UNIT 5

C-1: Concepts of Life Science

KEY VOCABULARY

Culturally Responsive & Place-Based Introduction of Science Vocabulary

ENERGY TRANSFORMATION

Place-Based Perspective

Take a bite of an apple or another piece of food in front of the students. Explain that the energy contained in the apple will be transferred to your body through the process of digestion. Energy transformation occurs frequently as energy can take many forms. Walk around the classroom. Explain that the energy that allows your muscles to move was once contained in the food that you had eaten.

Heritage Cultural Perspective

In a fire, the energy that is contained in the chemical bonds of the material being burned is transformed into heat energy. This energy transformation was important to the indigenous peoples of Alaska in order to cook food and heat their homes. In another example, solar energy from the sun is transformed into chemical energy by plants. Later, animals that consume the plants again transform the energy!

GENES

Place-Based Perspective

Do a tally on the board of how many students have blond hair and how many do not. Next do tallies of how many have blue eyes and how many do not. Explain that these traits are based on the students' genes, which they inherited from their biological parents. It is a length of DNA in each of their cells which provides the information necessary to create different parts of their bodies.

Heritage Cultural Perspective

Genes are important parts of DNA that help define what each of us will look like. Genes distinguish fish species from one another and produce the differences in salmon that we see in Alaska's waters. The Tlingit and Haida people's genes traditionally coded for darker hair, darker eyes, and a slightly shorter stature than European genes. Genes are responsible for the awesome diversity that is life on Earth!

OFFSPRING

Place-Based Perspective

Show the students the photo of the brown bear sow with her cubs on page 397. Ask the students to tell you how the smaller bears are likely related to the larger mother. Explain that the smaller bears are the sow's offspring (children) just as the students are the offspring of their parents. Who were the students' parents the offspring of?

Heritage Cultural Perspective

The birth of young animals during the spring and summer in Alaska signifies a new birth, a new generation of species to survive their parents. Producing offspring is important for the persistence of all species on Earth, including humans. Tlingit, Haida, and Tsimshian peoples loved their children dearly and raised them to know and love their culture and the natural world around them.

Culturally Responsive & Place-Based Introduction of Science Vocabulary

VERTEBRATE

Place-Based Perspective

Explain to the students that vertebrates are animals containing backbones or spinal columns. Ask the students to draw one animal with a backbone and one without. What types of animals did they put in each category? If there is a window in the classroom, give the students 5 minutes to try to identify a vertebrate on the outside of the school.

Heritage Cultural Perspective

Indigenous peoples depended on a variety of vertebrates for food in Southeast Alaska. Deer, wolves, bears, seals, salmon, halibut, whales, porpoises, eagles, ravens, sea gulls, porcupines, squirrels, wolverines, humans…. We all have backbones! That is not to say however that invertebrates (animals lacking a backbone) are not abundant and important parts of our ecosystems!

TAXONOMY

Place-Based Perspective

Place several stuffed animals / animal toys in the front of the classroom. Ask students to list on the board similarities and differences between each of the animals. Group the animals with the most similarities together or construct a taxonomic tree on the board. Explain that taxonomy is a systematic way of classifying plants and animals. How might humans fit into the classification system that the students suggested?

Heritage Cultural Perspective

It is natural for human beings to try to lump organisms into similar groups for the purpose of remembering what they are and how they may be related to one another. The indigenous peoples of Alaska recognized that there were differences between mammals, birds, and fish. They recognized differences between black bears and brown bears, red cedar and yellow cedar, and so on.

OBSERVABLE

Place-Based Perspective

Have the students record observations about what you are doing in the classroom. Do a number of small activities, such as walk, jump, smile, writing on the board, and opening the window. Somewhere in the activities stop and think about something. When the students suggest that you were thinking, ask them what you were thinking about. Explain that most of the things you did were observable, but the thought was not.

Heritage Cultural Perspective

Many of the observable events that we take for granted in Southeast Alaska are marvels for people in other parts of the world. Seeing a killer whale breach or salmon jump up a raging waterfall are amazing natural wonders that we sometimes take for granted. Observable events are not just those that we can see, but also those that we can smell, hear, touch, and even taste!

Culturally Responsive & Place-Based Introduction of Science Vocabulary

FEATURES

Place-Based Perspective

Draw a rough outline of the state of Alaska on the board. Have the students point out distinctive "features" of the state that should be drawn within its borders. Examples may include the Alaska Range, the Brooks Range, Mount McKinley, volcanoes, cities, and the oil pipeline. Explain that just as landscapes have features, so do plants and animals. What are some features of the Sitka Spruce, Alaska's state tree?

Heritage Cultural Perspective

A prominent landscape marker or "feature" that is well known in Southeast Alaska is Devil's Thumb, a mountain along the Alaska–Canada border near Petersburg. Its Tlingit name is Taalkunaxk'u Shaa, meaning "Mountain at the Back of Taalkú." Its high peak is easily seen from various points in the region. Easily recognizable features like this help to define boundaries and aid in navigation!

INHERITED BEHAVIOR

Place-Based Perspective

Explain to the students that dog breeds have been bred since their domestication to perform a variety of specific tasks. What dog breeds and their tasks can the students think of? Tell the students that some dogs, such as collies, were bred for herding other animals. This herding instinct is often present, even if the dog has never been trained to herd. Explain that this is an inherited behavior. What are some other inherited behaviors of animals?

Heritage Cultural Perspective

It is natural for mothers to protect their young in many species, sometimes ferociously. In Southeast Alaska, bears can become aggressive if they feel that their young are threatened. This is an inherited behavior. Alaska's indigenous peoples respected the power of bears and used caution in their presence.

LEARNED BEHAVIOR

Place-Based Perspective

Ask the students who at home has a dog. What tricks can they do? Were they born knowing how to do these tricks or did they have to learn them? Tricks that had to be learned are called learned behaviors. What learned behaviors do we have as humans? What would happen if we weren't able to learn behaviors after being born?

Heritage Cultural Perspective

Just as bears have inherited behaviors, they also have learned behaviors. Cubs learn from their mothers how to catch fish in the river or to kill other prey on land. Similarly, human beings learn many things from their parents. The knowledge of how to act properly at the dinner table or at a ceremonial event is not inherited, it is learned. Learning is a lifelong experience!

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.

Turn and Face

Mount the vocabulary pictures on the walls and board. Group the students together in the center of the classroom. Say one of the vocabulary words and the students should turn to face the picture for the word you said. Depending upon the size of your class, this activity may be done in small groups. This activity may also be done in team form. In this case, have a player from each team stand in the center of the classroom. When a player faces the wrong direction (i.e., the wrong picture), he/she is "out" until a later round of the activity. Repeat until all players have had an opportunity to participate.

