Name: Date: Class Period

What Causes the Wind?

What causes the wind?

https://youtu.be/jXR8wkjOjW8

Pre-write: Why do you think that it is windy on some days and not on others? Why do you think the wind blows in one direction one day and a different direction on other days?

_____

_____

_____

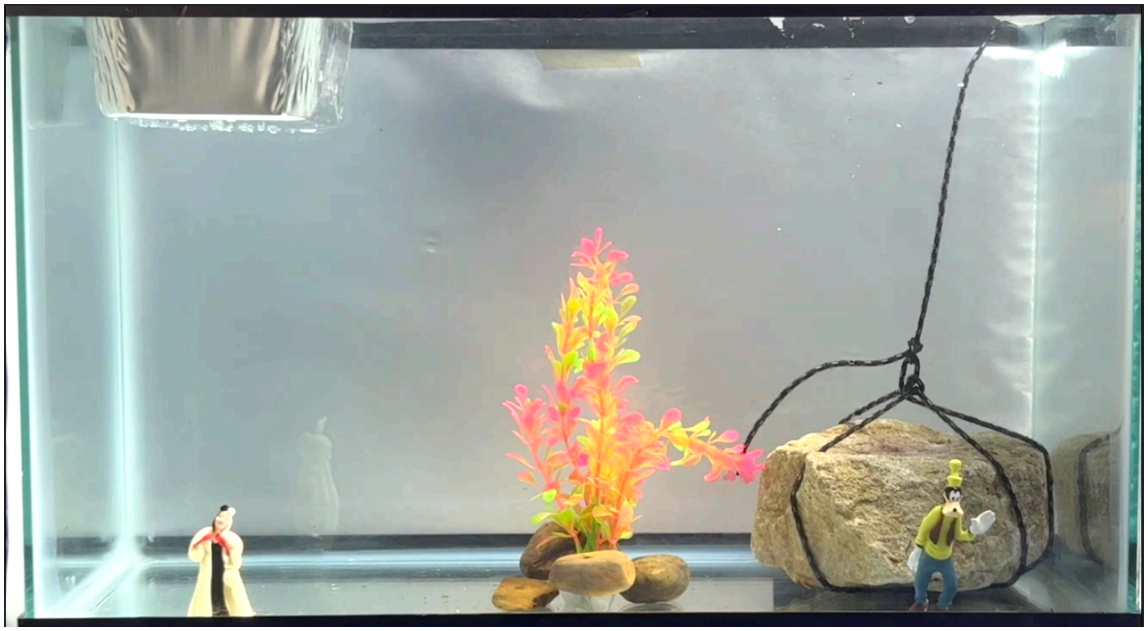
Student Notes:

In order to understand the wind there are really just two terms that you have to know _____ pressure and _____ pressure. High pressure is an area in the atmosphere where denser, cooler air is _____ down. Low pressure is an area in the atmosphere where less dense, warmer air is on the _____.

The Fish Tank:

Since air and water are both _____ (that is materials with molecules that can flow around) they actually act in similar ways. For the sake of this demonstration we will imagine that the water is the _____.

Draw: Check off the instructions (on the back of this page) as you draw each part.



Flip over for drawing instructions —>

- Use a blue color to draw the dense molecules that are falling down on Cruella.
- Draw an arrow showing the direction the dense molecules are moving.
- Label this side **"high pressure"**
- Use a red color to draw the spread out molecules that are rising above Goofy.
- Draw an arrow showing the direction the less dense molecules are moving
- Label this side **"low pressure"**
- Draw a blue arrow showing where the dense air goes AFTER it hits the ground. Label this **"wind"**.
- Draw a red arrow showing where the warmer air moves in the upper atmosphere.
- Write the words **"Convection Current"** in the middle of the tank.

Student Notes:

Wind will always flow from the _____ pressure region to the _____ pressure regions. The scientific term for this is a _____ current. You see wind is what happens when falling, more _____ air moves to take the place of _____ less dense air.

You may be wondering why the air is warmer in some places and _____ in others. Well that is because the sun does not heat everywhere on the earth _____. Some places like the equator get very _____ sunlight and other places like the poles get very _____ sunlight. Also, different surfaces heat up differently. Water heats up much more _____ than land. White surfaces like snow will _____ a whole lot more of the sun's energy than darker surfaces. This is why we have a great variety of different _____ at different places on earth. And it's these high and low pressure regions that give us the _____.

Summarize it:

Explain in your own words what causes the wind.

Expand on it:

Now that you know what causes the wind, why do you think that there are days where we do not get wind. What do you think is happening in the atmosphere on those days?

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