



UNIT 8

D-1: Concepts of Earth Science



KEY VOCABULARY



Key Vocabulary

CONDENSATION

the process by which water vapor changes from a gas to a liquid

EVAPORATION

the process of a liquid changing into a vapor or gas

FRONT

the boundary between two air masses with different temperatures, density, and moisture

Key Vocabulary

ORBIT

the curved path followed by a planet, moon, or satellite as it revolves around an object

PRECIPITATION

any form of water that falls from the atmosphere and reaches the ground

PRESSURE SYSTEM

a region of the Earth's atmosphere where air pressure is low or high



Key Vocabulary

SOLAR SYSTEM

a star with a group of celestial bodies orbiting it

STAR

an object in space that produces its own energy, including heat and light

SUBLIMATION

the process of changing directly from a solid to a gas without first becoming a liquid



Key Vocabulary

WEATHER

the conditions of the atmosphere at a certain place and time



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 activities.

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.

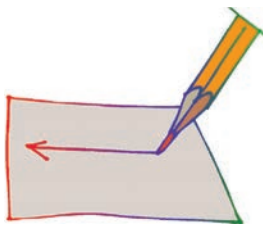
Letter Encode

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



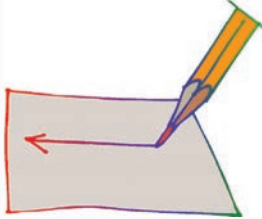
Flashlight Writing

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.