Student Support Materials

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

SPEAKING

Balloon Volleyball

Group the students into two teams. The two teams should stand, facing one another. Toss a round, inflated balloon to the members of Team One. The members of Team One must then bounce the balloon to the members of Team Two. The players should continue to bounce the balloon back and forth in this way until a team loses the balloon. You may wish to establish the rule that players may not move their feet during the activity. When a team loses the balloon, show them a vocabulary picture and all team members in that team must say the vocabulary word for it. Repeat until players in both teams have responded a number of times.

Slip String

Mount the vocabulary pictures on the board. Join all of the students together with a long length of string. Before tying the ends of the string together, insert a roll of tape over one end of the string (a large washer can also be used). Then, tie the ends of the string together. Face away from the students. The students should then pass the roll of tape as quickly as possible along the string. When you clap your hands, the student who is holding the roll of tape, must identify (orally) a vocabulary picture you point to. For added motivation, you may wish to place more than one roll of tape (or washer) on the line of string. Repeat until many students have responded.

Science Language for Success

SPEAKING (CONTINUED)

Roll 'Em Again!

Mount the vocabulary pictures on the board. Number each picture using the numbers 1 to 6 (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.

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.

Deal

Before the activity begins, obtain two decks of playing cards. Give all of the cards from one deck to the students (if possible, arrange it so that all students have the same number of cards). Mount the sight words on the board. Hold a playing card from the other deck of cards against one of the sight words on the board. The student who has the matching playing card must identify the sight word. When the student has done this correctly, he/she should place that playing card to the side. Continue in this way until a student or students have no playing cards left in their hands.

Letter Encode

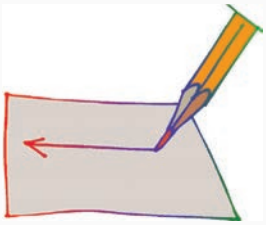
Give each student his/her envelope that contains the alphabet letters. Mount one of the science pictures on the board. The students must use the cut-out letters to spell the word. Review the students' work. Repeat, until all of the words have been spelled in this way.

Student Support Materials

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

Science Language for Success

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.

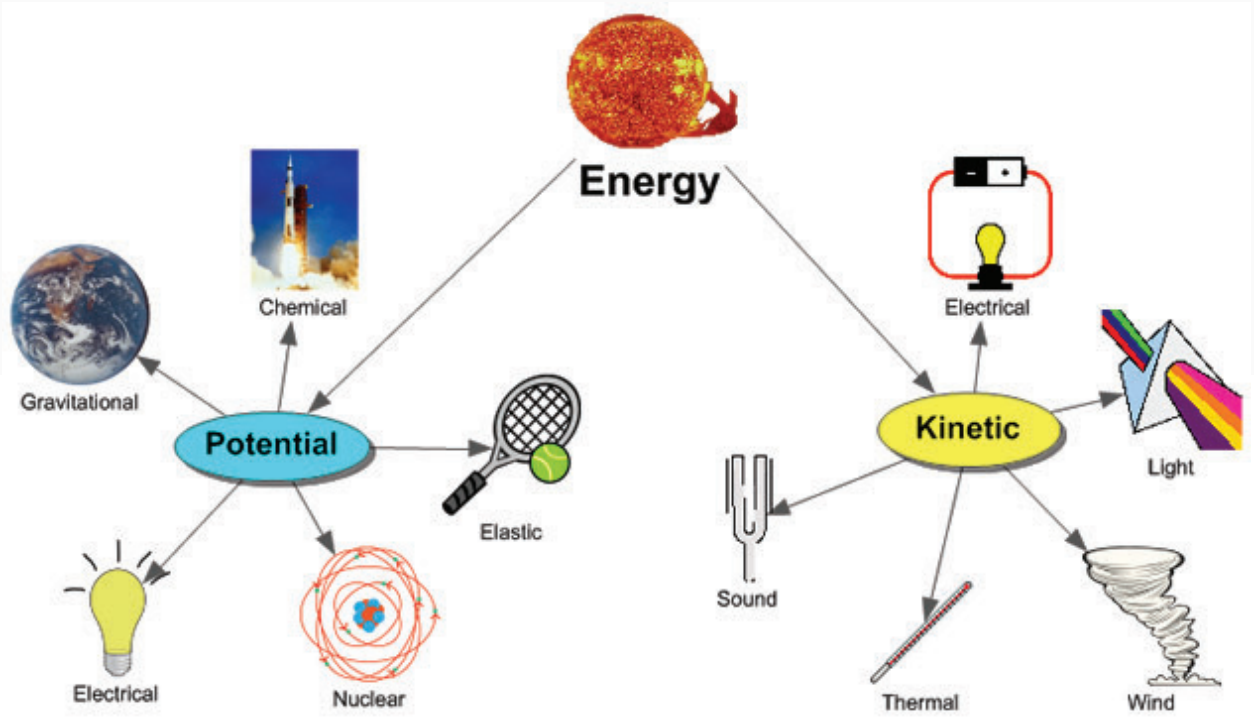
Yarn Spell

Group the students into two teams. Give the first player in each team lengths of yarn or string. Say a vocabulary word. When you say "Go," the first player in each team must then use the yarn or string to "write" the word on the floor. The first player to complete his/her word wins the round. Repeat this process until all players in each team have played. If pipe cleaners are available, they may be used in place of the yarn or string (have both long and short lengths of the pipe cleaners ready for the activity).

