




7.11.C Identify some changes in genetic traits that have occurred over several generations through natural selection and selective breeding such as the Galapagos Medium Ground Finch (*Geospiza fortis*) or domestic animals

Changes in Genetic Traits

Natural Selection

Natural Selection - the basic concept by Charles Darwin is that environmental conditions (or "nature") determine (or "select") how well certain traits of organisms can survive and be passed on; organisms missing these traits might die before reproducing. As long as environmental conditions remain the same, the traits that help them survive will become more common within the population.

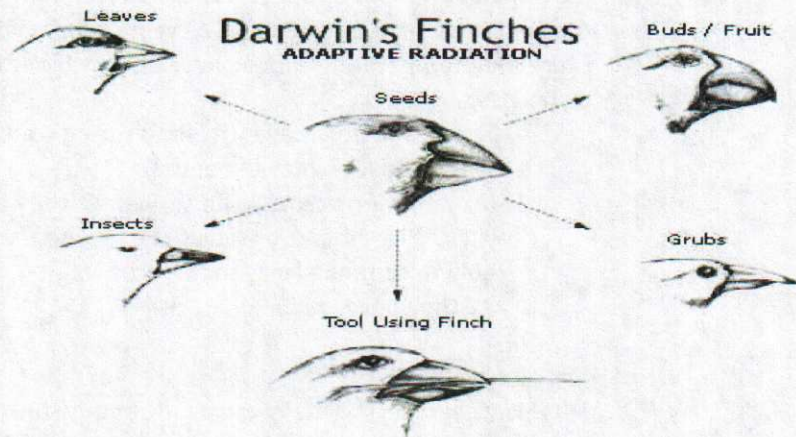
<p>Natural Selection</p> <p>There is a <u>variation in traits</u>. For example, some beetles are green and some are brown.</p>	
<p>There is a <u>degree of difference</u> in reproduction. Since the environment can't support unlimited population growth, not all individuals get to reproduce to their full potential. In this example, green beetles tend to get eaten by birds and survive to reproduce less often than brown beetles do.</p>	
<p>There is <u>heredity</u>. The surviving brown beetles have brown baby beetles because this trait has a genetic basis. End result: brown colored beetle have more offspring, becomes more common in the population.</p>	

Selective Breeding

Selective Breeding - is the process of breeding plants and animals for particular genetic traits. Such as the beaks of Darwin's Galapagos Finch.

Darwin's finches are an excellent example of the way in which species' gene pools have adapted in order for long term survival through their offspring.

The Darwin's Finches diagram shows the way the finch has adapted their beaks to take advantage of feeding on different foods in different ecological niche.



Adaptation

A process by which a population becomes better suited to its habitat; a genetic variation that provides an advantage to survive and reproduce, generally spreads through the population



QUESTIONS:

1. An example of selective breeding is –
 - A. A pet dog at someone's house
 - B. A duck swimming at the local pond
 - C. Rice in a cultivated field
 - D. Both A and C

2. Which of the following statements is false?
 - A. An adaptation can involve just a single individual.
 - B. An adaptation must be common among a population.
 - C. An adaptation happens over time.
 - D. An adaptation can either physical or behavioral

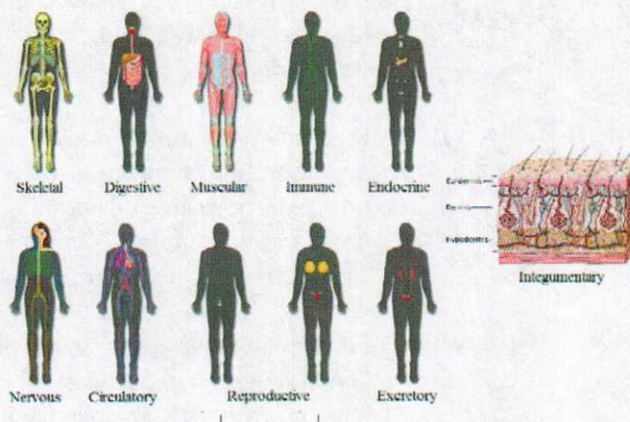
3. Which of the following examples best reflects selective breeding?
 - A. The mating of two particular sheep to produce thicker wool
 - B. A genetic mutation in an individual snake that improves its sense of smell compared to others in its population
 - C. A few individuals of an extinct species live in zoos
 - D. Two wolf packs live in geographically separate regions

4. If a population of rabbit species lives in a wet, temperate habitat and the environment goes through a 10-year drought with 10 degree Fahrenheit temperatures above normal, which of the following responses might occur?
- The population may migrate to seek a wetter area.
 - The population may die out.
 - If a mutation occurs to better handle the hot, dry conditions- such as larger ears to radiate heat-then the population may be able to continue living in this area.
 - All the above.
5. Fifty years ago, an isolated wetland area consisted mostly of open water. Today, it is mostly a swamp with thick vegetation. The same predator species have remained in the area. Scientists have noticed a shift in a local duck species from wide webbed feet to a population that has feet with little webbing and more robust claws. Genetically, today's species and the species from 50 years ago are nearly identical. Explain what happened to your partner.



