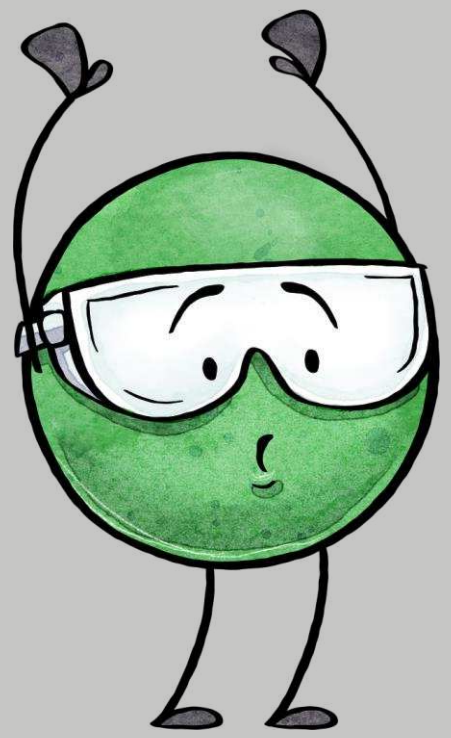
الملف أسئلة هيكل امتحان وزاري الفصل الثالث مع الحل

Term 3- EOT BIOLOGY EXAM REVISION-11ADV (INSPIRE)

Subject	Biology- Inspire
المادة	الأحياء
Grade	G11
الصف	
Stream	Advanced- Inspire
المسار	المتقدم
Number of Questions	25
عدد الأسئلة	

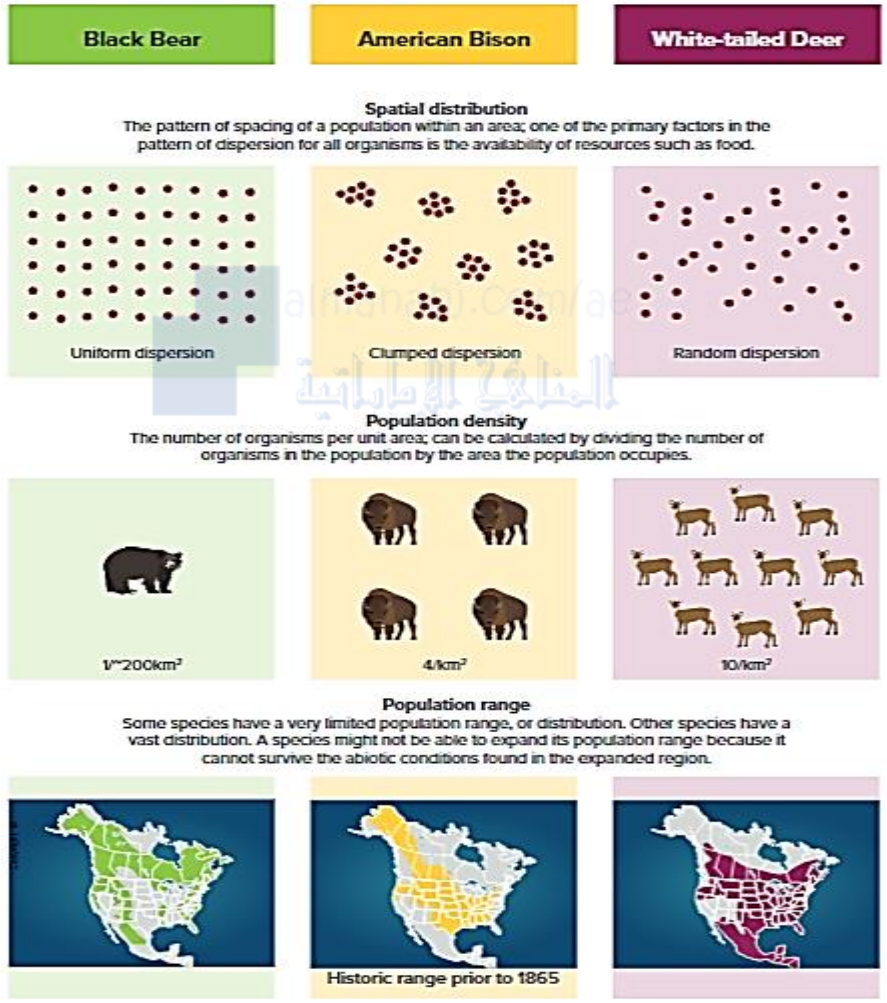


Advanced Biology with Ms. Akeia

1, 2 & 21 Explain that ecosystems are dynamic in nature and that their characteristics can vary over time (Figure 2, 8 & 9)

FIGURES BELOW

Figure 2 Visualizing Population Characteristics



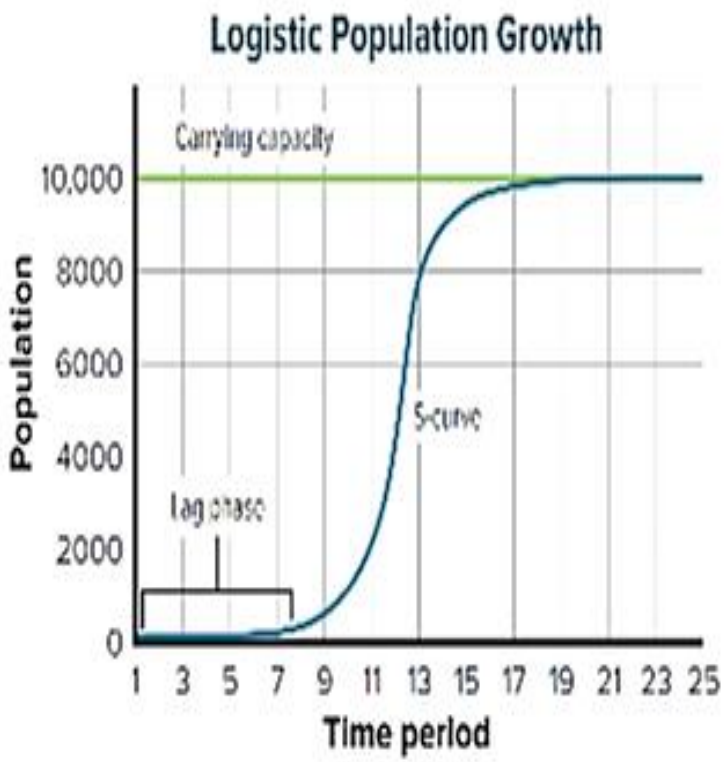


Figure 8 When a population exhibits growth that results in an S-shaped graph, it exhibits logistic growth. The population levels off at a limit called the carrying capacity.

Figure 9 Locusts, which are an example of *r*-strategists, produce many offspring in their short lifetimes.

1, 2 & 21 Explain that ecosystems are dynamic in nature and that their characteristics can vary over time

POSSIBLE QUESTIONS BELOW

What term is used to describe the number of individuals moving into a population?

A. emigration
B. imitation
C. immigration
D. migration

What is population density?

A. pattern of spacing of a population in an area
B. number of organisms in an area
C. characteristics of a population
D. manner in which a population grows

Which factor can limit the carrying capacity of a population?

A. emigration
B. predation
C. available nutrients
D. extreme temperatures

1, 2 & 21 Explain that ecosystems are dynamic in nature and that their characteristics can vary over time

POSSIBLE QUESTIONS BELOW

An ecologist estimates a population density of 2.3 lemmings per square meter of tundra. What would be the approximate number of lemmings over 1000 square meters of tundra?

A. 0.23
B. 23
C. 230
D. 2300

Which organism is the best example of a *k*-strategist?

A. wolf
B. grasshopper
C. rabbit
D. whale

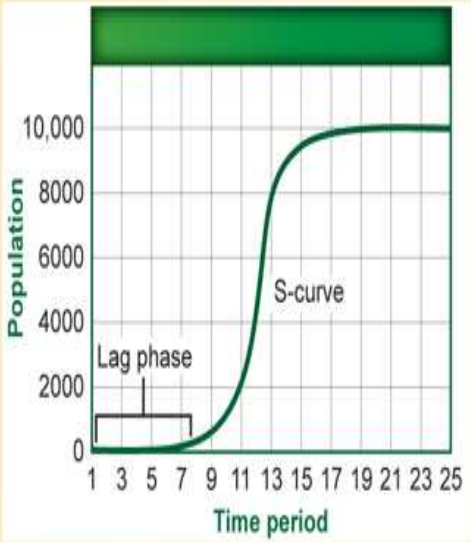
The ecologist finds that over a $1000m^2$ plot of tundra, lemmings tend to concentrate in clumps in drier areas. What is the term for this pattern of spacing?

A. density
B. dispersion
C. logistic spacing
D. spatial distribution

1, 2 & 21 Explain that ecosystems are dynamic in nature and that their characteristics can vary over time

POSSIBLE QUESTIONS BELOW

Why does the population growth level off at 10,000?



A. Biotic factors have made survival difficult.

B. The population has reached its carrying capacity.

C. Density-independent factors have slowed the growth of the population.

D. Immigration into the population has reached the maximum limit.

Brine shrimp are able to survive only in certain lakes that have a very high salt concentration. Which is the correct population characteristic of brine shrimp?

A. It is density-dependent.

B. It is limited by biotic factors.

C. It has a limited spatial distribution.

D. It is randomly dispersed in the environment.

1, 2 & 21 Explain that ecosystems are dynamic in nature and that their characteristics can vary over time

POSSIBLE QUESTIONS BELOW

Which is not used to describe a population of grizzly bears in Canada?

- A) demographic history
- B) geographic distribution
- C) population range
- D) population density

Correct Answer

A) demographic history

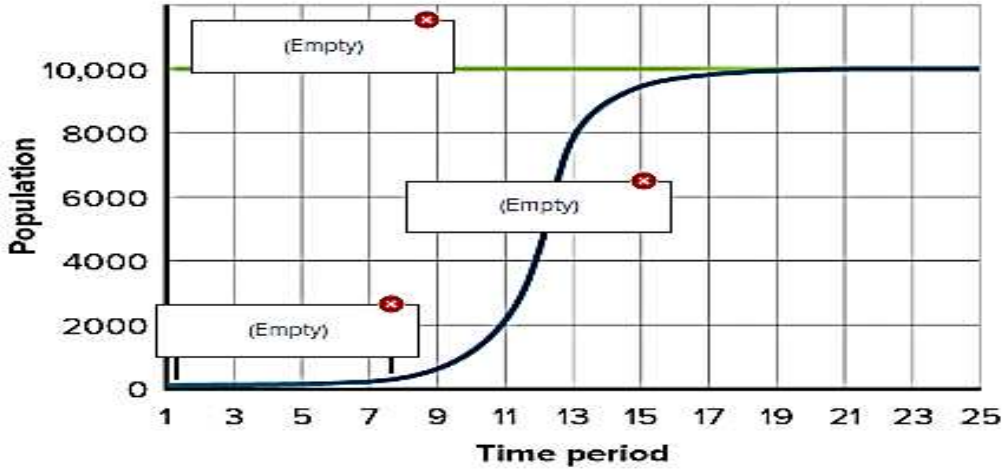
Which organism follows an *r*-strategy for reproduction?