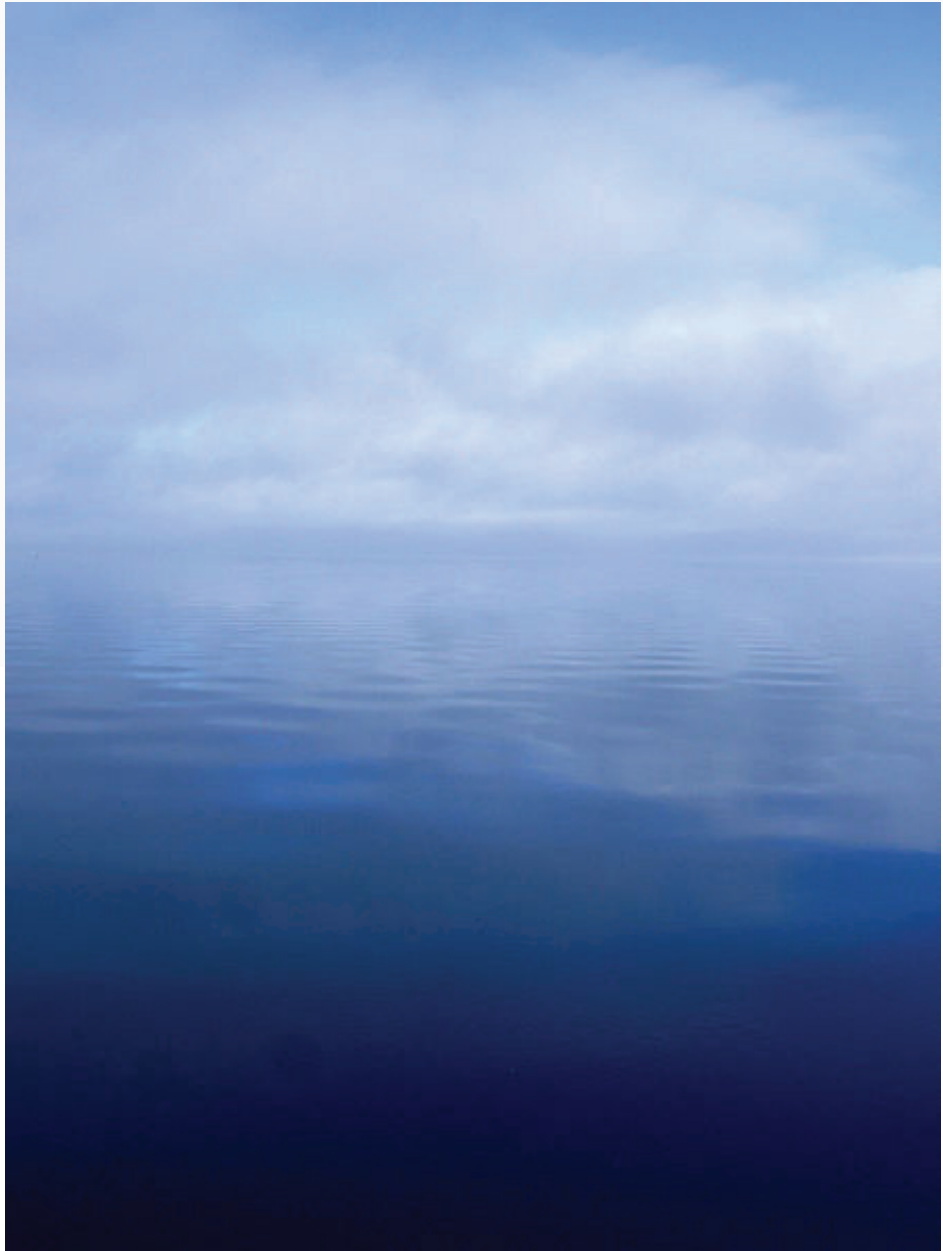


VOCABULARY PICTURES





CONDENSATION



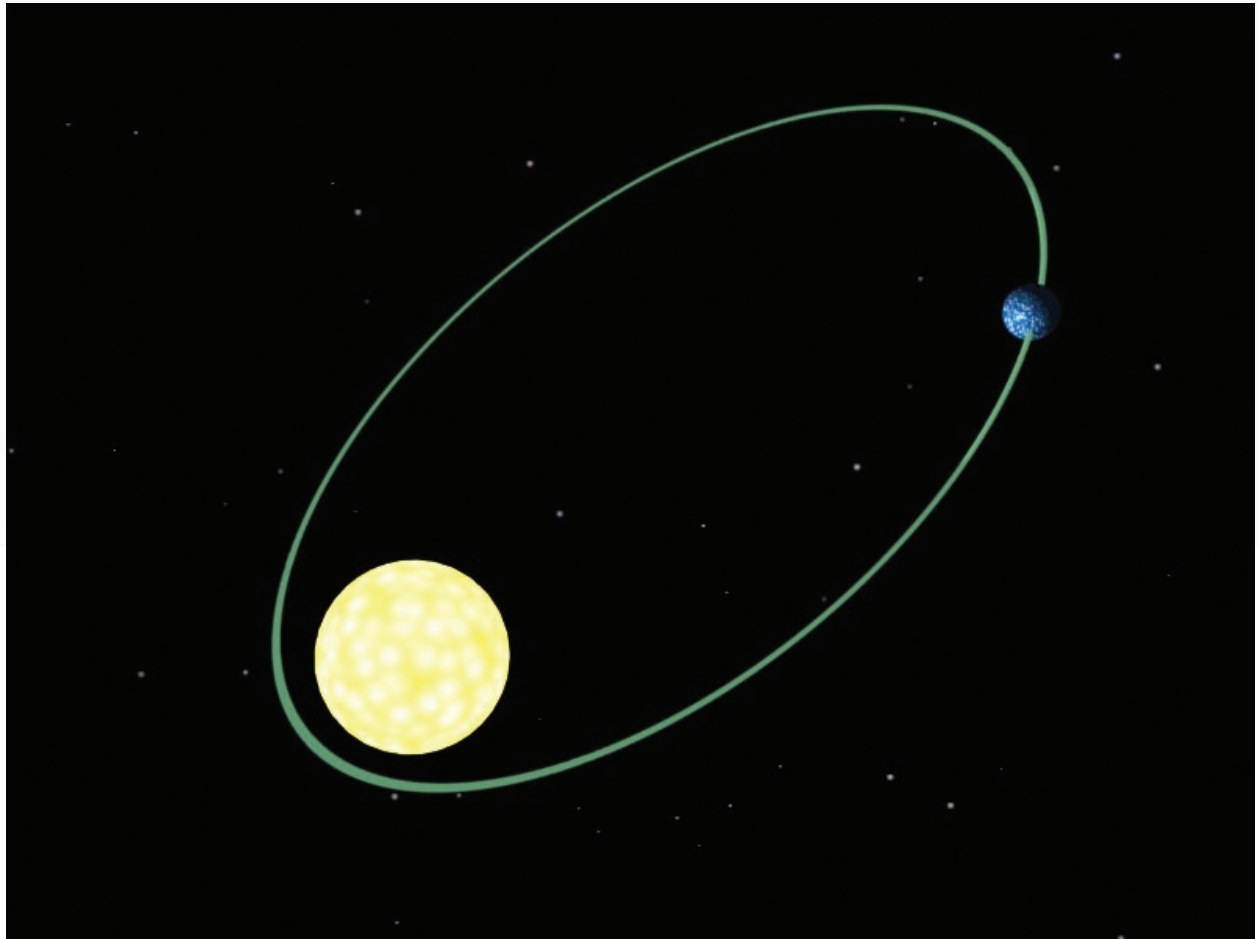


EVAPORATION





FRONT





ORBIT



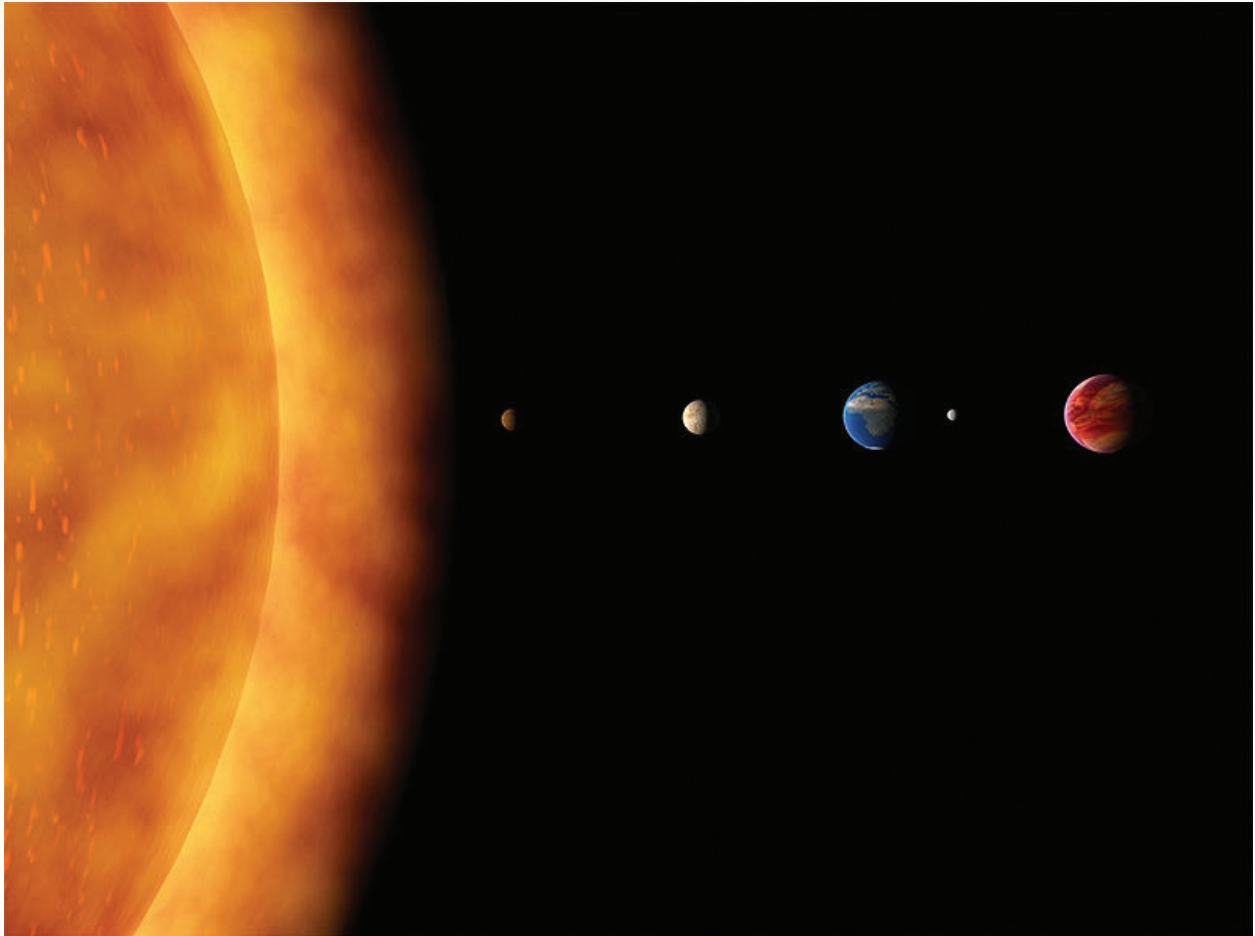


PRECIPITATION





PRESSURE SYSTEM





SOLAR SYSTEM





STAR





SUBLIMATION





WEATHER



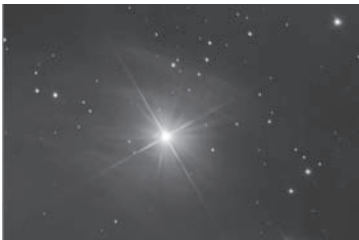
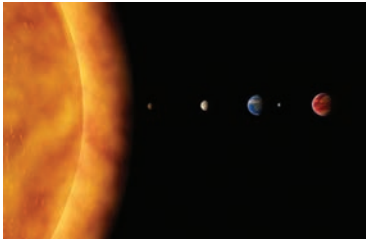
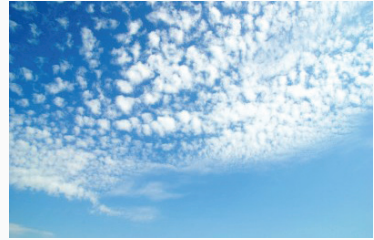
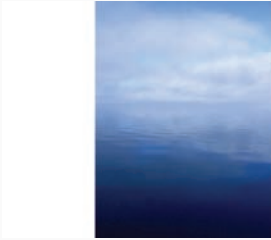
STUDENT SUPPORT MATERIALS

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.





