

METEOROFE

(Weather and Climate OFE)

Name: _____

Due: _____

Please provide at least a 25 word weather forecast for today? You must include the big four variables in your forecast? Date: _____

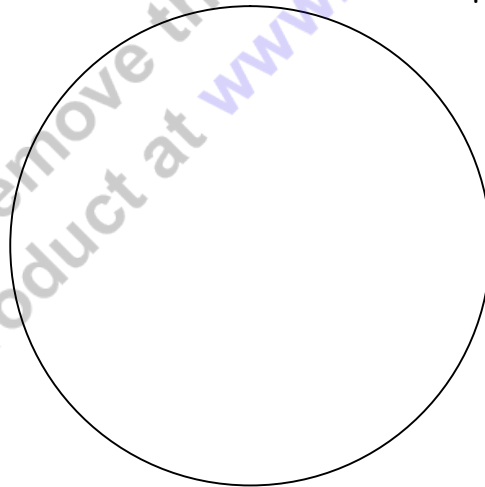
Describe the general climate of 4 U.S. States in the month of January?



If the following circle represents earth, please draw the thickness of the atmosphere. Also create a pie graph showing what chemical elements the atmosphere is of. Answer questions on side.

Importance of an atmosphere

-
-
-

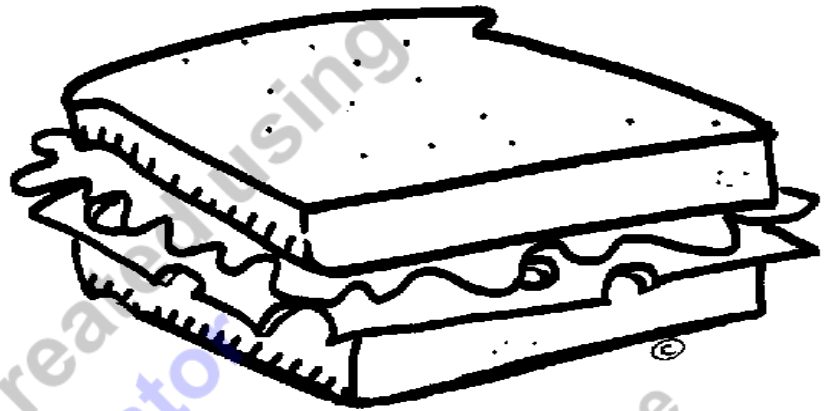
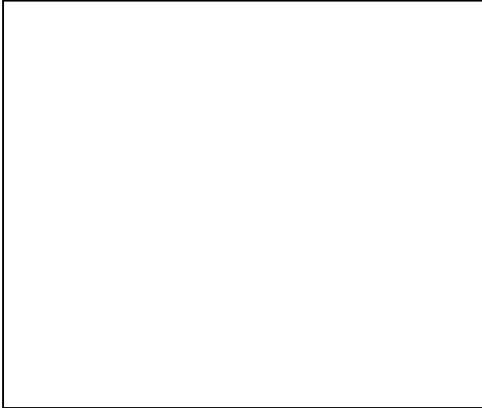


Why is the sky blue?

If this sandwich represents the layers of the atmosphere, bottom layer is on earth's surface,

please label the bottom bun, cheese, lettuce and top bun. Lastly, make it look yummy.

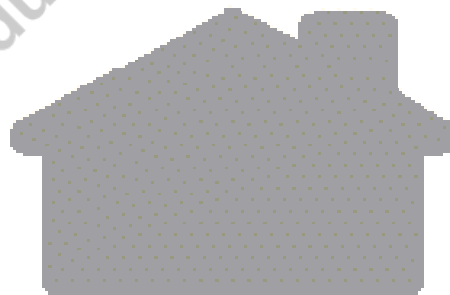
How does temperature change?



