SCIENCE

FOR LANGUAGE DEVELOPMENT

GRADE 8 • BOOK 2

BASED ON
ALASKA
SCIENCE
STANDARDS

Sealaska Heritage Institute

UNIT 6

C-1: Concepts of Life Science

KEY VOCABULARY

Culturally Responsive & Place-Based Introduction of Science Vocabulary

FUNCTION

Place-Based Perspective

Place a stuffed animal or toy at the front of the room. Have the students list all of the body parts that they can see. What are each of the parts for? In other words, what is their function? Teeth for chewing, fur for keeping warm, paws for walking, eyes for seeing… These are just a few examples. Ask the students what the functions of various organs are.

Heritage Cultural Perspective

The function or purpose of the traditional halibut hook was to catch halibut! These were crafted very carefully and the dimensions of the hook were tailored for the size of fish that was to be caught. A crest of one's clan was often carved into the hook as it was thought that the animal's spirit would aid in the harvest. What is the function of a fish's fin? Of a boat's motor?

INTERDEPENDENCE

Place-Based Perspective

Show the students a plant in the classroom or outside. Explain that plants need carbon dioxide, which humans give off, and that we need oxygen, which plants give off. This is an example of interdependence between plants and animals. What would happen if all of the oxygen or ALL of the carbon dioxide were depleted in the world?

Heritage Cultural Perspective

Predators and their prey are interdependent on one another. It may sound strange to suggest that prey need to be eaten, but predators help to keep their populations at healthy levels. Indigenous peoples of Alaska recognized that there was a delicate balance in the environment and they would often harvest at sustainable levels, never taking more than they needed.

CIRCULATORY SYSTEM

Place-Based Perspective

Ask the students to look at their hands and to try to identify veins. Explain that blood is flowing through those veins carrying nutrients to cells and waste away from them. The heart pumps and pushes the blood throughout the body. This is called the circulatory system because it circulates materials throughout the body!

Heritage Cultural Perspective

The Native people of Southeast Alaska were quite familiar with much of the anatomy and physiology of animals. They knew that the heart was important as was the blood of the body. To lose blood or a heartbeat could mean death. By examining the organs of animals that were killed, they were able to learn much about their own bodies!

Culturally Responsive & Place-Based Introduction of Science Vocabulary

RESPIRATORY SYSTEM

Place-Based Perspective

Ask the students how long they can hold their breath underwater. What does it feel like at the point that they need to come up for air? Explain that this feeling is caused by the depletion of oxygen in the body. When they finally reach the surface and breathe, oxygen is transported from the lungs to the blood. The intake of oxygen and output of waste gasses is done by the respiratory system!

Heritage Cultural Perspective

The respiratory system of marine mammals is similar to terrestrial mammals, but is adapted to allow them to be submerged longer. Most people probably know that whales breathe through a blow hole on their back. The spout that is seen is not water but an exhale of air! The indigenous peoples of Southeast Alaska commonly see whale spouts and some can even tell the kind of the whale from the spout!

NERVOUS SYSTEM

Place-Based Perspective

Ask the students to lightly pinch the underside of their arms. Tell them that the pain that they feel results from nerves sending impulses to the brain. This information is transmitted by means of the nervous system. The nervous system is the way that we feel all objects around us. Have the students imagine a life without a nervous system! While we hate to feel pain, it is often good that we do!

Heritage Cultural Perspective

The ability of parts of the body to communicate with the brain and all other parts is important for survival. Without the sense of touch how would you know to remove your hand from a fire or to get in out of the cold? Nervous systems are important not only for indigenous peoples living in Alaska, but for everyone.

NATURAL SELECTION

Place-Based Perspective

Show the students the pictures of Darwin's Finches on page 497. Explain to them that each of these finches has a different beak shape based on the type of food that they eat. Over long periods of time and many generations, the birds with better beaks for breaking apart their food were able to survive and produce young. This survival of individuals that are better suited for their environment is called natural selection.

Heritage Cultural Perspective

Sitka black-tailed deer are an important resource for indigenous peoples in Southeast Alaska. The deer have been naturally selected by the environment for thousands of years. Those that were slower, weaker, and less adapted to their environment likely died off or were killed, and were unable to contribute to subsequent generations.

Culturally Responsive & Place-Based Introduction of Science Vocabulary

EVOLUTION

Place-Based Perspective

Show the students the diagram of dog evolution on page 499. Explain that over time humans bred wolves to become the various breeds of dog that we have today. They selected these breeds for specific traits. This is an example of evolution. There is ample evidence to suggest that all life on Earth may have evolved from early ancestors to the species now present on Earth.

Heritage Cultural Perspective

Porcupines have a unique example of an evolutionary trait that helps them to survive. They have evolved to have hard quills that can penetrate the skin of any animal that is attacking them. Though they can be killed, predators are likely to choose easier prey first! Porcupines were occasionally consumed by Tlingits in Southeast Alaska.

CYCLING

Place-Based Perspective

Have the students draw a picture of a bicycle on a piece of paper. Next ask them to explain where the bicycle might have gotten its name. Explain that it has two wheels and that the rotation of the pedals rotates the chain which rotates the wheels — a continuous cycle. Tell the students that cycling occurs naturally too, with various elements making their way from one place to another and back to where they started in the first place.

Heritage Cultural Perspective

The annual cycle taken on by indigenous peoples in the north refers to the times of year that various events took place, from ceremonies to the harvest of berries, hunting, fishing etc. Many indigenous peoples, including the Tlingit and Haida, were quite mobile and lived in different places throughout the year. Summer fish camps, for example, were usually in very different locations than the winter village sites!

CONSERVE

Place-Based Perspective

Have the students make lists of all of the ways that they can think of to conserve energy at school and in their homes. Who has the most ways? Who has the most interesting way? Create a superlatives chart on the board. Ask the students what it really means to conserve. Explain that it means to keep something constant, in this case energy, but not using it, at least to the degree that you would by not "conserving."

Heritage Cultural Perspective

The conservation of resources has always been important for mankind. In order to make sure that a resource remains available in subsequent years and for future generations, one must limit the amount that is harvested at any one time. This has always been a cultural value among the Tlingit.

LESSONS

Science Language for Success

Introduce the key science vocabulary, using concrete materials and/or pictures.

LISTENING

Use the Mini Pictures activity page from the Student Support Materials. Have the students cut out the pictures. Say the key words and the students show the pictures.

Nod and Clap

Mount the vocabulary pictures on the board. Point to one of the pictures and say its name. The students should nod their heads to indicate that you said the correct vocabulary word for the picture. However, when you point to a picture and say an incorrect name for it, the students should clap their hands ONCE. Repeat this process until all of the vocabulary pictures have been used a number of times in this way.

Student Support Materials

Have the students work on the activity pages from the Student Support Materials from this unit. Afterward, review their work.

SPEAKING

The Disappearing Pictures

Mount five or six pictures on the board, vertically. Point to the picture at the top and tell the students to name it. Continue in this way until the students have named all of the pictures from top to bottom. Then, remove the last picture and repeat this process—the students should say all of the vocabulary words, including the name for the "missing" picture. Then, remove another picture from the board and have the students repeat this process. Continue in this way until the students are saying all of the vocabulary words from a blank board or until the students cannot remember the "missing pictures."

Flashlight Name

Mount the vocabulary pictures on the board and the walls of the classroom. Darken the classroom as much as possible. Use a strong flashlight to direct the students' attention to one of the pictures. The students should identify the picture that is illuminated by the light of the flashlight. Continue in this way until all of the vocabulary words have been said a number of times.

Roll 'Em Again!

Mount the vocabulary pictures on the board. Number each picture from one to six (repeat a number as often as necessary). Then, group the students into two teams. Give the first player in each team a die. When you say "Go," the first player in each team must roll his/her die. He/She should call the number showing on it and then say a complete sentence about a vocabulary picture on the board that has the same number. Repeat this process until all students have participated.

Science Language for Success

READING

Introduce the science sight words to the students—match the sight words with the vocabulary pictures. The sight words are included in the Student Support Materials, attached to these lesson plans.

Note: After each unit, mount a set of the unit's words on the walls around the room. Use the "word walls" for review and reinforcement activities.

Funnel Words

Group the students into two teams. Give the first player in each team a funnel. Mount the sight words on the walls, board, and windows, around the classroom. Say one of the sight words. The students with the funnels must then look through them to locate the sight word you named. The first student to do this correctly wins the round. Repeat with other pairs of students until all players in each team have played.

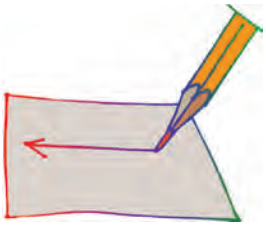
Letter Encode

Give each student his/her envelope that contains the alphabet letters. Mount one of the science pictures on the board. The students must use the cut-out letters to spell the word. Review the students' work. Repeat, until all of the words have been spelled in this way.

Student Support Materials

Have the students complete the sight recognition and encoding activities in the Student Support Materials. When finished, review their work.

WRITING



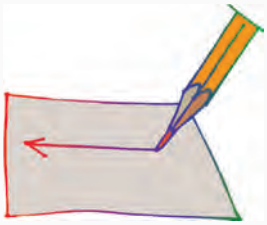
Mirror Writing

Group the students into two teams. Have the first player from each team stand in front of the board. Give each of the two players a small, unbreakable mirror. Stand some distance behind the two players with pictures for the sight words. Hold up one of the pictures. When you say "Go," the players must use the mirrors to look over their shoulders to see the picture you are holding. When a player sees the picture, he/she must write the sight word for that picture on the board. The first player to do this correctly wins the round. Repeat this process until all players in each team have had an opportunity to respond.

