

Meteorology Prep Sheet

Name _____

Date _____

Period _____

DIRECTIONS: The following questions will help you answer the questions on the final test. Answer each question as completely as possible on a SEPARATE piece of paper. You do not need to use complete sentences. **The final test will be a combination of multiple choice, short answer, interpreting diagrams, T/F, and fill-in questions. Notes of any kind will NOT be allowed.*

***Spelling counts on these words:** weather, atmosphere, molecule, temperature, dense, density, convection, conduction, radiation, toward, pressure and any word printed on the test.

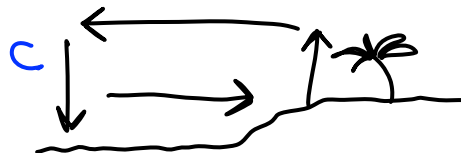
Give the definitions of:

1. meteorology -
2. density -
3. humidity -
4. air pressure -

5. wind -
6. weather front -
7. volume -

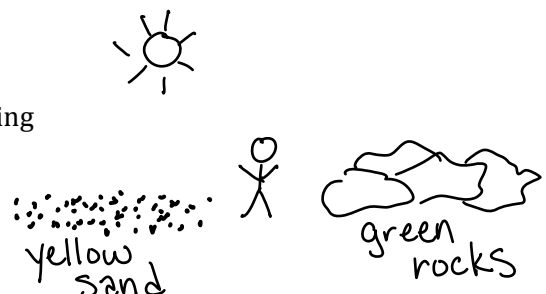
8. Compare and contrast weather and climate.
9. List four main differences between tornadoes and hurricanes.
10. Does soil or water heat up faster in the daytime? WHY?
11. Draw and describe a convection current.
12. List five reasons why it is important for Earth to have an atmosphere.
13. What would happen to the wind on Earth if the Sun stopped shining? WHY?
14. What would happen to the wind on Earth if the planet stopped rotating?
15. Describe what you know about Earth's atmosphere. Include: how many layers there are, the names of each, and any other important characteristics of each layer.
16. Define convection, conduction and radiation and give an example of each.
17. In general, what causes a weather front? Name three types of them. Why are they important?
18. Describe how the temperature and density of air is related to air pressure.
19. Let's say there is high air pressure in the school and low air pressure outside. If you open a window, which way will the air move? Why?
20. Name all five causes of wind. Pick two and explain how they interact with each other.
21. Explain why having ceiling heat in your house is not a very good idea.

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22. What kind of breeze is shown at the right?
 23. Is this diagram in the day or nighttime?
How do you know?
 24. What is happening at the arrow labeled C?



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25. Create a table to compare the characteristics of hot and cold air. Be sure to include: density, spacing of molecules, speed, and direction of each type of air.

26. Let's pretend that on Planet "Barbola," green rocks heat up faster in the daytime than yellow sand. If I stand facing the green rocks in the daytime, is the wind blowing at my face or at my back?



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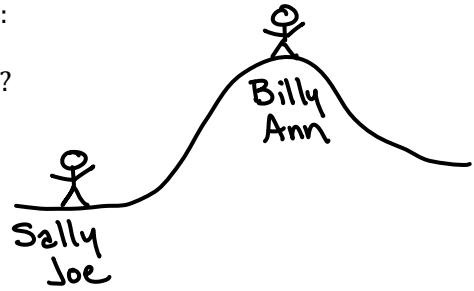
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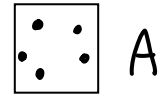
Use the diagram at the right to answer the following questions:

- 27. Which person is at a lower elevation, Billy Ann or Sally Joe?
- 28. Which person would be experiencing higher air pressure?
- 29. Which person would have clear and sunny weather?



For each scenario, choose which "box" of molecules is:

- 30. the least dense
- 31. the highest air pressure
- 32. at sea level (lowest elevation)
- 33. the hottest air



A



B



C

- 34. What kind of weather is usually associated with low air pressure?
- 35. Explain why the following question isn't testable: "What do cold and hot water do?"
- 36. If this is the testable question: "What direction does warm and cold water move?"
 - a. What is the manipulated variable? (what would we change between the two set ups?)
 - b. What is the response variable? (what would we want to observe and record?)
- 37. What was the science agenda for March 11th?

POSSIBLE EXTRA CREDIT QUESTIONS THAT MIGHT BE ON THE TEST:

- Explain what is wrong with this statement: Water evaporates into the clouds.
- Even if there was no precipitation during the night, why would there be ice on my car windows?
- Where is the area on Earth that has very little wind? What is that area called?
- What direction does weather move across the United States?
- Why does Bend, OR have less rainfall than Eugene, OR?