Please record some types of air pollution around the picture below

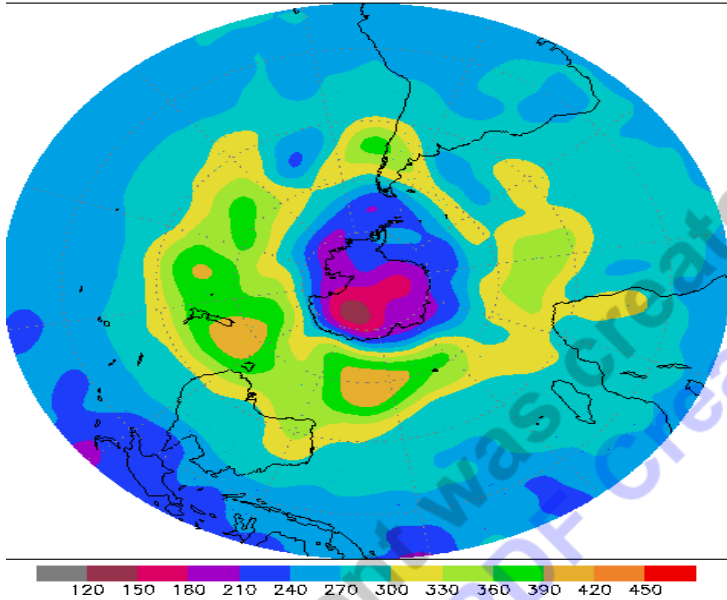


What is so dangerous about carbon monoxide? What are some precautions you should take to avoid this type of poisoning?

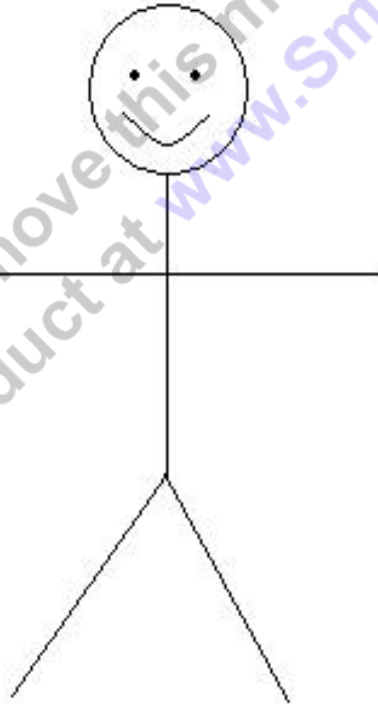


Please analyze the photo below. Do you recognize the environmental issue? What do you know about it?