Silent Dictation

Provide each student with writing paper and a pen. The students should watch carefully as you move your lips as though you are saying one of the sight words (do not voice the word). After "lipping" the sight word, each student should write that word on his/her sheet of paper. Repeat this process with other sight words. Afterwards, review the students' responses.

WRITING (CONTINUED)



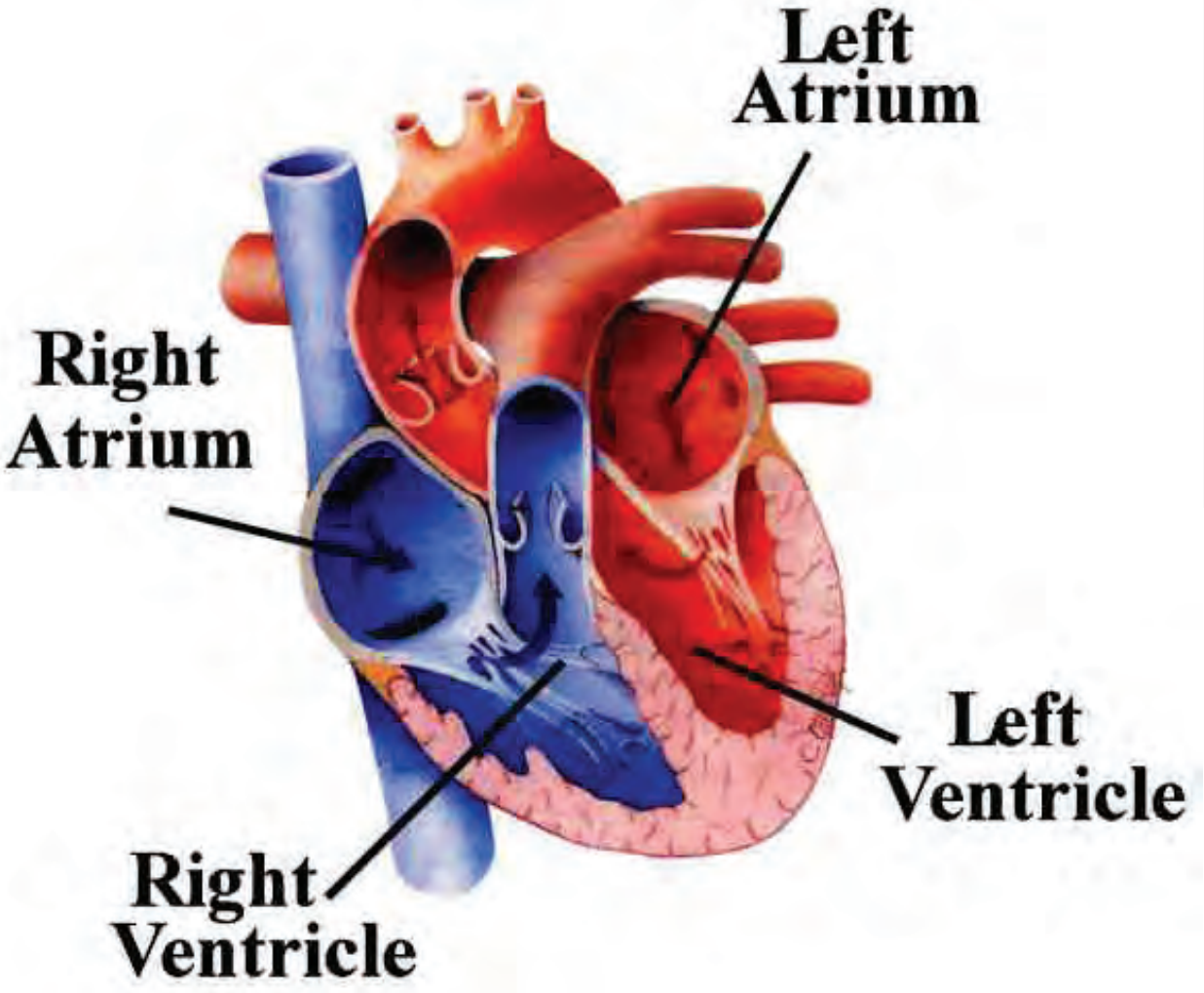
Student Support Materials

Provide the students with a copy of the writing pages from the Student Support Materials. When finished, review the students' work.