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

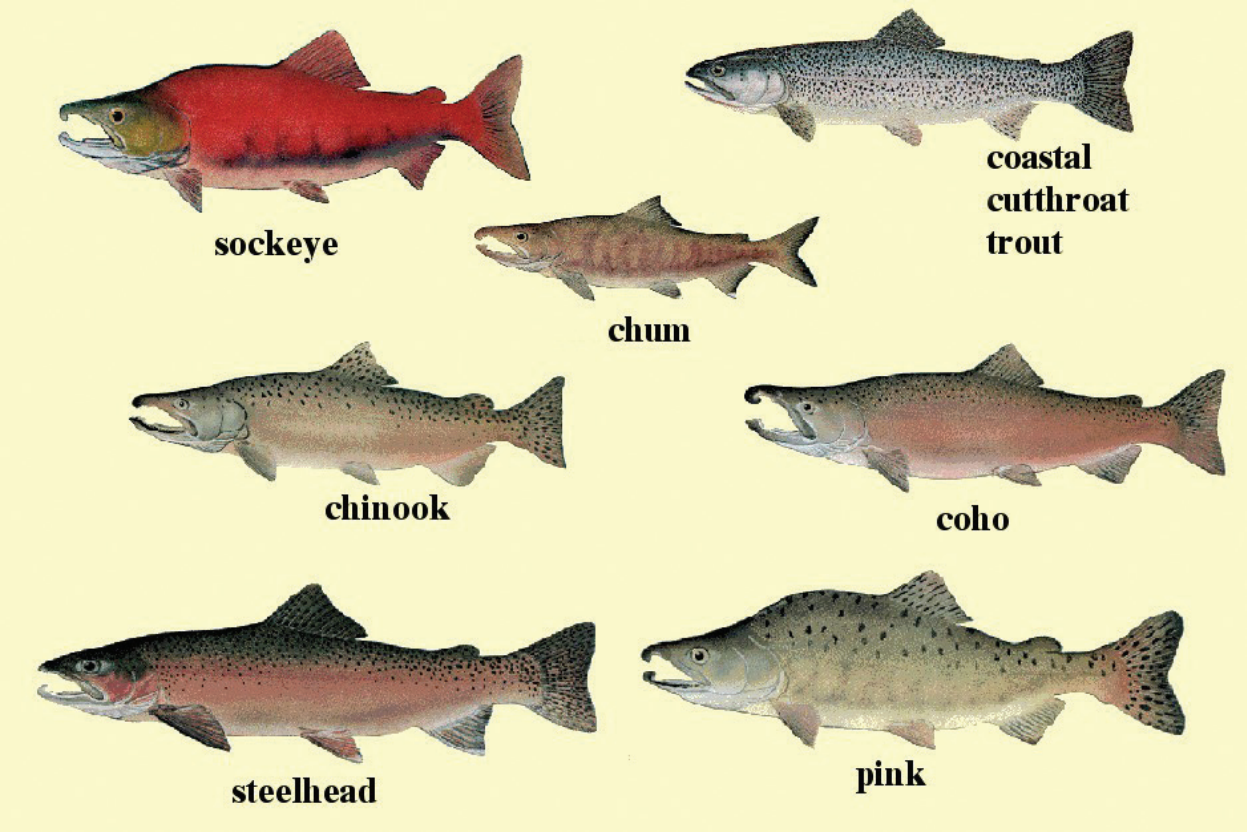

Energy
Chemical
Gravitational
Potential
Elastic
Electrical
Nuclear
Electrical
Kinetic
Light
Sound
Thermal
Wind

