

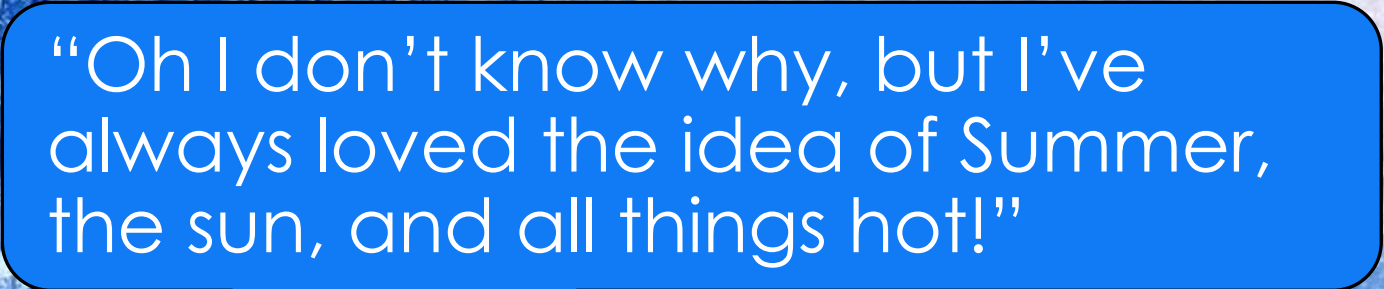


ALL ABOUT WEATHER



By: Jennifer Dell






“Oh I don’t know why, but I’ve always loved the idea of Summer, the sun, and all things hot!”



“You haven’t had much experience with heat before have you?”

A scene from the movie Frozen showing Olaf and a smaller snowman on a beach. Olaf is wearing sunglasses and holding a drink with a lemon slice. A red and orange striped beach umbrella is behind them. The background shows a bright sun and the ocean.

“Nope! But sometimes I like to close my eyes and picture myself doing whatever snow does in Summer!”

“A drink in my hand, my snow up against the burning sand. Probably getting gorgeously tan in Summer!”

“Oh boy!”

“Olaf, please!”

I think you may be a little confused about weather. **Weather** is the measureable and observable conditions of a particular place every day. Let's take a closer look at some of these measurable characteristics.



THE FIRST ONE IS SUNLIGHT...



“Sounds
delightful!”

Sunlight is the sun's rays that shine down to Earth from the sun. The sun affects **temperature** another measurable characteristic.

Temperature can also be measured.
It tells how hot or cold something is.

For a snowman like yourself, you should pay attention to temperature. Only go outside when it's cold enough to keep you frozen.



- ▶ We use a **thermometer** to measure temperature. Temperature is measured in degrees. It can be either Fahrenheit or Celsius.

This thermometer here is telling us its -35 degrees Fahrenheit and there is snow in the background, so you would be good to go!



But what about the Summer?!



Sorry Olaf, no such luck. Let's take a look at **precipitation**.

Precipitation is the scientific word for the water that falls to the Earth from the atmosphere. This can be in the form of rain, snow, or hail.

Well, it was actually a combination of all of these weather characteristics.

"That's how I came to be!"



Air pressure also plays a part in determining the Earth's weather in a particular place.

Air pressure is the weight of air pressing down on Earth. It affects our daily weather.



We can use a **barometer** to keep track of air pressure. Air pressure plays a big role in changing the weather. If air pressure is low, there could be a bad storm approaching!