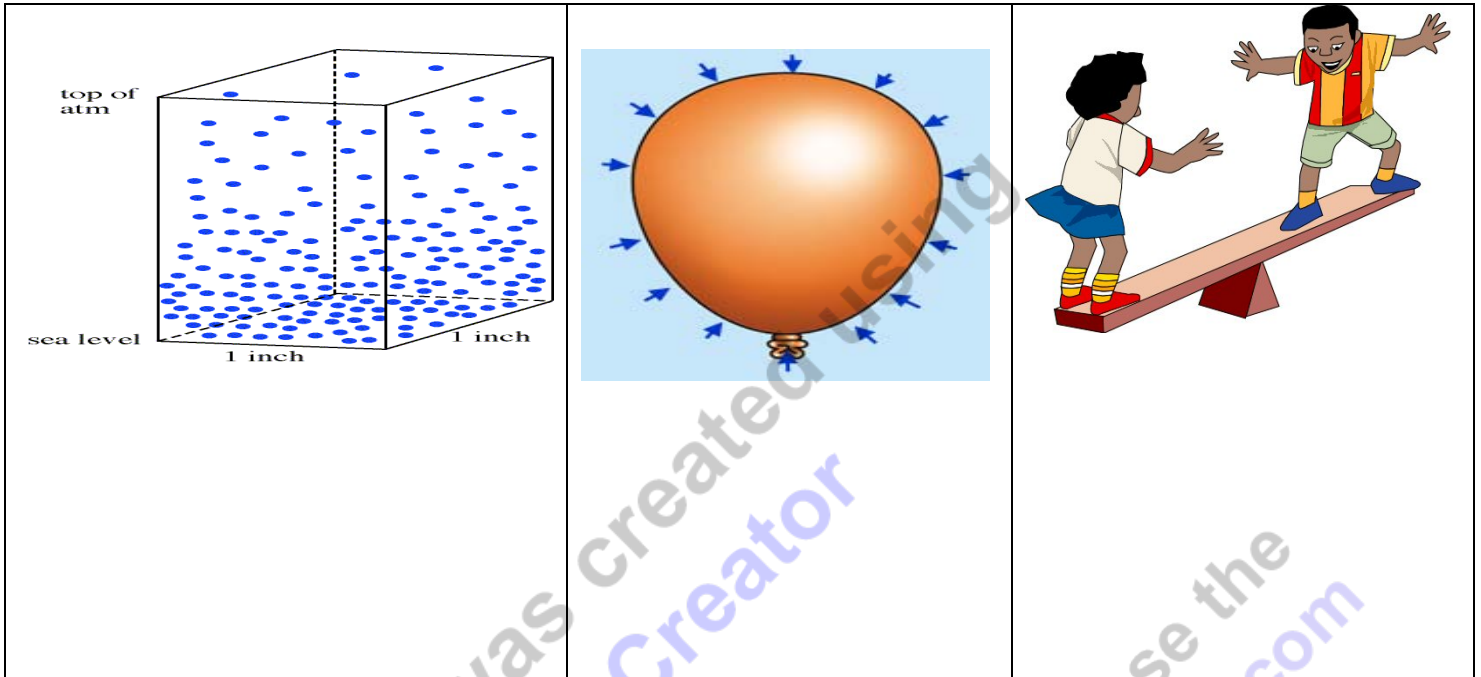
TOVS Total Ozone Analysis (Dobson Units)
Climate Prediction Center/NCEP/NWS/NOAA
09/07/03



Please decorate this stick figure with accessories, and describe in the margin ways to protect yourself from Ultraviolet Radiation known as UV ray's which can cause skin cancer.



Please provide information about how each picture below is connected to air pressure