- A) human
- B) mayfly
- C) robin
- D) zebra

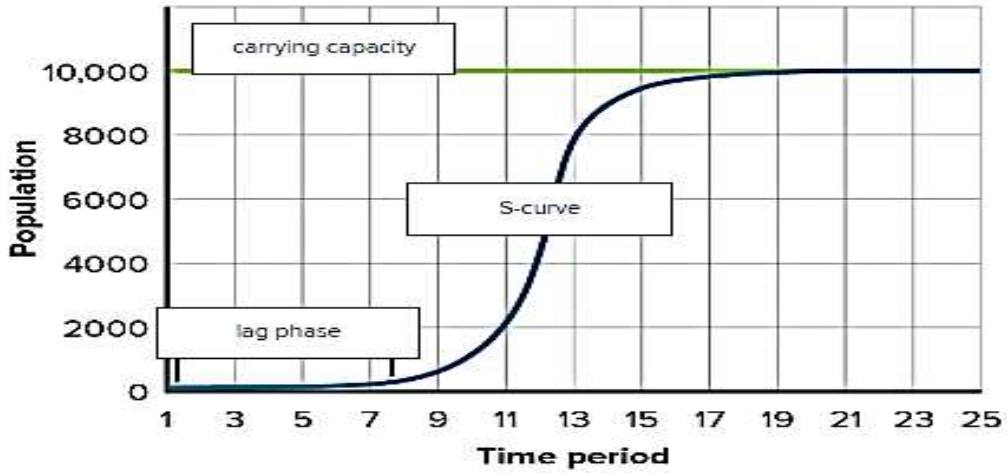
Correct Answer

B) mayfly

Label the graph using the terms *carrying capacity*, *S-curve*, and *lag phase*.



Correct Answer



1, 2 & 21 Explain that ecosystems are dynamic in nature and that their characteristics can vary over time

POSSIBLE QUESTIONS BELOW

*Which strategy is considered as an adaptation for living in an environment where fluctuation in biotic or abiotic factors occur?

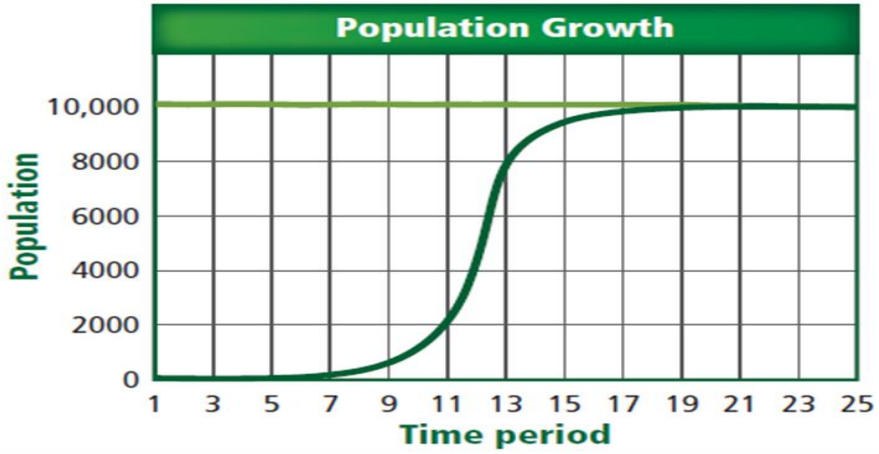
A. k-strategy reproductive pattern.
B. r-strategy reproductive pattern.
C. a low mortality rate.
D. high mortality rate

*Which strategy involve a larger organism that has a long life span, produces few offspring, and whose population reaches equilibrium at the carrying capacity?

A. k-strategy reproductive pattern.
B. r-strategy reproductive pattern.
C. a low mortality rate.
D. high mortality rate

Understand Key Concepts

Use the illustration to answer questions 4–6.



4. Which population growth model does this graph illustrate?
A. exponential growth
B. lag phase
C. logistic growth
D. straight-line growth

5. What is the horizontal line on this graph called?
A. carrying capacity **C.** geometric growth
B. exponential growth **D.** straight-line growth

6. What do the time periods 1–7 represent?
A. acceleration phase **C.** exponential growth
B. carrying capacity **D.** lag phase

1, 2 & 21 Explain that ecosystems are dynamic in nature and that their characteristics can vary over time

POSSIBLE QUESTIONS BELOW

7. If angelfish produce hundreds of young several times a year, which statement below is true?
   - A. Angelfish have a *k*-strategy reproductive pattern.
   - B. Angelfish have an *r*-strategy reproductive pattern.
   - C. Angelfish probably have a low mortality rate.
   - D. Angelfish provide a lot of care for their young.

8. If an aquarium holds 80 L of water and contains 170 guppies, what is the approximate density of the guppy population?
   - A. 1 guppy/L
   - B. 2 guppies/L
   - C. 3 guppies/L
   - D. 4 guppies/L

12. What is the dispersion pattern of herding animals, birds that flock together, and fish that form schools?
   - A. clumped
   - B. random
   - C. uniform
   - D. unpredictable

3, 4 & 5 Use mathematical and/or computational representations to support explanations of factors that affect carrying capacity of ecosystems at different scales (Figure 12 & 14)

FIGURES BELOW

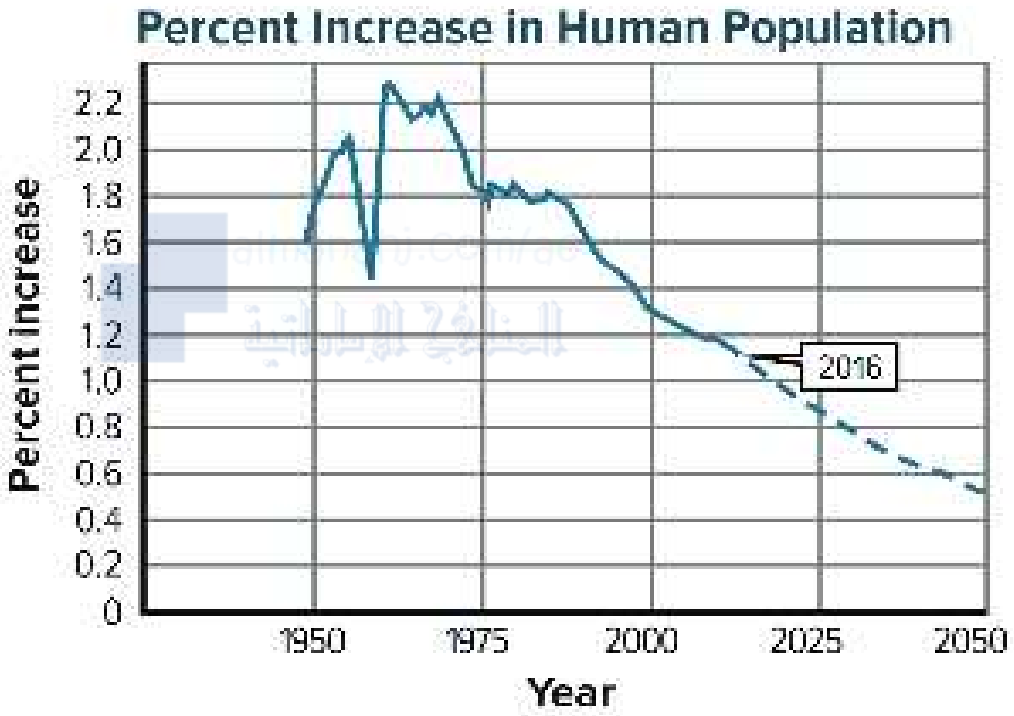


Figure 12 This graph shows the percent increase in the global human population using data from the late 1940s through 2016 and the projected percent increase to 2050.

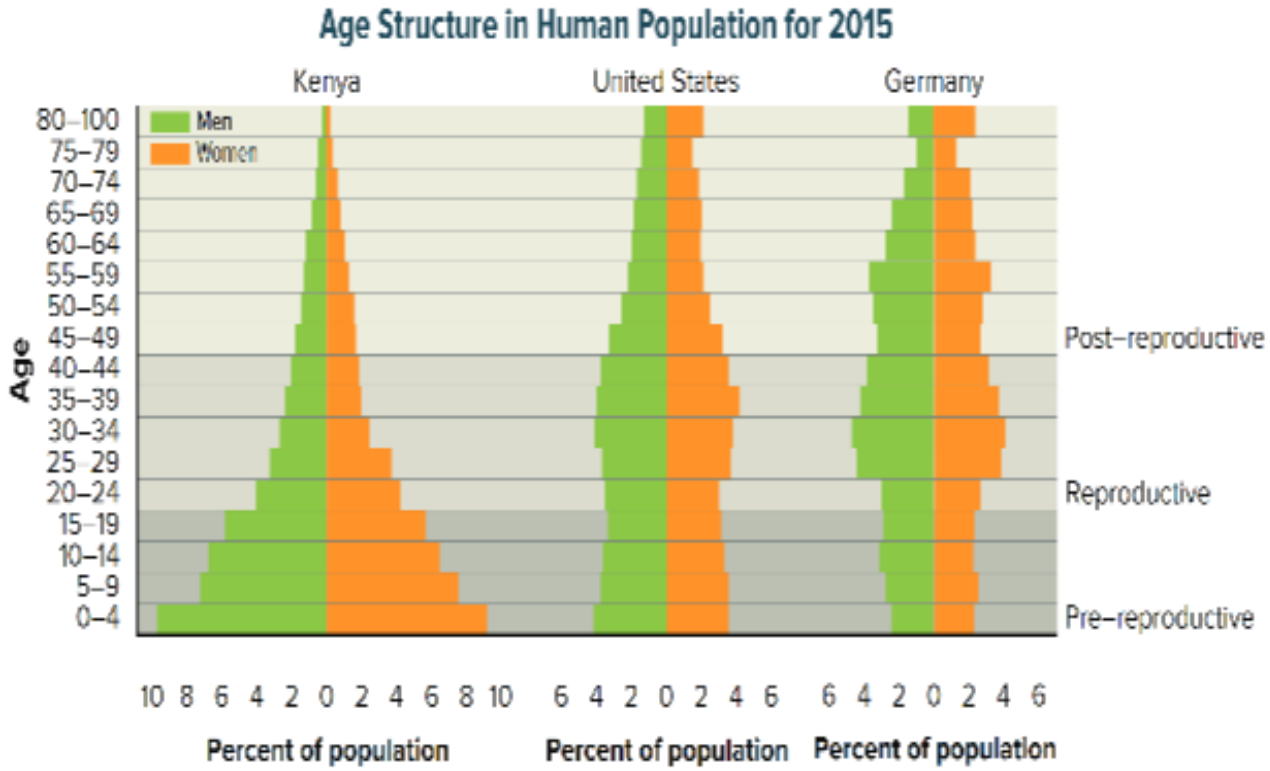
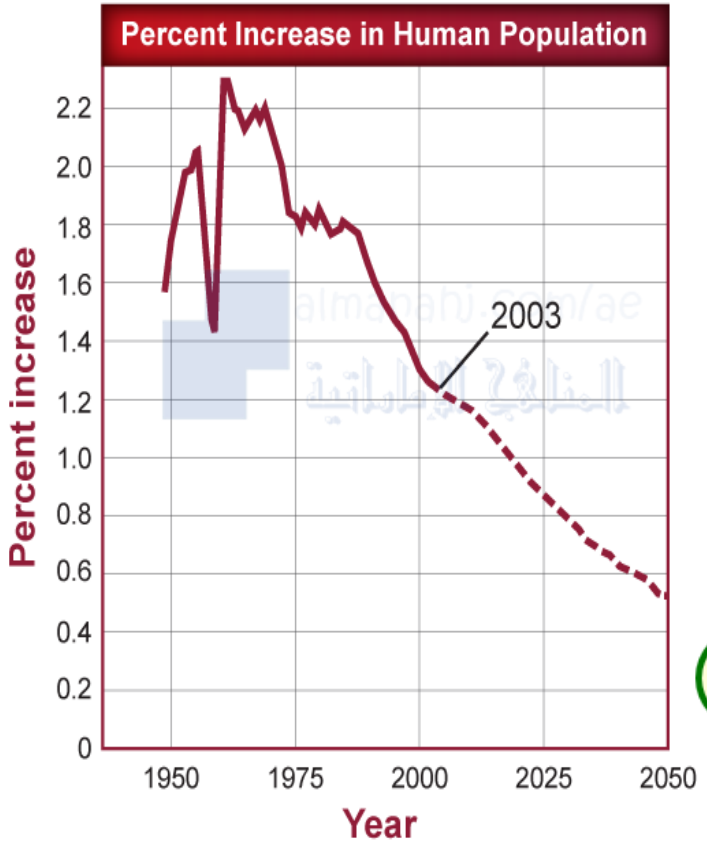


Figure 14 The relative numbers of individuals in pre-reproductive, reproductive, and post-reproductive years are shown for three representative countries.

