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GRADE 7 . BOOK 2

BASED ON ALASKA SCIENCE STANDARDS

Sealaska Heritage Institute



# UNIT 6

C-1: Concepts of Life Science



# **KEY VOCABULARY**



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# 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.



#### **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

ties.



#### **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.

*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 activi-

# **Science Language for Success**

#### 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





## **CHEMICAL CHANGE**







## CONSUMER







## DECOMPOSER





#### **ENERGY**

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#### **FOOD WEB**





## **PHYSICAL CHANGE**





## PRODUCER





## **STRUCTURE**





## TRANSFER





## **TRANSFORMATION**


Listening • Mini Pictures

#### **Listening: Mini Pictures**









**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 food web is a model that shows the complex feeding relationship by which energy and nutrients are transferred between organisms in a community.	True False
2	A decomposer is an organism that requires complex organic compounds for food, so it feeds on other organisms for food.	True False
3	Chemical change is the process in which substances are changed into one or more different products.	True False
4	Matter is anything that has mass and takes up space.	True False
5	Physical change is the process that changes a substance's form without producing a new substance.	True False
6	A consumer is an organism that requires complex organic compounds for food, so it feeds on other organisms for food.	True False
7	A producer is an organism that eats dead or decaying matter.	True False
8	Transformation is the conversion of energy from one form to another.	True False
9	Energy is the ability to do work or cause change; it can be in any form and can be converted from one form to another.	True False
10	Transfer is the movement of one form of energy from one place to another.	True False



Sight Words











Basic Reading • Sight Recognition

#### Sight Words Activity Page

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



chemical change consumer decomposer energy						food web matter physical change						producer transfer transformation					
С	Н	E	Μ	I	С	А	L	С	Н	А	Ν	G	E	0	Ρ		
Z	D	Т	I	Ρ	Т	0	В	D	U	С	В	Y	Μ	E	Н		
Q	Т	Х	Ζ	V	С	0	N	S	U	Μ	Е	R	I	L	Y		
Ζ	R	D	W	Ζ	Q	Y	Ρ	I	U	0	L	К	N	Μ	S		
Μ	А	E	Е	Q	Ρ	Е	Ε	W	E	Y	0	Ρ	В	К	I		
V	Ν	D	Ρ	С	I	V	F	Q	U	Н	L	R	G	I	С		
Ε	S	V	F	0	0	D	W	Е	В	Ν	Ρ	0	Т	0	А		
0	F	В	В	N	С	Μ	В	Ζ	Н	U	Е	D	Y	L	L		
L	0	G	Ν	V	В	Y	Ρ	S	Ν	J	D	U	Н	Ρ	С		
W	R	Ν	Y	R	Т	J	К	0	Μ	Μ	С	С	Ν	Q	Н		
V	М	Н	U	Е	Y	К	I	R	S	I	V	Е	Μ	Α	Α		
Q	А	Y	K	Q	Ι	Μ	E	К	0	Е	А	R	I	Α	Ν		
U	Т	М	R	Ζ	К	R	L	J	Н	Е	R	U	J	К	G		
Μ	l	S	L	К	Α	I	0	E	Ν	E	R	G	Y	Ν	E		
L	0	W	E	Т	V	В	N	Y	Η	U	I	K	J	L	Μ		
W	Ν	I	S	E	В	С	Т	R	Α	Ν	S	F	Ε	R	Z		

### Sight Words Activity Page

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



che con dec ene	emica isume compo ergy	l cha er oser	inge		fc pl pi	ood w nysic roduc	/eb al cha cer	ange		structure transfer transformation						
C	н	E	Μ	I	С	Α	L	С	Н	Α	Ν	G	E		Ρ	
															Η	
	Т		Ζ	V	С	0	Ν	S	U	Μ	Ε	R			Y	
	R	D													S	
	Α		E									Ρ			1	
	Ν			С								R			С	
	S		F	0	0	D	W	Ε	В			0			Α	
	F					Μ						D			L	
	0						Ρ					U			С	
	R							0				С			Η	
	Μ								S			Ε			Α	
	Α									Ε		R			Ν	
	Т					R									G	
	I				Α			Ε	Ν	Ε	R	G	У		Ε	
	0			Т												
	Ν		S				Т	R	Α	Ν	S	F	Ε	R		

## chemical change consumer decomposer energy food web physical change producer structure transfer transformation









#### Sight Words Activity Page

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

### Sight Words Activity Page











#### 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.






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.









#### **Encoding Activity Page**

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





## i phys cal change

# web food



#### Word Scramble Activity Page



*Rearrange or unscramble the following letters to form one of the listed unit words. As you use a word, cross it off.* 

consumer food web	transformation reproduction	transfer decomposer	energy structure	physical change chemical change						
nefars	rt	t	s							
aamrto	oitonfsnr	r	s	m o n						
tterus	rcu	r	t							
gyrene		n r								
orcnusm	ie	0								
erpoudr	nciot	r r								
nsrmeo	c u o		_ u m	_						
rdseomp	oceo	c	P	r						
lecmia	c h	e	_i a							
g n a e o	c h	h n								
yiaphl	c s	h s _	al							
h a c g	e n	c n	g							
bfdewoo	0	d	_e							



**Reading Comprehension** 

#### **Reading Comprehension Activity Page**

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



#### **Reading Comprehension Activity Page**

*Write the word or words that best complete each sentence in the space below. Words may be used only once.* 





**Basic Writing** 

#### **Basic Writing Activity Page**



Have the students write the word for each picture.



#### **Basic Writing Activity Page**

Have the students write in the missing letters.



#### **Graphic Organizer**

Model the process for students using the following unit words.



#### **Graphic Organizer**





**Creative Writing** 

#### **Creative Writing Activity Page**

en The

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.

#### **CHEMICAL CHANGE**

**CONSUMER** 

DECOMPOSER

**ENERGY** 

FOOD WEB

**PHYSICAL CHANGE** 

PRODUCER

**STRUCTURE** 

TRANSFER

TRANSFORMATION

#### **Creative Writing Activity Page**



*On the lines below, write a paragraph based on the picture above. Before you begin writing, reflect on the unit words – energy, food web, physical change, and structure.* 







### **UNIT ASSESSMENT**

C-1: Concepts of Life Science


# **SCIENCE PROGRAM**

Unit Assessment Teacher's Notes Grade 7 • Unit 6 (C–1) Theme: Concepts of Life Scienc

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 pages 1 in your test. Look at the pictures in the boxes.