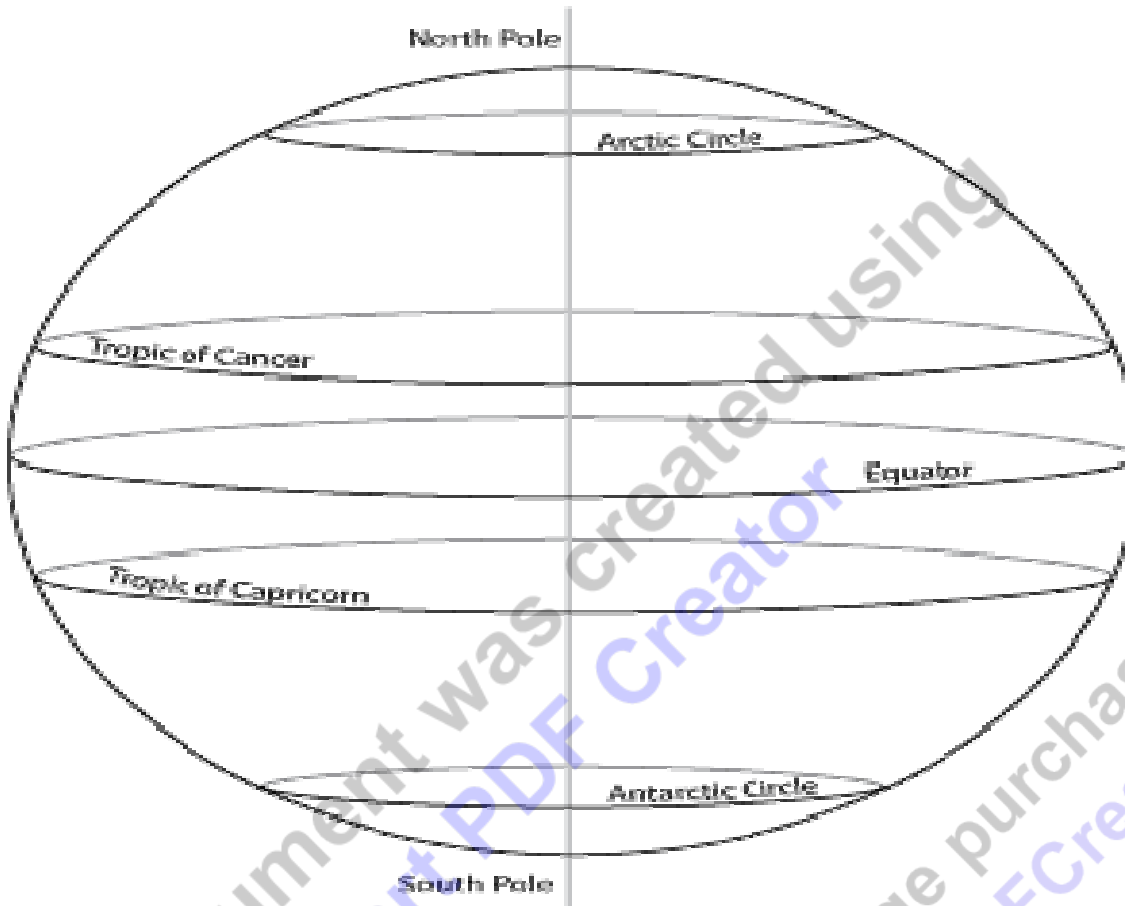
Describe one experiment that could show air pressure in the box below. Provide a procedure and an explanation as to how this experiment shows air pressure.

Visual of experiment and procedure	Explanation of experiment

Describe how temperature and air pressure are related using the diagram of a sea breeze. Use numbers 1-7 within your response

- 1
- 2
- 3
- 4
- 5
- 6
- 7

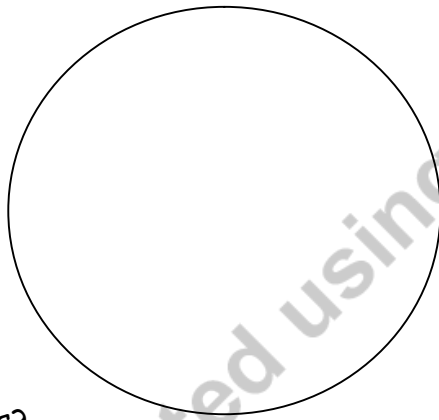
Please use the picture of the earth below to describe high and low pressure patterns.



