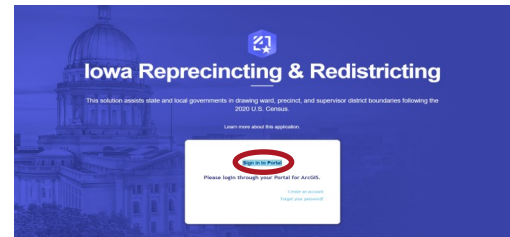


# Redistricting 2021 Instructions

## Getting Started

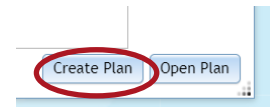
1. Go to <https://redistricting.iowa.gov/>
2. Click **Sign in to Portal**
3. Enter your username (first initial last name 21)  
Example: jsmith21
4. Enter password



## Create Map

1. Select **Create Plan** at the bottom right-hand corner.
2. Select your **District Caption** from the drop-down menu. You cannot give your district a name other than the ones shown while using the software.
3. Select your **number of districts/precincts/wards**. (If you are unsure of how many districts you need, refer to the email Heidi sent on September 23rd or 24th.)
4. Set your maximum deviation determined from your worksheets. *County users— if you are a Plan One county, set this max deviation to 100%.*
5. Double Check that 2020 is selected for Census Year.
6. Left click either **Counties** or **Cities and Towns**, then click the box for **Iowa 2020**. This will open a drop down menu where you can select your County or Town. Click **Next**.
7. The next window allows you to change the colors of your districts. You can do this by left clicking on the color, and left clicking on a new color from the small palette that appears below. When done click **Next**.
8. On the next page, select **Done** at the bottom right-hand side. You may have to scroll over to see the button depending on the size of your screen, but there is nothing else for you to select.
9. Add a name and description to your plan. Try to be specific as you may have several similar plans. Click **OK**.

1.



2.

District Caption:

3.

Number of Districts:

4.

Maximum Dev. (%):

5.

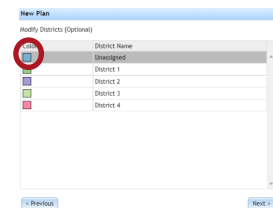
Census Year:  2000  2010  2020

6.

Select source geography:



7.



8.

**Done**

9.

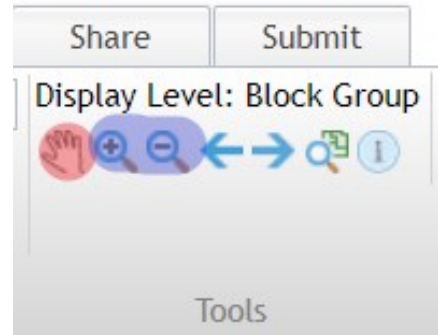
Save Plan

Name:

Description:

## Map Navigation

To Navigate your map, select the **hand** button (highlighted in red) to click and drag your map. To zoom in and out, select the **magnifying glasses** (highlighted in blue).



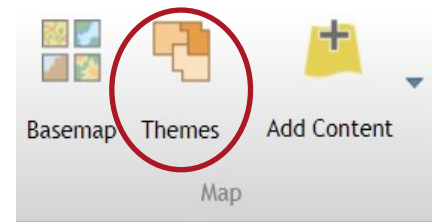
Please note that you will need to re-select one of the **Select Geographies** buttons after navigating your map to continue editing your districts.

To make your map view larger you can drag down the District totals window at the bottom of your screen by clicking the top of the window and dragging down.

## Showing Population Totals

If you would like to see the population of each area, you can select **Themes**.

After selecting **Themes**, adjust the dialog box to your preferences. For example, I make sure that “Color Areas” is deselected. I do this, because otherwise the geographies would be colored on a red-green scale to visually show population differences.