7.12.B identify the main functions of the systems of the human organism, including the circulatory, respiratory, skeletal, muscular, digestive, excretory, reproductive, integumentary, nervous, and endocrine systems

Human Body Systems





Circulatory System

Function:

Transport blood throughout the body via the **heart, veins** (blood flows to the heart) and **arteries** (blood flows away from the heart).

Includes:

- Heart
- Arteries
- Veins
- Blood



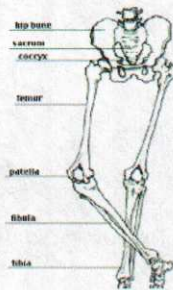
Respiratory System

Function:

Supplies blood with oxygen in the lungs and removes carbon dioxide.

Includes:

Airways, such as the trachea, as well as lungs, and alveoli



Skeletal System

Function:

Support the body
Protects internal organs
Makes red blood cells

Includes:

Bones and joints



Muscular System

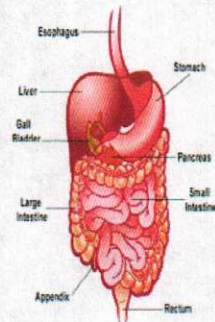
Function:

- Provides movement to the body
- Contract (become shorter)
- Relax (become longer)
- Provides strength, balance, and warmth

Includes:

Muscles, ligaments and tendons

There are three types of muscles: skeletal, smooth, and cardiac



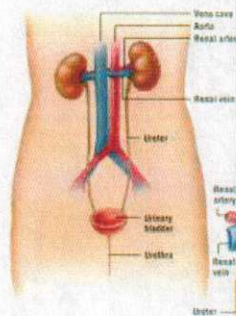
Digestive System

Function:

- Breaks down food
- Absorbs nutrients

Includes:

Mouth, esophagus, stomach, small and large intestines, and anus



Excretory system

Function:

- Filters the blood (**kidney**)
- Removes waste in the form of fluids (urine).

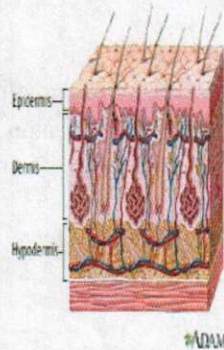
Includes:

Kidneys and bladder

Reproductive System

Function:

- Male-to produce and deliver sperm
- Female-to produce ova and prepares the female's body to nourish a developing embryo



Integumentary System

Function:

- Helps regulate temperature
- Protects the body from the outside world

Includes:

Skin, hair, nails and sweat glands.

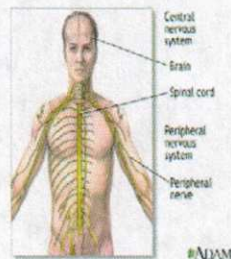
Nervous System

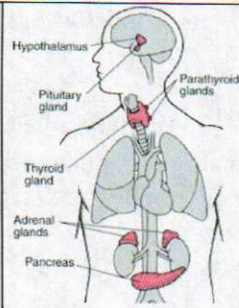
Function:

- Network that relays messages back and forth from the brain to different parts of the body
- Functions as the control center, coordinating all actions and reactions

Includes:

Brain, spinal cord, and nerves





Endocrine System

Function:

- Regulates body by secreting hormones into the bloodstream, such as insulin
- Helps body maintain **homeostasis**
- Also controls growth, reproduction and metabolism

Includes:

Glands and hormones

QUESTIONS:

1. A student touches a hot stove and immediately withdraws her hand from it. Sensory receptors within her hand felt pain from the hot stove. Which body system includes the three layers of skin that function to protect deeper tissue?
 - A Endocrine system
 - B Integumentary system
 - C Nervous system
 - D Skeletal system
2. A student touches a hot stove and immediately withdraws her hand from it. The student experienced an adrenaline rush when she felt the heat from the stove. Chemicals rushed through her body, giving her a little scare. The body system that produces such chemicals that affect other parts of the body is the -