Please draw and describe a warm Front
Provide meteorological symbol

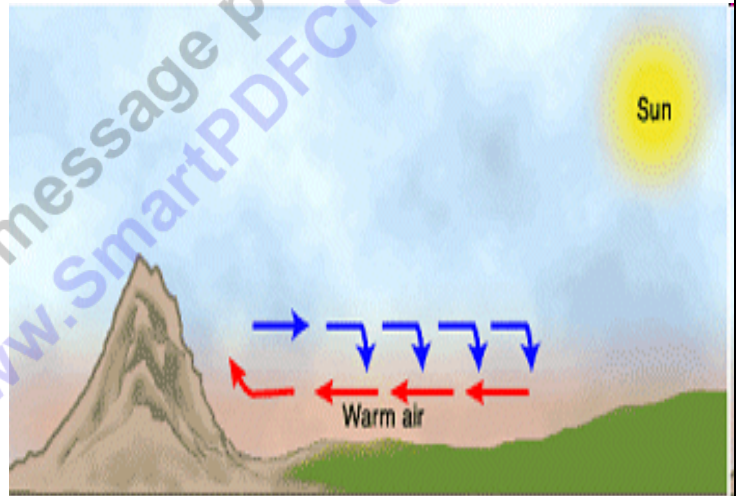
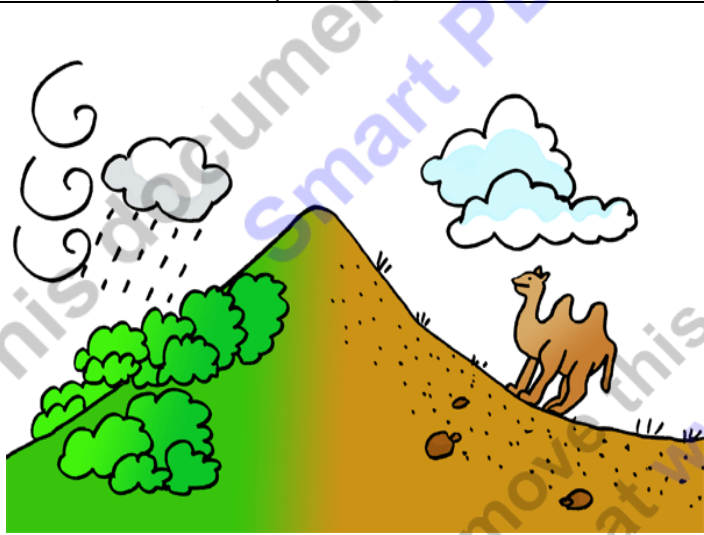
Please draw and describe a cold front
Provide meteorological symbol

What is the Coriolis Force? Use the image below to help you.



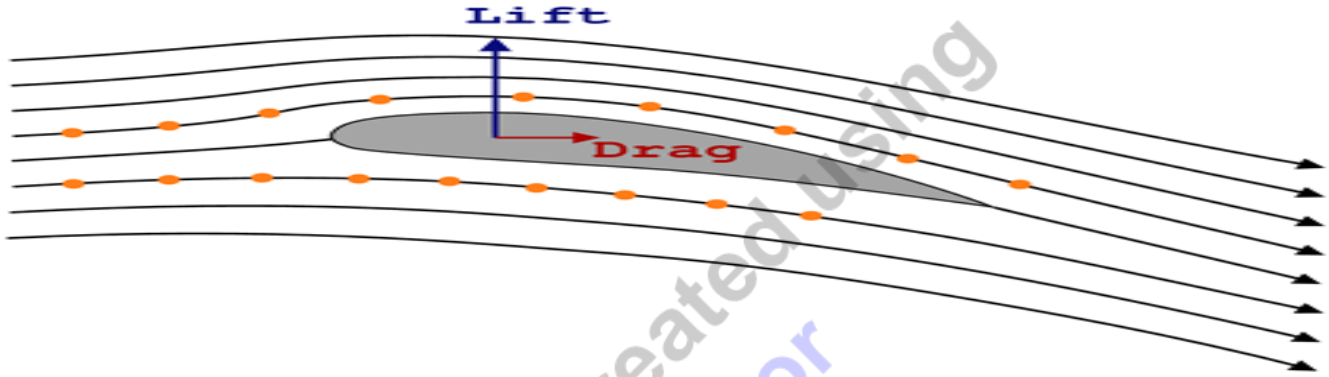
What is wind in more than 15 words? _____

Describe the two pictures below. What are they and what is happening? We are still on wind.



Valley Wind

How is flight possible? Use the wing and image below with your knowledge of Bernoulli's Principle to describe.



Describe two severe weather patterns. Please include air pressure in both responses. A strong answer will include how the severe weather forms, dangers / destructive forces, and safety concerns.

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Use the chart below to answer the following questions.