- 1. Write the number 1 on top of the picture for CHEMICAL CHANGE.
- 2. Write the number 2 on top of the picture for **CONSUMER**.
- 3. Write the number 3 on top of the picture for **DECOMPOSER**.
- 4. Write the number 4 on top of the picture for **ENERGY**.
- 5. Write the number 5 on top of the picture for **FOOD WEB**.
- 6. Write the number 6 on top of the picture for **PHYSICAL CHANGE**.
- 7. Write the number 7 on top of the picture for **PRODUCER**.
- 8. Write the number 8 on top of the picture for **STRUCTURE**.
- 9. Write the number 7 on top of the picture for **TRANSFER**.
- 10. Write the number 8 on top of the picture for **TRANSFORMATION**.

## **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 food web is a model that shows the complex feeding relationship by which energy and nutrients are transferred between organisms in a community.
- 2. A decomposer is an organism that requires complex organic compounds for food, so it feeds on other organisms for food.
- 3. Chemical change is the process in which substances are changed into one or more different products.
- 4. Matter is anything that has mass and takes up space.
- 5. Physical change is the process that changes a substance's form without producing a new substance.

# **Unit Assessment**

- 6. A consumer is an organism that requires complex organic compounds for food, so it feeds on other organisms for food.
- 7. A producer is an organism that eats dead or decaying matter.
- 8. Transformation is the conversion of energy from one form to another.
- 9. Energy is the ability to do work or cause change; it can be in any form and can be converted from one form to another.
- 10. Transfer is the movement of one form of energy from place to another.

# **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 scrambled letters on the left. Rearrange or unscramble the letters to form each of the unit words.

# **READING COMPREHENSION**

Turn to page 6 in your test. Write the word or words that best complete each sentence in the space below. Words may be used only once.

# **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 7 • Unit 6 (C–1) **Theme: Concepts of Life Science** 

Date:\_\_\_\_\_ Student's Name:\_\_\_\_\_

Number Correct: Percent Correct:





- 1. F Т 2. F Т
- 3. F Т 4. F Т 5. F Т
- 6. F Т 7. F T
- 8. Т F 9. F Т 10.
  - F Т

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#### chemical change

consumer decomposer energy food web physical change producer structure transfer transformation







chemical change consumer decomposer energy food web physical change producer structure transfer transformation





- chemical change consumer decomposer energy food web physical change producer structure transfer transformation
- consu decom energy food v physic produ struct transf transf
- chemical change consumer decomposer energy food web physical change producer structure transfer transformation

3





chemical change consumer decomposer energy food web physical change producer structure transfer





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chemical change consumer decomposer energy food web physical change producer structure transfer transformation

chemical change consumer decomposer energy food web physical change producer structure transfer transformation



chemical change consumer decomposer energy food web physical change producer structure transfer transformation

	t s
aamrtoitonfsnr	rsmon
tterusrcu	r t
gyrene	n r
bowfode	
peorcrdu	pd
n s r m e c u o	u m
mecoobepr	cpr
lecmiach	e_i_a
g h a e c h	hn
yiaphlcs	hs al
h a c g e n	c n g

consur food w	ner transformation transfer energy physical change reb reproduction decomposer structure chemical change
1	Energy takes place in each level of an ecosystem.
2	A is an organism that uses the sun's energy to make sugar and oxygen and they are the base of every food chain.
3	A is a network of several food chains when put together and share common links.
4	A breaks down dead or decaying plant or animal material, such as fungi.
5	A is a process where atoms break their old links and form new links with other atoms, such as in a burning candle.
6	is the process of converting energy from one form to another.
7	The bones of a skeletal system help give the body shape and
8	A sharpened pencil is an example of a because the form of the object has been altered but not its substance.
9	The ability to perform work or change an object requires
10	A is any animal that eats plants or animals.





#### CHEMICAL CHANGE

#### CONSUMER

DECOMPOSER

ENERGY

FOOD WEB

PHYSICAL CHANGE

PRODUCER

STRUCTURE

TRANSFER

#### TRANSFORMATION



# **UNIT 7**

**D–1: Concepts of Earth Science** 



# **KEY VOCABULARY**







#### WEATHERING

*the process through which rocks or other materials are broken down into smaller pieces* 



# 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.* 



#### Match My Sequence

Provide each student with three vocabulary pictures. All students should have the same pictures. Have the students lay the pictures on their desks in a row (any sequence). When the students have arranged their pictures, say a sequence of three vocabulary words (using the vocabulary words for the pictures the students have). Any student or students whose pictures are in the same sequence as the vocabulary words you said wins the round. The students may change their sequences after each round of the activity.

#### **Student Support Materials**

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

### **SPEAKING**



#### **Sheet Golf**

Before the activity begins, obtain an old sheet. Cut a hole (approximately two inches in diameter) in each end of the sheet. Group the students into two teams. Have the first player from each team hold opposite ends of the sheet. Place a marble or small ball in the center of the sheet. When you say "Go," the players must then lift their ends of the sheet and attempt to cause the marble or ball to fall through the hole in the other player's side of the sheet. When the ball or marble falls through one of the holes, the player on that side of the sheet must say the name of a vocabulary picture you show or he/she should repeat a sentence you said at the beginning of the round. Repeat with other pairs of students until all students have participated. If the sheet is large enough, all students can play—divide the students into four groups (one group for each side). Cut a hole in the sheet near each side. When the marble or ball falls through, all the players on that side must say the name of a vocabulary picture that you show. Repeat.

#### Wild Balloon

Before the activity begins, obtain a large balloon. Stand in front of the students and inflate the balloon. Have the vocabulary pictures mounted on the board. Hold the end of the balloon closed. Then, release the balloon. When the balloon lands, the student closest to it should say a complete sentence about a vocabulary picture you point to. Repeat this process until many students have responded.

# **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.

#### **String Along**

Join all of the students together with string. The students do not need to move from their seats. Before tying the ends of the string together, insert a roll of tape over one of the ends of the string. Tie the ends of the string together. Turn your back to the students. The students should pass the roll of tape along the string as quickly as possible. When you clap your hands, the student left holding the tape must then identify a sight word you show him. Repeat this process until many students have responded and until all of the sight words have been correctly identified a number of times.

#### 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



#### **Flashlight Writing**

If possible, darken the classroom. Give a student a flashlight. Say one of the vocabulary words and the student should write that word with the light of the flashlight on a wall or on the board. Repeat until many students have had a chance to participate. An alternative is to provide each student with writing paper and a pen. Darken the classroom, if possible. Use the light of a flashlight to write one of the sight words on the wall or board. When you have completed the writing of the word, each student should then write the same word on his/her sheet of paper. Repeat until all sight words have been written in this way.