ENERGY TRANSFORMATION

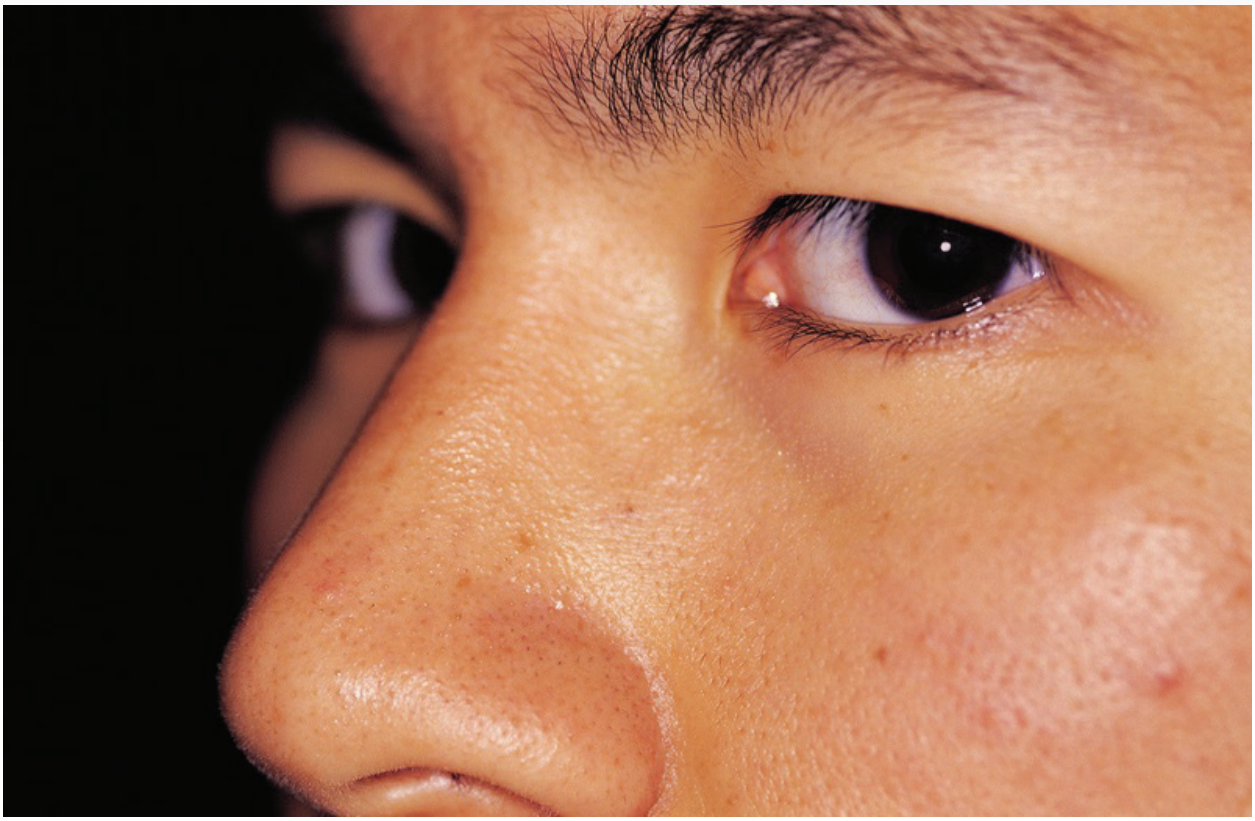
GENES

OFFSPRING

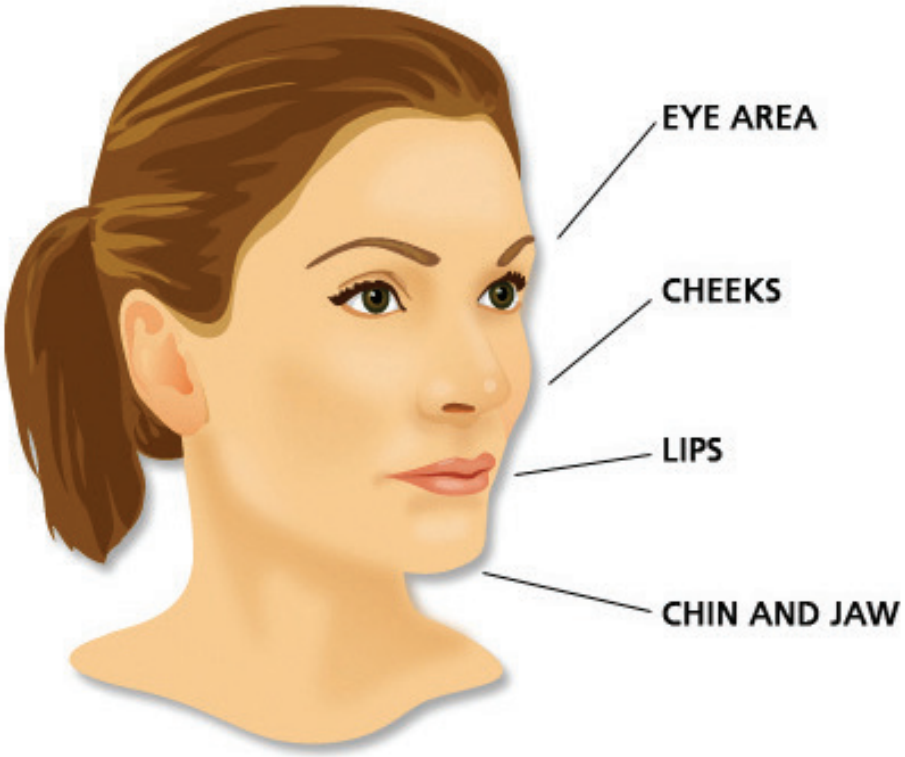
VERTEBRATE


sockeye
coastal
cutthroat
trout
chum
chinook
coho
steelhead
pink

TAXONOMY

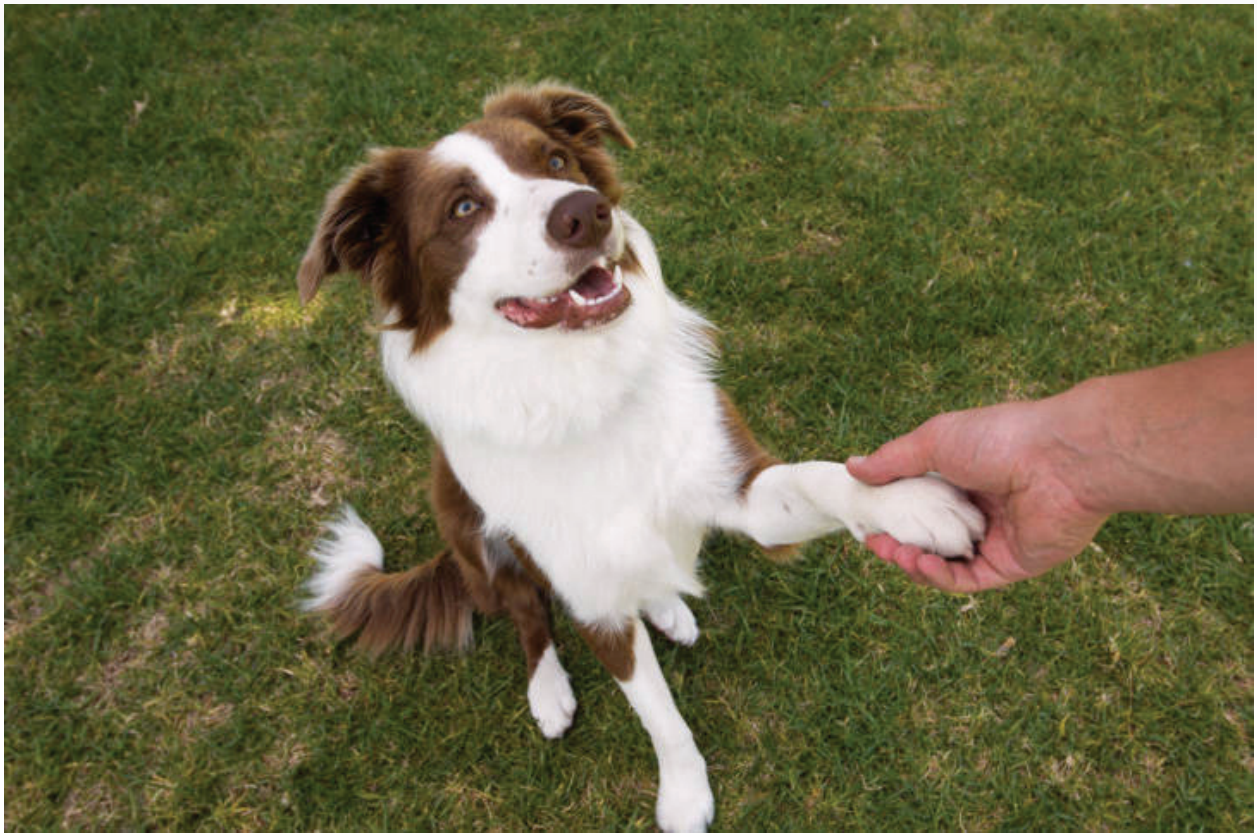


OBSERVABLE


EYE AREA
CHEEKS
LIPS
CHIN AND JAW

FEATURES

INHERITED BEHAVIOR



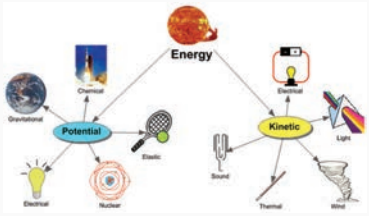
LEARNED BEHAVIOR

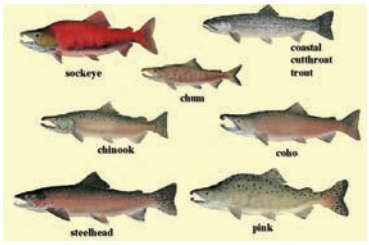
STUDENT SUPPORT MATERIALS

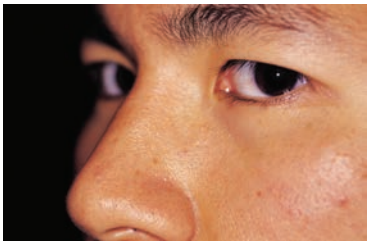
Listening • Mini Pictures

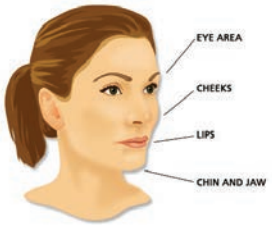
Listening: Mini Pictures

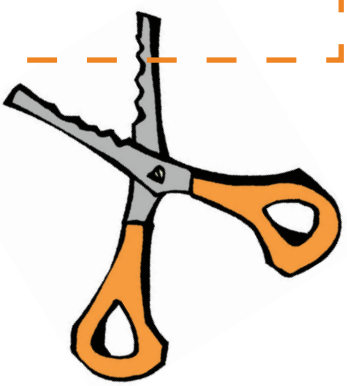
Prepare a copy of these pages for each student. The students should cut out the pictures and lay them on the floor or desk. Say the key words and the students should show you the pictures. Repeat a number of times. This activity can also be done with pairs of students to determine who is the fastest 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	Energy transformation occurs when wind energy is converted to electrical energy.	**True** **False**
2	Genes help to define who we are and what we look like.	**True** **False**
3	Offspring is a term that means any season except spring.	**True** **False**
4	Vertebrates are animals with backbones.	**True** **False**
5	Taxonomy is the study of taxes by accountants.	**True** **False**
6	Individual human cells are observable without a microscope	**True** **False**
7	Hills and lakes are not features typically included on maps.	**True** **False**
8	A child raising a hand when asked a question is an inherited behavior.	**True** **False**
9	A dog lifting his paw when someone says "shake" is a learned behavior.	**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	Energy transformation occurs when wind energy is converted to electrical energy.	**True** / False
2	Genes help to define who we are and what we look like.	**True** / False
3	Offspring is a term that means any season except spring.	True / **False**
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8	A child raising a hand when asked a question is an inherited behavior.	True / **False**
9	A dog lifting his paw when someone says "shake" is a learned behavior.	**True** / False