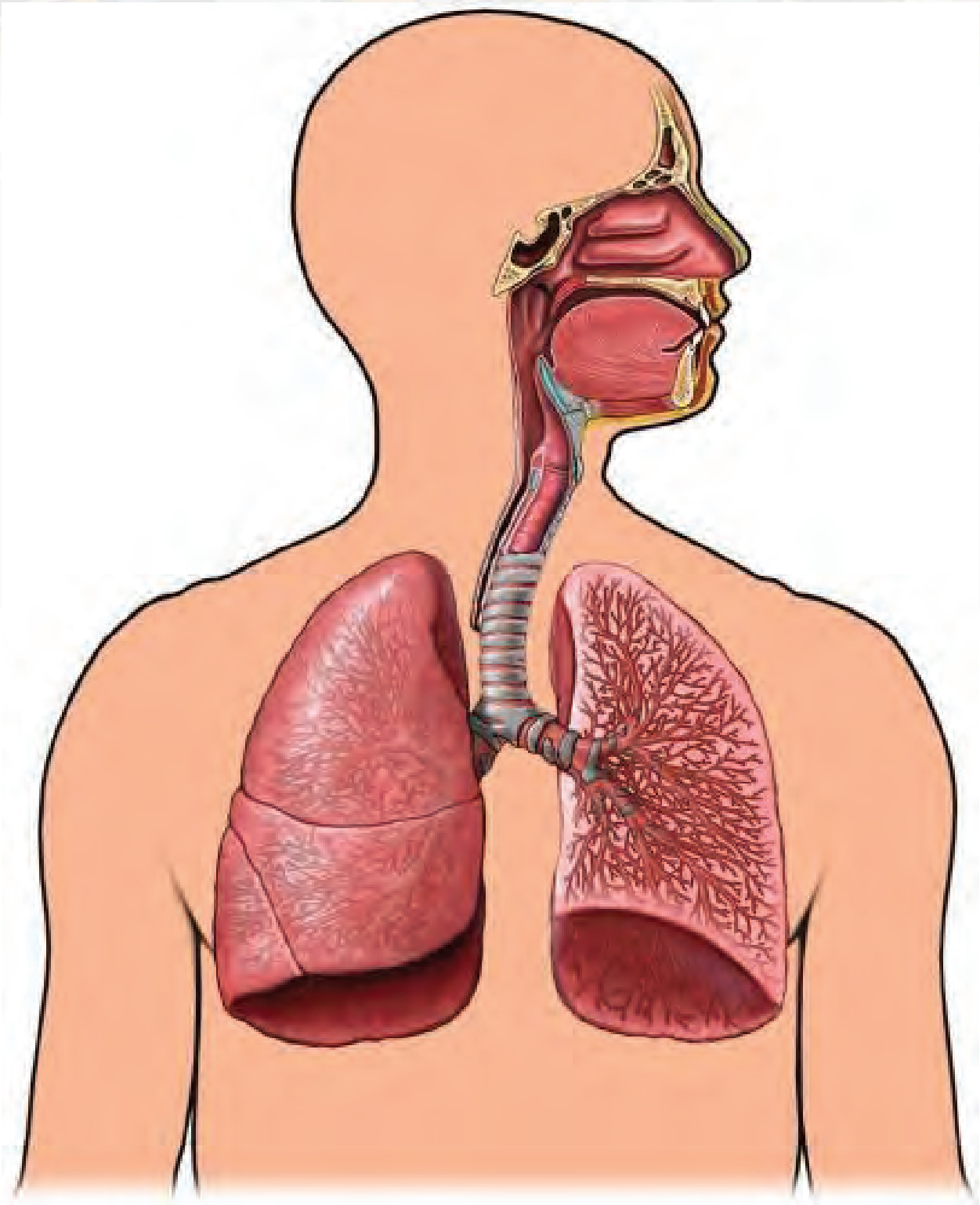
VOCABULARY PICTURES

FUNCTION

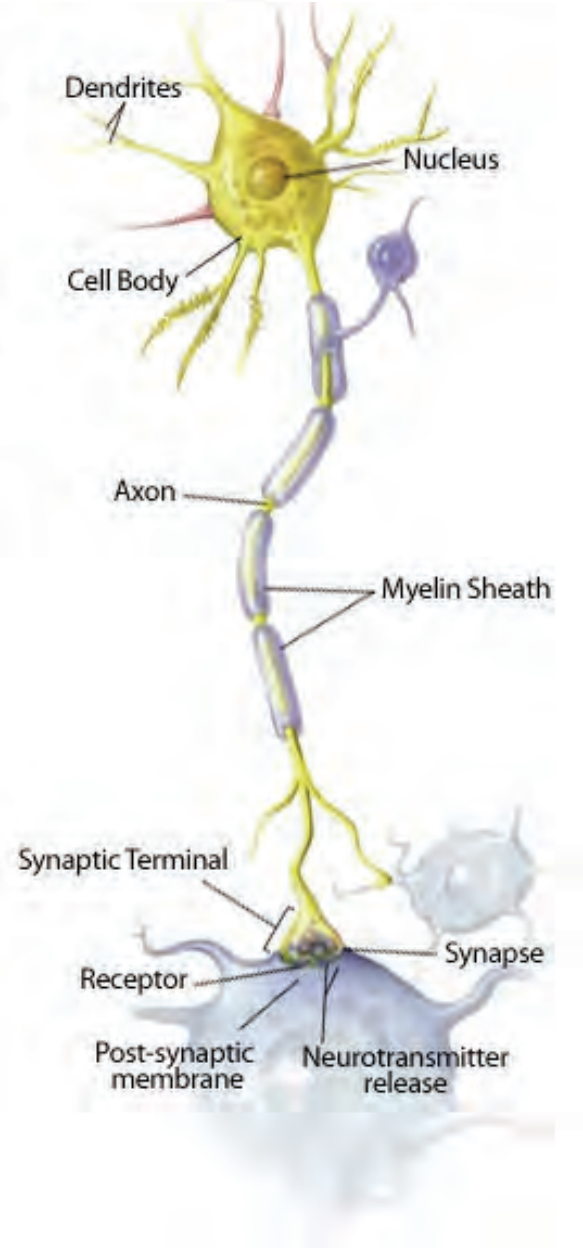
INTERDEPENDENCE


Left
Atrium
Right
Atrium
Left
Ventricle
Right
Ventricle

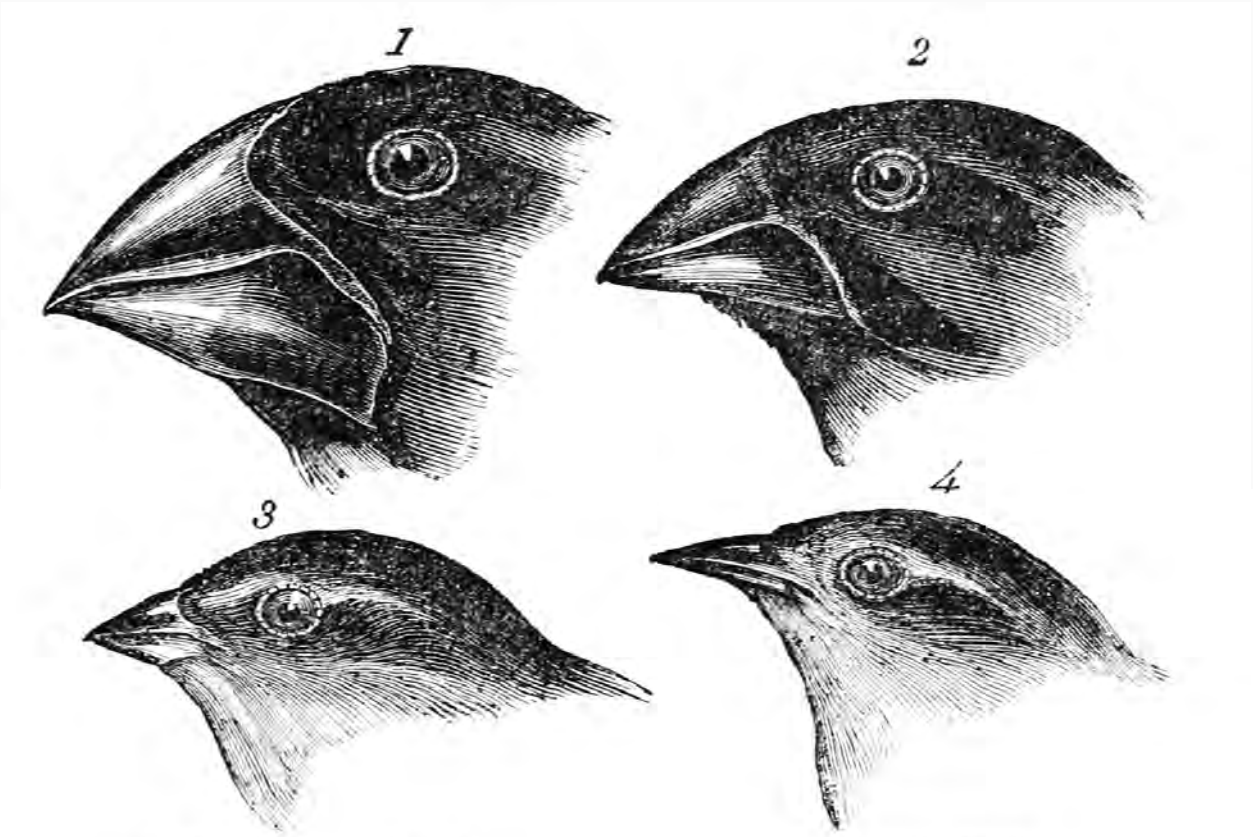
CIRCULATORY SYSTEM



RESPIRATORY SYSTEM


Dendrites
Nucleus
Cell Body
Axon
Myelin Sheath
Synaptic Terminal
Synapse
Receptor
Post-synaptic membrane
Neurotransmitter release

