Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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**Pressure - What Makes The Wind Blow?**

Many of the forces within our atmosphere are easily recognized by us. This is due to the fact that we can use our senses to feel these forces. We can, for example, quickly determine the approximate temperature outside simply by stepping outside. We immediately know whether it is cold, warm or hot. Likewise, we can feel the amount of wind, or see the level of windiness by looking at how forcefully the trees are swaying back and forth. Even humidity is easily perceived. This is not the case with pressure.

Atmospheric pressure is the amount of force or pressure exerted by the atmosphere on the objects located within it. The more pressure there is, the stronger that force will be, or the harder the atmosphere will push against animals, plants, rocks, and the surface of the Earth.

Right this minute, as you sit reading this article, the atmosphere is pressing down around you. When it is pressing down with more force, we say that it is a high pressure. When the atmosphere presses in with less force, we say that there is a low pressure in the area.

What type of pressure is there around you right now? Is your area surrounded by a high or low pressure? Unlike temperature, moisture and wind, you can’t easily determine the pressure through your five senses.

Because it is difficult to perceive pressure through our senses, it is tempting to assume that pressure is not very important. This assumption would be very incorrect. Pressure is extremely important, and has a dramatic effect on our weather. We use an instrument called a barometer to measure air pressure.

A high pressure system occurs when the air is pushing downward towards you. These are often formed from colder air because cold air sinks. High pressure systems tend to cause fair weather and clear skies.

A low pressure system occurs when the air is rising up away from you. These are often formed from warmer air because warm air rises. Low pressure systems tend to cause storms because as the air rises it takes moisture with it. This moisture forms storm clouds.

Winds tend to blow from high pressure systems toward low pressure systems. Think of that can of soda or a balloon! The air in the soda or balloon is under high pressure. When the air is released it zooms out of the soda or balloon to the area of lower pressure.

**Analysis Questions:**

1. What is air pressure?
2. Describe what a high pressure system is.
3. Describe what a low pressure system is.
4. Describe how wind movement relates to air pressure.
5. How can air pressure labeled on a map help you predict the weather? (Hint: You must use information from the article AND your head to come up with this answer!)

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