3, 4 & 5 Use mathematical and/or computational representations to support explanations of factors that affect carrying capacity of ecosystems at different scales

POSSIBLE QUESTIONS BELOW



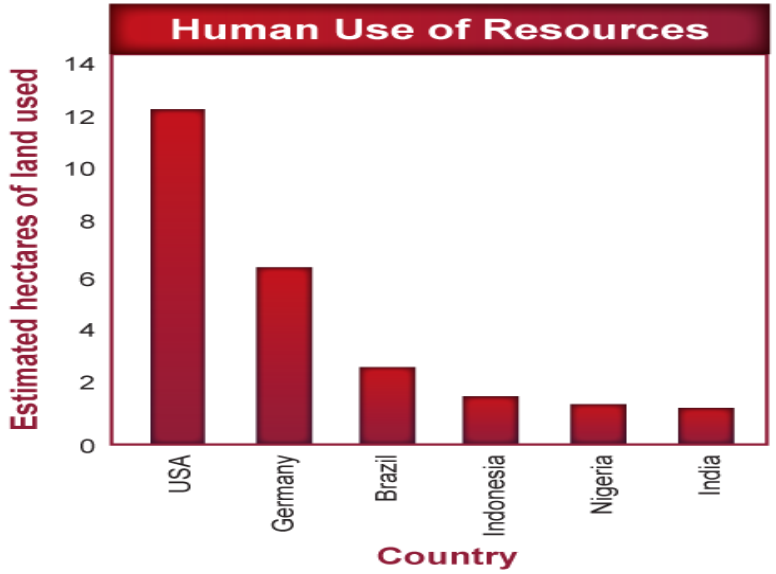
Which is a primary reason for the decline in the percent growth of the human population after 1962?

A. decreased agriculture

B. famine and wars

C. setbacks in medicine

D. voluntary population control



Based on the information in the graph, infer which statement accurately represents the information provided.

A. India has very little land for farming.

B. Germany is smaller per acre than the United States.

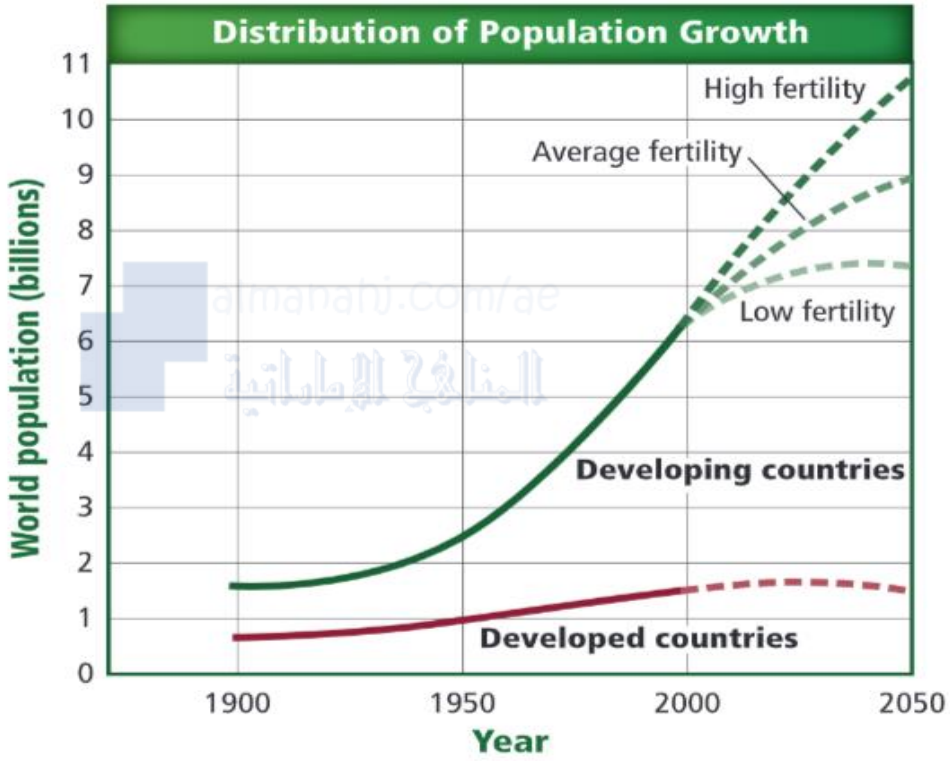
C. More land is used to support an individual in the United States.

D. A person in Indonesia requires more land than a person in Brazil.

3, 4 & 5 Use mathematical and/or computational representations to support explanations of factors that affect carrying capacity of ecosystems at different scales

POSSIBLE QUESTIONS BELOW

Use the graph below of the growth of the human population through history to answer questions 26 and 27.



26. What is the projected population of developed countries by 2050?

A. 1.5 billion
B. 7.3 billion
C. 9 billion
D. 10.5 billion

27. What is the approximate population difference between developing countries that have low fertility rates and developing countries that have high fertility rates in 2050?

A. 1.5 billion
B. 1.7 billion
C. 3.2 billion
D. 9 billion

29. Japan had a birthrate of eight and a death rate of nine in 2008. What was the PGR?

A. 0.01 percent
B. 1 percent
C. −1 percent
D. −10 percent

30. Georgia, a country in western Asia, had a birthrate of 11 and a death rate of 10 in 2008. What was the PGR of Georgia in that year?

A. 1 percent
B. 0.11 percent
C. 1.1 percent
D. 11 percent

6, 7, 12 & 22 Explain the malfunctioning of biological systems based on hypotheses such as Koch's postulates, or on scientific examples of infectious diseases, their causes, transmission and treatments, and non-infectious diseases (Table 1; Figures 2 & 17)

TABLE & FIGURES BELOW

Table 1 Human Infectious Diseases

Disease	Cause	Affected Organ System	How Disease is Spread
Tetanus	Bacterium	Nervous system	Soil in deep puncture wound
Strep throat	Bacterium	Respiratory system	Droplets/direct contact
Lyme disease	Bacterium	Skeletal and nervous systems	Vector (tick)
Chicken pox	Virus	Skin	Droplets/direct contact
Rabies	Virus	Nervous system	Animal bite
Influenza (the flu)	Virus	Respiratory system	Droplets/direct contact
Hepatitis B	Virus	Liver	Direct contact with exchange of body fluids
Giardia	Protozoan	Digestive tract	Contaminated water
Malaria	Protozoan	Blood and liver	Vector (mosquito)
Athlete's foot	Fungus	Skin	Direct contact or contaminated objects

6, 7, 12 & 22 Explain the malfunctioning of biological systems based on hypotheses such as Koch's postulates, or on scientific examples of infectious diseases, their causes, transmission and treatments, and non-infectious diseases (Table 1; Figures 2 & 17)

TABLE & FIGURES BELOW CONT'D

Figure 17 The large knobs and deformaties of these fingers are due to rheumatoid arthritis, an autoimmune disease.

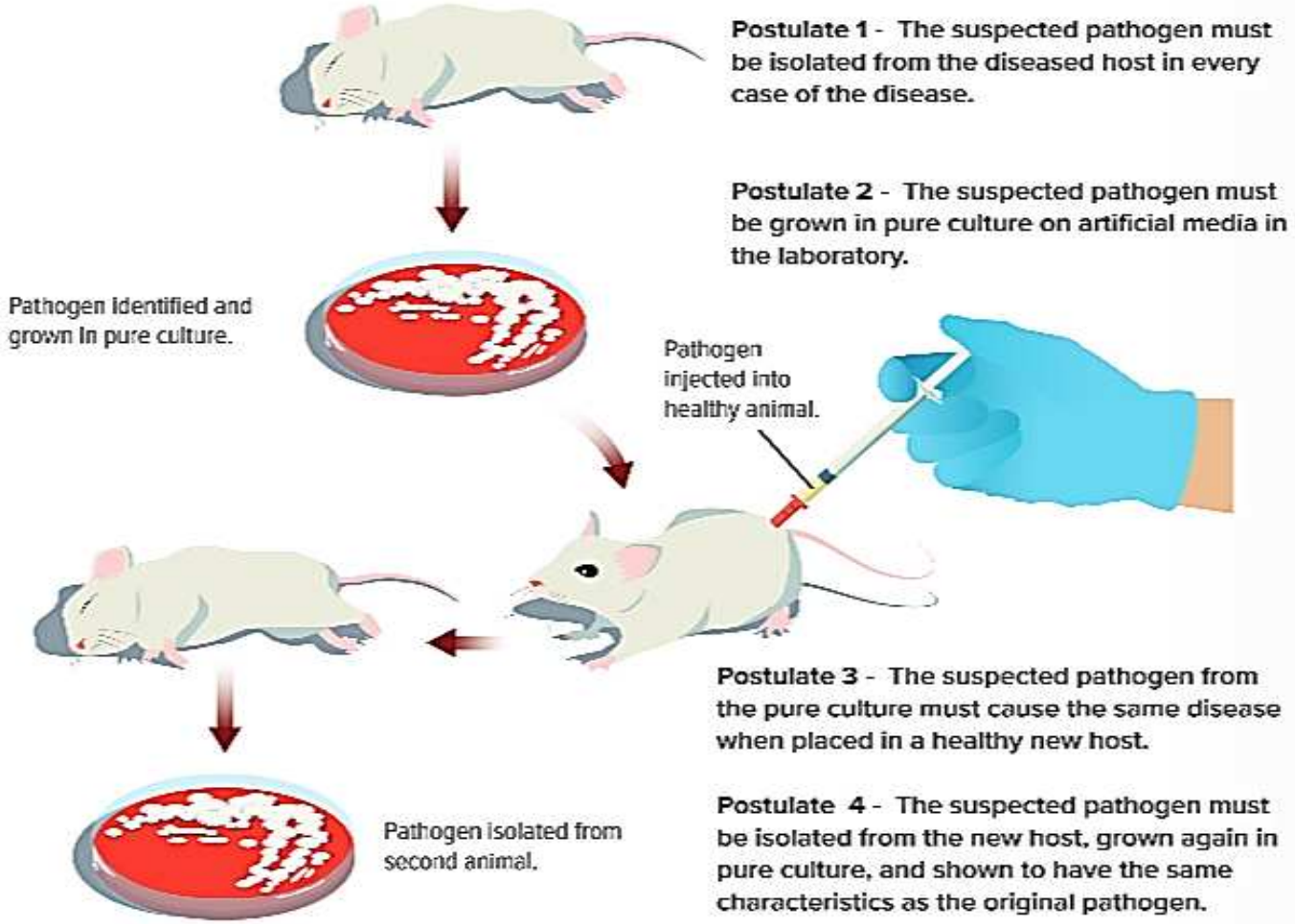


Figure 2 Koch's postulates demonstrate that a specific pathogen causes a specific disease.