This activity may also be done in team form. In this case, group the students into two teams. Darken the classroom. Use the light of a flashlight to write one of the sight words on the board. When you say "Go," the first player in each team should rush to the board and use chalk to write the same word on the board. The first player to do this correctly wins the round. Repeat until all players have played.

# **Science Language for Success**

# 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







# **DEPOSITION**





# **EROSION**

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# **IGNEOUS**

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# LANDFORMS




#### **METAMORPHIC**







#### **REFORESTATION**





#### **SEDIMENTARY**



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#### **TECTONIC PLATES**







#### WATER CYCLE





#### WEATHERING



Listening • Mini Pictures

#### **Listening: Mini Pictures**

Have the students cut out the pictures. Say the key math words from this unit, and the students should hold up the pictures for them.





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**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	Deposition is the process of carrying away soil or pieces of rock.	True False
2	Erosion is the process of dropping off pieces of eroded rock.	True False
3	An igneous rock formed from another kind of rock under heat and pressure.	True False
4	A landform is a physical feature on Earth's surface.	True False
5	A metamorphic rock is formed when magma or lava cools and hardens.	True False
6	Reforestation is the action of renewing a forest cover by natural seeding or by the planting of young trees.	True False
7	Sedimentary is a type of rock that often contains fossils and is formed by sedimentation	True False
8	Tectonic plates are large pieces of the Earth's crust.	True False
9	The water cycle is the continuous movement of water between Earth's surface and the air.	True False
10	Weathering is the process through which rocks or other materials are broken down into smaller pieces.	True False



Sight Words











Basic Reading • Sight Recognition

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



deposition erosion igneous landforms				me ref se	metamorphic reforestation sedimentary					tectonic plates water cycle weathering					
R	E	F	0	R	Е	S	Т	А	Т	I	0	N	V	L	Т
V	G	0	W	D	S	F	D	G	Т	Q	R	Т	L	S	Y
С	Y	L	D	I	Е	R	0	S	I	0	Ν	Κ	0	Е	А
D	Ρ	W	В	Κ	С	Ρ	Q	Х	0	R	Е	Е	N	D	Μ
Е	Н	Е	А	М	F	R	0	Ρ	Ν	S	Ν	Α	L	I	Е
L	Х	А	Н	Т	R	V	J	S	S	В	L	Y	Е	М	Т
Α	W	Т	U	0	E	Ν	С	Y	I	Α	Е	Ρ	Q	E	Α
Ν	Е	Н	Ν	Ρ	В	R	Ν	А	Е	Т	Ζ	W	Ν	Ν	Μ
D	V	E	J	L	G	Y	С	I	Ν	Х	I	U	Ν	Т	0
F	R	R	W	R	Y	I	Ρ	Y	А	D	G	0	J	А	R
0	В	I	Ζ	С	В	М	S	F	С	Н	Κ	Ρ	N	R	Ρ
R	Т	Ν	R	G	Ν	Т	Н	Μ	J	L	U	I	Κ	Y	Н
Μ	Ν	G	G	J	L	Μ	В	С	Х	А	E	W	D	V	I
S	Y	А	I	G	Ν	E	0	U	S	R	E	Q	Α	D	С
Q	Т	E	С	Т	0	Ν	Į	С	Ρ	L	А	Т	E	S	Ζ
Ζ	М	С	Ε	Ρ	F	J	R	Y	U	Κ	I	Ρ	L	S	Х

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



deposition erosion igneous landforms			m re se	metamorphic reforestation sedimentary					tectonic plates water cycle weathering						
R	E	F	0	R	E	S	Т	Α	Т	l	Ο	N			
V				D										S	
С					E	R	0	S	I	0	Ν			E	
D		W				Ρ								D	Μ
E		E	Α				0							I	E
L		Α		Т				S						Μ	Т
Α		Т			E				I					E	Α
Ν		Н				R				Т				Ν	Μ
D		Ε					С				I			Т	0
F		R						Υ				0		Α	R
0		I							С				Ν	R	Ρ
R		Ν								L				Υ	Н
Μ		G									E				I
S			I	G	Ν	Е	0	U	S						С
	Т	E	С	Т	0	Ν	I	С	Ρ	L	Α	Т	E	S	

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























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.



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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.







# wea ing ther



### **Encoding Activity Page**

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



# forms land



### Word Scramble Activity Page



*Rearrange or unscramble the following letters to form one of the listed unit words. As you use a word, cross it off.* 

erosion water cycle	landforms weathering	sedimentary reforestation	metamorphic tectonic plates	deposition igneous
oguein	I S		e u	
eiparh	mmcot	t_	ph_	
m d r n t	seiyea	e	_ m n	
lwecet	c r y a	wt	c	e
eiterh	a g n w		e rg	Ş
oetopn	ndiis	d e	t	-
sornoi	e		o n	
fsandr	m o l	a	0	
trtnos	r a i e o re f	e	e	i
pceias	ttnltcec	•ct	ipl_	t



**Reading Comprehension** 

#### **Reading Comprehension Activity Page**

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



#### **Reading Comprehension Activity Page**

*Write the word or words that best complete each sentence in the space below. Words may be used only once.* 

erosion water cy	cle	landforms weathering	sedimentary reforestation	metamorphic tectonic plates	deposition igneous
	The	cooled lava fro	m a volcanic eruption	n forms	rocks.
2			is the action of renew	ving a forest cover.	
3	Glac plac	ciers erode dirt e this is called _	and rock. When the	eroded materials are dr	opped off in another
4	The	extremely large	e pieces of the lithosp	here of the Earth's crust	are called
5	Phys	sical features or	n Earth's surface are c	alled	
6	A heat	and pressure.	rock forms when s	edimentary and igneou	s rocks change under
7	plac	e to another, ca	, the process through n happen by gravity,	which weathered rock i glaciers, running water,	is moved from one waves, or wind.
8	Roc	ks formed from	sediment are called	rock	ζς.
9	The surf	ace and the air.	is the continuou	s movement of water be	tween the Earth's
10	The	breakdown of	rocks and other mater	rial is called	·


# STUDENT SUPPORT MATERIALS

**Basic Writing** 

Sealaska Heritage Institute 567

# **Basic Writing Activity Page**

Have the students write the word for each picture.



# **Basic Writing Activity Page**

Have the students write in the missing letters.



# **Graphic Organizer**

Model the process for students using the following unit words.