STUDENT SUPPORT MATERIALS

Sight Words

energy transformation

genes

offspring

vertebrate

taxonomy

observable

features

inherited behavior

learned behavior

STUDENT SUPPORT MATERIALS

Basic Reading • Sight Recognition

Sight Words Activity Page

Have the students highlight or circle the words in this word find. Words appear horizontally.

features
taxonomy
genes
learned behavior
offspring
observable

g b e e l e a r n e d b e h a v o u
d r e n a a r h t a x o n o m y d a
t b o b s e r v a b l e s m i e t e
v n i b g f e a t u r a t g e n e s
y s f a s f r t o e v b e n g e i a
e h e a o f f s p r i n g e n a v o
r a i s g s n e g r a h n o p r m n
g f s t a x o n o s s f e r b p n f
y r o e h s o e t v n l i t s r o e
e e l e a r n e d b e h a v i o r s
o g o e r e o f f s p r i n a s f e
s g u i n o b y m e l l i o s v n n
r a o a b n s e e o l d i b n l s a
e o b s e r v a b l s a e b s a a n
e r a r t b e s o f f s p r i n s b
o d e e i f a r l g e n e o y f g n
g b b e r f o r v r e b t v e a d s
a o n h e e i n v e f e a t u r e s
g e s f e b a i e s o a b h f h a n
e x b s e l e s b g r f y e s u v x

Sight Words Activity Page

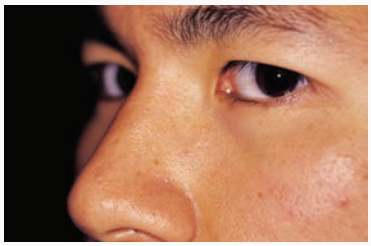
Answer Key

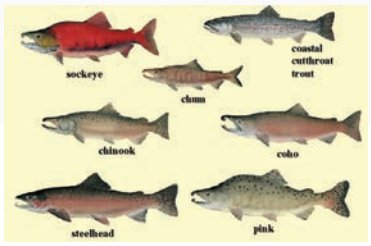
features
taxonomy
genes
learned behavior
offspring
observable

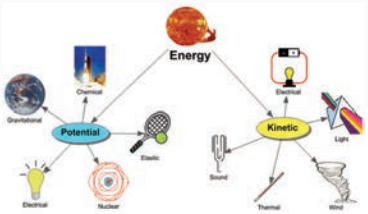
g b e e l e a r n e d b e h a v o u
d r e n a a r h t a x o n o m y d a
t b o b s e r v a b l e s m i e t e
v n i b g f e a t u r a t g e n e s
y s f a s f r t o e v b e n g e i a
e h e a o f f s p r i n g e n a v o
r a i s g s n e g r a h n o p r m n
g f s t a x o n o s s f e r b p n f
y r o e h s o e t v n l i t s r o e
e e l e a r n e d b e h a v i o r s
o g o e r e o f f s p r i n a s f e
s g u i n o b y m e l l i o s v n n
r a o a b n s e e o l d i b n l s a
e o b s e r v a b l s a e b s a a n
e r a r t b e s o f f s p r i n s b
o d e e i f a r l g e n e o y f g n
g b b e r f o r v r e b t v e a d s
a o n h e e i n v e f e a t u r e s
g e s f e b a i e s o a b h f h a n
e x b s e l e s b g r f y e s u v x

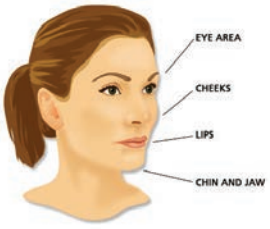
Sight Words Activity Page

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









energy transformation

genes

offspring

vertebrate

taxonomy

observable

features

inherited behavior

learned behavior

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.

gy	en	er
_____	_____	_____

trans	ma	for	tion
_____	_____	_____	_____

genes
_____

Encoding Activity Page

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

spring **off**

_____ _____

my **o** **no** **tax**

_____ _____ _____ _____

tures **fea**

_____ _____

Encoding Activity Page

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

her | in | it | ed

_____ _____ _____ _____

learned

_____

hav | be | ior

_____ _____ _____

Encoding Activity Page

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

energy trans	nes
ge	rate
offs	formation
verteb	tures
taxo	ted behavior

Encoding Activity Page

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

obser	havior
fea	vable
inheri	pring
learned be	nomy

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 an example of energy transformation?
   - ❍ mechanical to thermal
   - ❍ wind to electrical
   - ❍ potential to kinetic
   - ❍ all of the above

2. Our genes come from:
   - ❍ the local mall.
   - ❍ the food that we eat.
   - ❍ our parents' DNA.
   - ❍ the air that we breathe.

3. One's offspring are his/her:
   - ❍ parents
   - ❍ children
   - ❍ cousins
   - ❍ pets

4. Which of the following is not a vertebrate?
   - ❍ frog
   - ❍ bear
   - ❍ mushroom
   - ❍ eagle

5. Taxonomy is a _____ method of classifying organisms.
   - ❍ systematic
   - ❍ random
   - ❍ unimportant
   - ❍ tedious

Reading Comprehension Activity Page

6 Which of the following is not observable with the naked eye?

- ❍ spawning salmon
- ❍ northern lights
- ❍ viruses
- ❍ none of the above

7 Which of the following is a feature of a deer?

- ❍ fins
- ❍ hooves
- ❍ wings
- ❍ scales

8 Which of the following is an inherited behavior?

- ❍ a raven getting garbage out of a dumpster
- ❍ a cat using a litter box
- ❍ a dog shaking the hand of its owner
- ❍ salmon returning to rivers to spawn

9 Which of the following is NOT a learned behavior?

- ❍ stopping at traffic lights
- ❍ keeping your elbows off of the table at dinner
- ❍ putting ketchup on hot dogs
- ❍ none of the above

Reading Comprehension Activity Page

ANSWER KEY

1. Which of the following is an example of energy transformation?
   - ❍ mechanical to thermal
   - ❍ wind to electrical
   - ❍ potential to kinetic
   - ● all of the above

2. Our genes come from:
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   - ❍ the food that we eat.
   - ● our parents' DNA.
   - ❍ the air that we breathe.