A. endocrine system	C. nervous system
B. integumentary system	D. skeletal system
3. A student touches a hot stove and immediately withdraws her hand from it. Signals from her hand to her brain "red, instructing her body to quickly remove her hand from the hot stove. Which body system initiated this response?
 - A Endocrine system
 - B Integumentary system
 - C Nervous system
 - D Skeletal system

4. The digestive system's main function is to -

- A circulate blood and oxygen throughout the entire body
- B provide protection and support for other organs within the body
- C store nutrients until it finally disappears into the bones
- D digest food into smaller parts to be absorbed in the bloodstream

5. Which data table correctly identifies the body systems to their corresponding function and organs?

1			3		
Body System	Function of Body System	Organs of Body System	Body System	Function of Body System	Organs of Body System
Excretory	provides movement and posture	muscles, ligaments, tendons	Respiratory	provides movement and posture	muscles, ligaments, tendons
Respiratory	supplies oxygen to the blood	larynx, trachea, lungs	Muscular	supplies oxygen to the blood	larynx, trachea, lungs
Muscular	filters excess fluids and wastes	kidneys, bladder	Circulatory	filters excess fluids and wastes	kidneys, bladder
Circulatory	delivers oxygen through blood	heart, arteries, veins	Excretory	delivers oxygen through blood	heart, arteries, veins

2			4		
Body System	Function of Body System	Organs of Body System	Body System	Function of Body System	Organs of Body System
Muscular	provides movement and posture	muscles, ligaments, tendons	Circulatory	provides movement and posture	muscles, ligaments, tendons
Respiratory	supplies oxygen to the blood	larynx, trachea, lungs	Respiratory	supplies oxygen to the blood	larynx, trachea, lungs
Excretory	filters excess fluids and wastes	kidneys, bladder	Excretory	filters excess fluids and wastes	kidneys, bladder
Circulatory	delivers oxygen through blood	heart, arteries, veins	Muscular	delivers oxygen through blood	heart, arteries, veins

- A Table 1
- B Table 2
- C Table 3
- D Table 4

6. A student walks home one day and encounters a mean, barking dog. The student becomes scared and runs away from the dog. This fight or flight response is induced by the -

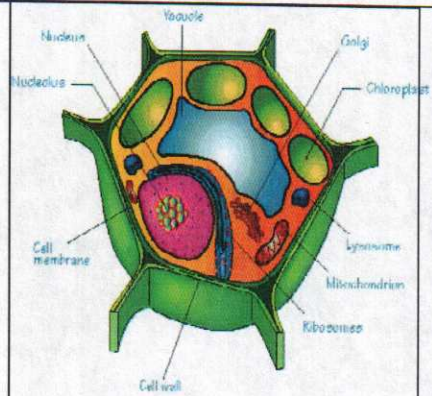
- A nervous system
- B excretory system
- C circulatory system
- D endocrine system

7. A student begins to run a fever and is feeling sick. Which body system responds by fighting of sickness through production of white blood cells?

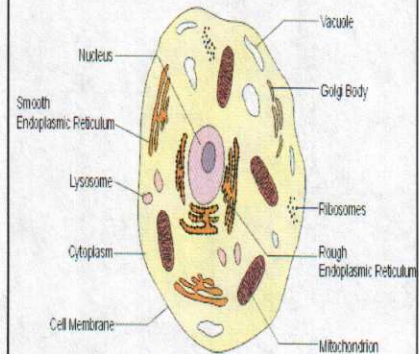
- A Circulatory system
- B Respiratory system
- C Immune system
- D Endocrine system

	<p>8. Which of the following is not part of the integumentary system?</p> <ul style="list-style-type: none">A HairB NailsC SkinD Cartilage <p>9. Be able to identify the <u>function</u> of all ten body systems and the organs associated with each body system.</p>
<p>7.12.D differentiate between structure and function in plant and animal cell organelles, including cell membrane, cell wall, nucleus, cytoplasm, mitochondrion, chloroplast, and vacuole</p>	<p style="text-align: center;">Differentiate: Structure and Function Plant & Animal Cells</p>