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



condensation

evaporation

front





orbit

precipitation

pressure system




solar system

star

sublimation





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	orbit	solar system
evaporation	precipitation	star
front	pressure system	sublimation
		weather

E	B	C	O	N	D	E	N	S	A	T	I	O	N	T	S
T	E	Q	E	B	Q	G	Y	D	I	T	K	N	S	U	O
G	V	L	R	G	A	F	L	B	Q	G	A	L	I	N	L
B	A	C	I	J	Z	T	R	N	S	H	R	E	R	G	A
Y	P	V	I	G	B	O	S	I	G	J	E	E	T	H	R
H	O	F	N	E	H	A	V	P	N	Z	H	Q	E	T	S
N	R	R	G	D	U	T	K	E	R	T	B	V	O	U	Y
U	A	T	R	R	Z	O	Y	P	A	Q	U	P	C	M	S
J	T	Y	E	G	B	W	Y	E	W	Q	Z	T	Y	I	T
M	I	H	N	Y	N	T	W	I	A	V	E	R	K	L	E
I	O	G	H	W	E	R	B	H	U	R	N	J	I	Q	M
D	N	T	P	R	E	C	I	P	I	T	A	T	I	O	N
U	I	N	P	M	J	U	K	I	L	O	P	S	A	E	R
R	S	U	B	L	I	M	A	T	I	O	N	G	T	B	I
A	D	G	J	L	S	F	H	K	Q	E	T	W	R	A	I
P	R	E	S	S	U	R	E	S	Y	S	T	E	M	R	R

Sight Words Activity Page

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

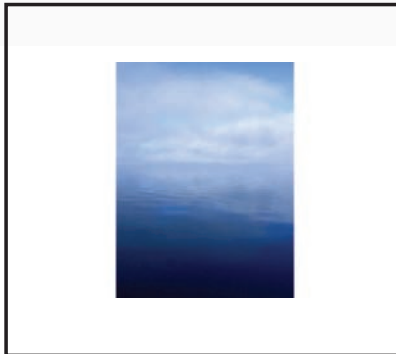
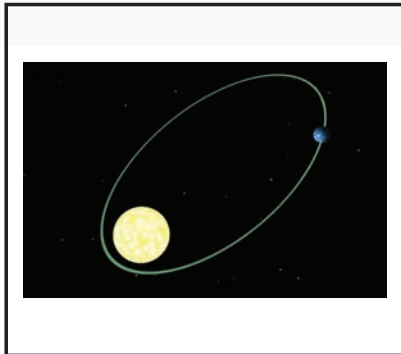
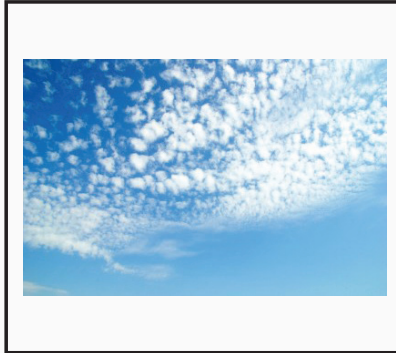


condensation evaporation front	orbit precipitation pressure system	solar system star sublimation weather
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		C	O	N	D	E	N	S	A	T	I	O	N		S
E									I						O
V					F			B							L
A						R							R		A
P					O			O				E			R
O									N		H				S
R										T					Y
A									A						S
T								E							T
I							W								E
O															M
N		P	R	E	C	I	P	I	T	A	T	I	O	N	
											S				
	S	U	B	L	I	M	A	T	I	O	N		T		
														A	
P	R	E	S	S	U	R	E	S	Y	S	T	E	M		R

Sight Words Activity Page

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



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



Sight Words Activity 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.



wea ther

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.



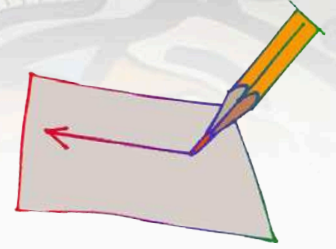
bit **or**

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	star	solar system	condensation	front
weather	pressure	evaporation	sublimation	precipitation

orlastsyems

___ l ___ _ t e _

wtarhee

w _ _ _ _ e _

rsuesrep

___ e ___ r _

ronft

___ _ t

pnetopiiiartc

___ _ _ _ _ i _ a _ _ _ n

uonsbimliaint

_ u _ l _ _ _ _ _ i _ _

cdoonsaitenn

___ _ d e n _ _ _ _ _

aetvpionoar

___ a ___ r ___ _ o _

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.