# **Graphic Organizer**

WHAT IT IS:	WHAT IT IS NOT:
EXAMPLES:	reforestation NOT EXAMPLES:
WHAT IT IS:	WHAT IT IS NOT:
EXAMPLES:	sedimentary NOT EXAMPLES:
WHAT IT IS:	WHAT IT IS NOT:
EXAMPLES:	tectonic plates NOT EXAMPLES:
WHAT IT IS:	WHAT IT IS NOT:
EXAMPLES:	water cycle NOT EXAMPLES:
WHAT IT IS:	WHAT IT IS NOT:
EXAMPLES:	weathering NOT EXAMPLES:



# STUDENT SUPPORT MATERIALS

**Creative Writing** 

Sealaska Heritage Institute 573

# **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.

#### **DEPOSITION**

**EROSION** 

**IGNEOUS** 

LANDFORMS

**METAMORPHIC** 

**REFORESTATION** 

**SEDIMENTARY** 

**TECTONIC PLATES** 

WATER CYCLE

WEATHERING

574 Sealaska Heritage Institute

# **Creative Writing Activity Page**



*On the lines below, write a paragraph based on the picture above. Before you begin writing, reflect on the unit words – weathering, water cycle, landforms, erosion, type of rock, and reforestation.* 







# **UNIT ASSESSMENT**

**D–1: Concepts of Earth Science** 



# **SCIENCE PROGRAM**

Unit Assessment Teacher's Notes Grade 7 • Unit 7 (D–1) Theme: Concepts of Earth Scienc

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 pages 1 in your test. Look at the pictures in the boxes.

- 1. Write the number 1 on top of the picture for **DEPOSITION**.
- 2. Write the number 2 on top of the picture for **EROSION**.
- 3. Write the number 3 on top of the picture for **IGNEOUS**.
- 4. Write the number 4 on top of the picture for LANDFORMS.
- 5. Write the number 5 on top of the picture for **METAMORPHIC**.
- 6. Write the number 6 on top of the picture for **REFORESTATION**.
- 7. Write the number 7 on top of the picture for SEDIMENTARY.
- 8. Write the number 8 on top of the picture for **TECTONIC PLATES**.
- 9. Write the number 7 on top of the picture for **WATER CYCLE**.
- 10. Write the number 8 on top of the picture for **WEATHERING**.

#### **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. Deposition is the process of carrying away soil or pieces of rock.
- 2. Erosion is the process of dropping off pieces of eroded rock.
- 3. An igneous rock formed from another kind of rock under heat and pressure.
- 4. A landform is a physical feature on Earth's surface.
- 5. A metamorphic rock is formed when magma or lava cools and hardens.
- 6. Reforestation is the action of renewing a forest cover by natural seeding or by the planting of young trees.
- 7. Sedimentary is a type of rock that often contains fossils and is formed by sedimentation

### **Unit Assessment**

- 8. Tectonic plates are large pieces of the Earth's crust.
- 9. The water cycle is the continuous movement of water between Earth's surface and the air.
- 10. Weathering is the process through which rocks or other materials are broken down into smaller pieces.

### **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 scrambled letters on the left. Rearrange or unscramble the letters to form each of the unit words.

#### **READING COMPREHENSION**

Turn to page 6 in your test. Write the word or words that best complete each sentence in the space below. Words may be used only once.

### **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 7 • Unit 7 (D–1) **Theme: Concepts of Earth Science**

Date:\_\_\_\_\_ Student's Name:\_\_\_\_\_

Number Correct: Percent Correct:



- 1. F Т 2. F Т
- 3. F Т 4. F Т 5. F Т
- 6. F Т 7. F T
- 8. Т F 9. F Т 10.
  - F Т

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deposition erosion igneous landforms metamorphic reforestation sedimentary tectonic plates water cycle weathering





deposition erosion igneous landforms metamorphic reforestation sedimentary tectonic plates water cycle weathering



deposition erosion igneous landforms metamorphic reforestation sedimentary tectonic plates water cycle weathering



deposition erosion igneous landforms metamorphic reforestation sedimentary tectonic plates water cycle weathering

3



deposition erosion igneous landforms metamorphic reforestation sedimentary tectonic plates water cycle weathering

deposition erosion igneous landforms metamorphic reforestation sedimentary tectonic plates water cycle weathering



deposition erosion igneous landforms metamorphic reforestation sedimentary tectonic plates water cycle weathering



deposition erosion igneous landforms metamorphic reforestation sedimentary tectonic plates water cycle weathering



deposition erosion igneous landforms metamorphic reforestation sedimentary tectonic plates water cycle weathering



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deposition erosion igneous landforms metamorphic reforestation sedimentary tectonic plates water cycle weathering



ogueins	eu
e i p a r h m m c o t	t p h
m d r n t s e i y e a	e m n
lwecetcrya	w_tc_e
eiterhagnw	erg
oetopndiis	d e t
sornoie	o n
fsandrmol	ao
trtnosraieoref	eei
pceiasttnltceo	ctipl_t

erosion water c	landforms ycle weathering	sedimentary reforestation	metamorphic tectonic plates	deposition igneous		
1	The cooled lava fro	om a volcanic eruptio	n forms	rocks.		
2		is the action of rene	wing a forest cover.			
3	Glaciers erode dire place this is called	and rock. When the	e eroded materials are d	ropped off in another		
4	The extremely large pieces of the lithosphere of the Earth's crust are called					
5	Physical features on Earth's surface are called					
6	A rock forms when sedimentary and igneous rocks change under heat and pressure.					
7	, the process through which weathered rock is moved from one place to another, can happen by gravity, glaciers, running water, waves, or wind.					
8	Rocks formed from sediment are called rocks.					
9	The is the continuous movement of water between the Earth's surface and the air.					
10	The breakdown of rocks and other material is called					



# DEPOSITION **EROSION** IGNEOUS LANDFORMS **METAMORPHIC REFORESTATION SEDIMENTARY TECTONIC PLATES** WATER CYCLE WEATHERING

8



# **UNIT 8**

**D–1: Concepts of Earth Science** 



# **KEY VOCABULARY**











# 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.* 



#### Stretch

Place the vocabulary pictures on the floor, in a scattered form. The pictures should be quite close together. Have a student stand beside the pictures. Say a vocabulary word for one of the pictures. The student should place his/her left foot on that picture. Then, say other vocabulary words and the student must identify the correct pictures with different parts of his/her body. You may wish to have two students participate in this process at the same time for added motivation.

#### **Student Support Materials**

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

### **SPEAKING**



#### **Right or Wrong?**

Mount the vocabulary pictures on the board. Point to one of the pictures and say its vocabulary word. The students should repeat the vocabulary word for that picture. However, when you point to a picture and say an incorrect vocabulary word for it, the students should remain silent. Repeat this process until the students have responded a number of times to the different vocabulary pictures.