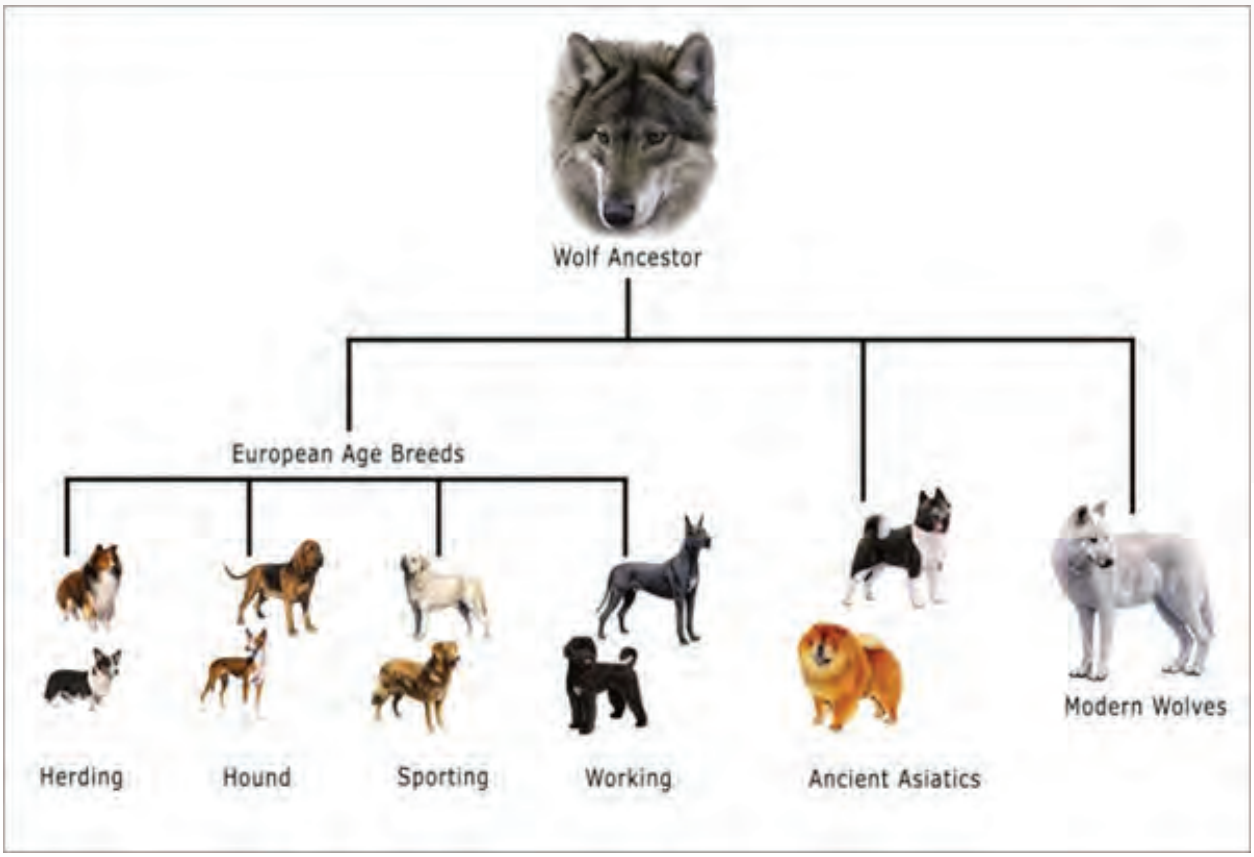
NERVOUS SYSTEM



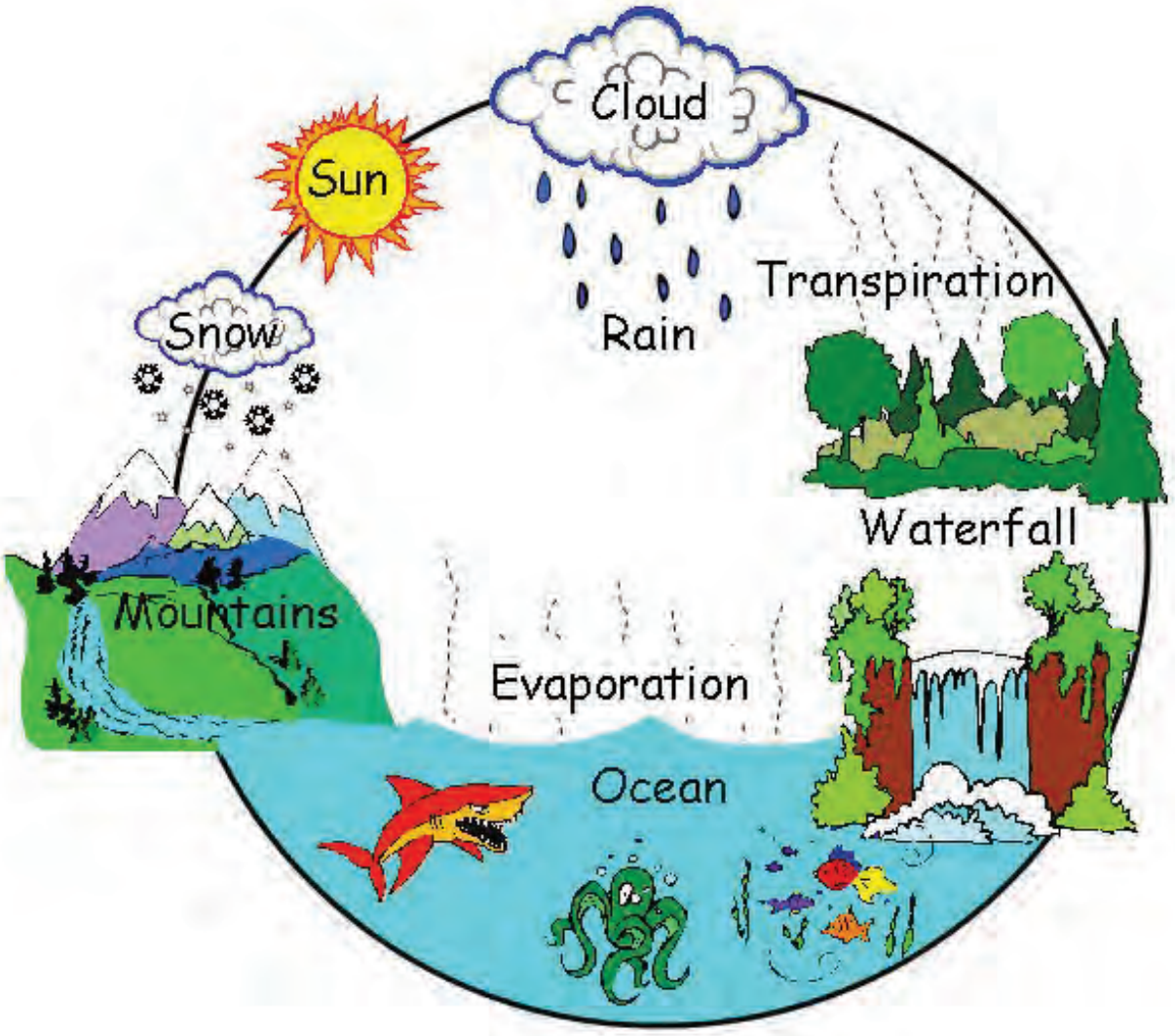
1. Geospiza magnirostris.

2. Geospiza fortis.

NATURAL SELECTION


Wolf Ancestor
European Age Breeds
Herding
Hound
Sporting
Working
Ancient Asiatics
Modern Wolves

EVOLUTION


Cloud
Sun
Snow
Rain
Transpiration
Waterfall
Mountains
Evaporation
Ocean

CYCLING

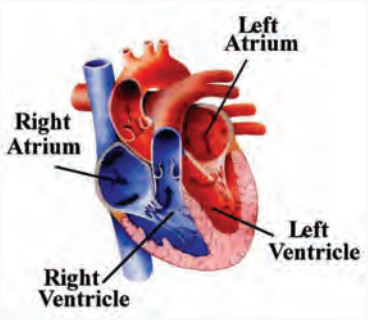
CONSERVE

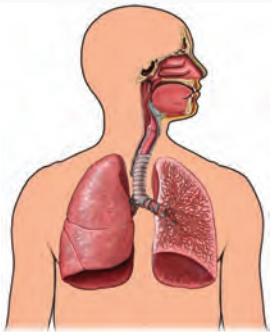
STUDENT SUPPORT MATERIALS

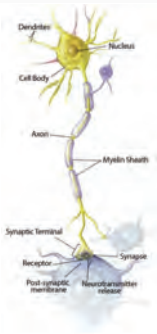
Listening • Mini Pictures

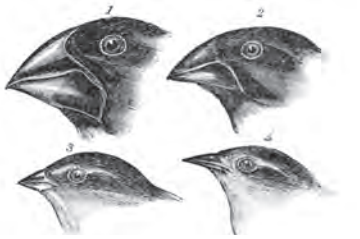
Listening: Mini Pictures

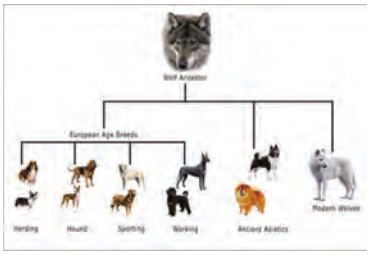
Prepare a copy of these pages for each student. The students should cut out the pictures and lay them on the floor or desk. Say the key words and the students should show you the pictures. Repeat a number of times. This activity can also be done with pairs of students to determine who is the fastest player.











STUDENT SUPPORT MATERIALS

Listening Comprehension

Listening Comprehension

Read the following sentences to the students. The students should circle "true" or "false" for each of the sentences. Review the students' work.

1. A function of a fish's fins is to aid in swimming. **True** **False**

2. There is interdependence between Southeast Alaska forests and salmon. **True** **False**

3. The main purpose of the circulatory system is food digestion. **True** **False**

4. The respiratory system allows oxygen to be taken in by the body. **True** **False**

5. The nervous system's sole purpose is to make us nervous. **True** **False**

6. Natural selection is the process by which organisms that are better adapted to their environments tend to survive and produce more offspring. **True** **False**

7. Evolution is the development and diversification of organisms from earlier forms over time. **True** **False**

8. The cycling of freshwater is important for many living organisms. **True** **False**

9. To conserve energy now may make the same energy available later. **True** **False**

Listening Comprehension: Answer Key

Read the following sentences to the students. The students should circle "true" or "false" for each of the sentences. Review the students' work.

1	A function of a fish's fins is to aid in swimming.	**True** / False
2	There is interdependence between Southeast Alaska forests and salmon.	**True** / False
3	The main purpose of the circulatory system is food digestion.	True / **False**
4	The respiratory system allows oxygen to be taken in by the body.	**True** / False
5	The nervous system's sole purpose is to make us nervous.	True / **False**
6	Natural selection is the process by which organisms that are better adapted to their environments tend to survive and produce more offspring.	**True** / False
7	Evolution is the development and diversification of organisms from earlier forms over time.	**True** / False
8	The cycling of freshwater is important for many living organisms.	**True** / False
9	To conserve energy now may make the same energy available later.	**True** / False

STUDENT SUPPORT MATERIALS

Sight Words

function

interdependence

circulatory

respiratory system

nervous system

natural selection

evolution

cycling

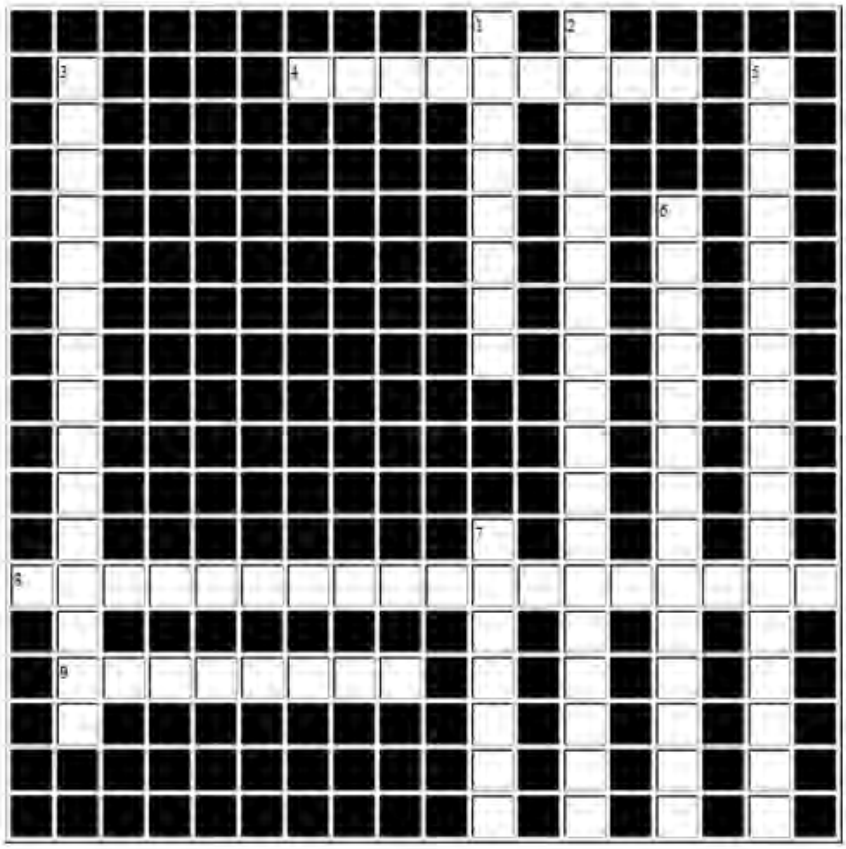
conserve

STUDENT SUPPORT MATERIALS

Basic Reading • Sight Recognition

Sight Words Activity Page

Have the students complete the cross word puzzle below. A blank box is present for any space between a two-word phrase.