Plant Cell

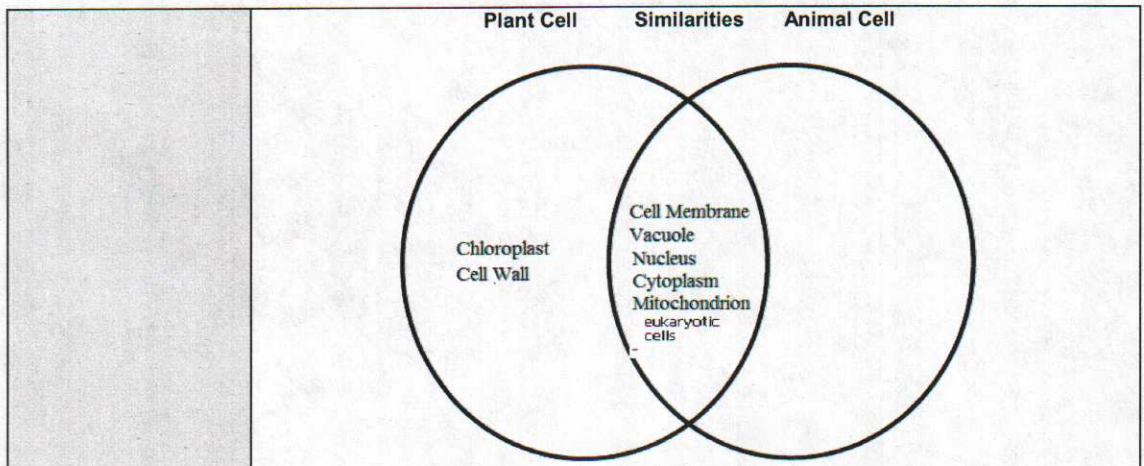


Animal Cell

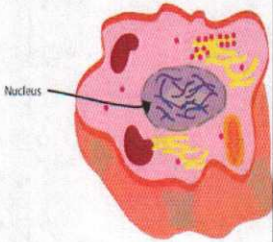




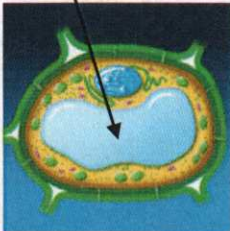

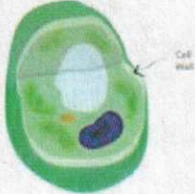
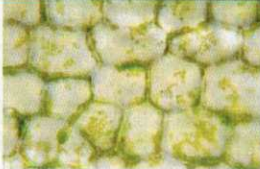
What is the main difference between **eukaryotic cells** and **prokaryotic** cells? Which kind of cells do plants and animals have?

**Plant Cells have a chloroplast and a cell wall.
Animal cells do not.**



STRUCTURE & FUNCTION of Plant and Animal Cell Organelles

Organelles	Function	In plant, animal, or both?
Nucleus	Controls the cell & contains genetic material	In both 
Cytoplasm	The jellylike material that makes up much of a cell inside the cell membrane, and, in eukaryotic cells, surrounds the nucleus. Supports and protects organelles	In both 
Mitochondrion	Provides energy for the cell	In both

			
Vacuole	Stores water and food/waste	In both	
Cell Membrane	Controls movement of materials in & out of cell and a barrier between cell and its environment	In both	
Cell Wall	Supports and protects the cell		 <p>Only in PLANT cells!</p>
Chloroplast	The green organelle in plant cells that converts light energy into chemical energy. Uses energy from the sun to make food (photosynthesis)		 <p>Only in PLANT cells!</p>

QUESTIONS:

1. Which one of the following statements about plant and animal cells is correct?
- A. Both plant and animal cells contain a cell membrane , cell wall, and a nucleus.
 - B. Both plant and animal cells contain a cell membrane, cytoplasm, and a nucleus.
 - C. Both plant and animal cells contain mitochondria, cell membrane, and a cell wall.
 - D. Both plant and animal cells contain mitochondria, a cell wall and cytoplasm.

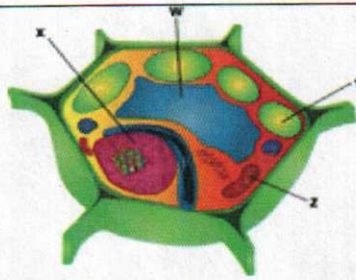
2. Which organelle helps to create energy within the cell?
- A. Mitochondria
 - B. Nucleus
 - C. Vacuole
 - D. Ribosomes

3. A group of students conduct a lab experiment to determine the differences between plant and animal cell features. The teacher did not specify which slides were plant cells and which were animal cells. What knowledge can the students recall for them to determine these differences?



- A. The students know that eukaryotic cells perform tasks for the growth of the cell.
- B. The students know that plant cells have a cell wall, chloroplasts, and a large vacuole whereas animal cells do not.
- C. Students can recall that all cells are the building blocks of life.
- D. The students know that animal cells have a cell wall, chloroplasts, and a large vacuole whereas plant cells do not.

