

Name: _____

Hour: _____

Science Book Test

WEATHER

[\(All answers can be found on the weather notes PDF\)](#)



1. Name the three main factors that interact to cause our weather:
2. If I put my hand under a heat lamp and feel heat on my skin, the energy is being transferred by:
3. Explain the greenhouse effect in your own words:
4. What type of weather instrument do we use to measure wind speed?
5. A barometer measures _____.
6. What are the **U.S.** units of measurement that can be read from a 1) thermometer [temperature in Fahrenheit(U.S.) and Celsius (metric)] and 2) a barometer? [air pressure in Inches of Mercury (U.S. and **hectopascals** (metric)] BONUS: what are the **metric** units of measurement for a thermometer and barometer?
7. Which has greater density, warm air or cool air?
8. How do dark colored surfaces on the earth affect temperature (3 points)?
9. What is the name of the direct transferring of heat through a (usually solid) material?
10. What occurs on or around June 21st every year that gives us more hours of sunlight than any other day of the year?
11. What is the vocabulary term for a large body of air with similar temperature and moisture content throughout?
12. In North America, the jet streams cause weather patterns to move mostly in which direction?
13. What part of a 24 hour period is cloud cover *most likely* to help keep outside air temperatures from falling rapidly? In other words, when would *clear skies* lead to falling temperatures?
14. What type of low cloud can bring rain?
15. What middle cloud appears puffy—resembling cotton or another fluffy material?
16. What high cloud is a white milky ice-crystal cloud?
17. What are the three major steps of the water cycle (*list four for a bonus point*)?
18. What are isobars?
19. How can isobars help indicate the direction and strength of wind (be complete for full credit)?
20. List the three main types of fronts and briefly explain their characteristics (12 points):

21. Are clear skies usually brought on by high or low pressure systems?
22. How does wind direction relate to high and low pressure?:
23. Draw and label the water cycle (6 points):
24. What type of cloud is often accompanied by thunder and lightning?
25. A whirling, *funnel shaped cloud* that develops in low, heavy cumulonimbus clouds and touches the ground is a:
26. Cold water sinking to the bottom of an aquarium and pushing up warm water is an example of:
27. If a spoon is left in a pot of soup on the stove, the handle of the spoon will become too hot to handle. The metal in the spoon transfers heat from the pot because of:

28-35. Draw in the following symbols on the map below for full credit, use correct colors:

28. High pressure center over Idaho, Washington, and Oregon in the Northwest U.S.
29. Low pressure center over Texas
30. Low pressure center over Eastern Minnesota and Northwest Wisconsin
31. High pressure area in Canada north of New York and the Northeast U.S.
32. Draw a stationary front between the two low pressure weather systems
27. Draw a warm front line moving across Michigan to the east
34. Draw a cold front line between the high pressure system in the Northwest (#28 above) and the low pressure system in the Midwest (#30 above) moving east
35. Draw **3 Isobars around the High pressure system in the Northwest that are spread out on the left and closely spaced on the right**