APPARENT WIND CHILL

	45	40	35	30	25	20	15	10	5	0	-5	-10	-15	-20	-25	-30	-35	-40
4mph	45	40	35	30	25	20	15	10	5	0	-5	-10	-15	-20	-25	-30	-35	-40
5mph	43	37	32	27	22	16	11	6	0	-5	-10	-15	-21	-26	-31	-36	-42	-47
10mph	34	28	22	16	10	3	-3	-9	-15	-22	-27	-34	-40	-46	-52	-58	-64	-71
15mph	29	23	16	9	2	-5	-11	-18	-25	-31	-38	-45	-51	-58	-65	-72	-78	-85
20mph	26	19	12	4	-3	-10	-17	-24	-31	-39	-46	-53	-60	-67	-74	-81	-88	-95
25mph	23	16	8	1	-7	-15	-22	-29	-36	-44	-51	-59	-66	-74	-81	-88	-96	-103
30mph	21	13	6	-2	-10	-18	-25	-33	-41	-49	-56	-64	-71	-79	-86	-93	-101	-109
35mph	20	12	4	-4	-12	-20	-27	-35	-43	-52	-58	-67	-74	-82	-89	-97	-105	-113
40mph	19	11	3	-5	-13	-21	-29	-37	-45	-53	-60	-69	-76	-84	-92	-100	-107	-115
45mph	18	10	2	-6	-14	-22	-30	-38	-45	-54	-62	-70	-78	-85	-93	-102	-109	-117

Unpleasant

Frostbite likely.
Outdoor activity
dangerous.

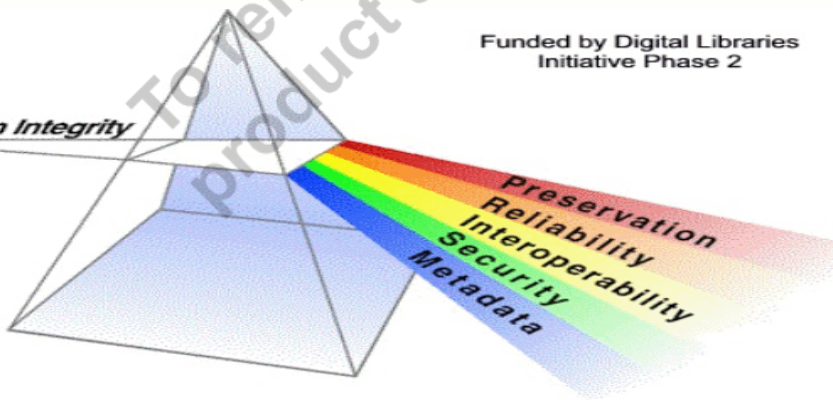
Exposed flesh will freeze
within half a minute for
the average person.

What is wind chill and why should you be concerned about it? Provide numbers from the chart above in your response.

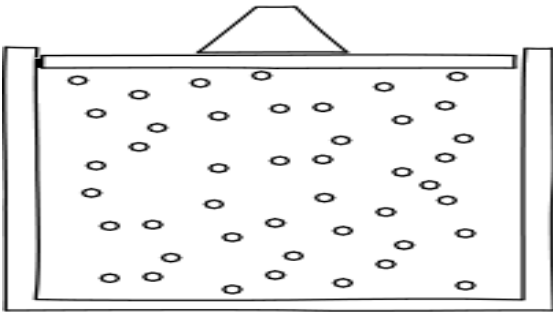
Why does black absorb heat? Why does white reflect light?

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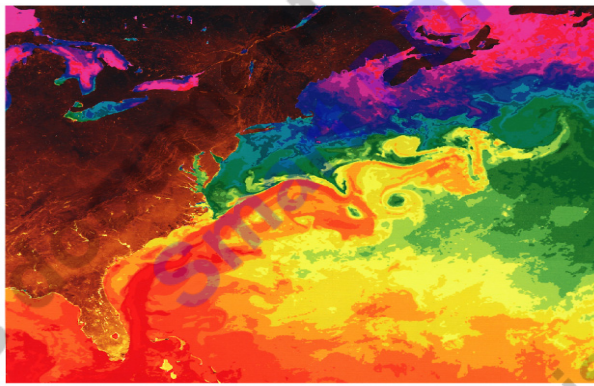
What is temperature?