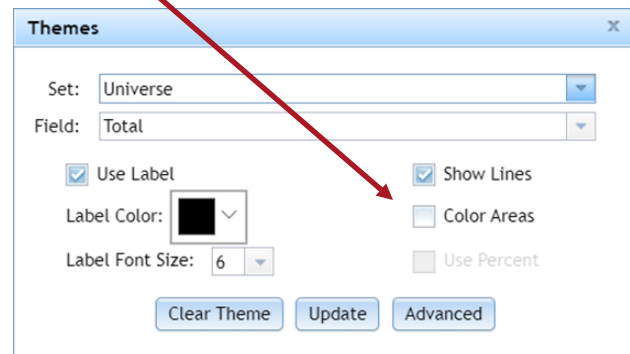


Note: You may need to zoom into your map for the population totals to appear.

When you are done, click **Update**.

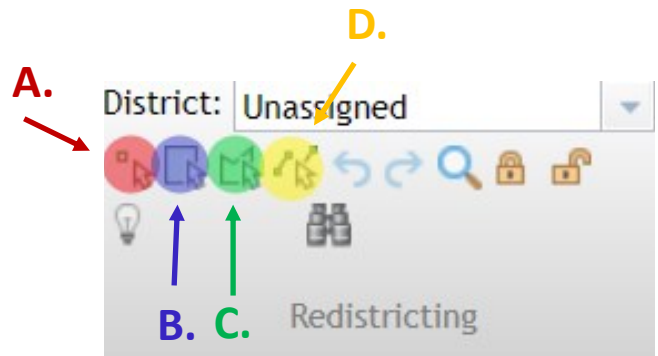
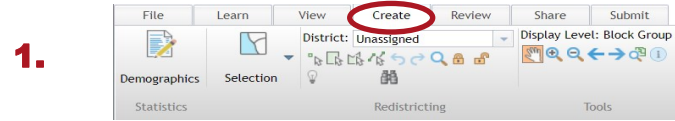
If you would like to remove your created Theme, select **Clear Theme**.

If you would like to edit your theme settings, be sure to select **Update** when finished.



# Basics of Creating Districts

1. Click the **Create** tab.
2. In the **Redistricting** section of the header, you can use one of the following to choose your geographies.
  - A. **Select geography by picking** is useful for selecting a single census block per left click.
  - B. **Select geographies by rectangle** is useful for when you want to choose several Census blocks at once OR more than one Census block at a time.
  - C. **Select geographies by polygon** is appropriate for smaller areas or fixing errors when you're redrawing lines.
  - D. **Select geographies by lines** is useful when selecting a specific street or highway.



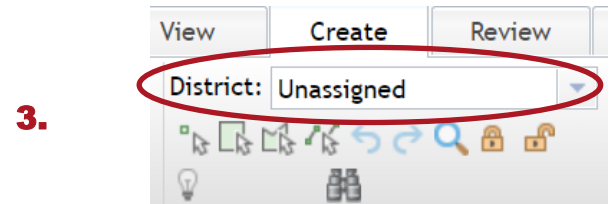
A. **Select geography by picking** is useful for selecting a single census block per left click.

B. **Select geographies by rectangle** is useful for when you want to choose several Census blocks at once OR more than one Census block at a time.

C. **Select geographies by polygon** is appropriate for smaller areas or fixing errors when you're redrawing lines.

D. **Select geographies by lines** is useful when selecting a specific street or highway.

3. In the **Redistricting** group, next to **District:** choose the district you would like to modify.

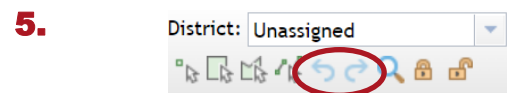


4. Select geographic areas on the map using the tools to add to your selected districts. As you create your districts, make sure to watch the totals at the bottom of your screen to make them even.

4.