<p>the curved path followed by a planet, moon, or satellite as it revolves around an object</p>	<p>a region of the Earth's atmosphere where air pressure is low or high</p>	<p>an object in space that produces its own energy, including heat and light</p>
<p>a star with a group of celestial bodies orbiting it</p>	<p>the boundary between two air masses with different temperatures, density, and moisture</p>	<p>the conditions of the atmosphere at a certain place and time</p>
<p>the process by which water vapor changes from a gas to a liquid</p>	<p>the process of changing directly from a solid to a gas without first becoming a liquid</p>	<p>a rock for any form of water that falls from the atmosphere and reaches the ground when magma or lava cools and hardens</p>
<p>the process of a liquid changing into a vapor or gas</p>		

<p>condensation</p>	<p>evaporation</p>	<p>front</p>	<p>orbit</p>
<p>precipitation</p>	<p>pressure system</p>	<p>solar system</p>	<p>star</p>
<p>sublimation</p>	<p>weather</p>		



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	landforms	sedimentary	metamorphic	deposition
water cycle	weathering	reforestation	tectonic plates	igneous

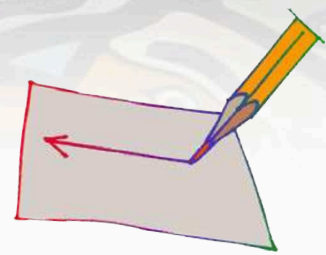
- 1 The planet Earth is held in _____ around the Sun by the force of gravity.
- 2 _____ is the changing of a liquid into a gas.
- 3 There are two types of pressure systems. A low _____ is a large mass of air with low air pressure in the center and a high pressure system is a large mass of air with the highest air pressure in the center
- 4 A _____ is an object in space that produces its own 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 _____ are sleet, hail, and snow and are formed when the air temperature is below the freezing point of water.
- 8 Our _____ is the Sun, a star, and the eight planets orbiting around it.
- 9 Almost all _____ occurs in the troposphere, the layer of gases closest to the Earth.
- 10 _____ is the process of dry ice changing directly from a solid to a gas.



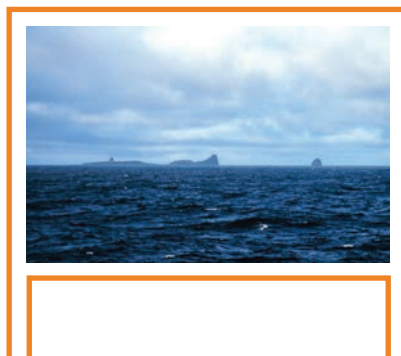
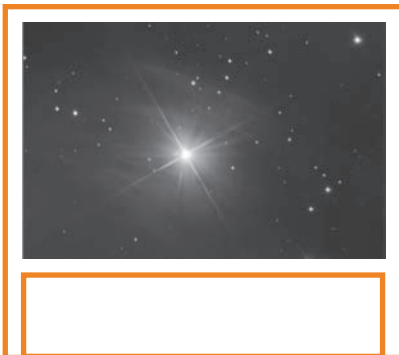
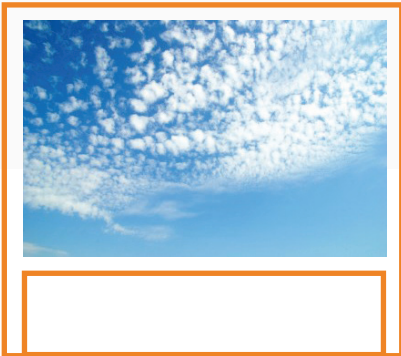
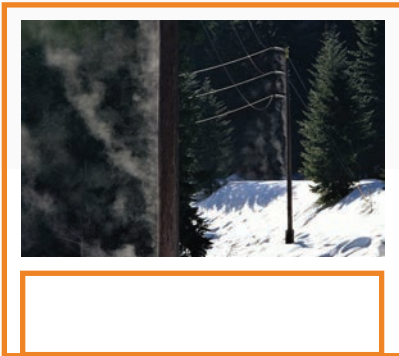
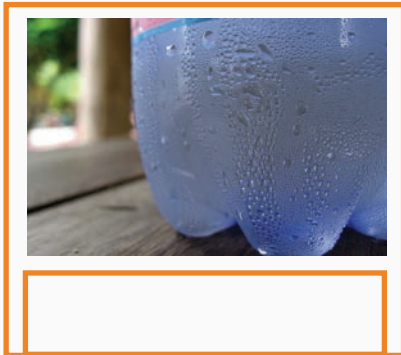
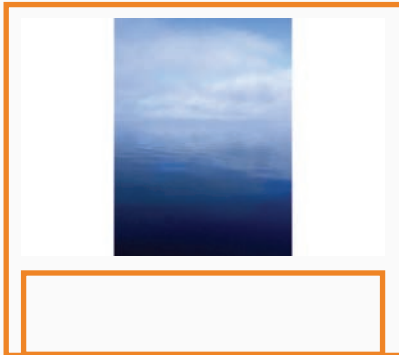
STUDENT SUPPORT MATERIALS

Basic Writing

Basic Writing Activity Page

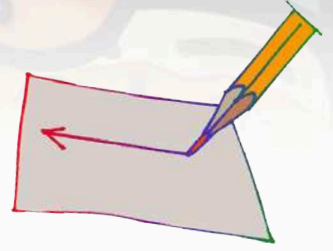


Have the students write the word for each picture.



