

Name _____ Period _____ Date _____

Essential Questions **Answers** for Air Pressure

1. Does air have mass? How do you know?

Yes, air has mass. I know air has mass because when we measured the zip lock bag full of air it had more mass than when it was empty.

2. Air pressure is the **force** with which air presses down on Earth.

3. Air pressure is affected by **Humidity, Temperature and Altitude**

4. As the humidity increases, air pressure **decreases**.

5. As altitude increases, air pressure **decreases**.

6. As the temperature increases, air pressure **decreases**.

7. As the humidity decreases, air pressure **increases**.

8. As altitude decreases, air pressure **increases**

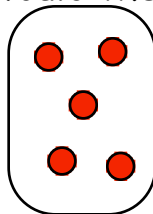
9. As the temperature decreases, air pressure **increases**

10. Describe the pattern between H.A.T. and air pressure.

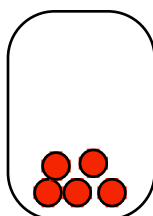
They are opposites. When one of the characteristics increases air pressure decreases and when one of the characteristics decrease air pressure increases.

11. A barometer measures **air pressure**.

12. Draw a picture of what the air molecules in a cylinder would look like if they were under LOW pressure. How would they be moving? **Fast**



13. Draw a picture of what the air molecules in a cylinder would look like if they were under HIGH pressure. How would they be moving? **Slowly**



14. A high pressure system brings **fair, clear, skies usually sunny weather** weather.

15. A low pressure system brings **some sort of precipitation** weather.

16. We were able to crush a can with air because, **we quickly changed the air pressure in the can. We created a low pressure system by heating up the water. The water vapor began to expand and rise. Then we quickly made all that water vapor condense by placing the can in cold water. (high pressure).**

17. Why do your ears sometimes hurt or pop when the airplane you are in is landing?

Basically, you are feeling the change of the air pressure in your ears.

18. The weather symbol for low pressure is **L**

19. The weather symbol for high pressure is **H**

20. Air pressure is **higher** at sea level than on top of a mountain.

21. A barometer works by **reacting to the amount of air pressure in the air.**

22. Hot air is **less** dense therefore it **expands** and **rises**.

23. Cold air is **more** dense therefore it **condenses** and **sinks**.

24. On the celsius scale, water freezes at **0 degrees**, boils at **100 degrees**

25. Most weather occurs in this layer of the atmosphere **Troposphere**.