4. Examine the eukaryotic cell pictured. The primary function of structure Y is to -



- A. produce energy for the cell.
- B. control the activities of the cell.
- C. transport materials between parts of the cell.
- D. store water, waste and nutrients for the cell.

7.12.F recognize that according to cell theory all organisms are composed of cells and cells carry on similar functions such as extracting energy from food to sustain life

Cell Theory

The **most basic unit** of living system and **all living things** are made up of **cells**

Cells are the structural and functional units common to all living organisms.

A **cell** is the **smallest unit of life** that is classified as a **living** thing. Some organisms are **unicellular**, meaning they consist of only a single cell. Most bacteria are unicellular.

Other organisms, including humans, are **multicellular**, consisting of many cells. For example, humans have about 100 trillion cells.

All cells need **genetic** and **environmental** information in order to function. The cell theory states that new cells come from old survive.

Cells use a series of chemical reactions to break down nutrients in food to create energy and produce waste through a process called metabolism.

Cells use energy from food to carry on life.

Cellular respiration
(heterotrophs)

The process of using oxygen to break down nutrients to release energy for the cell



Photosynthesis
(autotrophs)

Process by which plant cells make food using water, carbon dioxide, and light from the Sun



To carry out their day to day functions, cells require **energy**. The ultimate **source of this energy** is the sun.

Some organisms can **trap energy directly** from the sun, storing it away to used for energy. These organisms are called **autotrophs**. Autotrophs can make their own food. This process is called **photosynthesis**.

Organisms which are **not capable** of photosynthesis are called **heterotrophs**, and must get their energy through their diet instead.

Cellular respiration is the process of breaking down carbohydrates, fats and proteins (obtain from diet) to release energy that can be delivered to each cell for use.

To convert the energy stored into a form that is usable, both autotrophs and heterotrophs must take large molecules and break them down into smaller, easier to use molecules.

QUESTIONS:

1. Which statement about photosynthesis and respiration is true?
 - A. Respiration stores energy while photosynthesis releases energy.
 - B. Photosynthesis stores energy while respiration releases energy.
 - C. Respiration and photosynthesis are the same process.
 - D. Respiration and photosynthesis have nothing to do with each other.
2. The chemical process in which energy is released in living things is called
 - A. cellular respiration
 - B. photosynthesis
 - C. death.
 - D. a chemical change.
3. Which statement is not accurate about the cell theory?
 - A. New cells form from pre-existing cells
 - B. All cells carry out their own life activities
 - C. All organisms are made up of more than one cell.
 - D. Cells vary in size and shape.

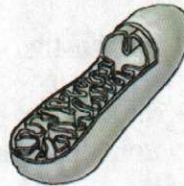
4. Cellular respiration is the process by which energy is produced in a cell. Which of the following organelles contain the function for cellular respiration?

- A. Chloroplast
- B. Mitochondria
- C. Vacuole
- D. Cell membrane

5. A small plant was submersed inside a test tube of water and placed in the sunlight for 6 hours. Based on what you know about photosynthesis, what is the function of the chloroplast of the leaves?



- A. Chloroplasts are stimulated in the leaves. Photosynthesis can occur, which produces oxygen.
 - B. Since the plant is inside the test tube, it will not receive aid from the sun and it will die.
 - C. Chloroplast are motivated by the sun to go through a physical change, therefore altering the plant.
 - D. None of these are correct
6. The picture below is a mitochondria found in the cell. Which of the following is the purpose of the mitochondria in a plant cell?




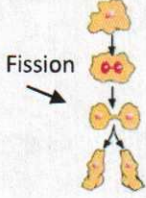


- A. The mitochondria contains the DNA which controls the cell's activities.
- B. The mitochondria produces proteins that are necessary for plant growth.
- C. The mitochondria stores the metabolic wastes from the plant.
- D. The mitochondria breaks down food to release energy for the

cell and the organism.

7. Which of the following statements is not true about the cell theory.
- A. All living organisms are composed of one or more cells.
 - B. Cells originate from pre-existing cells.
 - C. Cells are the basic unit of structure and organization of all living organisms.
 - D. Unicellular organisms can live on their own.

7.14.B compare the results of uniform or diverse offspring from sexual reproduction or asexual reproduction

Asexual & Sexual Examples Uniform or Diverse offspring?