6, 7, 12 & 22 Explain the malfunctioning of biological systems based on hypotheses such as Koch's postulates, or on scientific examples of infectious diseases, their causes, transmission and treatments, and non-infectious diseases

POSSIBLE QUESTIONS BELOW

Which of these involves the fourth step in Koch's postulates?

- A) suspected pathogen isolated from initially diseased host
- B) suspected pathogen placed in healthy new host
- C) pathogen in culture has same characteristics as original pathogen
- D) diseased host is given antibiotics

Correct Answer

C) pathogen in culture has same characteristics as original pathogen

3. Which is the most common way that humans acquire an infectious disease?

- contaminated water
- sick animals
- mosquito bites
- D infected humans CORRECT

1. Which is a disease that has a large outbreak in an area and afflicts many people?

- A epidemic CORRECT
- endemic
- pandemic
- reservoir

2. Which scientist established a method for determining whether a microorganism caused a specific disease?

- A Koch CORRECT
- Sagan
- Hooke
- Mendel

6, 7, 12 & 22 Explain the malfunctioning of biological systems based on hypotheses such as Koch's postulates, or on scientific examples of infectious diseases, their causes, transmission and treatments, and non-infectious diseases

POSSIBLE QUESTIONS BELOW

4. Which type of disease transmission occurs when a mosquito bites a human?

- ✗ direct contact
- ✗ object transmission
- ✗ air transmission
- D vector transmission **CORRECT**

5. In autoimmunity, which attacks the body's own proteins?

- ✗ antigens
- C antibodies **CORRECT**
- ✗ allergens
- ✗ antihistamines

1. Which autoimmune disease can be indicated by large knobs on joints and deformities of joints?

- ✗ tetanus
- ✗ sickle-cell disease
- C rheumatoid arthritis **CORRECT**
- ✗ allergy

Which describes the cause of an infectious disease?

- A) a pathogen that causes the immune system to fail
- B) a pathogen that disrupts the body's homeostasis
- C) a vector that causes the immune system to fail
- D) a vector that disrupts the body's homeostasis

Correct Answer

B) a pathogen that disrupts the body's homeostasis

6, 7, 12 & 22 Explain the malfunctioning of biological systems based on hypotheses such as Koch's postulates, or on scientific examples of infectious diseases, their causes, transmission and treatments, and non-infectious diseases

POSSIBLE QUESTIONS BELOW

Which is a carrier of athlete's foot disease?

- A) a person with the disease who does not have symptoms
- B) a shower floor containing the infectious fungus
- C) the environmental location where the fungus originated
- D) the type of fungus that causes the disease

Correct Answer

A) a person with the disease who does not have symptoms

Which of these scenarios could be a direct cause of a disease becoming a pandemic?

- A) sick child attending school
- B) sick family returning from a foreign country
- C) mosquito in a field next to houses
- D) patient sneezing on a doctor

Correct Answer

B) sick family returning from a foreign country

Which disease cannot be treated with an antibiotic?

- A) giardia
- B) gonorrhea
- C) influenza
- D) strep throat

Correct Answer

C) influenza

8, 9 & 10 Explain the physiology of immune system and its functions and the importance of B and T cells (Figures 10, 11 & 12)

FIGURES BELOW

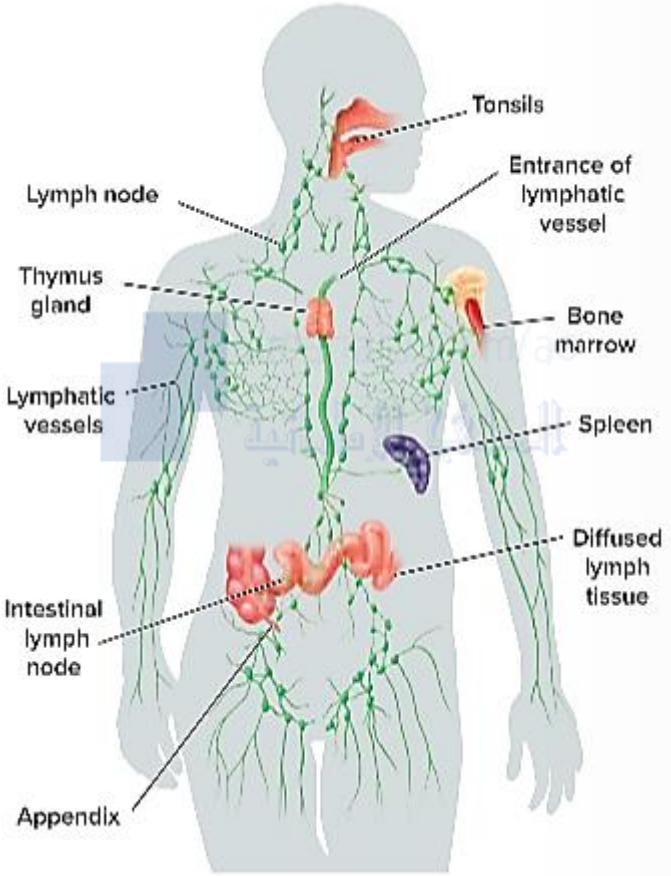
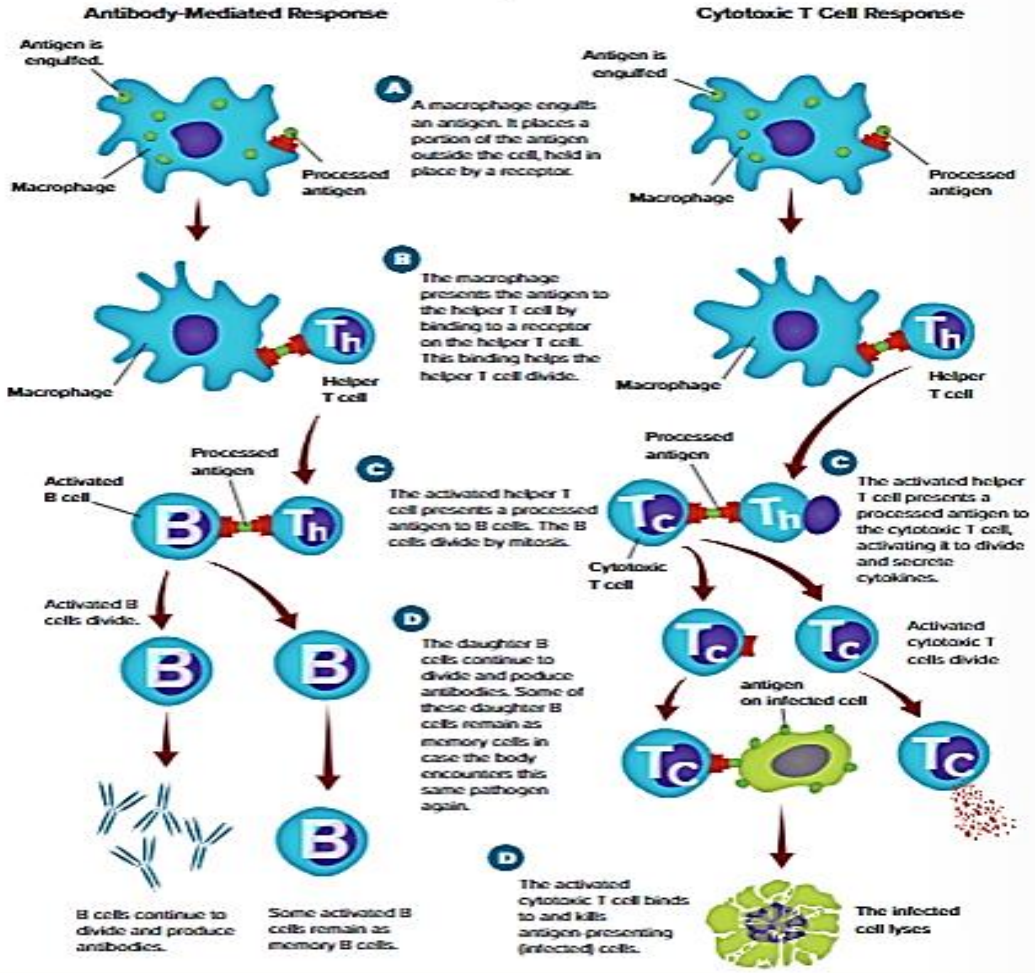


Figure 10 The lymphatic system contains the organs involved in the specific immune response.

Figure 11 Visualizing Specific Immune Responses

Specific immune responses involve antigens, phagocytes, B cells, helper T cells, and cytotoxic T cells. The antibody-mediated response involves antibodies produced by B cells and memory B cells. The cytotoxic T cell response results in cytotoxic T cell activation.



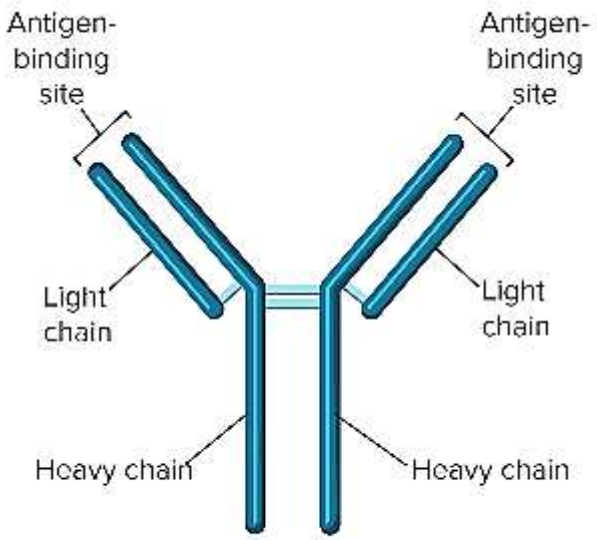


Figure 12 Antibodies are made up of two types of protein chains—heavy and light chains.

8, 9 & 10 Explain the physiology of immune system and its functions and the importance of B and T cells

POSSIBLE QUESTIONS BELOW

Which white blood cells are the antibody factories?

A. B cells
B. T cells
C. cytotoxic T cells
D. macrophages

*A foreign protein that enters the body is an:

1. **antibiotic.**
2. ✓ **antigen.**
3. **antibody.**
4. **anti-inflammatory**.

*Anything that triggers an immune response is a/n

1. **lymph cell**
2. ✓ **antigen**
3. **antibody**
4. **neutrop**

Which lymphatic organ stores blood and destroys damaged blood cells?

A. lymph nodes
B. tonsils
C. spleen
D. thymus

How are most viral diseases fought?

A. with antibiotics
B. with antiviral drugs
C. with chemical agents
D. by the body's immune system

8, 9 & 10 Explain the physiology of immune system and its functions and the importance of B and T cells

POSSIBLE QUESTIONS BELOW

Sequence *B cell and T cell responses. Write the numbers 1–5 next to the activities below to show the order in which they occur.*

2 A processed antigen is displayed on the membrane of the macrophage.

4 The activated helper T cell reproduces and attaches to a B cell or cytotoxic T cell.

1 A macrophage digests a pathogen.

5 The B cell begins to make antibodies and the cytotoxic T cell releases cytokines.

3 The macrophage binds with a helper T cell.

What is the type of white blood cell that is produced in bone marrow and includes B and T cells?