#### **Change** Time

Group the students into pairs. One student should be without a partner to be "it" for the first round of the activity. Have the pairs of students stand, back to back, with elbows interlocked. Say a vocabulary word. Tell the students to listen for that word repeated once again. Say a number of vocabulary words—eventually repeating the vocabulary word you said at the beginning of the round. The students should drop arms and find new partners. However, "it" must also find a partner, thus producing a new "it" for the next round of the game. The student who is left without a partner must then use the vocabulary word you said (at the beginning of the round) in a complete sentence of his/her own. Repeat this process until all students have responded.
### **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 activi-

ties.

#### The Disappearing Word

Mount all of the sight words on the board. For added motivation, you may wish to prepare an extra set of sight word cards to add to those on the board. Have the students look carefully at the sight words. Then, the students should close their eyes. When the students' eyes are closed, remove one of the sight words from the board. Have the students open their eyes and identify the missing word. Repeat this process until all of the sight words have been removed from the board and identified in this way.

#### 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



#### **Flashlight Writing**

If possible, darken the classroom. Give a student a flashlight. Say one of the vocabulary words and the student should write that word with the light of the flashlight on a wall or on the board. Repeat until many students have had a chance to participate. An alternative is to provide each student with writing paper and a pen. Darken the classroom, if possible. Use the light of a flashlight to write one of the sight words on the wall or board. When you have completed the writing of the word, each student should then write the same word on his/her sheet of paper. Repeat until all sight words have been written in this way.

This activity may also be done in team form. In this case, group the students into two teams. Darken the classroom. Use the light of a flashlight to write one of the sight words on the board. When you say "Go," the first player in each team should rush to the board and use chalk to write the same word on the board. The first player to do this correctly wins the round. Repeat until all players have played.

## **Science Language for Success**

#### 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







#### **CONDENSATION**





#### **EVAPORATION**







#### FRONT







#### ORBIT





#### PRECIPITATION







#### **PRESSURE SYSTEM**







#### **SOLAR SYSTEM**





#### **STAR**







#### **SUBLIMATION**







#### WEATHER



# STUDENT SUPPORT MATERIALS

Listening • Mini Pictures

## **Listening: Mini Pictures**

Have the students cut out the pictures. Say the key math words from this unit, and the students should hold up the pictures for them.





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# 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	Condensation is the process of a liquid changing into a vapor or gas.	True False
2	Evaporation is the process by which water vapor changes from a gas to a liquid.	True False
3	A front is the region of the Earth's atmosphere where air pressure is low or high.	True False
4	An orbit is the curved path followed by a planet, moon, or satellite as it revolves around an object.	True False
5	Precipitation is any form of water that falls from the atmosphere and reaches the ground.	True False
6	A pressure system is the boundary between two air masses with different temperatures, density, and moisture.	True False
7	A solar system is a star with a group of celestial bodies orbiting it.	True False
8	A star is an object in space that produces its own energy, including heat and light.	True False
9	Sublimation is the process of changing directly from a solid to a gas without first becoming a liquid.	True False
10	Weather is the condition of the atmosphere at a certain place and time.	True False



# STUDENT SUPPORT MATERIALS

Sight Words



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# Weather



# 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.



condensation evaporation front						orbit precipitation pressure system					solar system star sublimation weather				
E	В	С	0	N	D	E	N	S	А	Т	I	0	N	Т	S
Т	Ε	Q	Е	В	Q	G	Y	D	I	Т	Κ	Ν	S	U	0
G	V	L	R	G	Α	F	L	В	Q	G	А	L	I	Ν	L
В	Α	С	I	J	Ζ	Т	R	Ν	S	Н	R	E	R	G	А
Y	Ρ	V	I	G	В	0	S	I	G	J	Е	Е	Т	Н	R
Н	0	F	Ν	E	Н	А	V	Ρ	Ν	Ζ	Н	Q	E	Т	S
Ν	R	R	G	D	U	Т	Κ	Е	R	Т	В	V	0	U	Y
U	А	Т	R	R	Ζ	0	Y	Ρ	А	Q	U	Ρ	С	Μ	S
J	Т	Y	Е	G	В	W	Y	E	W	Q	Ζ	Т	Y	I	Т
Μ	I	Н	Ν	Y	N	Т	W	I	А	V	E	R	К	L	E
I	0	G	Н	W	E	R	В	Н	U	R	Ν	J	I	Q	М
D	Ν	Т	Ρ	R	E	С	I	Ρ	I	Т	Α	Т	I	0	Ν
U	I	Ν	Ρ	М	J	U	К	1	L	0	Ρ	S	А	E	R
R	S	U	В	L	Ι	Μ	А	Т	I	0	Ν	G	Т	В	
А	D	G	J	L	S	F	Н	Κ	Q	E	Т	W	R	Α	I
Ρ	R	E	S	S	U	R	E	S	Y	S	Т	E	М	R	R
Have the students highlight or circle the words in this word find. Words appear horizontally.



con eva fror	dens pora it	ation tion	)		oi pi pi	rbit recipi ressu	tatioi ire sy	n stem	)		solar star subli weat	syst matio her	em on		
		С	0	Ν	D	E	N	S	Α	Т	I	0	Ν		S
	Ε								I						0
	V					F		В							L
	A						R						R		Α
	Ρ					0		0				E			R
	0								N		н				S
	R									Т					Y
	Α								Α						S
	Т							E							Т
	I						W								E
	0														Μ
	Ν		Ρ	R	E	С	I	Ρ		Т	Α	Т	I	0	Ν
												S			
	S	U	В	L	I	Μ	Α	Т	I	0	Ν		Т		
														A	
Ρ	R	Ε	S	S	U	R	Ε	S	Υ	S	Т	Ε	Μ		R







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

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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.



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# 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.