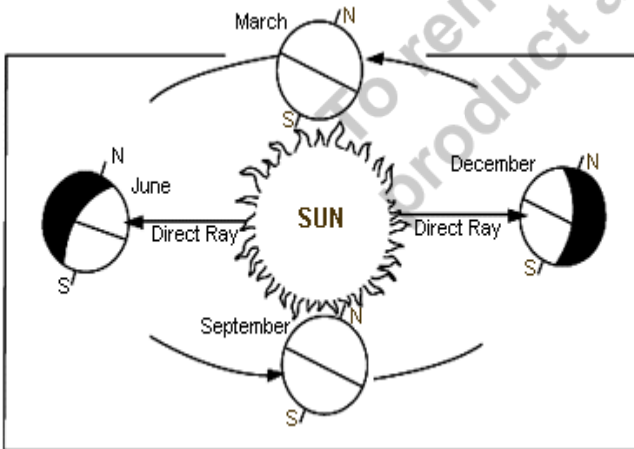
What reflects light below, and what absorbs light?



Why does Europe have such mild winters. Use the photo below as help.



Important Review - Please view the following picture and describe why the earth has seasons



How do clouds form? _____

Please label the types of clouds in the boxes below.



(h)



(b)



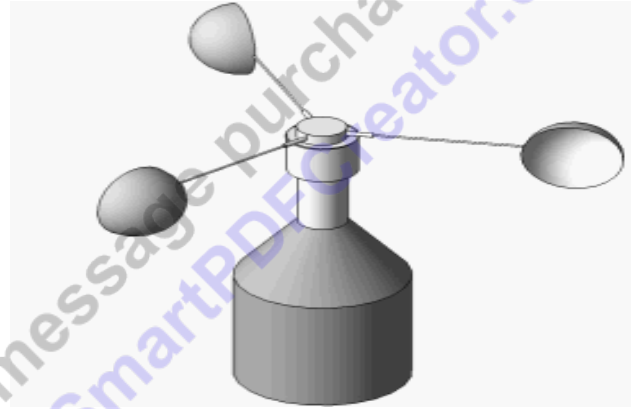
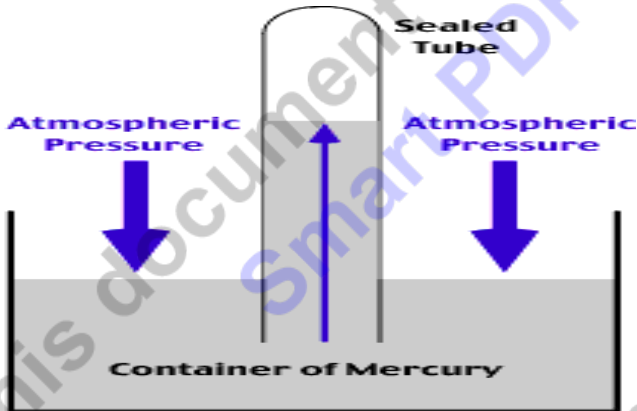
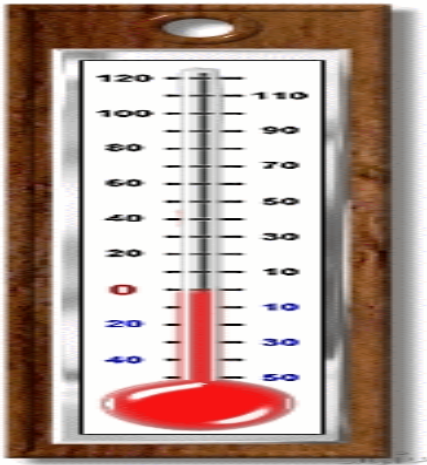
Use the map below to describe the correlation between earth's biomes and latitude.