- A) antigens
- B) antibodies
- C) lymphocytes
- D) lymph nodes

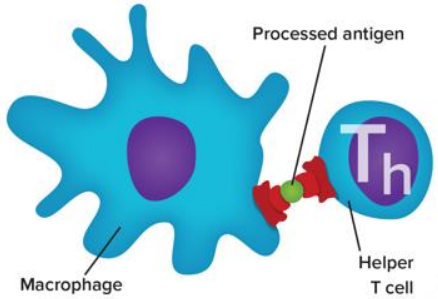
Correct Answer

C) lymphocytes

8, 9 & 10 Explain the physiology of immune system and its functions and the importance of B and T cells

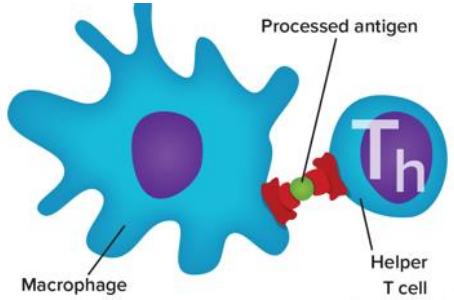
POSSIBLE QUESTIONS BELOW

1. What kind of immune response is demonstrated in the diagram?



- genetic
- nonspecific
- C specific CORRECT
- hormonal

2. To which does the activated helper T cell present its antigen?



- a pathogen
- C a B cell CORRECT
- bone marrow
- the thymus gland

5. Where are lymphocytes produced?

- A bone marrow CORRECT
- spleen
- thymus gland
- lymph nodes

What role do cytotoxic T cells play in immune response?

- A) prevents immunization from occurring
- B) binds to processed antigens and B cells
- C) produces lysozymes to break down cell walls
- D) destroy pathogens and release cytokines

Correct Answer

D) destroy pathogens and release cytokines

11 & 23 Compare between specific and nonspecific immunity and between active and passive immunity (Figures 9 & 11)

FIGURES BELOW

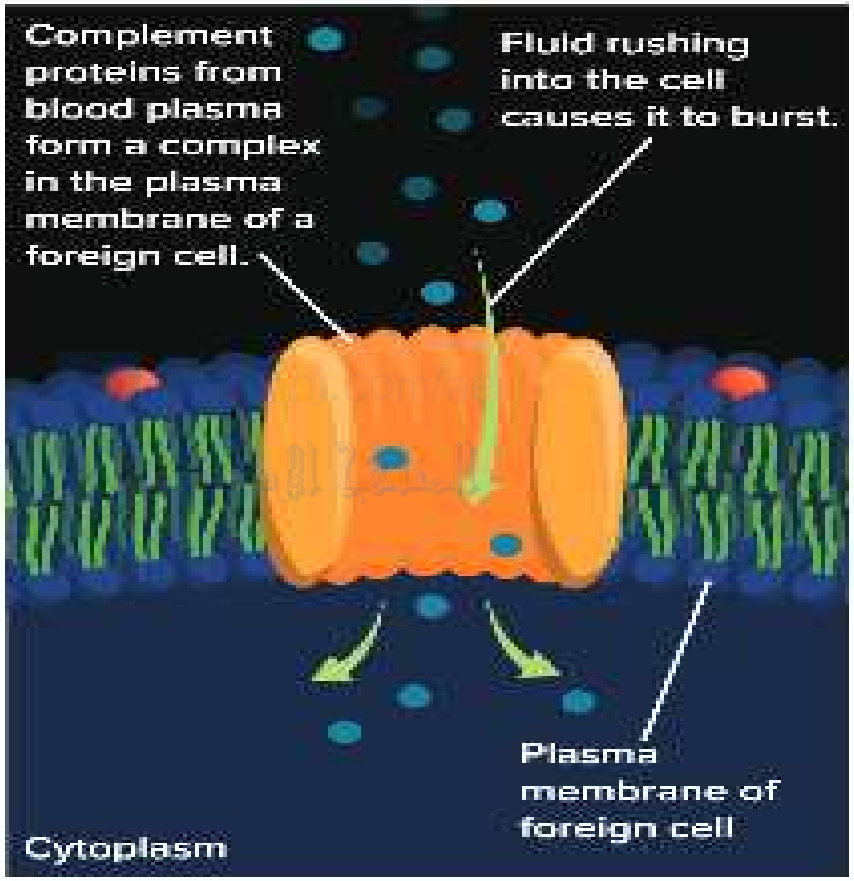
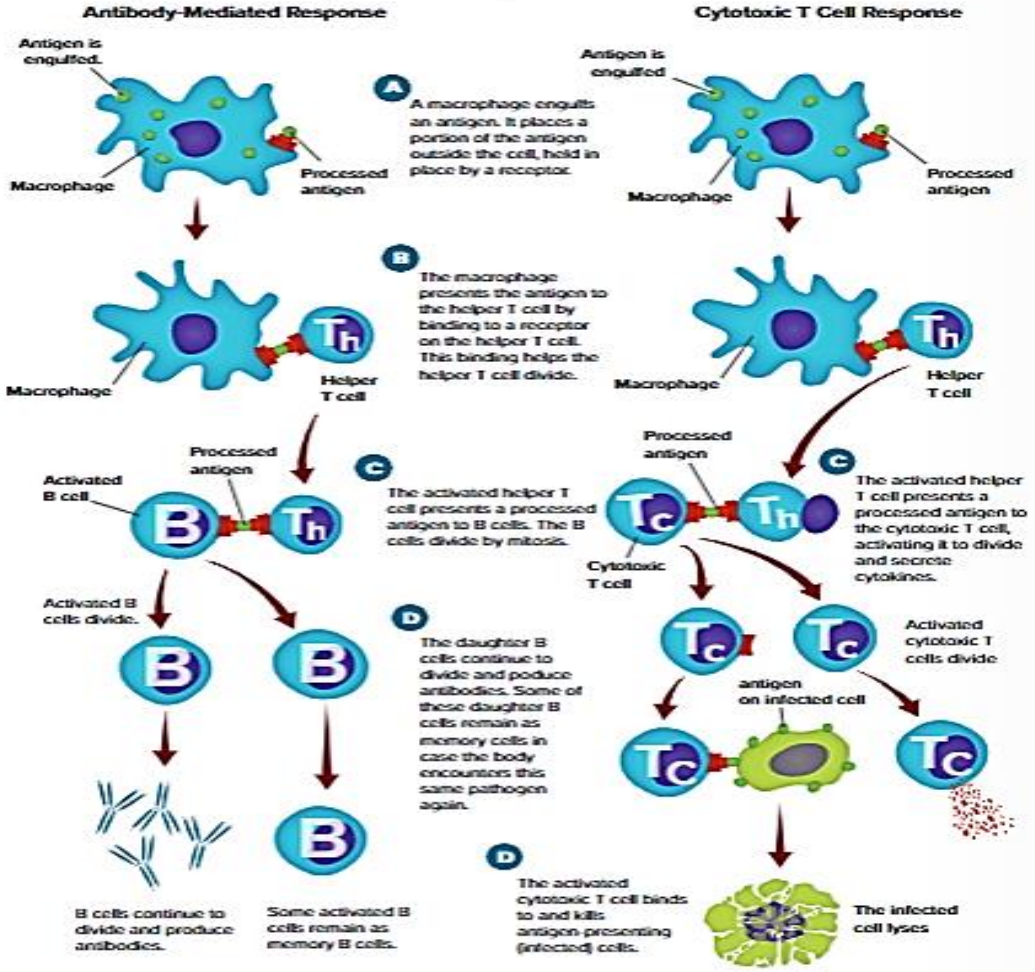


Figure 9 For some pathogens, complement proteins can form a pore in the plasma membrane of the invading cell.

Figure 11 Visualizing Specific Immune Responses

Specific immune responses involve antigens, phagocytes, B cells, helper T cells, and cytotoxic T cells. The antibody-mediated response involves antibodies produced by B cells and memory B cells. The cytotoxic T cell response results in cytotoxic T cell activation.



11 & 23 Compare between specific and nonspecific immunity and between active and passive immunity

POSSIBLE QUESTIONS BELOW

Which of the following is not an aspect nonspecific immunity?

- A) Nonspecific immunity is not aimed at a specific pathogen.
- B) Nonspecific immunity involves B cells and T cells to kill pathogens.
- C) Nonspecific immunity involves skin barriers and chemical barriers.
- D) Nonspecific immunity involves white blood cells and phagocytosis.

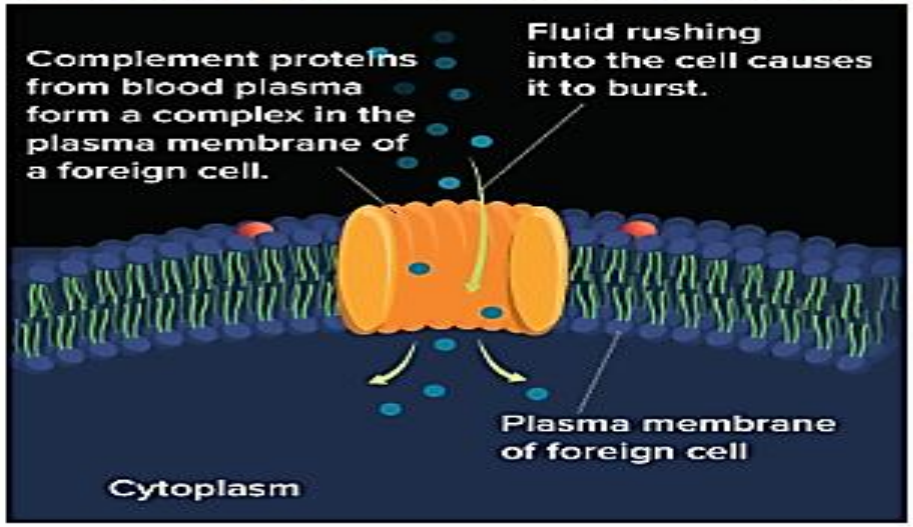
Correct Answer

B) Nonspecific immunity involves B cells and T cells to kill pathogens.

4. Complement proteins are found in the plasma. What is their role in the immune response?

- enhance phagocytosis
- enhance destruction of a pathogen
- activate phagocytes
- D all of the above CORRECT

What specific immune response is being enhanced by the process shown here?



- A) T cell activation
- B) phagocytosis
- C) interferon binding
- D) lysozyme secretion

Correct Answer

B) phagocytosis

Which is true of nonspecific immunity?

A. It takes time to develop.
B. It involves helper T cells.
C. It is the first line of defense.
D. It is the most effective immune response.

11 & 23 Compare between specific and nonspecific immunity and between active and passive immunity

POSSIBLE QUESTIONS BELOW

B cells, helper T cells, and cytotoxic T cells are involved with __ immunity.

- A) genetic
- B) nonspecific
- C) specific
- D) hormonal

Correct Answer

C) specific

Which is the immunization for tetanus?

- A) DPT
- B) HBV
- C) HIB
- D) MMR

Correct Answer

A) DPT

What is a common example of passive immunity?

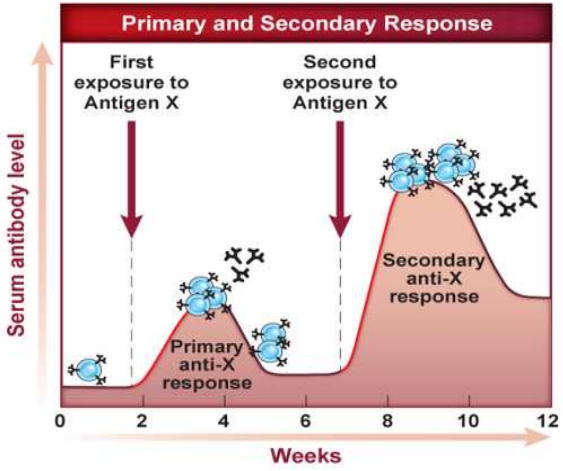
- A) skin keeps bacteria from entering body
- B) lysozyme kills pathogens
- C) mother's antibodies given to fetus
- D) vaccination results in memory cells

Correct Answer

C) mother's antibodies given to fetus

What enables the secondary response to the antigen to be more rapid and stronger than the primary response to the antigen?