# so sys lar tem

front



### **Encoding Activity Page**

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



bit or

# tion con sa den

star



### Word Scramble Activity Page



*Rearrange or unscramble the following letters to form one of the listed unit words. As you use a word, cross it off.* 

orbit weather	star pressure	solar system evaporation	condensation sublimation	front precipitation
orlasts	y e m s		1	t e
wtarhe	ee		we	
rsuesi	rep		er	
ronft			t	
pnetop	oiiiartc		i_	_an
uonsbi	mliaint		ul	i
cdoons	saitenn		d e n	
aetvpi	onoar		ar	0
otbir			i	
tras				



# STUDENT SUPPORT MATERIALS

**Reading Comprehension** 

### **Reading Comprehension Activity Page**

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



### **Reading Comprehension Activity Page**

*Write the word or words that best complete each sentence in the space below. Words may be used only once.* 

erosion water cy	rcle	landforms weathering	sedimentary reforestation	metamorphic tectonic plates	deposition igneous
1	The	planet Earth is	held in	around the Sun by	y the force of gravity.
2			is the changing of a lic	juid into a gas.	
3	Ther of ai	e are two types r with low air p	s of pressure systems. A pressure in the center a	A low nd a high pressure syst	_ is a large mass em is a large mass
4	A		is an object in space	e that produces its own	energy.
5			is the changing of a ga	s into a liquid.	
6	Α		is the location of on	e air mass meeting a di	ifferent air mass.
7	The the a	types of solid _ \ir temperature	are	sleet, hail, and snow an point of water.	d are formed when
8	Our		is the Sun, a star,	and the eight planets o	rbiting around it.
9	Alm to th	ost all e Earth.	occurs in th	he troposphere, the lay	er of gases closest
10			is the process of dry ic	e changing directly fro	m a solid to a gas.



# STUDENT SUPPORT MATERIALS

**Basic Writing** 

Sealaska Heritage Institute 651

### **Basic Writing Activity Page**

*Have the students write the word for each picture.* 



### **Basic Writing Activity Page**

Have the students write in the missing letters.

con	ation
eva	ation
f	t
or	
pre	itation
pressure	tem
SO	system
S	r
sub	ation
wea	er

### **Graphic Organizer**

Model the process for students using the following unit words.



### **Graphic Organizer**





# STUDENT SUPPORT MATERIALS

**Creative Writing** 

Sealaska Heritage Institute 657

### **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.

#### **CONDENSATION**

**EVAPORATION** 

FRONT

**ORBIT** 

PRECIPITATION

**PRESSURE SYSTEM** 

**SOLAR SYSTEM** 

**STAR** 

#### **SUBLIMATION**

#### WEATHER

### **Creative Writing Activity Page**



*On the lines below, write a paragraph based on the picture above. Before you begin writing, reflect on the unit words – condensation, evaporation, front, precipitation, pressure system, and weather.* 







## **UNIT ASSESSMENT**

**D–1: Concepts of Earth Science** 



# **SCIENCE PROGRAM**

Unit Assessment Teacher's Notes Grade 7 • Unit 8 (D–1) Theme: Concepts of Earth Scienc

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 pages 1 in your test. Look at the pictures in the boxes.

- 1. Write the number 1 on top of the picture for **CONDENSATION**.
- 2. Write the number 2 on top of the picture for **EVAPORATION**.
- 3. Write the number 3 on top of the picture for **FRONT**.
- 4. Write the number 4 on top of the picture for **ORBIT**.
- 5. Write the number 5 on top of the picture for **PRECIPITATION**.
- 6. Write the number 6 on top of the picture for **PRESSURE SYSTEM**.
- 7. Write the number 7 on top of the picture for SOLAR SYSTEM.
- 8. Write the number 8 on top of the picture for **STAR**.
- 9. Write the number 7 on top of the picture for **SUBLIMATION**.
- 10. Write the number 8 on top of the picture for **WEATHER**.

#### **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. Condensation is the process of a liquid changing into a vapor or gas.
- 2. Evaporation the process by which water vapor changes from a gas to a liquid.
- 3. A front is the region of the Earth's atmosphere where air pressure is low or high.
- 4. An orbit is the curved path followed by a planet, moon, or satellite as it revolves around an object.
- 5. Precipitation is any form of water that falls from the atmosphere and reaches the ground.
- 6. A pressure system is the boundary between two air masses with different temperatures, density, and moisture.

### **Unit Assessment**

- 7. A solar system is a star with a group of celestial bodies orbiting it.
- 8. A star is an object in space that produces its own energy, including heat and light.
- 9. Sublimation is the process of changing directly from a solid to a gas without first becoming a liquid.
- 10. Weather is the condition of the atmosphere at a certain place and time.

#### **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 scrambled letters on the left. Rearrange or unscramble the letters to form each of the unit words.

### **READING COMPREHENSION**

Turn to page 6 in your test. Write the word or words that best complete each sentence in the space below. Words may be used only once.

#### **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 7 • Unit 8 (D–1) **Theme: Concepts of Earth Science**

Date:\_\_\_\_\_ Student's Name:\_\_\_\_\_

Number Correct: Percent Correct:





- 1. F Т 2. F Т
- 3. F Т 4. F Т 5. F Т
- 6. F Т 7. F T
- 8. Т F 9. F Т 10.
  - F Т

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condensation evaporation front orbit precipitation pressure system solar system star sublimation weather

condensation

evaporation

precipitation

solar system

sublimation

weather

pressure system

front

orbit

star



- condensation evaporation front orbit precipitation pressure system solar system star sublimation weather

condensation evaporation front orbit precipitation pressure system solar system star sublimation weather



condensation evaporation front orbit precipitation pressure system solar system star sublimation weather

3



condensation evaporation front orbit precipitation pressure system solar system star sublimation weather



condensation evaporation front orbit precipitation pressure system solar system star sublimation weather



condensation evaporation front orbit precipitation pressure system solar system star sublimation weather



condensation evaporation front orbit precipitation pressure system solar system star sublimation weather

4



1

condensation evaporation front orbit precipitation pressure system solar system star sublimation weather

orlastsyems	lt e
wtarhee	w e
rsuesrep	er
ronft	t
pnetopiiiartc	i_an
uonsbimliaint	u_li
cdoonsaitenn	d e n
aetvpionoar	aro
otbir	ii
tras	

erosion water c	a landforms cycle weathering	sedimentary reforestation	metamorphic tectonic plates	deposition igneous				
	The planet Earth is	s held in	around the Sun	by the force of gravity.				
2		is the changing of a	liquid into a gas.					
3	There are two types of pressure systems. A low is a large mass of air with low air pressure in the center and a high pressure system is a large mass of air with the highest air pressure in the center							
4	A	is an object in spa	ace that produces its ow	n energy.				
5		is the changing of a	gas into a liquid.					
6	A	is the location of	one air mass meeting a	different air mass.				
7	The types of solid the air temperatur	a e is below the freezir	re sleet, hail, and snow ang point of water.	and are formed when				
8	Our	is the Sun, a sta	ar, and the eight planets	orbiting around it.				
9	Almost all to the Earth.	occurs in	n the troposphere, the la	yer of gases closest				
10		is the process of dry	y ice changing directly f	rom a solid to a gas.				