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   - ❍ pets

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Reading Comprehension Activity Page

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Reading Comprehension Activity Page

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

1	Energy transformation is necessary in order	A	offspring of their parents.
2	A gene is a unit of	B	classification of organisms.
3	Wolf pups are the	C	about facial features.
4	Animals with a backbone are	D	is a collie herding sheep or cattle.
5	Taxonomy is the systematic	E	heredity in a living organism.
6	The northern lights are an	F	a bear that steals fish from people.
7	Sketch artists use information	G	observable phenomenon.
8	An example of an inherited behavior	H	considered vertebrates.
9	An example of a learned behavior is	I	to supply power to our homes.

1→_____ 2→ _____ 3→ _____ 4→ _____

5→ _____ 6→ _____ 7→ _____ 8→ _____

9→ _____

Reading Comprehension Activity Page

ANSWER KEY

1	Energy transformation is necessary in order	A	offspring of their parents.
2	A gene is a unit of	B	classification of organisms.
3	Wolf pups are the	C	about facial features.
4	Animals with a backbone are	D	is a collie herding sheep or cattle.
5	Taxonomy is the systematic	E	heredity in a living organism.
6	The northern lights are an	F	a bear that steals fish from people.
7	Sketch artists use information	G	observable phenomenon.
8	An example of an inherited behavior	H	considered vertebrates.
9	An example of a learned behavior is	I	to supply power to our homes.

1→ I 2→ E 3→ A 4→ H

5→ B 6→ G 7→ C 8→ D

9→ F

Reading Comprehension Activity Page

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

Able to be noticed or perceived	**Actions that do not need to be learned**	**Actions that need to be learned**
A transition from one form of energy to another	**Organisms with backbones**	**An animal's young**
Distinctive attribute or aspect	**Units of heredity**	**Systematic classification**

energy transformation

genes

offspring

vertebrate

taxonomy

observable

features

learned behavior

inherited behavior

Reading Comprehension Activity Page

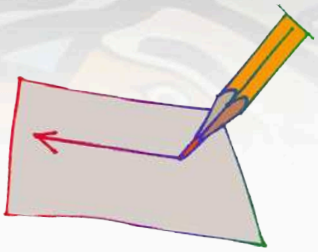
ANSWER KEY

Able to be noticed or perceived observable	**Actions that do not need to be learned** inherited behavior	**Actions that need to be learned** learned behavior
A transition from one form of energy to another energy transformation	**Organisms with backbones** vertebrate	**An animal's young** offspring
Distinctive attribute or aspect features	**Units of heredity** genes	**Systematic classification** taxonomy

STUDENT SUPPORT MATERIALS

Basic Writing

Basic Writing Activity Page



Have the students write in the missing letters.

en_____gy t_____ation

g_____es

o_____ring

ve_____rate

tax_____y

obser_____e

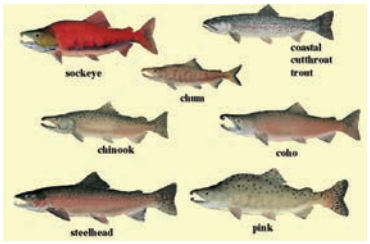
f_____es

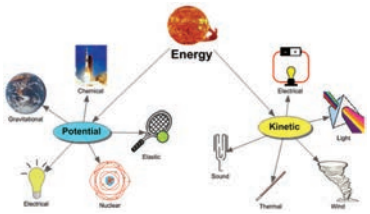
in_____ited be_____ior

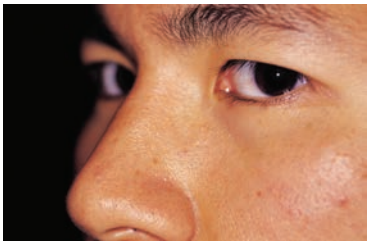
lea_____ b_____vior

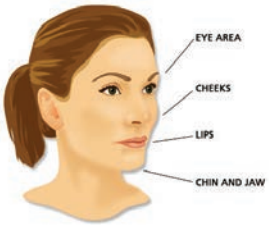
Basic Writing Activity Page

Have the students write the word for each picture.



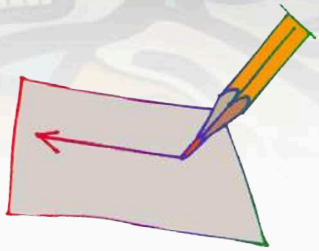






Basic Writing Activity Page

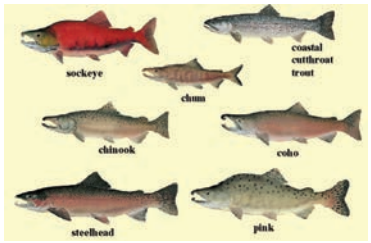
ANSWER KEY



genes

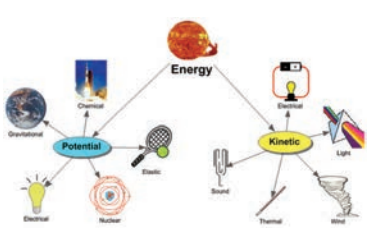
learned behavior

inherited behavior

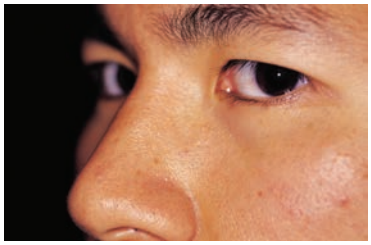


taxonomy

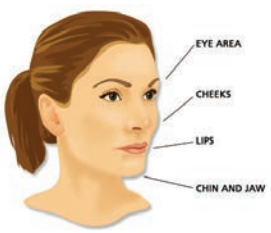
vertebrate



energy transformation



observable



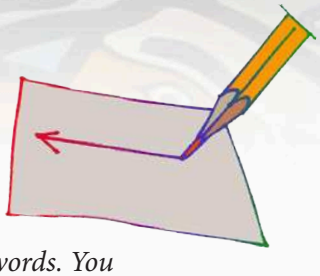
features

offspring

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.