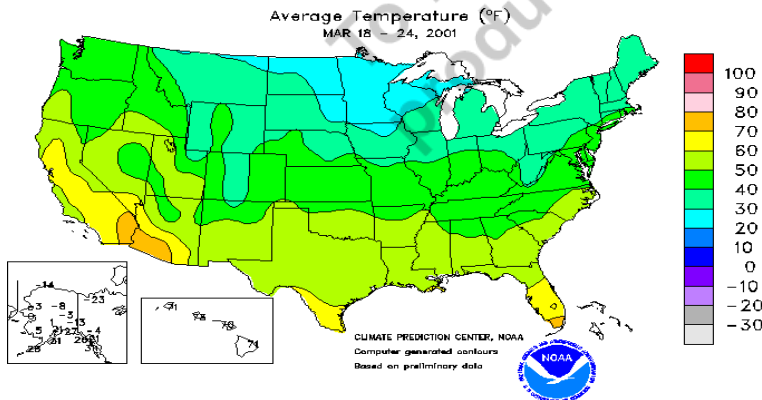
Key



Name these four common weather tools. What do they record?

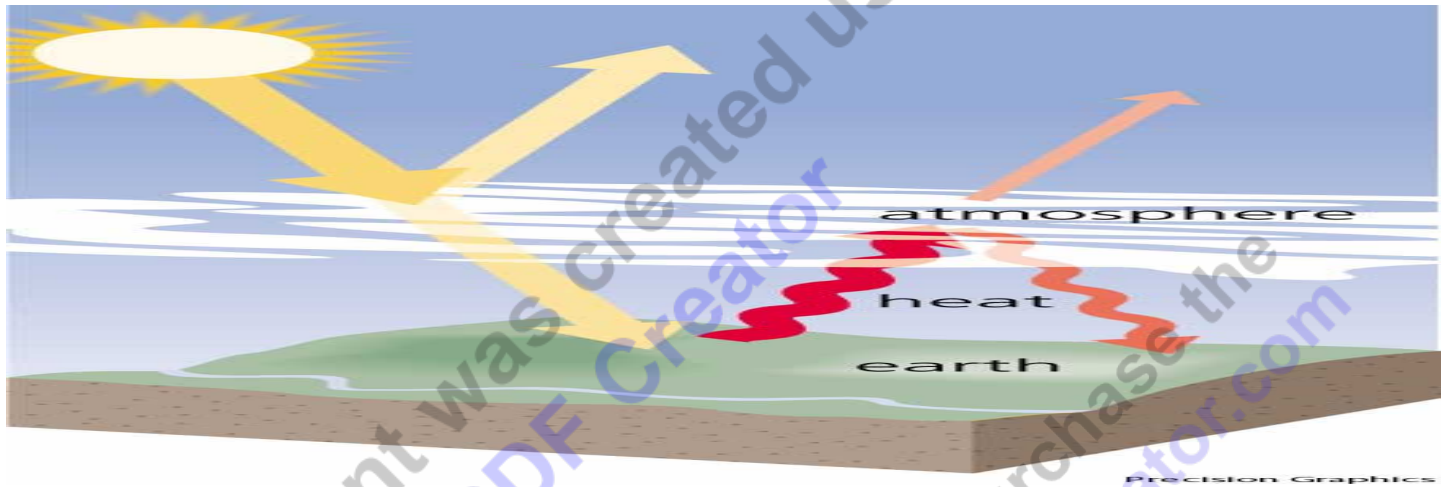


What is this a picture of? What does it show?



What is a better word than global warming? _____

Please use the image below to describe how the greenhouse effect works. Is the greenhouse effect a good thing?



There is a natural carbon dioxide cycle that has been occurring on our planet for millions of years. In the picture below, show how extra carbon, that hasn't been in the carbon cycle for the last several million years is getting in. At the top, why is this bad for humanity?

