LESSON | What causes wind?

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In Lesson 4, you learned about ocean currents. Now you will learn about air currents [KUR-unts]. Air currents are up-and-down movements of air. They are important in making winds.

You have learned that the sun heats our entire planet. However, the sun does not heat all parts of the earth the same amount. Some areas of the earth are heated more than others. The uneven heating and cooling of the earth's surface causes air currents.

Warm air and cool air do not weigh the same. Warm air is lighter than cool air. And you know that light air rises.

When warm air rises, other cooler air rushes in to take its place. The air that rushes in moves parallel to the ground. It is this moving air that we call "wind."

Wind is caused by the uneven heating of the earth's surface.

- Uneven heating of the entire planet causes global winds.
- Uneven heating of smaller areas causes local winds.

You will learn more about how winds are made on the next page.

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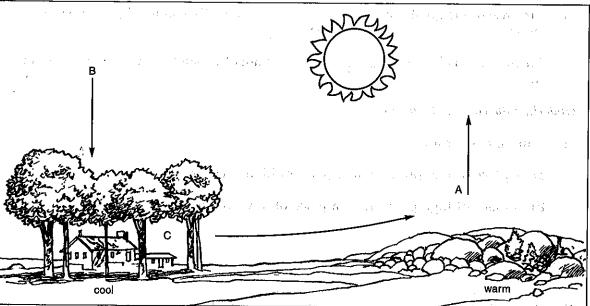
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STUDYING HOW WIND IS MADE

Study Figure A carefully. Then choose the correct term to complete each statement. Write your choice in the space.



-			医系统
	cool	warm	بي <u>ن</u> ا
Fig	ure ${f A}$		
	The air at A is warm, cool		
2.	Warm air is than cool air.		
3.	Light air rises, falls	use is also !	
4.	wind, current	The Swip B	
5.	The air at B is		
6.	Cool air is than warm air.	$((\cdot,\cdot),\cdot,\cdot)^{A^{F}}$	
7.	Cool air	and the state of	. :
8.	The air moving from B is called a wind, current		
9.	The air moving from C to A is called a wind, current		
	Winds moves from a place to a warm, cool		

A S	PECIAL CHALLENGE!						
	v that you know how winds form, try to answer these que have to.	uestions. Refer to Lesson 14					
1.	Air pressure is greater at Label this s Figure A	pot "High Pressure" on					
2.	Air pressure is less at Label this spot	"Low Pressure" on Figure					
Und	lerline the correct statement.	i					
3.	Wind moves from						
	a) a place of low pressure to a place of high pressure.						
	b) a place of high pressure to a place of low pressure.						
FII	L IN THE BLANK						
	wind uneven heating and cooling lighter current sinks	rises					
1.	Winds are causes by the	_ of the earth.					
	Uneven heating of the entire planet causes						
	Uneven heating of small areas causes						
4.	Air becomes when it is heated.						
5.	Warm air						
6.	Air becomes when it is cooled.						
7.	Cool air						
8.	When warm air rises, other moves	in to take its place.					
9.	Air moving parallel to the ground is called a						
10.	Air moving up or down is called a	•					

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5.

A SPECIAL CHALLENGE!

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if yo	w that you kn ou have to.				wer these q	uestions. I	Refer to Le	esson 14
1.	Air pressure Figure A.	is greater a	at	A, C	Label this s	pot "High	Pressure"	on
2.	Air pressure A.	is less at _	A, C	Lal	oel this spot	"Low Pre	ssure" on	Figure
Und	lerline the corr	ect statemen	t.					
3.	Wind moves	from						
	a) a place o	f low press	ure to a p	place of high	n pressure.			
	b) a place o	f high pres	sure to a	place of low	pressure.			
FIL	L IN THE E	BLANK			d ,	* 4		
	w li	eavier vind ghter inks		n heating an	nd cooling	coole globa rises	1	
1.	w li	vind ghter inks	unever curren	t _{ing} ;		globa rises	.1 	
1. 2.	W li si	vind ghter inks auses by the	unever curren	t e		globa rises _ of the ea	l rth.	
2.	Winds are ca	vind ghter inks auses by the ting of the o	unever curren ee entire pla	net causes		globa rises _ of the ea: wir	l rth.	
2.	Winds are ca	vind ghter inks auses by the ting of the c ting of sma	unever curren e entire pla	net causes _		globa rises _ of the ea: wir	l rth.	
2.	Winds are ca Uneven head Uneven head	vind ghter inks auses by the ting of the o	unever curren e entire pla	net causes _	neated.	globa rises _ of the ea: wir	l rth.	
2. 3. 4.	Winds are ca Uneven head Uneven head Air becomes	vind ghter inks auses by the ting of the c	unever curren ee entire pla	net causesauseswhen it is h	neated.	globa rises _ of the ea: wir	l rth.	
 3. 4. 5. 	Winds are ca Uneven head Uneven head Air becomes Warm air	vind ghter inks auses by the ting of the c	unever curren	net causes auses when it is t	neated.	globa rises of the ea winds.	rth. nds.	
 3. 4. 6. 	Winds are ca Uneven head Uneven head Air becomes Warm air Air becomes	vind ghter inks auses by the ting of the c	unever curren	net causes auses when it is t	neated.	globa rises of the ea winds.	lt.	
 3. 4. 6. 7. 	Winds are ca Uneven head Uneven head Air becomes Warm air Air becomes Cool air	vind ghter inks auses by the ting of the e ting of sma	eeentire pla	net causesauseswhen it is a	neated.	globa rises of the ear winds. winds.	its place.	

MATCHING

4. COLLA

5. NEEVUN

Match each term	in Column	$A \tau$	with it	s descrip	ion in	Column	B.	Write	the	correct	letter	in th
space provided.				ŕ								

space proviaea.			
	Column A		Column B
1.	wind	a)	moves up or down
2.	current	b)	falls
	heated air	c)	move over small areas
4.	cooled air	d)	moves parallel to the ground
	local winds	e)	rises
•			
TRUE OR FA	LSE		·
In the space prov	vided, write "true" if the sentenc	ce is t	rue. Write "false" if the sentence is false.
-	Warm air weighs less than o		
2.	Warm air has greater pressu	ire th	an cool air.
3.	Cool air is heavier than war	m aiı	: :
4 .	Cool air has greater pressur	e tha	n warm air.
5.	Warm air rises.		
6.	Cool air rises.		
<u> </u>	Wind moves from a cool pla	ice to	a warm place.
8.	Rising or falling air is called	l a w	nd.
9.	A wind moves parallel to th	e gro	und.
10.	All winds move at the same	spee	d.
WORD SCRA	MBLE	· ·	
Below are several your answers in	scrambled words you have used the spaces provided.	in th	is Lesson. Unscramble the words and write
1. GLBAOL			
2. DIWN			
3. RERNUCT			

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 $\{c(i)\}_{i=1}^{n}$

In the space provided, write the letter of the word that best completes each statement.

- 1. Wind is caused by
 - a) ocean currents.
 - c) land breezes.
 - 2. The earth is heated by
 - a) currents.
 - c) the sun.
- 3. As air is cooled
 - a) it rises.
 - c) it sinks.

- d) uneven heating.
 - b) wind.
 - d) the moon.

b) even cooling.

- b) it becomes lighter.
- d) its pressure decreases.
- 4. Up-and-down movements of air are called
 - a) currents.
 - c) winds.
- 5. Warm air
 - a) falls.
 - c) sinks.

- b) breezes.
- d) convections.
- b) rises.
- d) remains in place.

REACHING OUT



Wind moves from high pressure to low pressure. What makes some winds stronger than others?

Figure B