Across

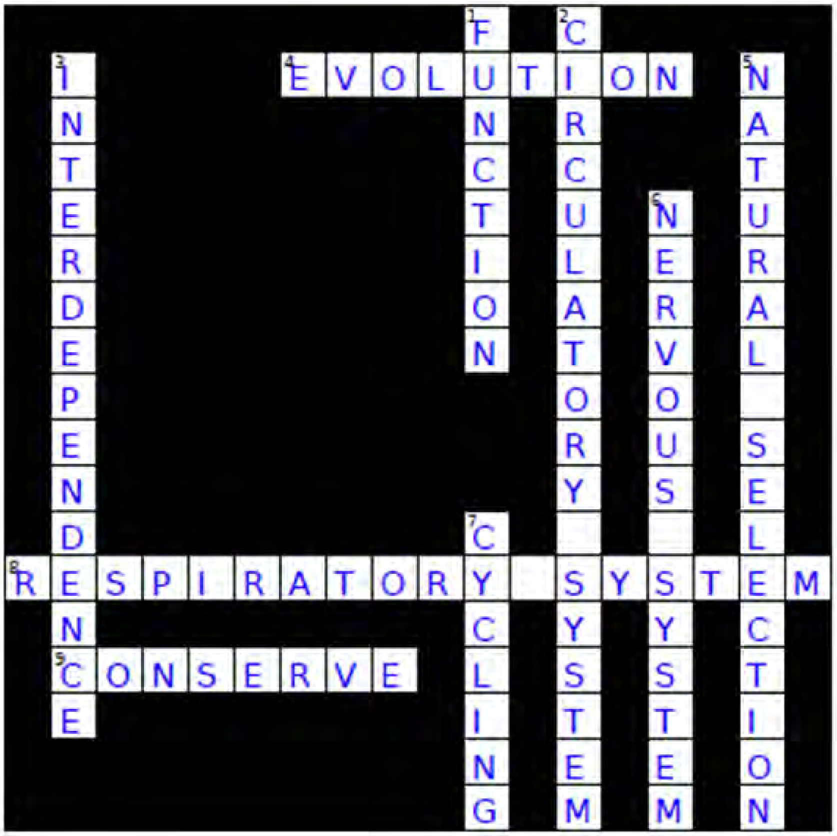
4. Process where organisms are thought to have developed and diversified from earlier forms.
8. The system of organs which allows for gas exchange.
9. Keep constant through physical or chemical reactions or evolutionary change.

Down

1. An activity or purpose natural to or intended for a person or thing.
2. The system that circulates blood and lymph through the body.
3. Dependence between two or more people, groups, or things.
5. Organisms better adapted to their environment tend to survive and produce offspring.
6. The network of nerve cells that transmits nerve impulses between parts of the body.
7. Any complete round or series of occurrences that repeats or is repeated.

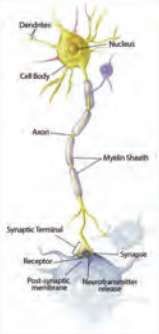
Sight Words Activity Page

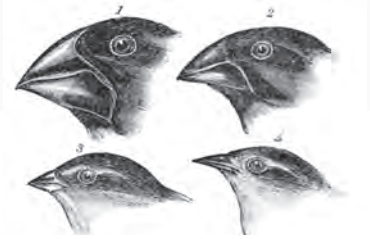
Answer Key

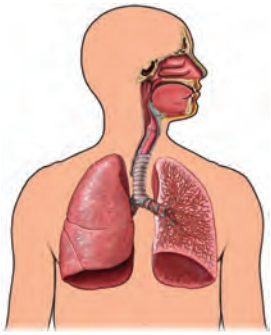


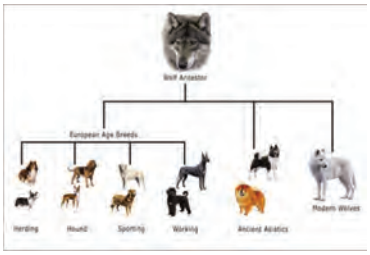
Sight Words Activity Page

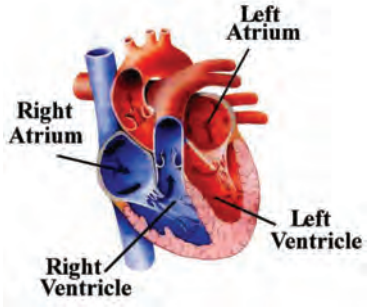
Have the students cut out the key words and glue them at the bottom of their pictures.











function	interdependence	circulatory system	respiratory system
nervous system	natural selection	evolution	cycling
conserve			

Sight Words Activity Page

Have the students print the key words from this unit horizonally in the boxes (each word may be written more than once). They should then fill in all other boxes with any letters. Have the students exchange pages. The students should then circle the words on the page.

STUDENT SUPPORT MATERIALS

Basic Reading • Encoding

Encoding Activity Page

Have the students cut out and encode the syllables of the words, OR number the syllables in their correct sequence.

func	**tion**
_____	_____

de	**ter**	**pen**	**in**	**dence**
_____	_____	_____	_____	_____

ry	**la**	**to**	**cu**	**cir**
_____	_____	_____	_____	_____

serve	**con**
_____	_____

Encoding Activity Page

Have the students cut out and encode the syllables of the words, OR number the syllables in their correct sequence.

to	pi	res	ra	ry

vous	ner

tem	sys

cy	cling

Encoding Activity Page

Have the students cut out and encode the syllables of the words, OR number the syllables in their correct sequence.

u	nat	lec
_____	_____	_____

ral	tion	se
_____	_____	_____

evo	lu	tion
_____	_____	_____

Encoding Activity Page

Have the students cut out the word halves and glue them together to create the key words for this unit.

func	**ous system**
inter	**atory system**
circul	**olution**
resp	**serve**
nerv	**ural selection**

Encoding Activity Page

Have the students cut out the word halves and glue them together to create the key words for this unit.

nat	cling
ev	dependence
cy	tion
con	iratory system

STUDENT SUPPORT MATERIALS

Reading Comprehension

Reading Comprehension Activity Page

Have the students read the text and then select the correct answer for it. They should fill in the appropriate bullet beside the answer of their choice.

1. Which of the following is a function of a canoe?
   - ❍ air travel
   - ❍ water travel
   - ❍ land travel
   - ❍ none of the above

2. Which of the following is an example of interdependence?
   - ❍ salmon and rivers
   - ❍ bees and pollen
   - ❍ wolves and deer
   - ❍ all of the above

3. Which of the following is part of the circulatory system?
   - ❍ blood
   - ❍ eyes
   - ❍ stomach
   - ❍ spine

4. Which of the following is part of the respiratory system?
   - ❍ heart
   - ❍ liver
   - ❍ lungs
   - ❍ teeth

5. Which of the following is part of the nervous system?
   - ❍ liver
   - ❍ nose
   - ❍ blood
   - ❍ brain

Reading Comprehension Activity Page

6 Natural selection suggests a competitive advantage for organisms:

- ❍ that are less adapted for their environment
- ❍ that are better adapted for their environment
- ❍ that are malnourished
- ❍ that are domesticated

7 The diversification of organisms over Earth's history is often attributed to:

- ❍ mathematics
- ❍ population
- ❍ evolution
- ❍ saturation

8 Examples of cycling in the environment include?

- ❍ water
- ❍ carbon
- ❍ nitrogen
- ❍ all of the above

9 Which of the following is NOT a good way to conserve energy?

- ❍ turn lights off when you are not using them
- ❍ leave the television on for the dog while you are not home
- ❍ unplug your cell phone charger when it is not being used
- ❍ keep the heat turned down in your home

Reading Comprehension Activity Page

ANSWER KEY

1. Which of the following is a function of a canoe?
   - ❍ air travel
   - ● water travel
   - ❍ land travel
   - ❍ none of the above

2. Which of the following is an example of interdependence?
   - ❍ salmon and rivers
   - ❍ bees and pollen
   - ❍ wolves and deer
   - ● all of the above

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   - ● blood
   - ❍ eyes
   - ❍ stomach
   - ❍ spine

4. Which of the following is part of the respiratory system?
   - ❍ heart
   - ❍ liver
   - ● lungs
   - ❍ teeth

5. Which of the following is part of the nervous system?
   - ❍ liver
   - ❍ nose
   - ❍ blood
   - ● brain

Reading Comprehension Activity Page

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- ❍ that are less adapted for their environment
- ● that are better adapted for their environment
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- ❍ that are domesticated

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- ● leave the television on for the dog while you are not home
- ❍ unplug your cell phone charger when it is not being used
- ❍ keep the heat turned down in your home

Reading Comprehension Activity Page

Have the students write the letters for sentence halves that match.

