



TAKE CARE OF TEXAS: EDUCATOR MATERIALS

VIRTUAL FIELD TRIP HANDOUT

Texas Weather and Climate

This handout references the video "Texas Weather & Climate" that can be found at [YouTube.com/ TakeCareOfTexas](https://www.youtube.com/TakeCareOfTexas). While watching the video, complete the Fill-in-the-Blank section of the handout. Once the video is finished, work in groups of 2-3 to complete the Discussion section.

Name: _____

Fill in the Blank

Weatherman

We also teach Texans about how they can help keep Texas' environment clean. I'm a meteorologist but you might have heard the job called a weather man. A meteorologist is a scientist who studies the _____ and makes a _____ so we know what the weather will be in the future, which could be the weather tomorrow or the weather in a month. I'm a little different than the weatherman you see on TV. I track weather to study how it will affect our environment, as well as track how it affects air _____. Sometimes pollutants can make our air dirty, which is especially important to know if you have asthma or other health problems. I make sure Texans know when the air is safe and clean to play outside. We use a colored chart to show how clean the air is. Green is the best and purple is the worst.

Typically, we see orange _____ Action Days in the summertime when there's lots of sunshine and winds are light. They're also more common in big cities where there are more cars. To study the weather, I use weather measurements. Those are taken by air monitoring instruments and by air investigators. They work all across Texas taking _____ with handheld monitors, air monitoring vehicles, and stationary air monitors. Their machines can sense lots of different things about the air that we can't see with just our eyes. They can tell us the _____, pressure, _____, and different



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types of invisible particles that are floating in our air. I use the information they gather to decide what that means for the weather and predict the amount of pollution that might be in the air. You can even monitor the weather yourself by using thermometers, rain gauges, anemometers, wind vanes, _____, and hygrometers.

Texas Weather

Texas weather is very unique and special. Texas is very large, which means we have different types of weather across the state, even in a single day. It could be snowing in Amarillo, while people in Corpus Christi are playing at the beach. In Texas, we have beaches and mountains, _____ and _____, swamps and deserts, forests and, well you get the picture. Because of these different types of land, we see lots of different types of weather. Some of the types of weather we see in Texas are thunderstorms, hurricanes, tornadoes, snow, and fog.

Cold Fronts

Texas has several different types of weather patterns that we see year after year in our state. Some common weather patterns we see are cold fronts, which are large areas of cold air that move across the state. Cold fronts cause some of the most interesting weather events that happen in Texas. When a cold _____ comes through, it's pushing the warm ocean air back out over the Gulf of Mexico and brings in the cold mountain air from the north. It happens all across the state as the cold front moves. This is why you might wear shorts one day, but the next day you might need a jacket.

Hurricanes

Another interesting weather event we see in Texas is _____. They are very interesting to watch because we as meteorologists try to figure out where they are going to go. This is important so we can know whether or not it will cause problems for people who live close to the coast of Texas.

Weather vs Climate

It is important to know the difference between weather and _____. Weather is what is happening today and the next several days. Climate is the average weather over a longer period of time, like months and years. For example, even if the weather is rainy today, if it is the only time it has rained in the last six months, the overall climate during this time period would be dry. At the TCEQ, we track both weather and climate since they are both very important.

Thanks for taking the time to learn more about how the TCEQ helps you Take Care of Texas.



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Answer Key

Fill in the Blank

Weatherman

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Typically, we see orange Ozone Action Days in the summertime when there's lots of sunshine and winds are light. They're also more common in big cities where there are more cars. To study the weather, I use weather measurements. Those are taken by air monitoring instruments and by air investigators. They work all across Texas taking data with handheld monitors, air monitoring vehicles, and stationary air monitors. Their machines can sense lots of different things about the air that we can't see with just our eyes. They can tell us the temperature, pressure, humidity, and different types of invisible particles that are floating in our air. I use the information they gather to decide what that means for the weather and predict the amount of pollution that might be in the air. You can even monitor the weather yourself by using thermometers, rain gauges, anemometers, wind vanes, barometers, and hygrometers.

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