<p>Asexual Reproduction</p> <ul style="list-style-type: none"> • Only 1 parent • Offspring <u>exactly like</u> parent genetically (<u>uniform</u>) 	 <p style="text-align: center;">Budding</p>	 <p style="text-align: center;">Fission uniform</p>
<p>Sexual Reproduction</p> <ul style="list-style-type: none"> • Requires 2 parents • Offspring is <u>different</u> from each parent (<u>diverse</u>) 	 <p style="text-align: center;">diverse</p>	

In asexual reproduction of prokaryotic cells, DNA is replicated from the parent resulting in uniform offspring. These cells divide by binary fission. Organisms composed of eukaryotic cells can also reproduce asexually by forming spores, by budding, or by vegetative propagation.

In sexual reproduction of eukaryotic organisms, DNA is combined and unique combination of dominant and recessive traits from two parents create diverse offspring.

QUESTIONS:

4. Cellular respiration is the process by which energy is produced in a cell. Which of the following organelles contain the function for cellular respiration?

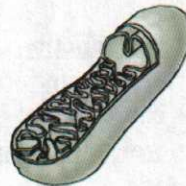
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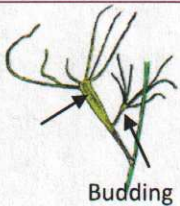
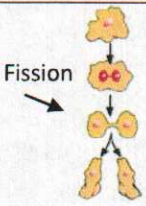


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<p>Sexual Reproduction</p> <ul style="list-style-type: none"> • Requires 2 parents • Offspring is different from each parent (diverse) 	 <p style="text-align: center;">diverse</p>	

In **asexual reproduction** of **prokaryotic cells**, DNA is replicated from the parent resulting in **uniform offspring**. These cells divide by **binary fission**. Organisms composed of **eukaryotic cells** can also reproduce asexually by forming **spores, by budding, or by vegetative propagation**.

In **sexual reproduction** of **eukaryotic organisms**, DNA is combined and unique combination of **dominant and recessive traits** from two parents create **diverse offspring**.

QUESTIONS:

1. What characteristic can be found in the offspring of asexual reproduction?
 - A Genetic information from more than one parent
 - B Uniform genetic information
 - C Diverse appearance
 - D Alleles from more than one parent

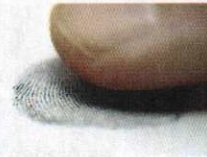
2. What can be used to best compare the results of offspring from asexual or sexual reproduction?
 - A Cell walls
 - B Mitochondria
 - C Organelles
 - D DNA

3. Which organism reproduces only sexually?
 - A Strawberry plant
 - B Bacteria
 - C Human
 - D Mushroom

4. What creates diverse offspring?
 - A Fragmentation
 - B Sexual reproduction
 - C Large populations
 - D Biodiversity

5. How could a scientist determine if offspring are the result of asexual or sexual reproduction?
 - A Analyze their DNA
 - B Measure their growth rate
 - C Weigh their mass
 - D Map their habitat

6. If two different breeds of dogs reproduced sexually, combining DNA, then their offspring would demonstrate -





- A. identical appearance to only one parent.
- B. uniform genotype.
- C. a unique combination of recessive and dominant traits.
- D. prokaryotic cells.

SHARE your thoughts about the questions below with your partner:

What are some reproductive differences between prokaryotic and eukaryotic cells?

How do offspring from asexual reproduction compare to offspring from sexual reproduction?

Are the offspring of asexual reproduction uniform or diverse?

Are the offspring of sexual reproduction uniform or diverse?

7.14.C recognize that inherited traits of individuals are governed in the genetic material found in the genes within chromosomes in the nucleus

Genetic Material

Gene - a unit of instructions for traits, found in the DNA of an organism.

Genes play an important role in determining physical traits (how we look).
 DNA is located in chromosomes in the nucleus
 Humans have 23 pairs of chromosomes

Traits - characteristics that distinguish an organism.

Inherited Traits - traits that are inherited in the genes and passed down from parent to offspring (generation to generation)

Type of Inherited Trait	Genes are located in the Chromosomes in the Nucleus
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Attached
Ear Lobe



Hanging Ear
Lobe

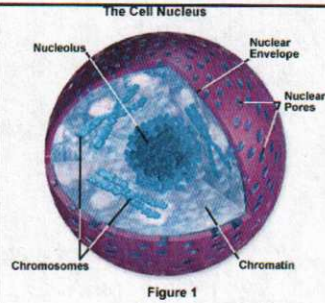


Figure 1

Genetic information is inherited from both parents in sexual reproduction. Inherited traits include expressed external characteristics such as eye color and hair color and internal characteristics such as blood type. Inherited traits are not affected by the organism's surroundings.