Basic Writing Activity Page

Have the students write in the missing letters.



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.

WHAT IT IS:		WHAT IT IS NOT:
EXAMPLES:	condensation	NOT EXAMPLES:

WHAT IT IS:		WHAT IT IS NOT:
EXAMPLES:	evaporation	NOT EXAMPLES:

WHAT IT IS:		WHAT IT IS NOT:
EXAMPLES:	front	NOT EXAMPLES:

WHAT IT IS:		WHAT IT IS NOT:
EXAMPLES:	orbit	NOT EXAMPLES:

WHAT IT IS:		WHAT IT IS NOT:
EXAMPLES:	precipitation	NOT EXAMPLES:

Graphic Organizer

WHAT IT IS:		WHAT IT IS NOT:	
EXAMPLES:	pressure system	NOT EXAMPLES:	

WHAT IT IS:		WHAT IT IS NOT:	
EXAMPLES:	solar system	NOT EXAMPLES:	

WHAT IT IS:		WHAT IT IS NOT:	
EXAMPLES:	star	NOT EXAMPLES:	

WHAT IT IS:		WHAT IT IS NOT:	
EXAMPLES:	sublimation	NOT EXAMPLES:	

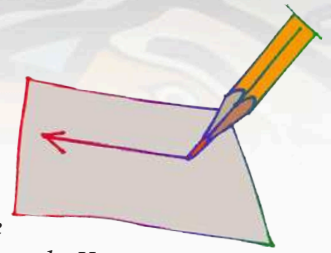
WHAT IT IS:		WHAT IT IS NOT:	
EXAMPLES:	weather	NOT EXAMPLES:	



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.

CONDENSATION

EVAPORATION

FRONT

ORBIT

PRECIPITATION

PRESSURE SYSTEM

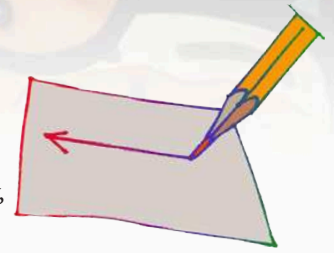
SOLAR SYSTEM

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.



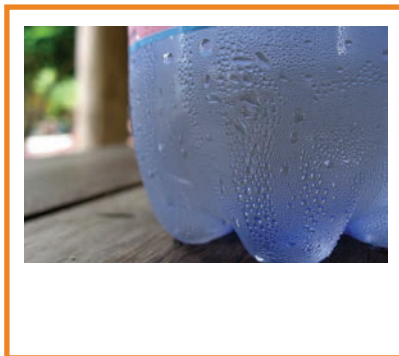
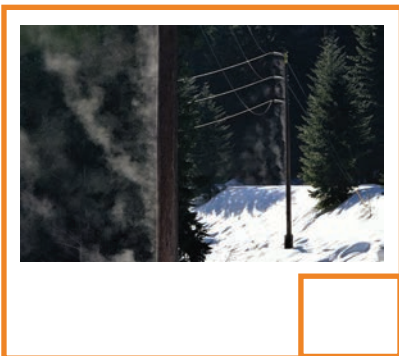
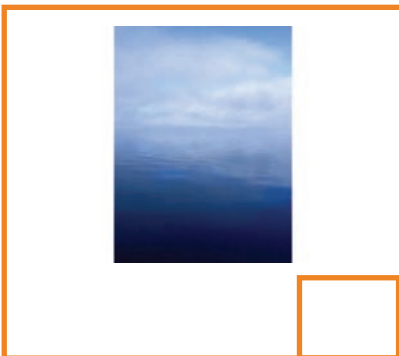
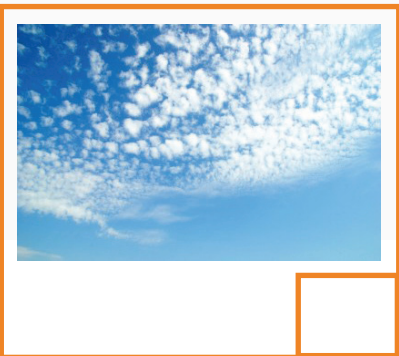
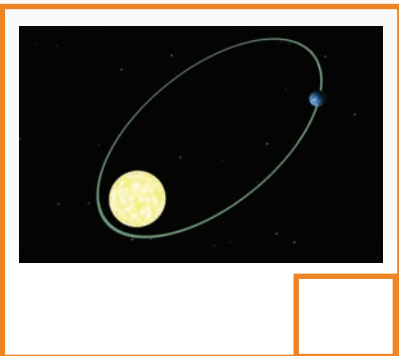
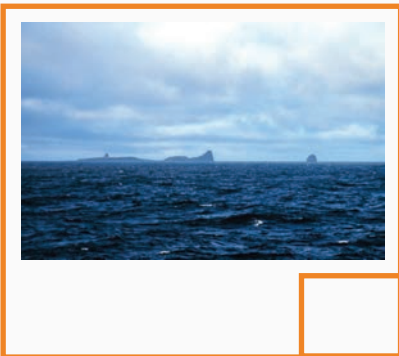
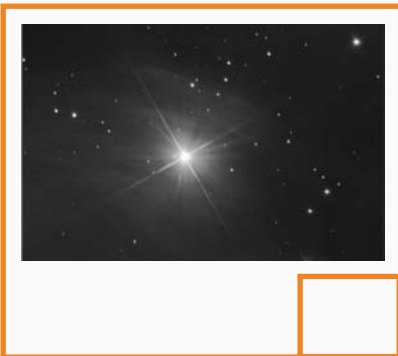
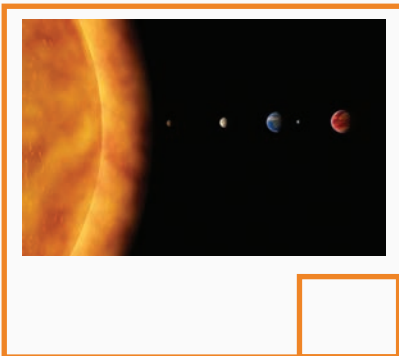