#### CONDENSATION

#### **EVAPORATION**

FRONT

ORBIT

PRECIPITATION

PRESSURE SYSTEM

**SOLAR SYSTEM** 

**STAR** 

**SUBLIMATION** 

8

#### WEATHER



# **UNIT 9**

E-1: Science and Technology F-1: Cultural, Social, Personal Perspectives and Science G-1: History and Nature of Science



# **KEY VOCABULARY**







#### TECHNOLOGY

an application of science that is used to make products or tools that people can use to solve problems



# 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.* 



#### Whisper

Mount the vocabulary pictures on the board. Group the students into two teams. Whisper a vocabulary word to the first player in each team. When you say "Go," the first player in each team must then whisper the same word to the next player in his/her team. The players should continue whispering the vocabulary word in this way until the last player in a team hears the word. When the last player in a team hears the word, he/she must rush to the board and point to the picture for the word. The first player to do this correctly wins the round. Repeat until all players have had an opportunity to identify a vocabulary picture. When a player has identified a vocabulary picture, he/she should rejoin the front of his/her team.

#### **Student Support Materials**

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

### **SPEAKING**



#### Half Match

Before the lesson begins, prepare a photocopy of each of the vocabulary pictures. Cut each of the photocopied pictures in half. Give the picture halves to the students (a student may have more than one picture half). Say one of the vocabulary words. The two students who have the halves of the picture for that word must show their halves and repeat the word orally. Continue in this way until all of the vocabulary words have been reviewed. This activity may be repeated more than once by collecting, mixing, and redistributing the picture halves to the students. This activity may also be adapted for team form. To do this, cut each of the vocabulary pictures in half. Place half of the pictures in one pile and the other halves in another pile (one pile for each team). Say a vocabulary word. When you say "Go," the first player from each team must rush to his/her pile of picture halves. Each player must find the half of the picture for the vocabulary word you said. The first player to correctly identify the picture half and to repeat the vocabulary word for it wins the round. Repeat until all players have played.

#### Numbered Boxes

Before the activity begins, prepare a page that contains twenty (or more) boxes. Number each of the boxes. Provide each student with a copy of the numbered boxes. Each student should then shade in half of the boxes with a pencil (any ten

# **Science Language for Success**

### SPEAKING (CONTINUED)



boxes). When the students are ready, mount the vocabulary pictures on the board and say the number of a box (between one and twenty) to one of the students. The student should look on his/her form to see if that box number is shaded in. If that box is shaded in, the student may "pass" to another player. However, if the box is not shaded in, he/she should say a complete sentence about a vocabulary picture you point to. The students may exchange pages periodically during this activity. Repeat until many students have responded in this way.

#### High Card Draw

Give each student in the class a card from a deck of playing cards. Mount the vocabulary pictures on the board and number each one. Call two students' names. Those two students should show their cards. The student who has the highest card (aces can be high or low) should then say a complete sentence about a vocabulary picture you point to. The students may exchange playing cards periodically during the activity. Repeat until many students have responded.

#### 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.

#### **Circle of Words**

Before the activity begins, prepare a page that contains the sight words. Provide each student with a copy of the page. The students should cut the sight words from their pages. When a student has cut out the sight words, he/she should lay them on his/her desk in a circle. Then, each student should place a pen or pencil in the center of the circle of sight word cards. Each student should spin the pen/pencil. Say a sight word. Any student or students whose pens/pencils are pointing to the sight word you said, should call "Bingo." The student or students should then remove those sight words from their desks. Continue in this way until a student or students have no sight words left on their desks.

#### 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



#### 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).

#### **Overhead Configurations**

Before the activity begins, write the sight words on an overhead transparency sheet. Place an overhead projector on the floor, facing the board. Lay the overhead transparency sheet on the screen of the projector and turn the projector on. The sight words should be projected onto the board. Then, use chalk to draw configurations around each of the sight words. When a configuration has been drawn for each sight word, turn the overhead projector off. Call upon a student to use chalk to fill in one of the configurations with its sight word. You may wish to have more than one student participating in this process at the same time.

This activity may also be conducted in team form. In this case, when you say "Go," the first player in each team must rush to the configurations. Each player must attempt to fill in one of the configurations with its correct sight word. The first player to do this correctly wins the round. Repeat until all configurations have been filled in 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.



# VOCABULARY PICTURES







## CREATIVITY

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# CURIOSITY







# **IMAGINATION**







# **INNOVATION**







# **KNOWLEDGE**





## PERSPECTIVE





# RELATIONSHIP





# **SCIENCE**







# SOCIETY

708 Sealaska Heritage Institute





# TECHNOLOGY

710 Sealaska Heritage Institute


Listening • Mini Pictures

#### **Listening: Mini Pictures**



Have the students cut out the pictures. Say the key math words from this unit, and the students should hold up the pictures for them.



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**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	Creativity is the ability to create or invent.	True False
2	Curiosity is creativity, resourcefulness.	True False
3	Imagination is the desire to know or learn.	True False
4	Innovation is an application of science that is used to make products or tools that people can use to solve problems, make life easier, and improve the world.	True False
5	Knowledge is information or skills acquired through experience or education.	True False
6	Perspective is a view or outlook.	True False
7	A relationship is a connection or association, the condition of being related.	True False
8	Science is knowledge about the natural world that is derived from observation and experiments.	True False
9	Society is a group of organisms of the same species that live and work together in an organized way.	True False
10	Technology is a new idea, method, or device.	True False



Sight Words







Sealaska Heritage Institute





Basic Reading • Sight Recognition

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



crea cur ima inn	reativity uriosity magination nnovation					knowledge perspective relationship						science society technology					
G	U	Т	Е	С	Н	N	0	L	0	G	Y	Α	Е	Ν	W		
Х	L	Н	Ρ	I	Ν	Ν	0	V	Α	Т	I	0	Ν	Т	Ρ		
В	R	W	J	W	Q	R	Т	U	0	Ρ	L	J	G	С	Ρ		
Х	E	Y	L	S	Α	С	D	G	J	Κ	В	Μ	С	V	Е		
Κ	L	Α	Е	С	U	R	Ι	0	S	I	Т	Y	F	W	R		
С	А	E	D	Ι	Α	Е	Ζ	S	0	W	Ν	Ζ	Т	Х	S		
L	Т	V	В	E	Е	А	E	Х	С	D	Y	S	V	S	Ρ		
S	I	0	Х	Ν	V	Т	W	F	I	V	J	Е	G	Q	Е		
Q	0	В	Т	С	0	I	В	Н	Ε	R	Κ	Х	Y	G	С		
D	Ν	R	Y	Е	В	V	U	К	Т	G	U	D	D	А	Т		
J	S	Т	I	Ζ	R	I	Y	L	Y	Ν	I	Е	В	Е	I		
I	Η	F	L	Q	Т	Т	Μ	Μ	Ζ	Т	L	R	Η	Ν	V		
R	Ι	Н	Ν	E	F	Y	Ρ	В	E	W	0	С	U	Υ	E		
С	Ρ	К	J	Ι	Μ	W	L	С	0	Н	Α	F	Ν	Ζ	I		
S	С	Ν	l	Μ	Α	G	I	Ν	Α	Т	I	0	Ν	0	Ν		
L	0	С	J	R	R	Ζ	Κ	R	Q	С	I	F	R	Т	U		