A. activated T cells
B. antihistamines
C. memory B cells
D. secondary antibodies



The deliberate exposure of the body to an antigen to build future immunity is called __.

- A) phagocytosis
- B) cellular defense
- C) passive immunity
- D) immunization

Correct Answer

D) immunization

13, 15, 17 & 24 Use a model to illustrate how photosynthesis transforms light energy into stored chemical energy (Figures 2, 5 & 9)

FIGURES BELOW

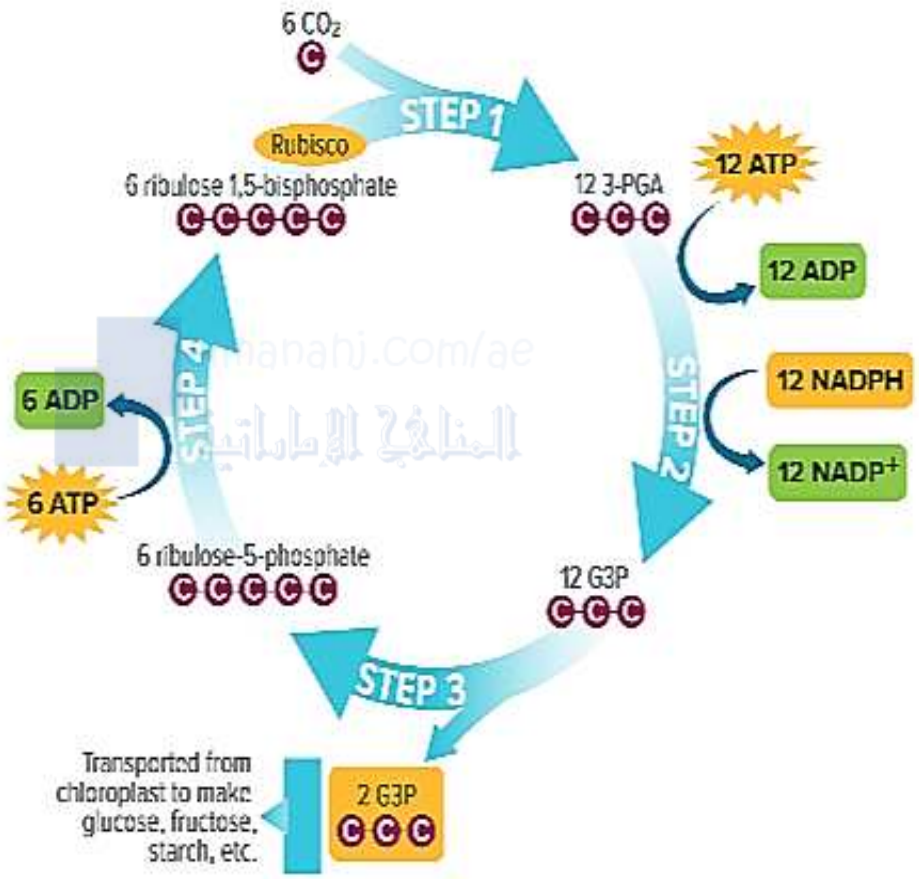


Figure 9 The Calvin cycle joins carbon dioxide with organic molecules inside the stroma of the chloroplast.

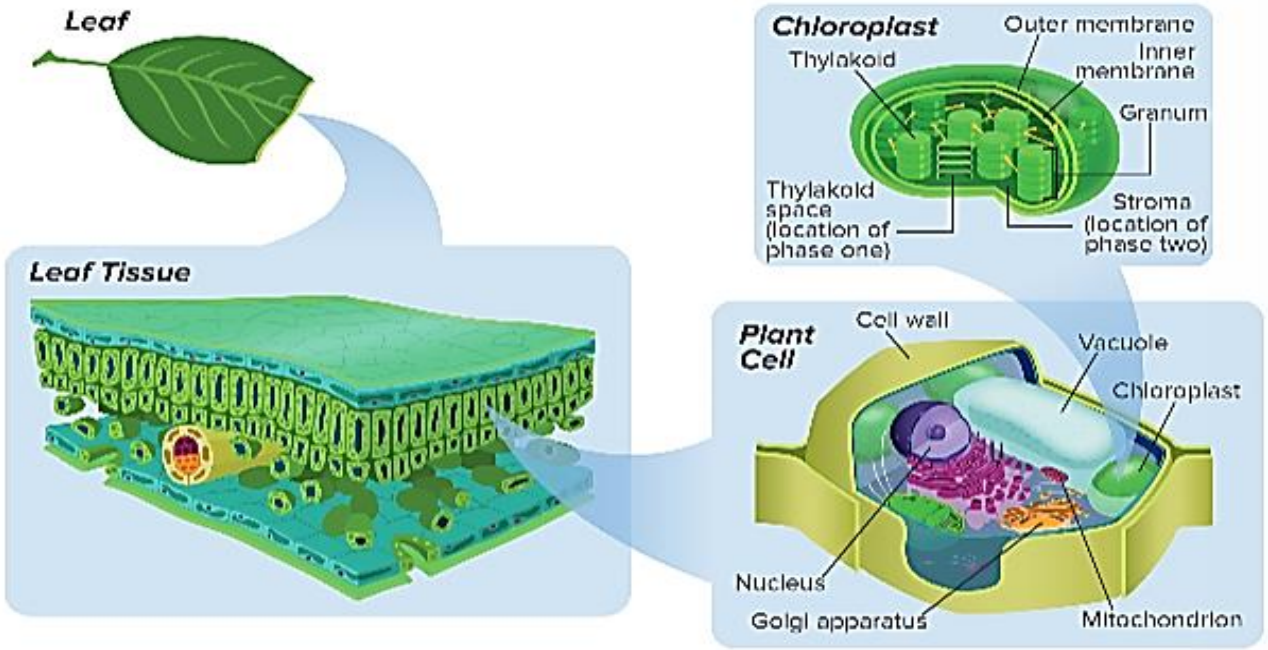


Figure 5 Photosynthesis occurs inside pigmented organelles called chloroplasts.

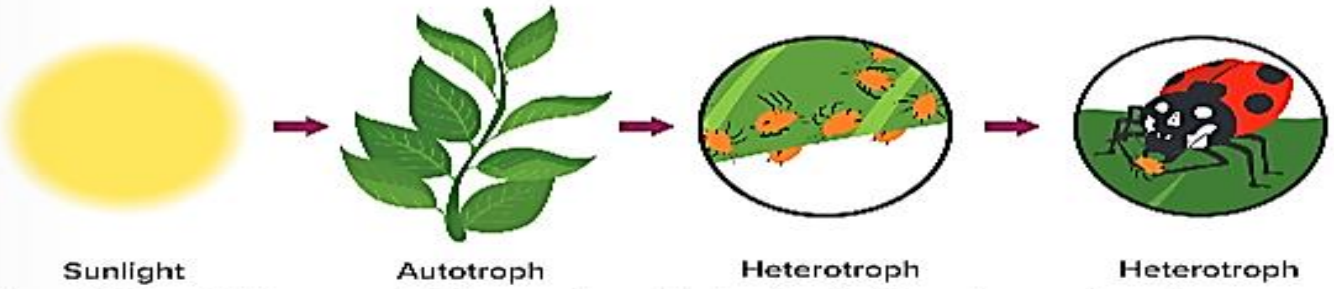


Figure 2 Almost all the energy in living organisms originates from the Sun, and energy flows from autotrophs to heterotrophs.

13, 15, 17 & 24 Use a model to illustrate how photosynthesis transforms light energy into stored chemical energy

POSSIBLE QUESTIONS BELOW

6. Which is not a characteristic of energy?

A. cannot be created nor destroyed

B. is the capacity to do work

C. exists in forms such as chemical, light, and mechanical

D. changes spontaneously from disorder to order

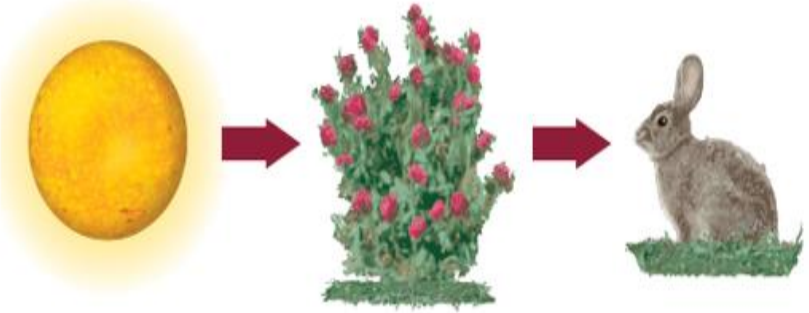
7. Which organism depends on an external source of organic compounds?

A. autotroph

B. heterotroph

C. chemoautotroph

D. photoautotroph



8. THEME FOCUS Energy Which part of this food chain provides energy to just one other part?

A. the chemoautotroph

B. the heterotroph

C. the Sun

D. the photoautotroph

9. What do cells store and release as the main source of chemical energy?

A. ATP **C.** $NADP^+$

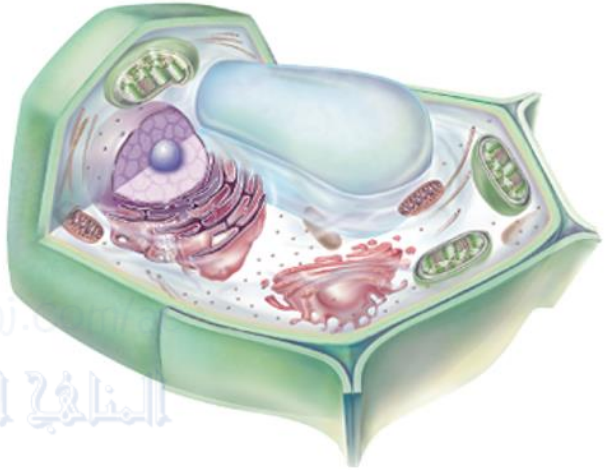
B. ADP **D.** NADPH

13, 15, 17 & 24 Use a model to illustrate how photosynthesis transforms light energy into stored chemical energy

POSSIBLE QUESTIONS BELOW

Where in the plant cell does photosynthesis take place?

A. chloroplasts
B. Golgi apparatus
C. mitochondria
D. vacuoles



Look at the following figure. Which part of the chloroplast is a sac-like membrane arranged in stacks?