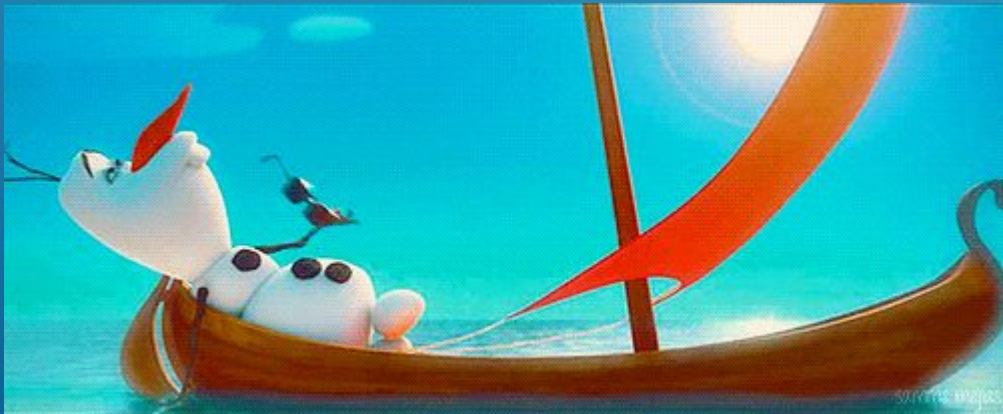
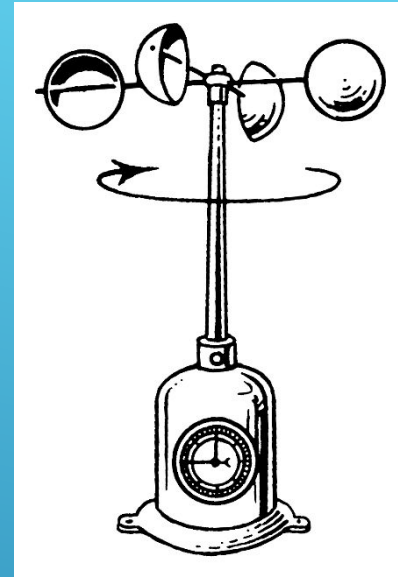
You see all of these things can play a role in what weather we can expect to see somewhere on a certain day. Scientists have created many tools to measure different parts of the **atmosphere** and find patterns in Earth's weather. This is how we are able to predict future weather conditions.

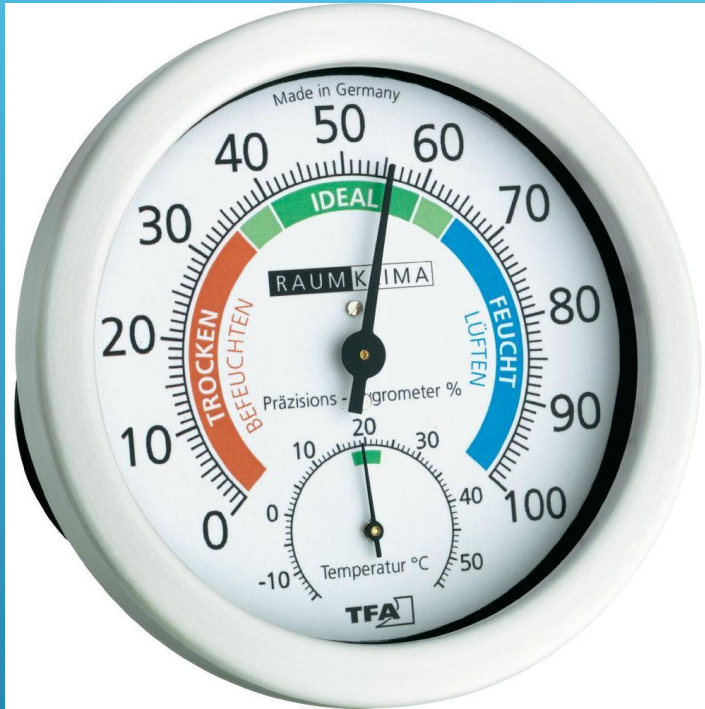
Atmosphere, it's a blanket of gases and tiny bits of dust that surrounds the Earth. Now, as I was saying...

atmos-what?!



We can use special tools to measure different things in the Earth's atmosphere. One of these tools is the **anemometer**. It is used to measure wind speed.





- ▶ Another tool we can use is a **hygrometer**. This tells us how much moisture is in the air.

You can thank the moisture in the air on days when your hair is big and fluffy!



There's another tool used to measure the water that falls down to Earth from the atmosphere. Do you remember what this is called?



That's right! We can measure precipitation in the form of rain by using a **rain gauge**. We can see how much it rained by seeing how much rainfall was collected in the gauge.