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



creativity curiosity imagination innovation					kı pe re	knowledge perspective relationship						science society technology				
		T	Ε	С	Η	N	0	L	0	G	Y					
				I	N	N	0	V	A	Т	I	0	N			
	R														Ρ	
	Ε			S		С									Ε	
	L			С	U	R	I	0	S	I	Т	Y			R	
	Α			I		Ε			0						S	
	Т			E		A			С						Ρ	
	I			N		Т			I						Ε	
	0			С		I			Ε					G	С	
	N			E		V			Т				D		Т	
	S					I			Y			Ε			l	
	H					Т					L				V	
	I					Y				w					Ε	
	Ρ								0							
			I	Μ	A	G	I	N	A	Т	I	0	N			
							K									

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























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.



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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.



# ence sci



# per tive spec



## **Encoding Activity Page**

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









### Word Scramble Activity Page



*Rearrange or unscramble the following letters to form one of the listed unit words. As you use a word, cross it off.* 

knowledge technology c creativity innovation s	uriosity scie ociety ima	ence rela agination per	tionship spective						
sieecnc	si_								
ecyoist	ey								
tooyngechl	t e		g						
nvnaitonio	n		i o						
onpiarhlstei	r	a	p						
eepcvepstri	e	c 1	t						
uriysctio		i	t						
gntiainomai	m		n						
wdgeekonl	k	d_							
e w o n e k d l g		_ S	t						



**Reading Comprehension** 

#### **Reading Comprehension Activity Page**

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





**Basic Writing** 

Sealaska Heritage Institute 733

## **Basic Writing Activity Page**



Have the students write the word for each picture.





## **Basic Writing Activity Page**



Have the students write in the missing letters.

crea	ity
curio	y
ima	ation
in	ation
know	e
perspec	e
rela	ship
sci	e
S	iety
tech	ogy

## **Graphic Organizer**

Model the process for students using the following unit words.



#### **Graphic Organizer**





**Creative Writing** 

Sealaska Heritage Institute 739

#### **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.

#### CREATIVITY

**CURIOSITY** 

**IMAGINATION** 

**INNOVATION** 

**KNOWLEDGE** 

PERSPECTIVE

RELATIONSHIP

**SCIENCE** 

#### SOCIETY

#### TECHNOLOGY

740 Sealaska Heritage Institute

## **Creative Writing Activity Page**



On the lines below, write a paragraph based on the picture above. Before you begin writing, think about the indigenous people of the Pacific Northwest and their use of natural resources. Reflect on their creative use of design and detail in their woven spruce root baskets.







## **UNIT ASSESSMENT**

E-1: Science and Technology F-1: Cultural, Social, Personal Perspectives and Science G-1: History and Nature of Science



## **SCIENCE PROGRAM**

Unit Assessment Teacher's Notes Grade 7 • Unit 9 (E-1, F-1, G-1)

Theme: Science and Technology Cultural, Social, Personal Perspectives and Science History and Nature of Science Concepts of Earth Scienc

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 pages 1 in your test. Look at the pictures in the boxes.

- 1. Write the number 1 on top of the picture for **CREATIVITY**.
- 2. Write the number 2 on top of the picture for **CURIOSITY**.
- 3. Write the number 3 on top of the picture for **IMAGINATION**.
- 4. Write the number 4 on top of the picture for INNOVATION.
- 5. Write the number 5 on top of the picture for **KNOWLEDGE**.
- 6. Write the number 6 on top of the picture for **PERSPECTIVE**.
- 7. Write the number 7 on top of the picture for **RELATIONSHIP**.
- 8. Write the number 8 on top of the picture for **SCIENCE**.
- 9. Write the number 7 on top of the picture for **SOCIETY**.
- 10. Write the number 8 on top of the picture for **TECHNOLOGY**.

#### **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. Creativity is the ability to create or invent.
- 2. Curiosity is creativity, resourcefulness.
- 3. Imagination is the desire to know or learn.
- 4. Innovation is an application of science that is used to make products or tools that people can use to solve problems, make life easier, and improve the world.
- 5. Knowledge is information or skills acquired through experience or education.
- 6. Perspective is a view or outlook.
- 7. A relationship is a connection or association, the condition of being related.
## **Unit Assessment**

- 8. Science is knowledge about the natural world that is derived from observation and experiments.
- 9. Society is a group of organisms of the same species that live and work together in an organized way.
- 10. Technology is a new idea, method, or device.

## **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 scrambled letters on the left. Rearrange or unscramble the letters to form each of the unit words.

### **BASIC WRITING**

Turn to page 6 in your test. Look at the pictures in the boxes. Write the word for each picture.

#### **CREATIVE WRITING**

Turn to page 7 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 7 • Unit 9 (E-1, F-1, G-1)

**Theme: Science and Technology Cultural, Social, Personal Perspectives and Science History and Nature of Science Concepts of Earth Scienc** 

Date: \_\_\_\_\_ Student's Name: \_\_\_\_\_

 Number Correct:
 Percent Correct:



(1)

- 1. F Т 2. F Т
- 3. F Т 4. F Т 5. F Т
- 6. F Т 7. F T
- 8. Т F 9. F Т 10.
  - F Т

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condensation evaporation front orbit precipitation pressure system solar system star sublimation weather





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sieecnc	si
ecyoist	ey
t o o y n g e c h l	t eg
nvnaitonio	ni o
onpiarhlstei	rap
eepcvepstri	ec t
uriysctio	i t
gntiainomai	mn
wdgeekonl	kd
e w o n e k d l g	st











#### CREATIVITY

#### CURIOSITY

**IMAGINATION** 

**INNOVATION** 

KNOWLEDGE

PERSPECTIVE

RELATIONSHIP

**SCIENCE** 

SOCIETY

TECHNOLOGY

7