A. grana
B. stroma
C. thylakoids
D. Golgi apparatus

5. Which best describes the role of rubisco?

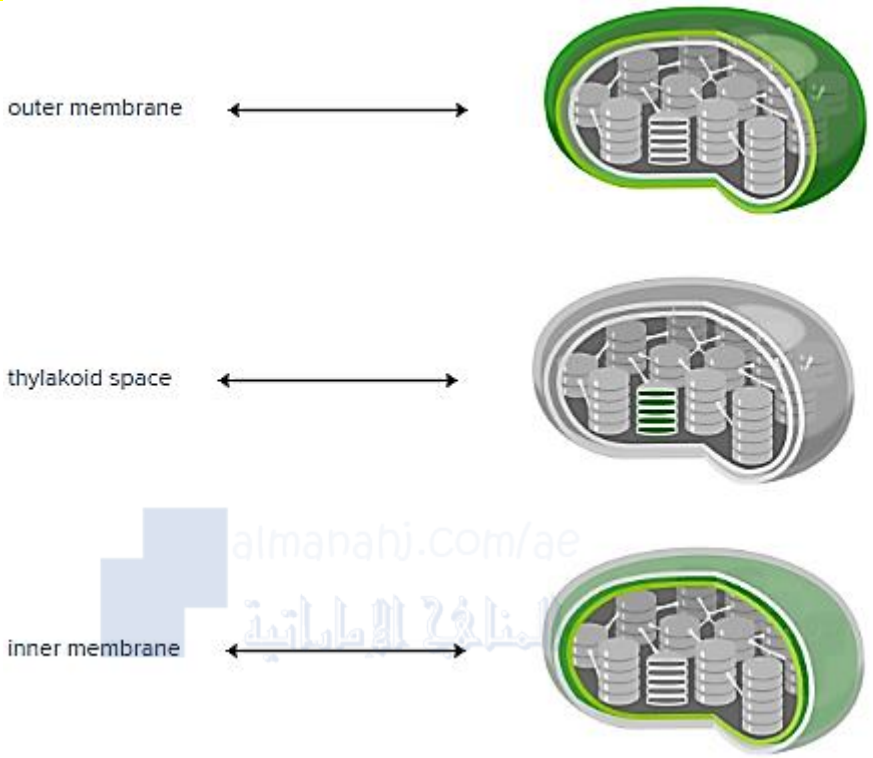
- It collects, stores, and converts light energy from the Sun.
- It produces the electrons that are carried along the electron transport chain.
- C It converts inorganic carbon dioxide into organic molecules that can be used by the cell. CORRECT
- It splits molecules of water, releasing protons.

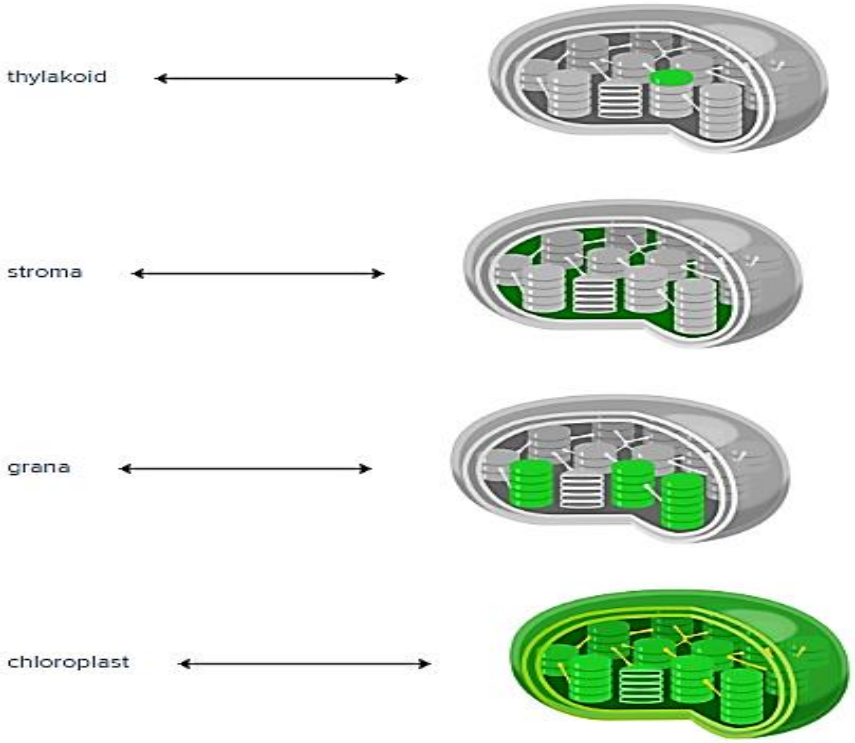
4. Which supplies energy used to synthesize carbohydrates during the Calvin cycle?

- CO_2 and ATP
- NADPH and H_2O
- B ATP and NADPH CORRECT
- H_2O and O_2

13, 15, 17 & 24 Use a model to illustrate how photosynthesis transforms light energy into stored chemical energy

POSSIBLE QUESTIONS BELOW





What type of organism converts light energy from the Sun into chemical energy?

- A) a detritivore
- B) a heterotroph
- C) a photoautotroph
- D) a chemoautotroph

Correct Answer

C) a photoautotroph

At the end of the Calvin cycle, where is energy stored?

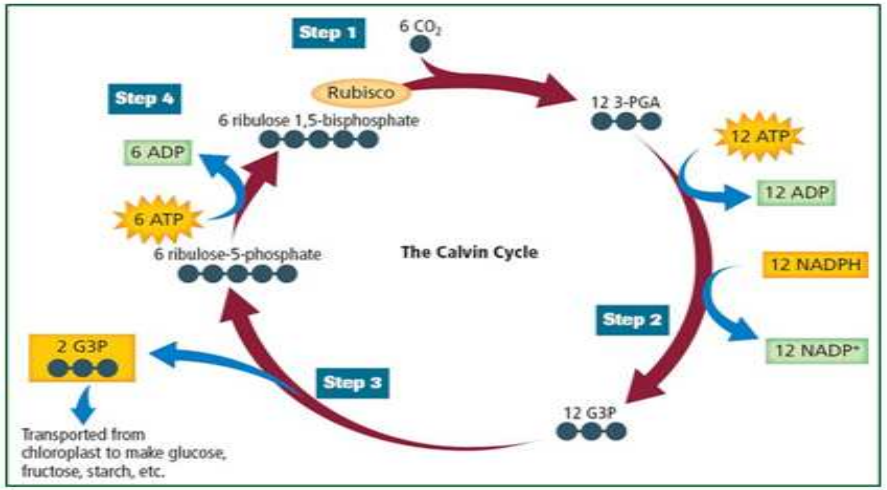
A. NADPH
B. ATP
C. chloroplast
D. glucose

13, 15, 17 & 24 Use a model to illustrate how photosynthesis transforms light energy into stored chemical energy

POSSIBLE QUESTIONS BELOW

Which molecule helps provide the energy that drives this cycle?

A. 3-PGA
B. CO_2
C. NADPH
D. rubisco



Which product of the Calvin cycle is used for the production of glucose and other organic compounds?

A. ADP
B. CO_2
C. G3P
D. $NADP^+$

Q. Where does the Calvin Cycle occur?

answer choices

- thylakoid
- lumen
- stroma
- mitochondria

14, 19, 20 & 25 Use a model to illustrate that aerobic cellular respiration is a chemical process whereby the bonds of food molecules and oxygen molecules are broken and the bonds in new compounds are formed resulting in a net transfer of energy. (Figures 3 & 12)

FIGURES BELOW

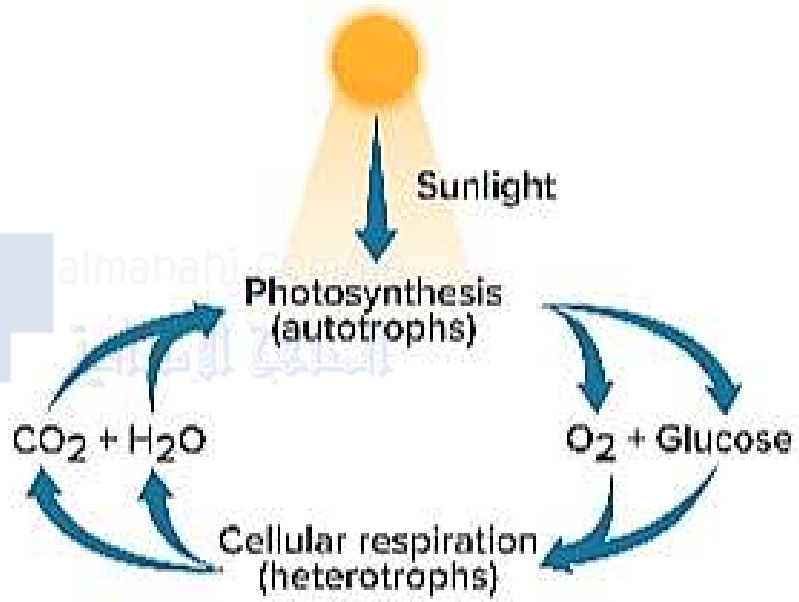


Figure 3 Photosynthesis and cellular respiration provide most of the energy for life processes.

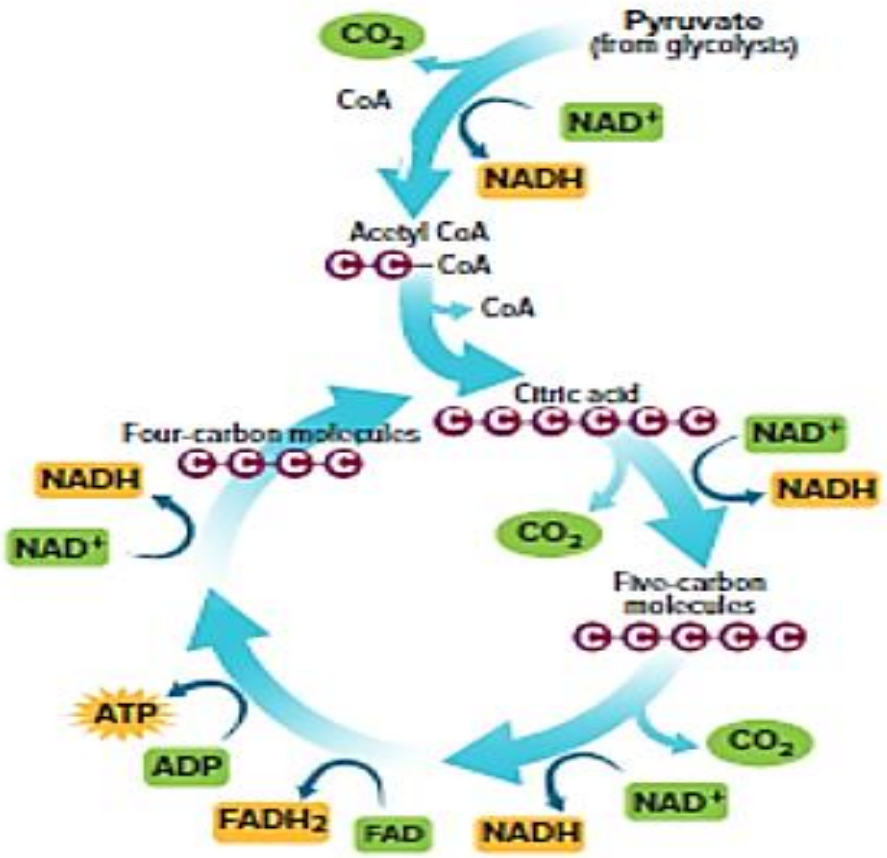


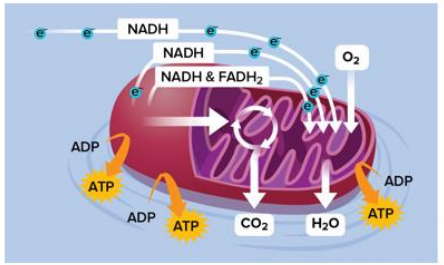
Figure 12 Pyruvate is broken down into carbon dioxide during the Krebs cycle inside the mitochondria of cells.

Trace *Follow the path of carbon molecules that enter and leave the Krebs cycle.*

14, 19, 20 & 25 Use a model to illustrate that aerobic cellular respiration is a chemical process whereby the bonds of food molecules and oxygen molecules are broken and the bonds in new compounds are formed resulting in a net transfer of energy.

POSSIBLE QUESTIONS BELOW

2. Which process does not occur in the organelle illustrated above?



- A glycolysis CORRECT
- conversion of pyruvate to acetyl CoA
- Krebs cycle
- electron transport

4. What is produced when the electrons leave the electron transport chain in cellular respiration and bind to the final electron acceptor for the chain?

- A H_2O CORRECT
- CO_2
- O_2
- CO

Why is cellular respiration a catabolic pathway?