SCIENCE PROGRAM

Unit Assessment Student Pages
Grade 7 • Unit 8 (D-1)
Theme: Concepts of Earth Science

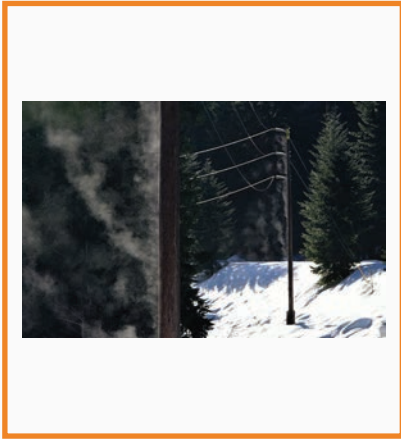
Date: _____ Student's Name: _____

Number Correct: _____ Percent Correct: _____

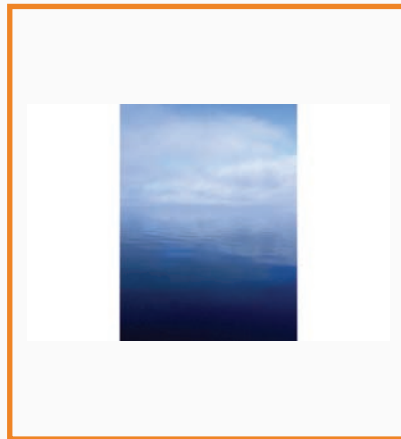




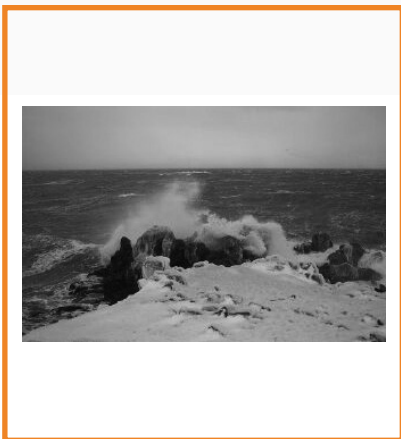
1. **T** **F**
2. **T** **F**
3. **T** **F**
4. **T** **F**
5. **T** **F**
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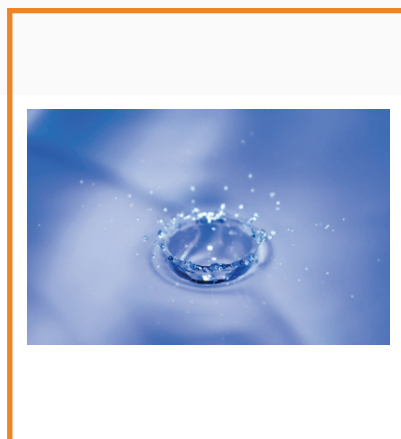
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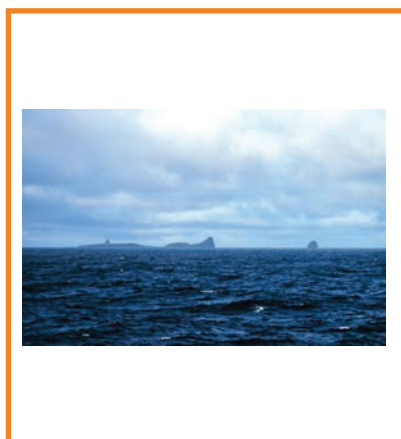
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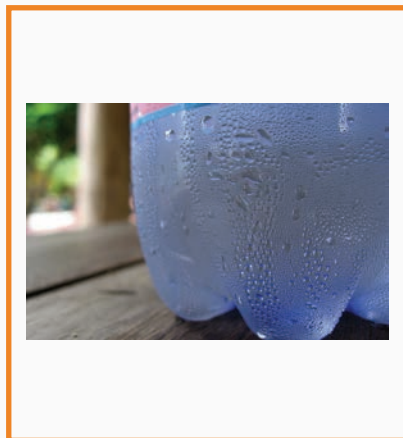
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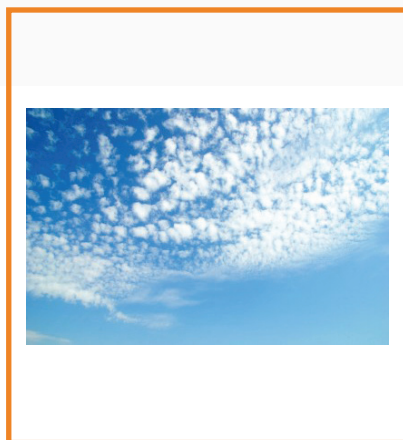
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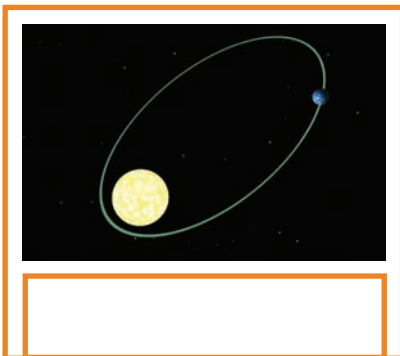
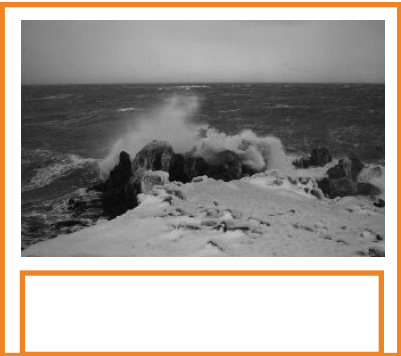
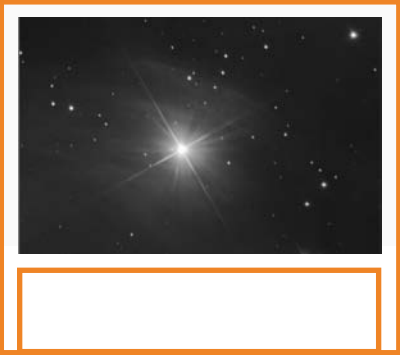