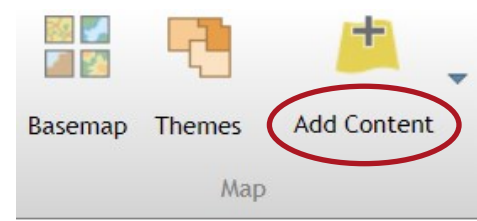
District	Color	Hide	Lock	TOTAL	TARGET_DEV
Unassigned	<span style="color: blue;">■</span>	<input type="checkbox"/>	<input type="checkbox"/>	0	0
District 1	<span style="color: orange;">■</span>	<input type="checkbox"/>	<input type="checkbox"/>	18,319	5,218
District 2	<span style="color: yellow;">■</span>	<input type="checkbox"/>	<input type="checkbox"/>	12,747	-354
District 3	<span style="color: lightgreen;">■</span>	<input type="checkbox"/>	<input type="checkbox"/>	14,552	1,451
District 4	<span style="color: green;">■</span>	<input type="checkbox"/>	<input type="checkbox"/>	6,785	-6,316

5. Use the **Undo** and **Redo** buttons found to the right of the Select Geographies tools, if needed.



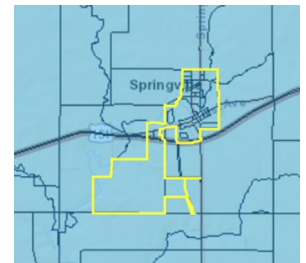
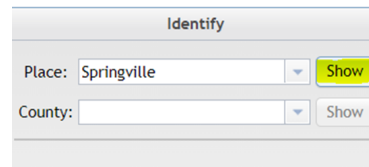
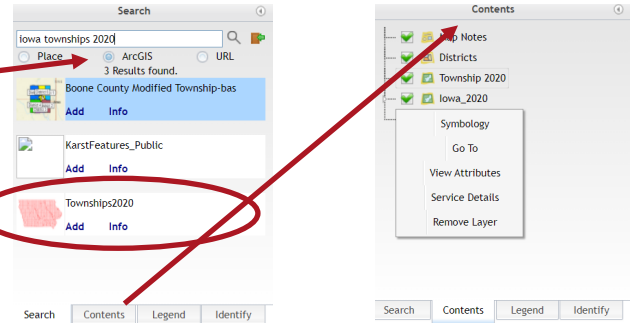
# Inserting Outside Content

1. On the **Create** tab, select **Add Content**.
2. From its menu select:
  - Search** if you would like to use ESRI's databases
  - Locations** if you are importing an excel file and select
  - Shapefile** if you are importing a shapefile



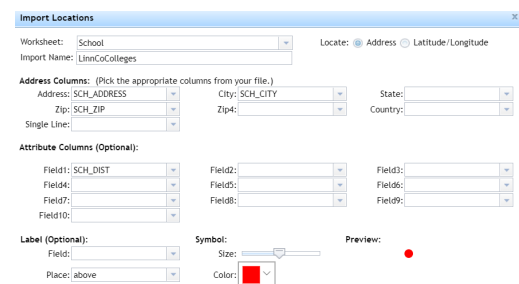
## Search

1. **To search for layer in ArcGIS Online:** Be specific as there are lots of different layers to add and make sure that you have "ArcGIS" selected underneath the search bar. Click **Add**.
2. If it is a feature layer, in the **Contents** tab, right click on the layer and select **Symbology** to review how the layer appears if you would like to make any changes. *Note: the green checkbox toggles whether or not the layer is on.*
1. **To search and identify a feature (such as city limits):** Click the **Identify** tab. Search for the area you would like to identify. Left click **Show**.
2. Your map should outline the feature you have searched for.
3. Scroll down to the bottom of the window and select **Assign To...** to assign the feature to your district.



## Locations

**To show specific locations** as a point such as the location of schools use longitude or latitude or a multi-line or single line address. The import locations box will let you select whether you would like to use address or latitude/longitude. Make sure you fill in the appropriate fields properly to fit your excel file in the address columns. Click **import**. You can turn on and off aspects of the symbology with the green checks.



## Shapefile

**To import a shapefile:** after selecting **Shapefile** from the drop down menu, open the desired file. If you need to find your county or city's shapefile follow this link: [Shapefiles \(iowa.gov\)](http://Shapefiles.iowa.gov)

Note: The shapefiles you are uploading will need to all be named exactly the same as one another for them to be successfully uploaded to Esri's software.