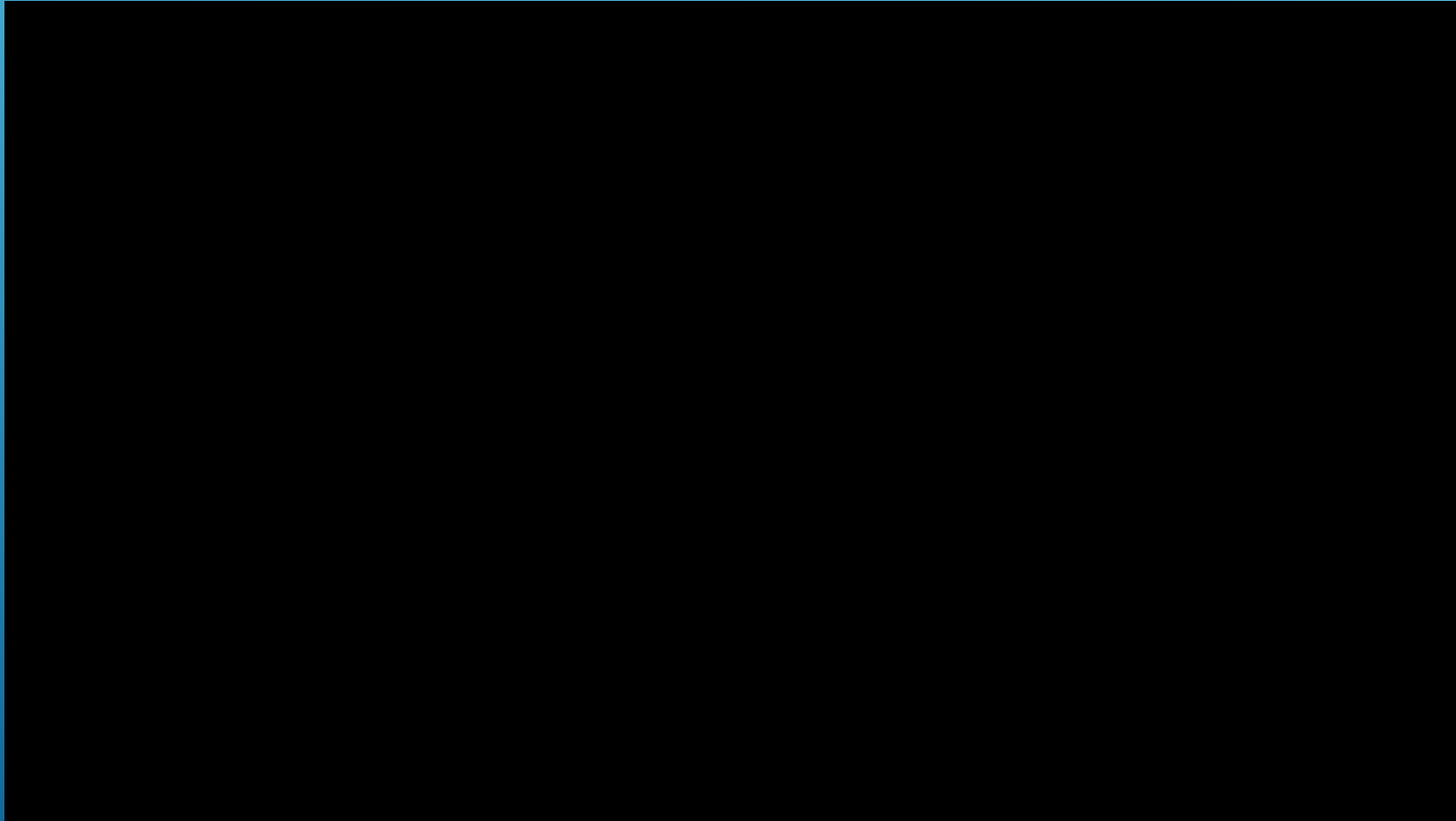


- ▶ Now snow is only one form of **precipitation**. The **atmosphere** must have specific characteristics in order to keep snow frozen. Fortunately for you, we have these tools to keep track of the weather and pay special attention to keeping you frozen.

[Click here to test your Weather Instrument knowledge!](#)



- ▶ Scientists use these tools to collect weather data. They analyze the data and chart patterns to help them predict weather in the future. This helps us every day! Here's a quick recap on what we learned today about weather:



Thanks for joining us on a fun weather adventure. Hope you learned a lot. See you next time!