1	A function of teeth is	A	circulatory system.
2	Interdependence occurs frequently	B	in the diversity of dog breeds today.
3	Veins and arteries are part of the	C	that are better suited to their environments.
4	The nose and mouth are parts of the	D	nervous system.
5	Nerves are part of the	E	to conserve it.
6	Natural selection favors organisms	F	parts of the water cycle.
7	Human assisted evolution can be seen	G	to aid in grinding food.
8	Evaporation and precipitation are	H	respiratory system.
9	To keep something constant is	I	between animals.

1→_____ 2→ _____ 3→ _____ 4→ _____

5→ _____ 6→ _____ 7→ _____ 8→ _____

9→ _____

Reading Comprehension Activity Page

ANSWER KEY

1	A function of teeth is	A	circulatory system.
2	Interdependence occurs frequently	B	in the diversity of dog breeds today.
3	Veins and arteries are part of the	C	that are better suited to their environments.
4	The nose and mouth are parts of the	D	nervous system.
5	Nerves are part of the	E	to conserve it.
6	Natural selection favors organisms	F	parts of the water cycle.
7	Human assisted evolution can be seen	G	to aid in grinding food.
8	Evaporation and precipitation are	H	respiratory system.
9	To keep something constant is	I	between animals.

1→ G 2→ I 3→ A 4→ H

5→ D 6→ C 7→ B 8→ F

9→ E

Reading Comprehension Activity Page

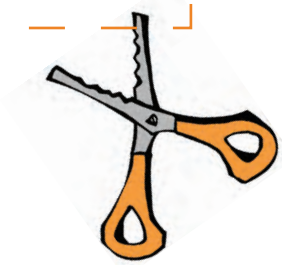
Have the students cut out the words and glue them under their definitions.

Selection for better adapted organisms	**Dependence between two or more things**	**Activity or purpose intended for a person or thing**
Diversification of organisms over Earth's history	**System of organs which allows for gas exchange**	**Series of occurrences that repeat**
System that circulates blood and lymph through the body	**Keep constant through physical or chemical reactions**	**System that transmits nerve impulses between body parts**

function **interdependence** **circulatory system** **respiratory system**

nervous system **natural selection** **evolution** **cycling**

conserve



Reading Comprehension Activity Page

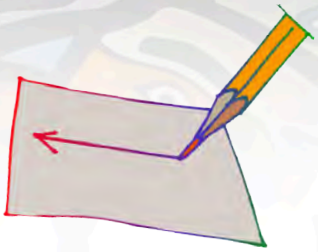
ANSWER KEY

Selection for better adapted organisms natural selection	**Dependence between two or more things** interdependence	**Activity or purpose intended for a person or thing** function
Diversification of organisms over Earth's history evolution	**System of organs which allows for gas exchange** respiratory system	**Series of occurrences that repeat** cycling
System that circulates blood and lymph through the body circulatory system	**Keep constant through physical or chemical reactions** conserve	**System that transmits nerve impulses between body parts** nervous system

STUDENT SUPPORT MATERIALS

Basic Writing

Basic Writing Activity Page



Have the students write in the missing letters.

fu_____ion

interde_____

cir_____ory s_____em

res_____ry sys_____

ner_____ s_____tem

nat_____l sel_____on

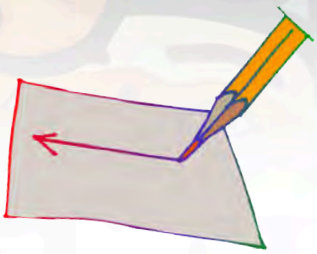
e_____tion

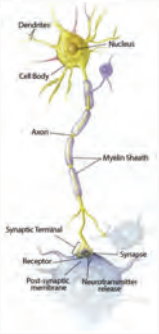
c_____ing

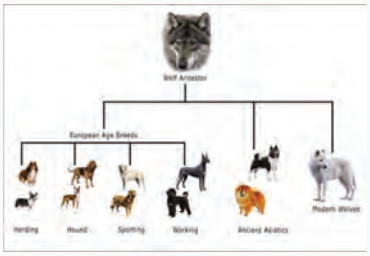
co_____e

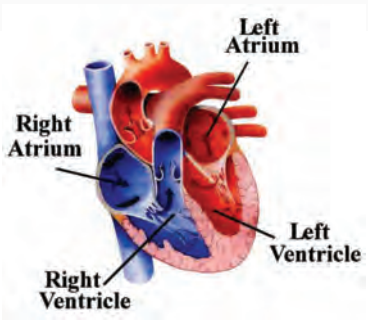
Basic Writing Activity Page

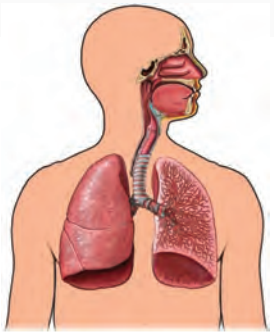
Have the students write the word for each picture.

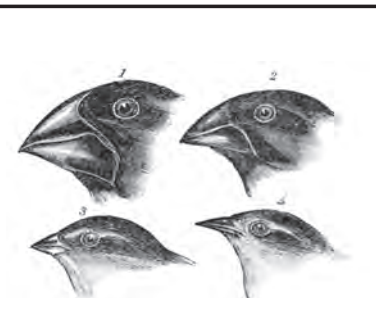


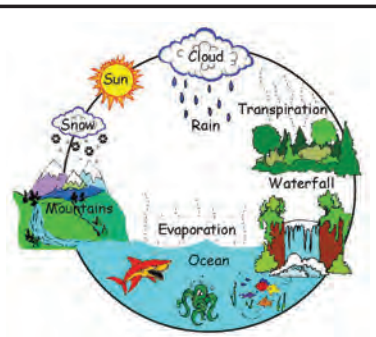




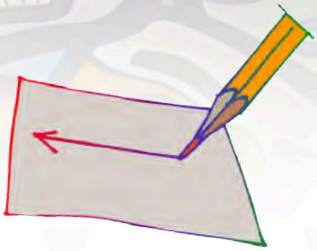






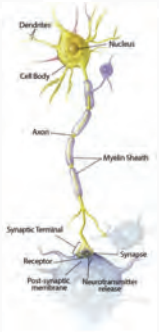


Basic Writing Activity Page

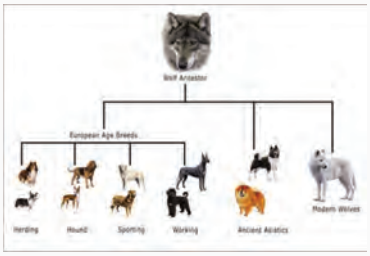


ANSWER KEY

interdependence

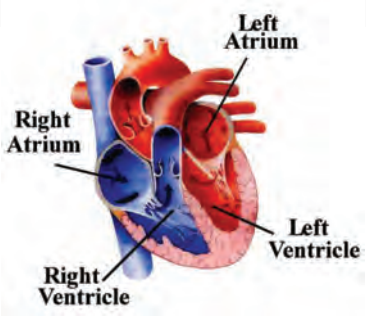


nervous system

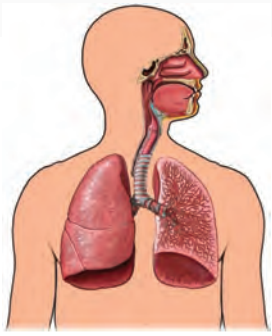


evolution

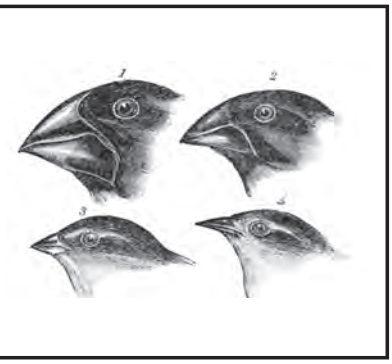
function



circulatory

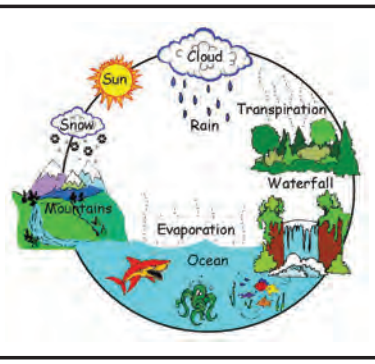


respiratory system



natural selection

conserve

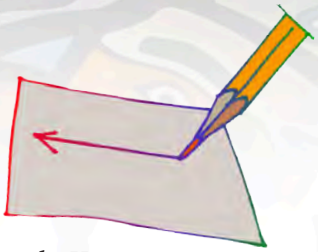


cycling

STUDENT SUPPORT MATERIALS

Creative Writing

Creative Writing Activity Page



Have the students write sentences of their own, using the key words from this unit. When the students' sentences are finished, have them take turns reading their sentences orally. The students should say "Blank" for the key words; the other students must name the "missing" words. You may wish to have the students write the "definitions" for the key words.

FUNCTION

_____

INTERDEPENDENCE

_____

CIRCULATORY SYSTEM

_____

RESPIRATORY SYSTEM

_____

NERVOUS SYSTEM

_____

NATURAL SELECTION

_____

EVOLUTION

_____

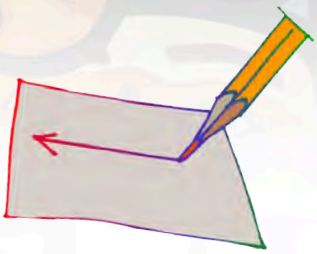
CYCLING

_____

CONSERVE

_____

Creative Writing Activity Page



Have the students write sentences of their own, based on the picture below. When finished, have each student read his/her sentences to the others.