A. Energy is used to form glucose and oxygen.
B. Energy is converted from water to carbon dioxide.
C. Energy that is lost is converted to thermal energy.
D. Energy is released by the breakdown of molecules.

What is the overall purpose of cellular respiration?

A. to make ATP
B. to process H_2O
C. to store glucose
D. to deliver oxygen

In which metabolic process are molecules broken down to produce carbon dioxide and water?

A. photosynthesis
B. cellular respiration
C. homeostasis
D. fermentation

14, 19, 20 & 25 Use a model to illustrate that aerobic cellular respiration is a chemical process whereby the bonds of food molecules and oxygen molecules are broken and the bonds in new compounds are formed resulting in a net transfer of energy.

POSSIBLE QUESTIONS BELOW

Which represents the general sequence of cellular respiration?

A. TCA cycle → chemiosmosis → glycolysis

B. glycolysis → Krebs cycle → electron transport

C. electron absorption → catalysis → phosphorylation

D. aerobic pathway → anaerobic pathway → fermentation

What is the final step of cellular respiration?

A. O_2 and H^+ form H_2O.

B. Electrons and H_2O generate ATP.

C. $C_6H_{12}O6$ is broken down into CO_2.

D. NADH and $FADH_2$ gain electrons.

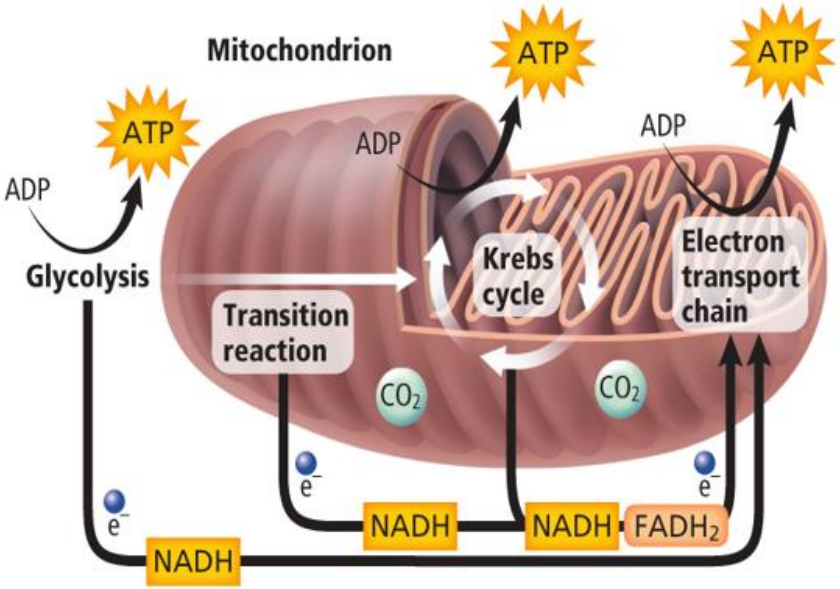
Which molecule generated by the Krebs cycle is a waste product?

A. CoA

B. CO_2

C. $FADH_2$

D. NADH



14, 19, 20 & 25 Use a model to illustrate that aerobic cellular respiration is a chemical process whereby the bonds of food molecules and oxygen molecules are broken and the bonds in new compounds are formed resulting in a net transfer of energy.

POSSIBLE QUESTIONS BELOW

During the Krebs cycle, pyruvate is broken down into what compound?

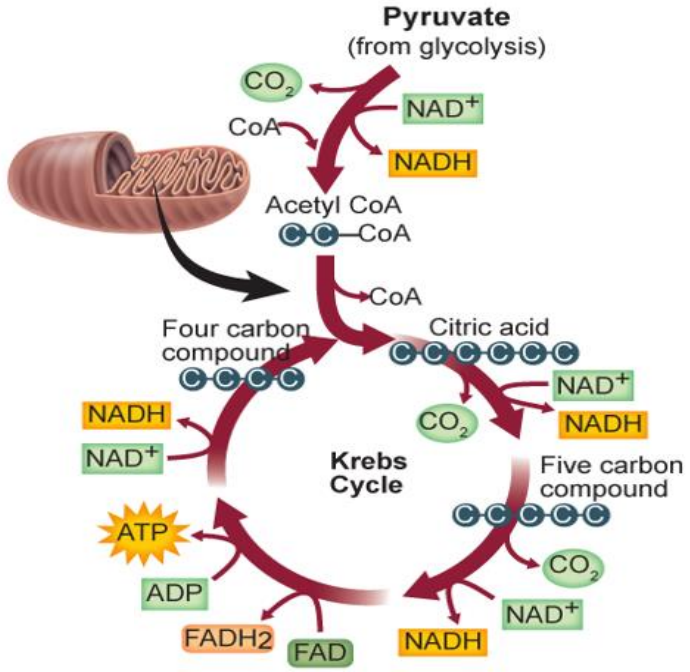
A. H_2O
B. O_2
C. CO
D. CO_2

What is the importance of NADH and $FADH_2$?

- A) These molecules are used in the electron transport chain.
- B) These molecules are useless by-products.
- C) These molecules are recycled for use in glycolysis.
- D) These molecules are used as products in photosynthesis.

Correct Answer

A) These molecules are used in the electron transport chain.



Which process does not occur in the mitochondria?

- A) glycolysis
- B) Krebs cycle
- C) preparatory reaction
- D) electron transport chain

Correct Answer

A) glycolysis

Under ideal conditions, how many ATP molecules are created from cellular respiration in eukaryotic cells?

- A) 32
- B) 34
- C) 36
- D) 38

Correct Answer

C) 36

Which of the following defines metabolic pathways?

- A) a series of chemical reactions in which light energy converts into chemical energy
- B) a series of chemical reactions in which organic molecules are broken down to release energy
- C) a series of chemical reactions in which the product of one reaction is the substrate for the next reaction
- D) a series of chemical reactions in which mechanical energy converts into chemical energy

Correct Answer

C) a series of chemical reactions in which the product of one reaction is the substrate for the next reaction

16 Describe that photosynthesis converts carbon dioxide plus water into sugars plus oxygen, which is released.

POSSIBLE QUESTIONS BELOW

1. What is a waste product of photosynthesis that is released into the environment?

$$6CO_2 + 6H_2O \xrightarrow{\text{energy}} C_6H_{12}O_6 + ?$$

- ✗ carbon dioxide
- ✗ water
- c oxygen CORRECT
- ✗ ammonia

Q. What are the products of photosynthesis?

— answer choices

- water and carbon dioxide
- oxygen and glucose
- oxygen and carbon dioxide
- oxygen and water

Q. What is the main purpose of the light reactions?

— answer choices

- To provide the energy and electrons for the Calvin Cycle
- To capture energy and make sugar
- To reflect green light
- To make sugars

Q. What is the name of the simple sugar that is produced in photosynthesis?

— answer choices

- Sucrose
- Dextrose
- Glucose
- Lactose

18 Investigate factors that affect the processes of fermentation or cellar respiration in living organisms (Figure 14)

FIGURE BELOW

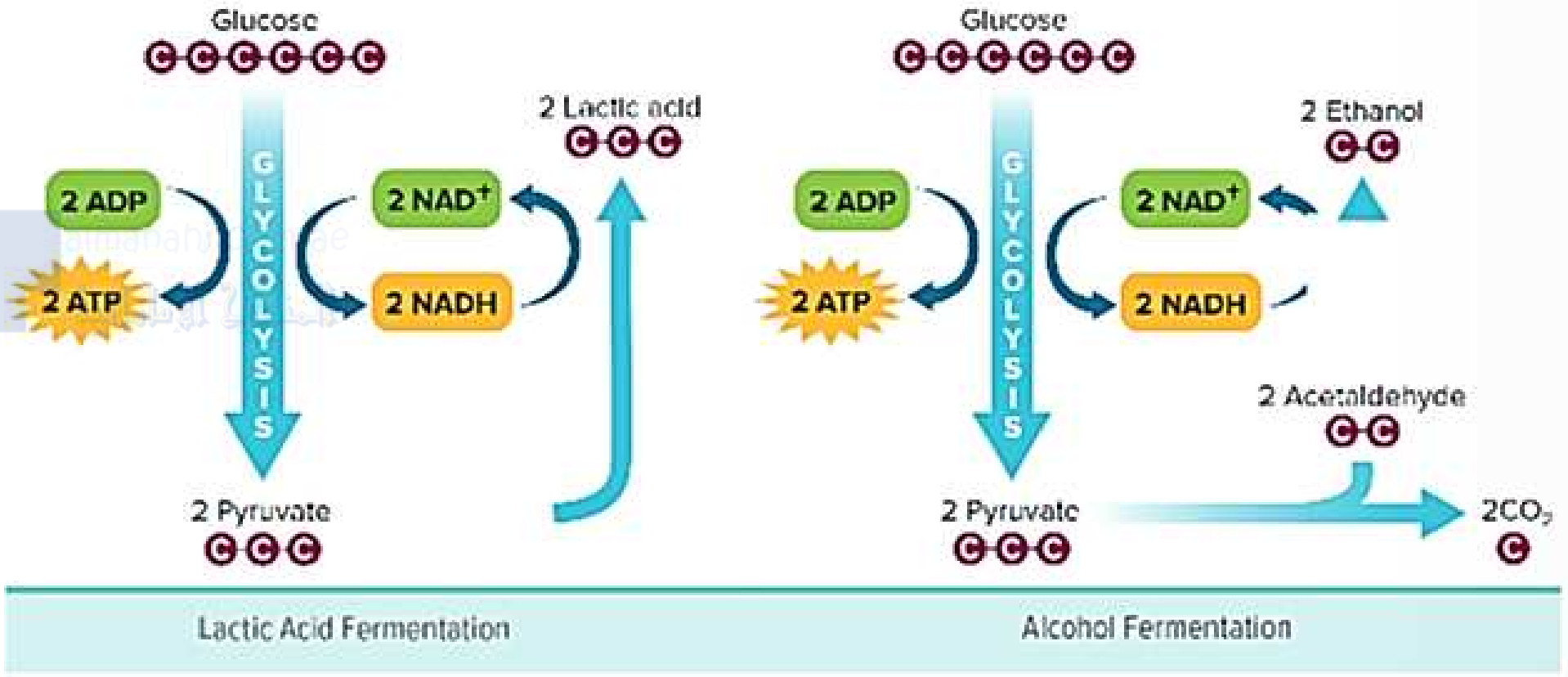


Figure 14 When oxygen is absent or in limited supply, fermentation can occur.

18 Investigate factors that affect the processes of fermentation or cellar respiration in living organisms

POSSIBLE QUESTIONS BELOW

3. Which is NOT a similarity between lactic acid fermentation and alcohol fermentation?

- ✗ Both occur in the cytoplasm.
- ✗ Both produce a small amount of ATP.
- C Both produce lactic acid. **CORRECT**
- ✗ Both regenerate the cell's supply of NAD^+.

Which describes the process of fermentation?

- A) aerobic process that manufactures pyruvate
- B) aerobic process that restores NAD^+ supply
- C) anaerobic process that manufactures pyruvate
- D) anaerobic process that restores NAD^+ supply

Correct Answer

D) anaerobic process that restores NAD^+ supply

Q. How are lactic acid and alcoholic fermentation similar?

answer choices

- They have the same products
- They have the same reactants
- They both require oxygen
- They occur in the same organisms

Q. Fermentation is:

answer choices

- Cellular Respiration
- Photosynthesis
- Aerobic
- Anaerobic

Q. What does it mean for something to be anaerobic?

answer choices

- It requires CO_2
- It does not require CO_2
- It requires oxygen
- It does not require oxygen