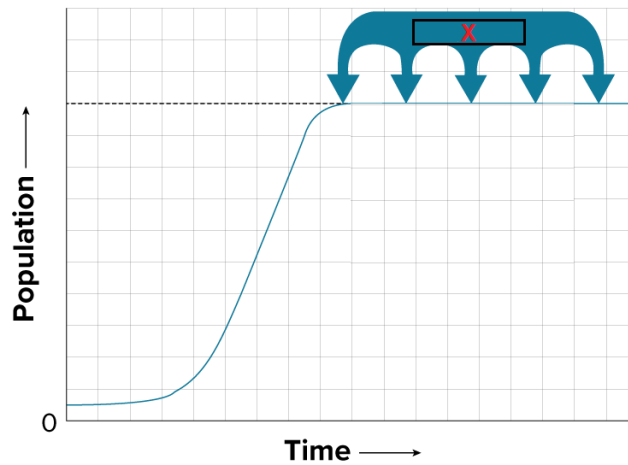
3. How might a lake suffering from eutrophication affect a population of fish?

- A The population will grow because of the extra nutrients.
- B The population will suffer due to decreases in oxygen and habitat loss.
- C The fish population will not be affected.
- D The size of the population will waver.

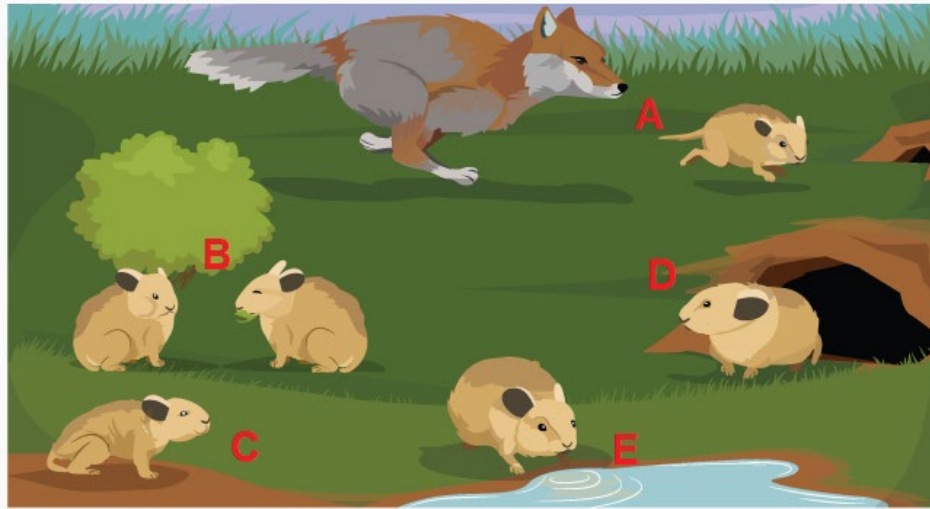
What are **limiting factors**?

- A) Elements that cause the extinction of a species in an ecosystem
- B) Environmental conditions that restrict the growth of a population within an ecosystem
- C) The maximum number of species an ecosystem can support without degrading
- D) Natural disasters that disrupt population growth in ecosystems

28. which of the following is labelled part by **X** in the graph bellow?



- A. Biotic potential
- B. Limiting factor
- C. Extinction
- D. overpopulation



Which of the following describes how predation affects pika populations?

- A) It increases the population size of pikas.
- B) It limits the pika population size by controlling how many can survive.
- C) It ensures pikas have more food resources.
- D) It has no effect on pika populations.

Competition among pikas affects their population by:

- A) Increasing the available resources for all pikas.
- B) Reducing the need for each pika to search for food.
- C) Causing pikas to compete for limited resources, limiting how large the population can grow.

How does **disease** impact pika populations?

- A) It promotes population growth by reducing competition.
- B) It quickly reduces the size of the population.
- C) It increases the pika population by removing predators.
- D) It has no effect on the pika population.

What are **fossil fuels**?