UNIT ASSESSMENT

C-1: Concepts of Life Science

SCIENCE PROGRAM

Unit Assessment Teacher's Notes
Grade 8 • Unit 6 (C–1)
Theme: Concepts of Life Science
Date:_____

Unit Assessment

Provide each student with a copy of the students' pages. Read the following instructions aloud. The students should answer the questions on their copies of the assessment.

BASIC LISTENING

Turn to page 1 in your test. Look at the pictures in the boxes.

1. Write the number 1 by the picture for **FUNCTION**.
2. Write the number 2 by the picture for **INTERDEPENDENCE**.
3. Write the number 3 by he picture for **CIRCULATORY SYSTEM**.
4. Write the number 4 by the picture for **RESPIRATORY SYSTEM**.
5. Write the number 5 by the picture for **NERVOUS SYSTEM**.
6. Write the number 6 by the picture for **NATURAL SELECTION**.
7. Write the number 7 by the picture for **EVOLUTION**.
8. Write the number 8 by the picture for **CYCLING**.
9. Write the number 9 by the picture for **CONSERVE**.

LISTENING COMPREHENSION

Turn to page 2 in your test. Listen to the sentences I say. Circle "T" for true and "F" for false sentences."

1. A function of a bird's wing is flight.
2. Most organisms have no interdependence on other organisms.
3. Like most animals, human beings have no need for circulatory systems.
4. The lungs are a central component of the respiratory system in many animals.
5. The brain communicates with other parts of the body using the nervous system.
6. Natural selection suggests that organisms LESS adapted to their environment are LESS likely to persist.
7. The evolution of organisms has taken place throughout the Earth's history.
8. Cycling of elements allows them to influence many parts of a system.
9. To conserve energy means to use as much as possible while it is still available.
10.

Unit Assessment

Provide each student with a copy of the students' pages. Read the following instructions aloud. The students should answer the questions on their copies of the assessment.

SIGHT RECOGNITION

Turn to pages 3 and 4 in your test. Look at the pictures in the boxes. Circle the word for each picture.

DECODING/ENCODING

Turn to pages 5 and 6 in your test. Look at the word parts in the boxes. Circle the other half or part of each word.

READING COMPREHENSION

Turn to page 7 in your test. Read the sentence part and fill in the bullet for the correct sentence ending.

BASIC WRITING

Turn to page 8 in your test. Look at the pictures in the boxes. Write the word for each picture.

CREATIVE WRITING

Turn to page 9 in your test. Write a sentence of your own, using each word.

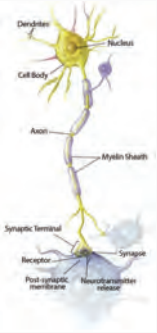
Teacher: To get a percentage for this student's assessment, divide the total number of questions correct by the total number of questions, then multiply this answer by 100 to determine the percentage of questions answered correctly.

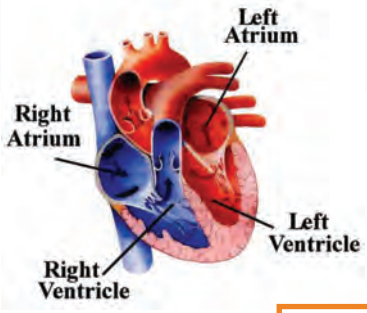
SCIENCE PROGRAM

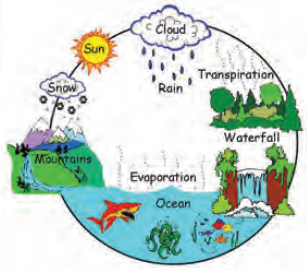
Unit Assessment Student Pages
Grade 8 • Unit 6 (C–1)
Theme: Concepts of Life Science

Date:_____ Student's Name:_____

Number Correct:_____ Percent Correct:_____


Dendrites
Nucleus
Cell Body
Axon
Myelin Sheath
Synaptic Terminal
Receptor
Synapse
Post-synaptic membrane
Neurotransmitter release


Left Atrium
Right Atrium
Left Ventricle
Right Ventricle


Sun
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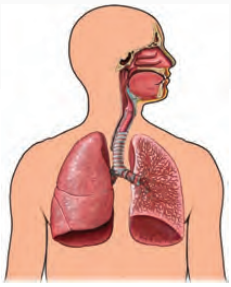
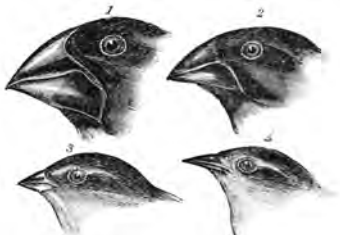
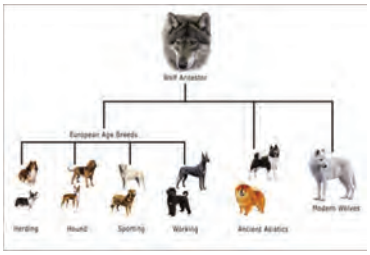
Waterfall
Mountains
Evaporation
Ocean







1. T F

2. T F

3. T F

4. T F

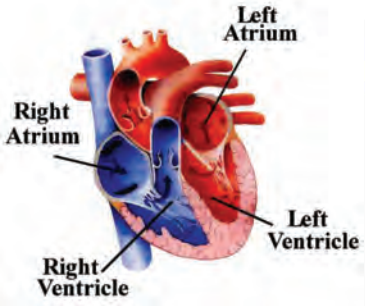
5. T F

6. T F

7. T F

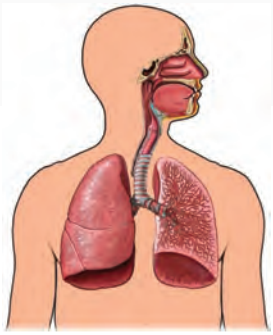
8. T F

9. T F



function
interdependence
circulatory system
respiratory system
nervous system
natural selection
evolution
cycling
conserve

function
interdependence
circulatory system
respiratory system
nervous system
natural selection
evolution
cycling
conserve



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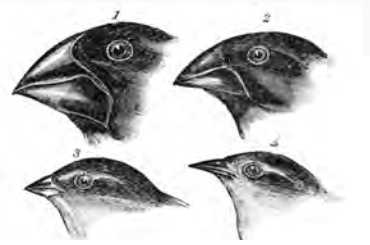

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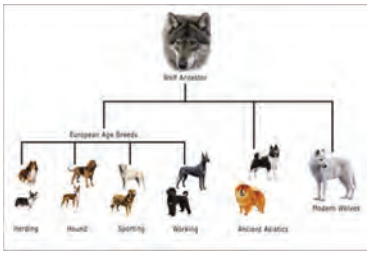

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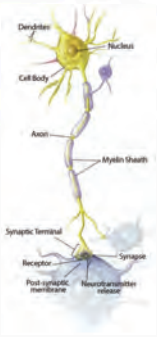

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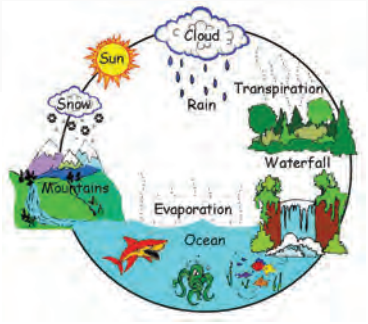

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1. The function of an oven is to:
   - ❍ be plugged in
   - ❍ cook food
   - ❍ burn people

2. Two organisms that exhibit interdependence are:
   - ❍ flowers and insects
   - ❍ moose and lions
   - ❍ turtles and caribou

3. The circulatory system carries _____ and lymph throughout the body.
   - ❍ mucous
   - ❍ blood
   - ❍ stomach acid

4. The respiratory system allows for _____ exchange to and from the body.
   - ❍ food
   - ❍ organ
   - ❍ gas

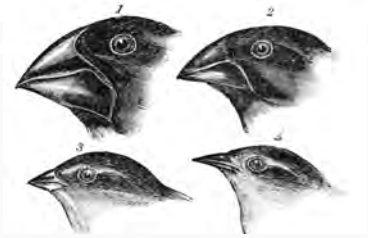
5. The nervous system transmits nerve _____ between parts of the body.
   - ❍ impulses
   - ❍ cells
   - ❍ waste

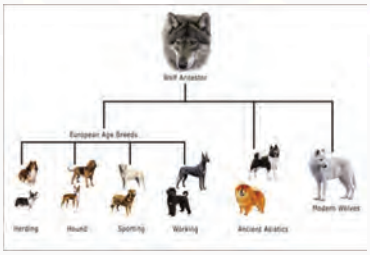
6. Natural selection suggests that which organisms will persist most often?
   - ❍ those that are better suited to their environment
   - ❍ those that are less poorly suited to their environment
   - ❍ those with many predators

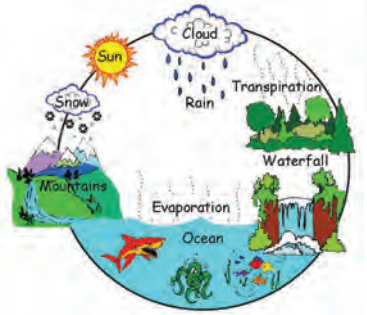
7. Evolution suggests that species have diversified over the course of Earths:
   - ❍ atmosphere
   - ❍ resources
   - ❍ history