ENERGY TRANSFORMATION

_____

GENES

_____

OFFSPRING

_____

VERTEBRATE

_____

TAXONOMY

_____

OBSERVABLE

_____

FEATURES

_____

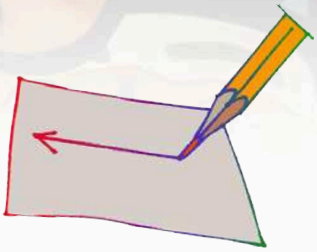
INHERITED BEHAVIOR

_____

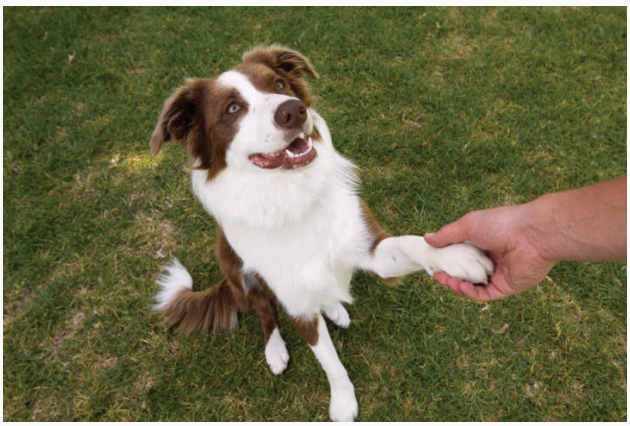
LEARNED BEHAVIOR

_____

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 5 (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 **ENERGY TRANSFORMATION**.
2. Write the number 2 by the picture for **GENES**.
3. Write the number 3 by he picture for **OFFSPRING**.
4. Write the number 4 by the picture for **VERTEBRATE**.
5. Write the number 5 by the picture for **TAXONOMY**.
6. Write the number 6 by the picture for **OBSERVABLE**.
7. Write the number 7 by the picture for **FEATURES**.
8. Write the number 8 by the picture for **INHERITED BEHAVIOR**.
9. Write the number 9 by the picture for **LEARNED BEHAVIOR**.

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. The conversion of wind energy to electrical energy is an example of energy transformation.
2. Genes have no influence on the way we look.
3. An animal's young are its offspring.
4. Vertebrates do not have backbones.
5. Taxonomy is the systematic classification of organisms.
6. Thanks to our eyes, many events are observable.
7. The human face is absent of noticeable features.
8. A dog that has been trained to "shake hands" is acting on an inherited behavior.
9. A horse that allows a saddle and a rider to be placed on its back is acting on a learned behavior.

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 page 5 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 6 in your test. Read the sentence part and fill in the bullet for the correct sentence ending.

BASIC WRITING

Turn to page 7 in your test. Look at the pictures in the boxes. Write the word for each picture.

CREATIVE WRITING

Turn to page 8 in your test. Write a sentence of your own, using each word.

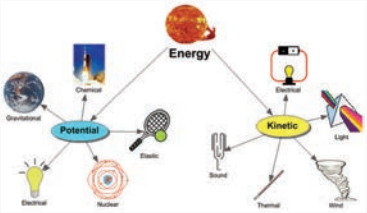
Teacher: To get a percentage for this student's assessment, divide the total number of questions correct by the total number of questions, then multiply this answer by 100 to determine the percentage of questions answered correctly.

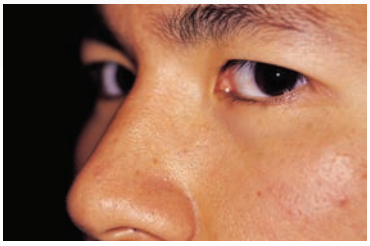
SCIENCE PROGRAM

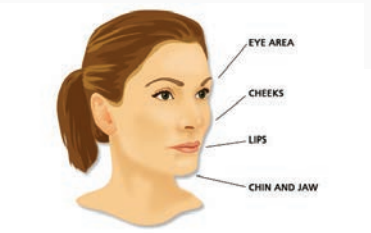
Unit Assessment Student Pages
Grade 8 • Unit 5 (C–1)
Theme: Concepts of Life Science

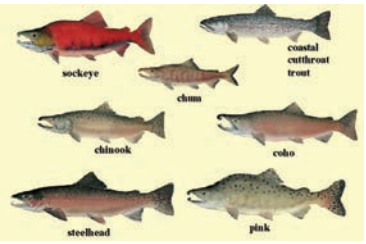
Date:_____ Student's Name:_____

Number Correct:_____ Percent Correct:_____


Energy
Potential
Kinetic




EYE AREA
CHEEKS
LIPS
CHIN AND JAW


sockeye
chum
coastal cutthroat trout
chinook
coho
steelhead
pink

1. T F

2. T F

3. T F

4. T F

5. T F

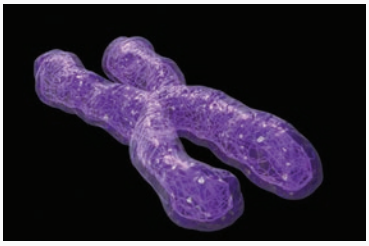
6. T F

7. T F

8. T F

9. T F

energy transformation
genes
offspring
vertebrate
taxonomy
observable
features
inherited behavior
learned behavior



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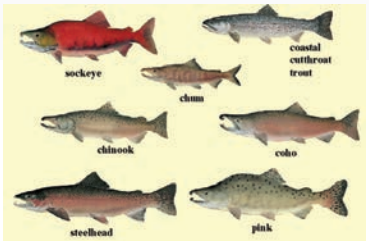

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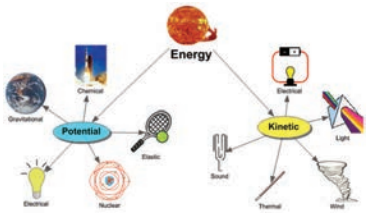

energy transformation
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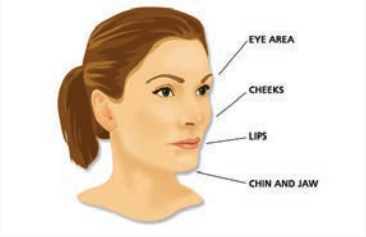

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energy transformation

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offspring

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observable

features

inherited behavior

learned behavior

energy transforma	shan shen shin shon shun tian tien tion tiun
ge	anas anes anis anos anus nas nes nis nos
feat	ares eres ires ores ures arse erse irse ors
inher behavior	ated eted ited oted uted atid etid itid otid
verteb	rate rete rite rote rute ate ete ite ote
offsp	rang reng ring rong rung ang eng ing ong
lear behavior	nad ned nid nod nud ad ed id od
observ	abel ebel ibel obel ubel able eble ible oble
taxon	namy nemy nimy nomy numy amy emy imy omy

1. Energy transformation is the:
   - ❍ transition of energy from one form to another
   - ❍ the power needed for transformer robots to change form
   - ❍ the release of lava from deep sea vents

2. Genes are a unit of:
   - ❍ heredity
   - ❍ height
   - ❍ success

3. Offspring are an organism's:
   - ❍ children
   - ❍ parents
   - ❍ distant relatives

4. Vertebrates are organisms that have:
   - ❍ paws
   - ❍ backbones
   - ❍ fur

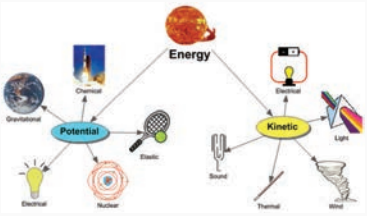
5. Which of the following is a term for the systematic classification of organisms?
   - ❍ taxidermy
   - ❍ taxonomy
   - ❍ terminology

