

Professional Development Workshop on Integrating Geospatial Technology into the HS Classroom

Intro Activity: *ArcGIS Online Basics – Exploring Severe Weather*

In this activity, you'll open a web map and learn how to navigate and work with it using map tools as you explore the current Severe Weather in the United States.

Open the map

- 1. Sign in to your ArcGIS Online account.
- 2. Go to the Cohort 1 group and select Severe Weather Web Map thumbnail to open it.



The map opens to show the current severe weather in the United States. Right now, the default view shows where the majority of the severe weather is happening in the US.

Explore the map

The map you just opened contains layers, and those layers contain features. For example, each report of a tornado occurrence is a feature. You can view the layers and features in the legend shown in the pane on the left-hand side of the map. If the legend is not currently visible, you will need to click on the Legend button in order for it to display:



1. Click on a weather report on the map, such as a tornado, wind storm, or hail storm report.

2. At the bottom of the pop-up, click Zoom to. The map will zoom in on the feature.



- 3. Close the pop-up by clicking the X in its title bar.
- 4. Click the Default extent button in the upper left corner of the map (it looks like a house) to return to the default map view.
- 5. On the weather map, click on a shaded region that represents a weather warning, watch, advisory, or statement. Another pop-up will open with information about the warning, watch, or advisory.
- 6. Click on More Information on the pop-up to view the NWS alert that was issued for that region.
- 7. Close the browser tab with the alert information, and close the pop-up on the map.
- On your own, learn more about the severe weather currently happening in our country. Use the map navigation tools or your mouse wheel to zoom in and out.
 Tip: Press the Shift key and draw a box on the map to zoom in on a particular area.
- 9. When you're finished, zoom out so that you can see the entire United States.

Map Layers

To work directly with the map layers, you need to switch to the Contents view of the map.

1. At the top of the left-side pane, click the Content button.



The order of layers in the Contents pane represents the order in which they are drawn on the map. At the bottom, every map has a basemap layer that covers the entire world. Every layer, except the basemap, can be turned on or off.

2. In the Contents pane, click the box next to all of the layers that currently have a checkmark <u>except</u> Wind Storm Reports (24 hours) and Tornado Reports (24 hours) to turn them off.

- 3. Turn the Tornado Reports (past week) layer on. There should now only be three layers visible on your map.
- 4. You can change how the symbols on the map are displayed. Hover over the Wind Storm Reports layer name and click on the Change Style button.



Select Heat Map under drawing style, and then click DONE. This will make the areas with more wind storm activity appear to be brighter on your map.

5. You can also change the basemap. On the ribbon bar that runs along the top of the map, click the Basemap button to open the Basemap Gallery.

🖉 Details	Basemap
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Right now is it set to display the Topographic basemap. Click on another basemap to change it.

Measure Distance

You can also work with the map using the tools located on the ribbon bar.

1. On the ribbon bar, click Measure and then click the Distance tool.



- 2. On the map, click on a location to start a measurement.
- 3. Move the mouse pointer to another location, and double-click to end the measurement. The distance will display in the box.



The default measurement displays in miles, but you can change it using the drop-down box.

4. Make a few more measurements. When you're finished, click the X in the upper right corner of the box.

Tip: During a measurement, click once to change the direction of the line.

Use this map to answer the following question:

Approximately how many miles and kilometers from Rochester was the nearest tornado report in the past week? (if there haven't been any tornadoes in the past week, measure to the nearest hail or wind storm)

Miles: _____

Kilometers: _____

Briefly think about how you could use this activity in your classroom. Please briefly explain.

Activity modified from: Getting Started with ArcGIS Online [http://learn.arcgis.com/en/projects/get-startedwith-arcgis-online/#]