8. The repetition of a process or series of occurrences is:
   - ❍ turning
   - ❍ stopping
   - ❍ cycling

9. To conserve is to keep something:
   - ❍ constant
   - ❍ solid
   - ❍ changing






Sun
Cloud
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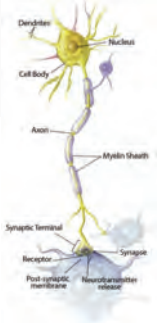
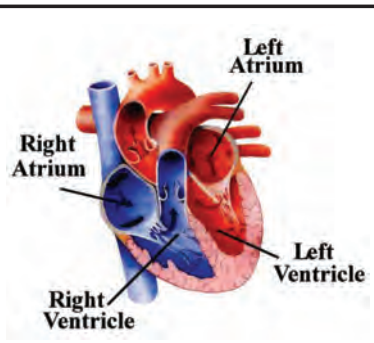
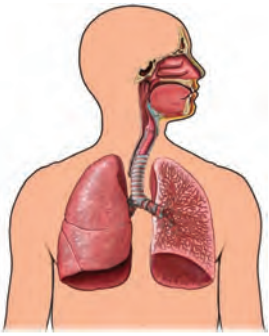



Left Atrium
Right Atrium
Left Ventricle
Right Ventricle



FUNCTION

INTERDEPENDENCE

CIRCULATORY SYSTEM

RESPIRATORY SYSTEM

NERVOUS SYSTEM

NATURAL SELECTION

EVOLUTION

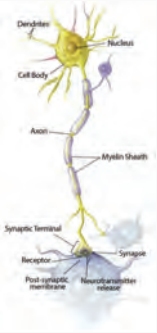
CYCLING

CONSERVE

SCIENCE PROGRAM

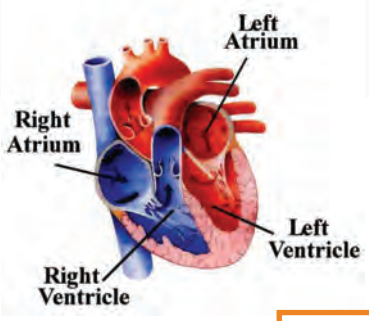
Unit Assessment ANSWER KEY
Grade 8 • Unit 6 (C–1)
Theme: Concepts of Life Science

9

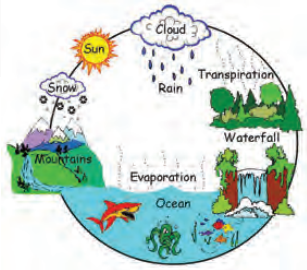

Dendrites
Nucleus
Cell Body
Axon
Myelin Sheath
Synaptic Terminal
Receptor
Synapse
Post-synaptic membrane
Neurotransmitter release

5

1


Left Atrium
Right Atrium
Left Ventricle
Right Ventricle

3


Sun
Cloud
Snow
Rain
Transpiration
Waterfall
Mountains
Evaporation
Ocean

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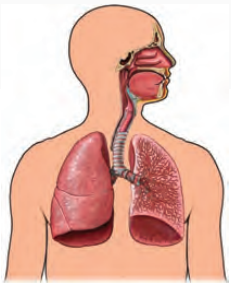

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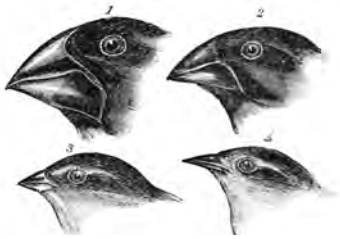

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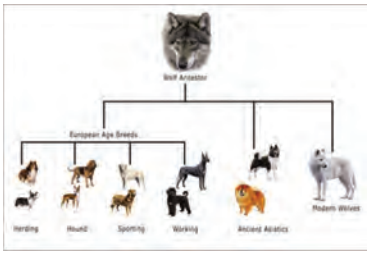

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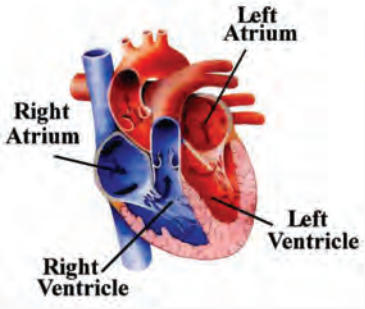

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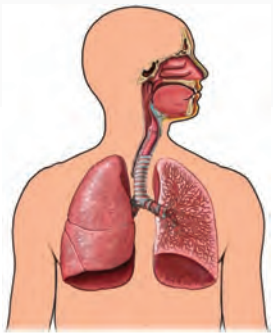

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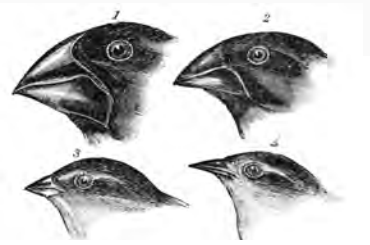

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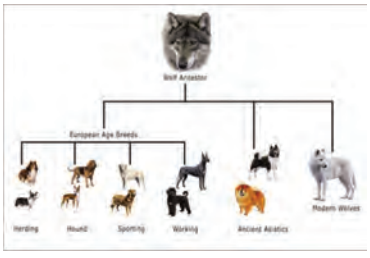

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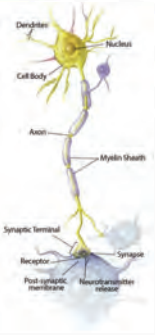

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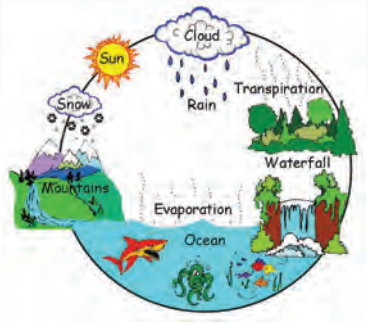

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1. The function of an oven is to:
   - ❍ be plugged in
   - ● cook food
   - ❍ burn people

2. Two organisms that exhibit interdependence are:
   - ● flowers and insects
   - ❍ moose and lions
   - ❍ turtles and caribou

3. The circulatory system carries _____ and lymph throughout the body.
   - ❍ mucous
   - ● blood
   - ❍ stomach acid

4. The respiratory system allows for _____ exchange to and from the body.
   - ❍ food
   - ❍ organ
   - ● gas

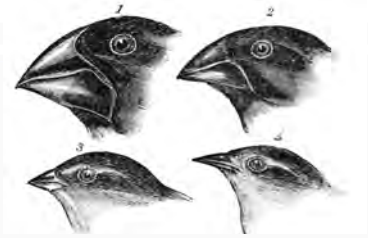
5. The nervous system transmits nerve _____ between parts of the body.
   - ● impulses
   - ❍ cells
   - ❍ waste

6. Natural selection suggests that which organisms will persist most often?
   - ● those that are better suited to their environment
   - ❍ those that are less poorly suited to their environment
   - ❍ those with many predators

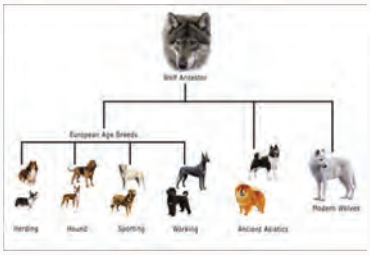
7. Evolution suggests that species have diversified over the course of Earths:
   - ❍ atmosphere
   - ❍ resources
   - ● history

8. The repetition of a process or series of occurrences is:
   - ❍ turning
   - ❍ stopping
   - ● cycling

9. To conserve is to keep something:
   - ● constant
   - ❍ solid
   - ❍ changing



natural selection



evolution

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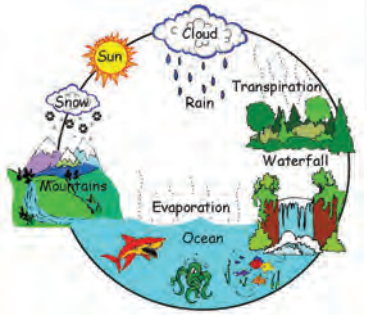
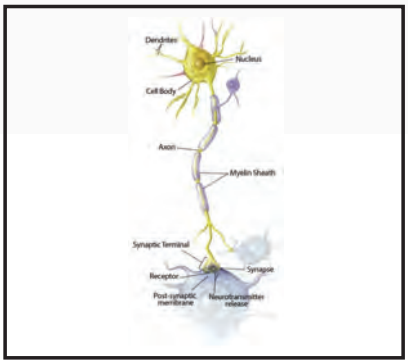
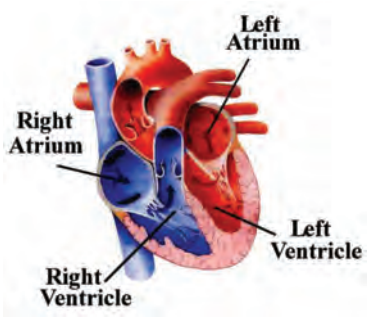


cycling



nervous system



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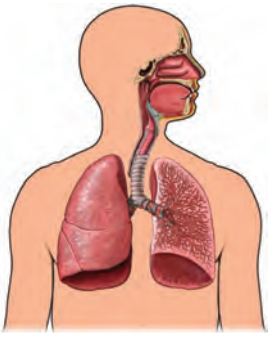

respiratory system