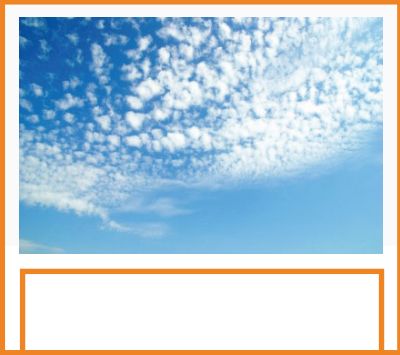
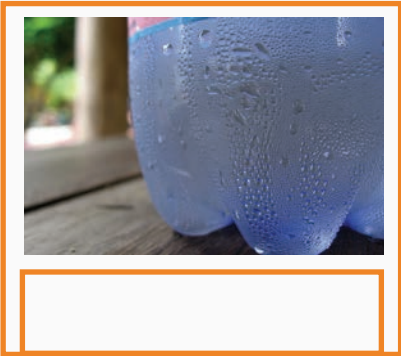
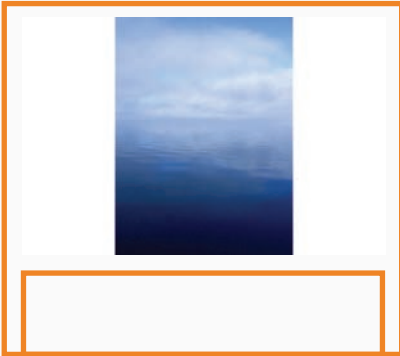
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erosion	landforms	sedimentary	metamorphic	deposition
water cycle	weathering	reforestation	tectonic plates	igneous

- ① The planet Earth is 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 space that produces its own 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 _____ are sleet, hail, and snow and are formed when the air temperature is below the freezing point of water.
- ⑧ Our _____ is the Sun, a star, and the eight planets orbiting around it.
- ⑨ Almost all _____ occurs in the troposphere, the layer of gases closest to the Earth.
- ⑩ _____ is the process of dry ice changing directly from a solid to a gas.





CONDENSATION

EVAPORATION

FRONT

ORBIT

PRECIPITATION

PRESSURE SYSTEM

SOLAR SYSTEM

STAR

SUBLIMATION

WEATHER