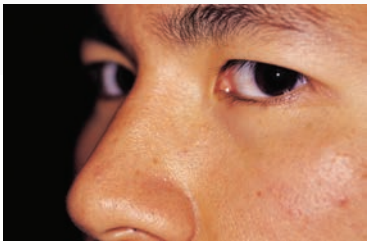
6. Which of the following is NOT observable with the naked eye?
   - ❍ rats
   - ❍ light
   - ❍ viruses

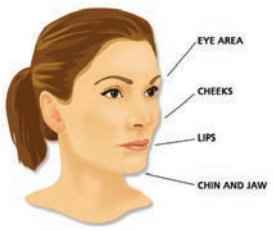
7. Which of the following is a feature of the human face?
   - ❍ feet
   - ❍ fir
   - ❍ nose

8. Inherited behaviors are:
   - ❍ purchased in magazines.
   - ❍ present at birth.
   - ❍ taught by parents.

9. Learned behaviors are:
   - ❍ present at birth.
   - ❍ acquired through observation.
   - ❍ detrimental for your health.


Energy
Potential
Kinetic




EYE AREA
CHEEKS
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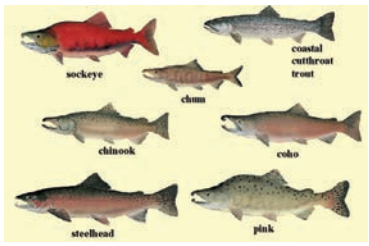

sockeye
coastal cutthroat trout
chum
chinook
coho
steelhead
pink

ENERGY TRANSFORMATION

GENES

OFFSPRING

VERTEBRATE

TAXONOMY

OBSERVABLE

FEATURES

INHERITED BEHAVIOR

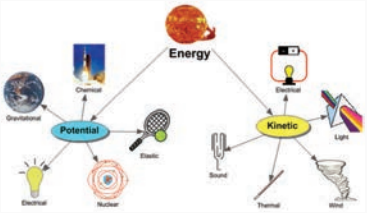
LEARNED BEHAVIOR

SCIENCE PROGRAM

Unit Assessment ANSWER KEY
Grade 8 • Unit 5 (C–1)
Theme: Concepts of Life Science

3

4


Energy
Potential
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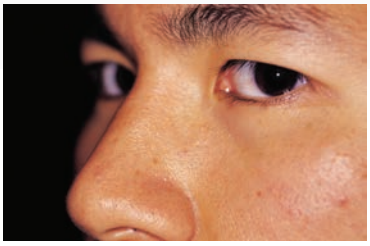
1



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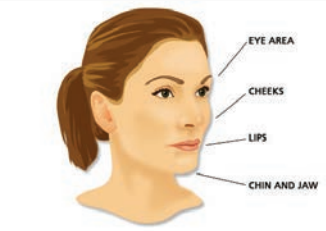
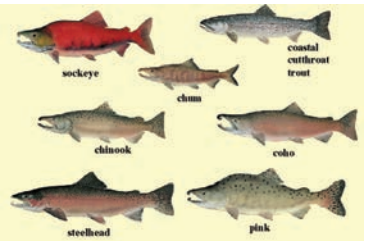
8


EYE AREA
CHEEKS
LIPS
CHIN AND JAW

7

9

2


sockeye
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steelhead
pink

5

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

energy transformation
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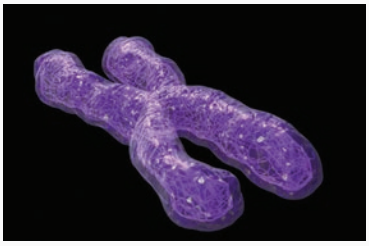

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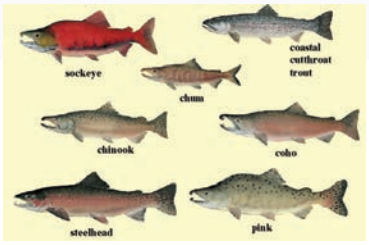

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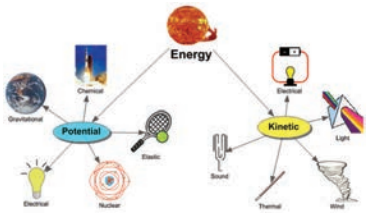

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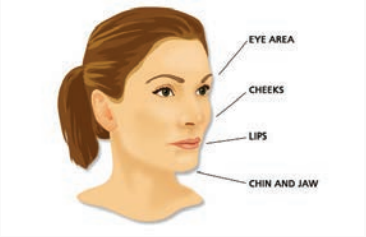

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learned behavior

energy transforma	shan shen shin shon shun tian tien tion tiun
ge	anas anes anis anos anus nas nes nis nos
feat	ares eres ires ores ures arse erse irse ors
inher behavior	ated eted ited oted uted atid etid itid otid
verteb	rate rete rite rote rute ate ete ite ote
offsp	rang reng ring rong rung ang eng ing ong
lear behavior	nad ned nid nod nud ad ed id od
observ	abel ebel ibel obel ubel able eble ible oble
taxon	namy nemy nimy nomy numy amy emy imy omy

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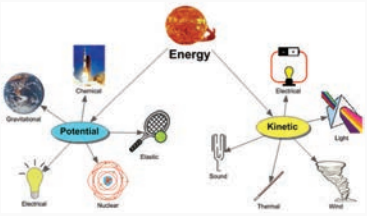
7. Which of the following is a feature of the human face?
   - ❍ feet
   - ❍ fir
   - ● nose

8. Inherited behaviors are:
   - ❍ purchased in magazines.
   - ● present at birth.
   - ❍ taught by parents.

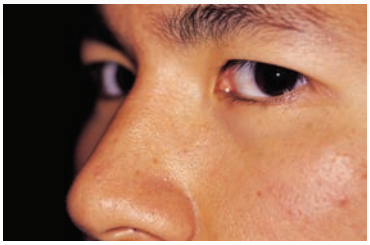
9. Learned behaviors are:
   - ❍ present at birth.
   - ● acquired through observation.
   - ❍ detrimental for your health.

vertebrate

offspring



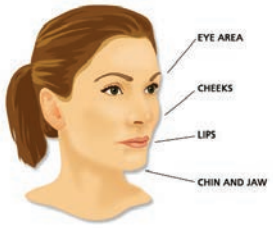
energy transformation



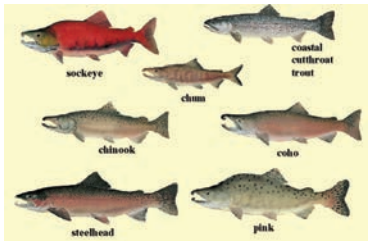
observable

learned behavior

genes



features



taxonomy

inherited behavior