VOCABULARY YOU NEED TO KNOW TO ANSWER QUESTIONS:

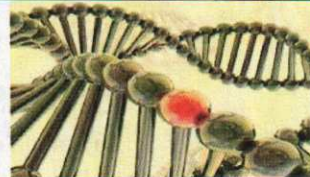
Heredity:

Process of characteristics transmitted from parent to offspring.



Genes:

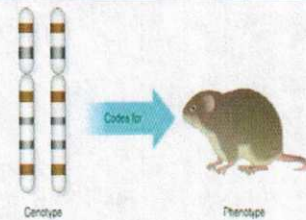
The basic physical and functional unit of heredity made up of DNA.



Genotype:

A genetic makeup of an organism

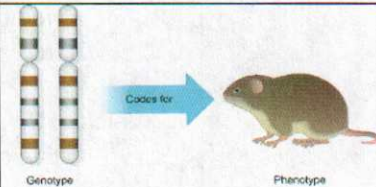
Example: Bb (brown hair dominant)




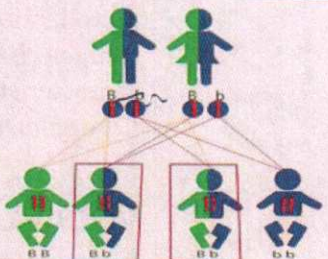
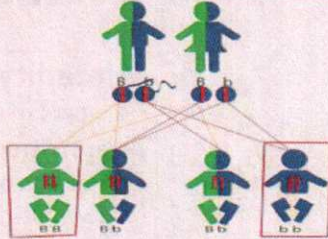


Phenotype:

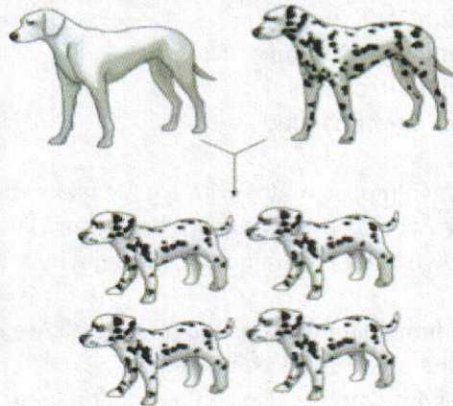
The physical appearance of an organism

Example: long body, brown hair, etc.



	<p>Trait: A characteristic of an organism controlled by genetics.</p> <p>Example: color</p>	
	<p>Alleles: Variations of a gene relating to the same trait.</p>	<p>Allele for purple flower</p>   <p>Allele for red flower</p>
	<p>Heterozygous: Having two different alleles for a trait.</p> <p>Example: Bb in picture to your right.</p>	
	<p>Homozygous: Having two of the same alleles for a trait.</p> <p>Example: BB or bb in picture to your right.</p>	
<p>QUESTIONS:</p> <p>1. The allele pair below is for the height trait. If R represents a dominant trait (tall) and r represents a recessive trait (short), which will the organism?</p> <div style="text-align: center; border: 1px solid black; width: 60px; height: 60px; margin: 10px auto; display: flex; align-items: center; justify-content: center;"> Rr </div> <p>A. Tall and short B. Short C. Medium D. Tall</p> <p>2. Which of the following is not an example of an inherited trait?</p> <p>A. Eye color B. Blood type C. Hairstyle D. Hair color</p>		

3. Which gene combination for the parents shown in the diagram?



KEY
SPOTS (S): dominant
NO SPOTS (s): recessive

- A. $SS \times SS$
 - B. $ss \times ss$
 - C. $Ss \times Ss$
 - D. None of these
4. In offspring when a dominant allele (F) and a recessive allele (f) are present, which of the following statements is true?
- A. The recessive form of the trait will be observed.
 - B. The recessive allele will blend with the dominant allele.
 - C. The recessive form will not be observed but will still be present in the DNA.
 - D. The recessive form will not be observed and cannot be passed on to future offspring.
5. The boy in this picture has brown hair and green eyes, what can you conclude?



- A. Both of his parents have brown hair.
 - B. Green eye color is the recessive form of the eye color trait.
 - C. Brown hair and green eyes are phenotypes.
 - D. Both A and B
6. Which statement best describes a domesticated chicken?
- A. It was bred to inherit traits for tasty meat quality.
 - B. It was bred by selecting parents with desirable genes.
 - C. It was bred for its vulnerability to disease.
 - D. Both A and B
7. Which of the following traits is most influenced by environment rather

than heredity?