- A) Renewable energy sources formed from decomposed plant and animal matter
- B) Non-renewable energy sources formed from the remains of ancient plants and animals over millions of years
- C) Sources of energy derived from modern plant material
- D) Synthetic fuels created in laboratories from organic compounds

Criteria	Photosynthesis	Cellular Respiration
Number of Steps	Two	Two
Place of Each Step		
Equation		
Reactants		
products		
Organisms that Perform It	Plants, algae, and some bacteria	Almost all organisms, including plants, animals, fungi, and most bacteria
Energy Source	Light energy from the sun	Chemical energy stored in glucose or other organic molecules

Organism	Energy Source
Plants	Sunlight (through photosynthesis)
Consumers	Organic matter from other organisms (e.g., plants or animals they consume)
Decomposers	Organic matter from dead organisms and waste products (e.g., dead plants, animals, and organic waste)

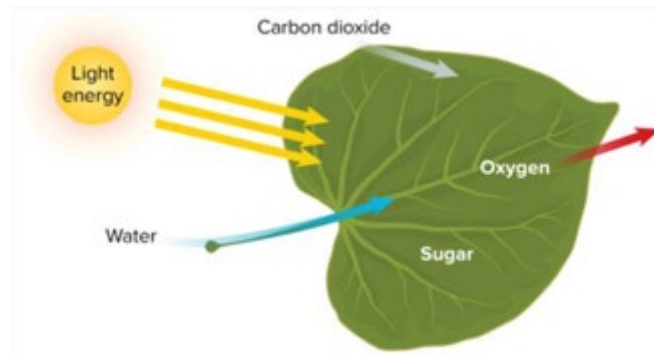
Term	Definition
Ecological Succession	The gradual process by which ecosystems change and develop over time, involving a series of stages that take long period of time
Climax Community	A stable, mature community that has reached the final stage of ecological succession, where no more changes occurs.
Eutrophication	The process by which excess nutrients (like nitrogen and phosphorus) in a water body lead to excessive algae growth, depleting oxygen and harming aquatic life.

Which of the following is **NOT** true about plants' leaves?



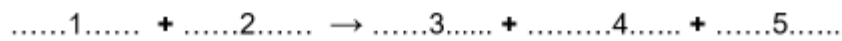
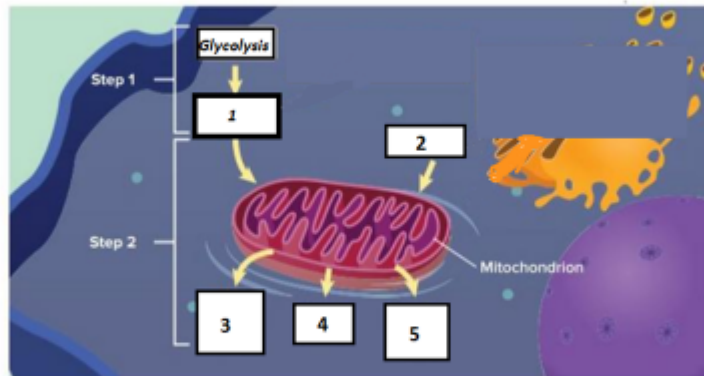
1	Their color is green because chlorophyll reflects green light only
2	They are the major food-producing organs
3	They contain stoma in the upper epidermal layer only
4	They have many different types of cells in their structure

Which of the following is the correct equation for **photosynthesis**?

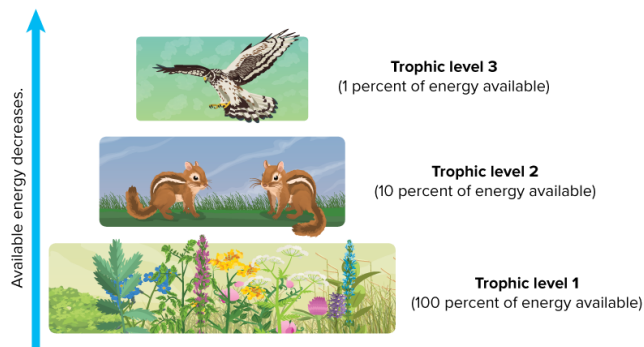


A	$C_6H_{12}O_6 + 6O_2 \rightarrow 6CO_2 + 6H_2O + \text{energy}$
B	$6CO_2 + 6H_2O + \text{light energy} \rightarrow C_6H_{12}O_6 + 6O_2$
C	$C_6H_{12}O_6 + 6H_2O \rightarrow 6CO_2 + 6O_2$
D	$6O_2 + \text{light energy} \rightarrow C_6H_{12}O_6 + 6CO_2$

