2016 Election Mapping Activity

1. Go to the US Census Bureau's Cartographic Boundaries Shapefile Section and Download the State and County Zip Files from the Nation-Based Files Section
   - The cb_2016_us_county_500k.zip file will work for this activity
   - https://www.census.gov/geo/maps-data/data/tiger-cart-boundary.html

2. In ArcGIS Online Add the File as a layer in your Content Section
   - The File may be too big to upload directly onto a map, so Add it through the **Content** section, and then once it is uploaded

3. Once both layers are added onto your map use the **Filter** options to narrow down both layers so they are just showing Minnesota
   - By clicking between them you should now see just a solid outline of Minnesota, or the counties of Minnesota. Try clicking on them to see what type of metadata is included in each layer.

4. Format Your Data table to import as a .csv
   - Copy the data table over to excel from NPR's website on Minnesota's 2016 Election results by county (http://www.npr.org/2016/11/08/501073212/minnesota-2016-presidential-and-state-election-results)
   - Remove the column on % reporting
   - Add a column on who had the majority for the county and for each county write in the winner as either "Trump" or "Clinton"
   - Add a column for "State" and write in "Minnesota" for each county
   - Add a column for "County Seat" and copy or write in the names of the cities that serve as county seats for each county
     - You can copy from Wikipedia and re-format, or copy column from example
   - Format the cells of the percentages to show the numbers as decimals with 2 spaces
   - Save your file as 2016MNElection.csv

5. Upload your .csv through the Add Layer feature along the top bar
   - Make sure that United States is Selected, State should be automatically recognized, but then specify that the city is found within your county seat column
   - Your data will show up as dots across the map and you can choose what they represent

6. Perform a Join
   - You map should contain the counties, states, and your points
   - Use the **Analysis** button in top bar to select the **Join Features** within **Summarize Data**
   - Make sure option 1 is your US County Layer you downloaded from the Census Bureau
   - For option 2 select your newly imported election data
   - For Option 3 select the fields you want to match up
     - Name=County
   - Leave all information the same and name the Resulting Layer **Election Choropleth**
   - Check the analysis beforehand (should be around .174 credits) and then **Run Analysis**
   - The resulting layer can be manipulated and stylized according to what type of information you want to show

7. Performing the Interpolation
   - Turn off all the Layers except for your imported 2016 Election Results points
   - Use the **Analysis** button in the top bar to select the **Interpolation** option within Analyze patterns
   - For option 1 – make sure your 2016 Election Results points are selected
   - For option 2 – choose the candidate whose data you want to be analyzed
   - Under option 3 click the + sign to expand the option menu
     - In the drop down menus select you county layer in the first box, equal interval in the second box, and 10 classifications in the 3rd box
   - Option 4 – Name the output Layer **"Candidates Name" Interpolation**
   - Check your credits and Run the Analysis
   - The resulting layer will automatically render on your map