- A. Hitchhiker's thumb
- B. A fondness for grapefruit
- C. Dimples in cheeks
- D. Right or left handed

8. A female brown mouse mates with a male white mouse and produces 11 offspring. Six of the offspring are brown and five of the offspring are white. If brown color is dominant to white, why aren't all the offspring brown?

- A. The female mouse was fed marshmallows which caused some of the offspring to be white.
- B. The white mouse also contains a dominant allele for brown fur.
- C. Pollution in the air and water caused some of the offspring to turn white.
- D. The brown mouse contains a recessive allele for the white fur.

9. A man and woman have dark-colored hair, the expression of hair color's dominant form (H). They have four children, two of which have light-colored hair, the trait's recessive form (h). Which of the diagrams below demonstrate the genotypes of the parents (shaded gray)?

parents	H	H
H	HH	HH
h	Hh	Hh

F

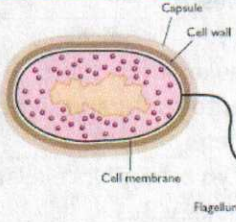
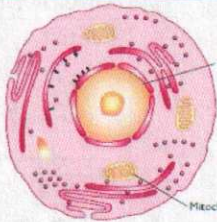
parents	H	h
H	HH	Hh
h	Hh	hh

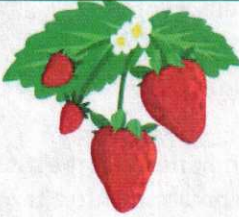

G

- A. F
- B. G
- C. Either F or G
- D. Neither F nor G

6.12.D identify the basic characteristics of organisms, including prokaryotic or eukaryotic, unicellular or multicellular, autotrophic or heterotrophic, and mode of reproduction, that further classify them in the currently recognized Kingdoms

Characteristics of Organisms

Prokaryotic	Eukaryotic
Does not have an organized nucleus. Their DNA is floating around the cell.	Has a nucleus.
	

Autotrophic	Heterotrophic
Organisms that make their own organic food	Organisms that consume food that is already present in the environment
	

Three domains are used to classify or group organisms.

DOMAIN	Description	Examples
Archae	Primitive unicellular prokaryotes; some autotrophs and some heterotrophs; some live in harsh conditions	Halophilic archae live in very salty water
Bacteria	Unicellular prokaryotes; most are heterotrophs; "typical" bacteria	Staphylococcus bacteria, <i>E. coli</i>
Eukarya	Unicellular and multicellular	Fish, tree, algae

eukaryotes

The eukarya domain can be divided into four distinct **kingdoms**.

KINGDOM	Description	Examples
Protist	Typically unicellular eukaryotes; some autotrophs and some heterotrophs	Amoeba, algae, euglena
Fungi	Typically multicellular eukaryotes; heterotrophs; many are decomposer	Mushroom, mold, yeast, <i>Penicillium</i>
Plant	Multicellular eukaryotes; autotrophs	Tree, grass, corn
Animal	Multicellular eukaryotes; heterotrophs	Snail, dog, human

QUESTIONS:

1. Of the characteristic comparisons in the list below, which is the best choice for classifying an organism into a taxonomic Kingdom?
 - A. Fur vs. no fur
 - B. Legs vs. no legs
 - C. Multicellular vs. unicellular
 - D. Brown-colored vs. green-colored
2. Organisms classified in the Animal Kingdom most commonly reproduce
 - A. sexually
 - B. asexually
 - C. by vegetative propagation
 - D. none of the above

3. This fungus is an example of an organism that -



- A. makes its own food using photosynthesis
 - B. consumes other organisms for food
 - C. can either make its own food or consume other organisms
 - D. does not need food
4. A classification guide notes that a type of fungus is a member of the plant Kingdom. Why is this classification incorrect?



- A. Fungi make their own food.
- B. Fungi rely on other organisms as food sources
- C. Fungi are multicellular
- D. Fungi are eukaryotes.

5. Which of the following statements is correct regarding flowering plants?

- A. The asexual reproductive structure is a clone.
- B. Fertilization is the sexual reproductive process that involves pollination.
- C. Flowering plants reproduce by binary fission.
- D. Sexual reproduction in flowering plants only requires the female part of the flower.

6. Which of the following processes explains the type of reproduction that occurs when starfish regenerate from being cut in half?



- A. Asexual reproduction
- B. Sexual reproduction
- C. Both asexual and sexual reproduction
- D. Neither asexual and sexual reproduction