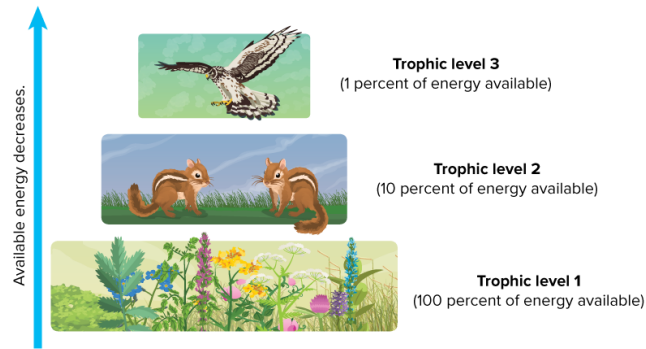
Which of the following chemical equation correctly completes the below reaction that occurs in the mitochondria as shown in the figure?



1	$C_6H_{12}O_6 + 6O_2 \rightarrow 6CO_2 + 6H_2O + ATP$
2	$6H_2O + ATP \rightarrow C_6H_{12}O_6 + 6O_2 + 6CO_2$
3	$6CO_2 + ATP \rightarrow C_6H_{12}O_6 + 6O_2 + 6H_2O$
4	$6CO_2 + 6H_2O \rightarrow C_6H_{12}O_6 + 6O_2 + ATP$



- a. because producers are only found at the bottom of the pyramid
- b. because predators eat more organisms in their own level than organisms in other level
- c. because consumers eat both producers and other consumers
- d. because organisms use most of the available energy to fuel their own life processes



If a producer (like a plant) captures 1,000 joules of energy from sunlight, how much energy is available to the primary consumer that eats the plant?

- A) 1,000 joules
- B) 100 joules
- C) 10 joules
- D) 900 joules

If a secondary consumer has 10 joules of energy available, how much energy was originally captured by the producers that fed the primary consumers?

- A) 1,000 joules
- B) 100 joules
- C) 10,000 joules
- D) 1 joule

Which statement does **NOT** describe energy flow in ecosystems?

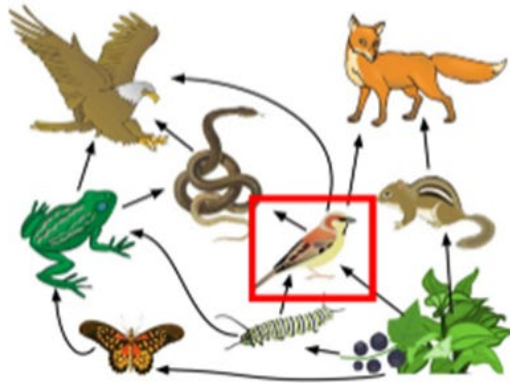
Energy flow usually starts with the Sun

Energy moves from one organism to another

Energy moves in one direction

Energy is constantly recycled

In the following food web, under what category the labeled mockingbird (in the red box) is classified?



- A. Carnivore
- B. Herbivore
- C. Producer
- D. Omnivore

Which of the following is **NOT** true about systems that cycle matter?

Living things play a role in the cycling of matter

Matter changes form as it cycles

Some matter is destroyed as it cycles through the environment

Matter is constantly cycling through the environment



3. Which of the following is NOT true about systems that cycle matter?

- A Living things play a role in the cycling of matter.
- B Matter changes form as it cycles.
- C Some matter is destroyed as it cycles through the environment.
- D Matter is constantly cycling through the environment.

New Zealand was once home to a large, flightless bird called giant moa. When humans first settled in the island they hunted the moa for food within 200 years, all the giant moas had been killed.

How the giant moa species can be classified?



Extinct species

Endangered species

Threatened species

Limited species

Which of the following can cause **eutrophication** as shown in the lake below?



No.	Reason
1	Decaying organisms fall to the bottom of the lake
2	Runoff from fertilizers used in farming
3	High rate of fish reproduction (population increase)

1 & 2

2 & 3

1 & 3

1, 2, & 3