

# Dust Bowl Texas

Target Audience – Texas History, Grades 4 & 7

Time required – 15minutes

**Activity** Explore the climate, land use and geography of Texas during the Dust Bowl using population change, agriculture and precipitation data.

**TEKS Standards** TEKS--  
TEKS –

**Learning Outcomes**

- Students will analyze the effects of precipitation on population in Texas
- Students will be able to distinguish constructive from destructive forces in landscape development

Map URL: <http://bit.ly/2Cw75Qg>

## Ask

What did the precipitation and geography look like in Texas in the 1930s?

- According to the federal Soil Conservation Service in the 1930s, “a prolonged drought, combined with unusually high temperatures and strong winds, caused the normally semiarid region to become for awhile a veritable desert. During some growing seasons the soil was dry to a depth of three feet.”
- Examine the Panhandle and West Texas areas on the map.
  - ? Using the colors and patterns on the map, what does the geography of the land look like? (*The Panhandle looks dry and flat and West Texas looks dry and more mountainous.*)
  - Click on the water droplet symbols one at a time and examine the precipitation graphs making sure to note the trend lines relative to the average precipitation.
  - ? What do you observe about precipitation during the 1930s? (*In the High and Low Plains, precipitation was lower than average in several years and was trending lower throughout the decade.*)

## Acquire

Where were the wind erosion areas of the Dust Bowl located?

- Click on the box before the two wind erosion layers to turn them on.
- Click on the minus zoom button and pan the map to see the total wind erosion areas.
- ? How far did wind erosion stretch during the Dust Bowl? (*It extended from Canada south to West Texas.*)
- Click on the gray Most Severe Wind Erosion shape on the map and examine the popup.
- ? Where was the Dust Bowl most severe in Texas? (*The most sustained severity from 1935 – 1938 was on the far northern border of the Panhandle.*)

## Explore

Where was population of the Panhandle and West Texas like in 1930?

- Turn off all layers, turn on the Texas Border and Population 1930 layers and click on the name Population 1930 to see the legend. Click on the counties in the wind erosion areas to examine population patterns.
- Turn off Population 1930 and turn on % of Counties in Farms 1930. Examine % of farms as you did population.
- ? What observations would you make about the patterns of population and farms? (*In the areas of wind erosion, though population was modest, most counties had more than 65% of the county's acres in farms.*)



## Analyze

What did number of farms in Texas look like in 1930?

- Turn off all layers except the Texas border and turn on the % Growth in Number of Farms 1930 – 1940. Click on the layer name to expand the legend.
- ? What observation can you make about change in the % of growth of the number of farms from 1930 to 1940. (*Many counties had substantial declines in the number of farms.*)



Was there a change in population and/or agriculture in Texas from 1930 – 1940?

- Repeat above step in Analyze for the % Population Change 1930 to 1940
- ? What do you observe about the population change from 1930 to 1940?
- ? Using the map, can you hypothesize to where the farming population migrated?

### MEASURE

- At the top of the map, click the Measure button.
- Hover and click the Distance button.
- Click continuously along what you want to measure.
- Double-click to finish.

### BOOKMARK

- At the top of the map, click the Bookmarks button.
- Choose your bookmark; the map will take you there

[WWW.ESRI.COM/GEOINQUIRIES](http://www.esri.com/goinquiries)

## Next Steps

**DID YOU KNOW?** ArcGIS Online is a mapping platform freely available to U.S. public, private, and home schools as a part of the White House ConnectED Initiative. A school subscription provides additional security, privacy, and content features. Learn more about ArcGIS Online and how to get a school subscription at <http://connected.esri.com>.

### THEN TRY THIS...

- Log in to your ArcGIS organization account and use the analysis tools to .
- Connect to this Texas Dust Bowl GeoInquiry to the U.S. History Dust Bowl GeoInquiry.
- Do research on where Dust Bowl farmers migrated. Create a story map to illustrate.



### TEXT REFERENCES

This GIS map has been reviewed and approved by committee of Texas teachers and social studies supervisors.

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