Home » Elections » Research and Data » Shapefiles

## Precinct and District Shapefiles

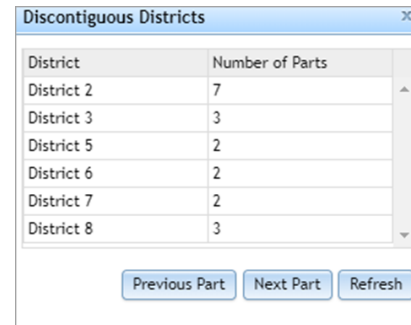
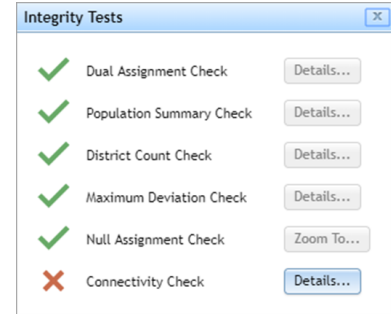
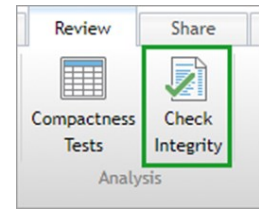
- **Precinct and District Shapefiles**

The following shapefiles are available:

- Statewide precinct map
- City precincts
- County precincts
- County supervisor districts

# Checking Integrity

1. Click the **Review** tab and click **Check Integrity**.
2. For a failed Connectivity Check, click **Details**.
3. This table means that while drawing, you created islands or pockets cut off from their districts.
4. The software will run through a process to help you reassign all parts of your districts. If you find yourself stuck make sure you select a discontinuous district to examine from the dialog box.
5. All factors must have a green checkmark for them to be submitted to the Secretary of State.



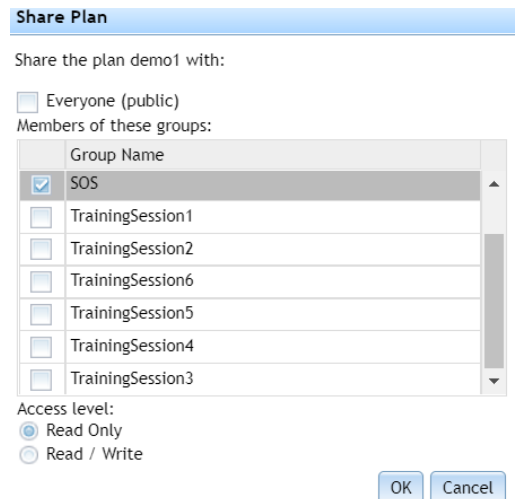
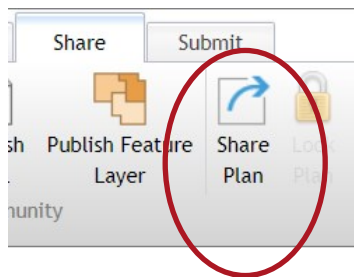
# Compactness Test

1. In the Review tab, click **Compactness Tests**.
2. Double check that the "Holes" column has only 0's.

District	Polygon Area Test	Perimeter	Reock Test	Area/Convex Hull Test	Grofman	Schwartzberg	Polby Popper	Holes
Unassigned	0	0	0	0	0	0	0	0
D1	3346.05	746.41	0.14	0.39	12.9	3.64	0.08	0
D2	473.22	372.26	0.17	0.36	17.11	4.83	0.04	0
D3	1814.17	547.4	0.31	0.63	12.85	3.63	0.08	0
D4	3841.29	468.76	0.34	0.67	7.56	2.13	0.22	0
D5	524.24	265.44	0.25	0.55	11.59	3.27	0.09	0
D6	883.27	424.01	0.26	0.49	14.27	4.02	0.06	0
D7	9119.63	847.4	0.27	0.55	8.87	2.5	0.16	0
D8	540.31	508.37	0.19	0.3	21.87	6.17	0.03	0

# Publish to Portal

1. Click the **Share** tab.
2. Select **Share Plan**.
3. Select the group name **SOS**.
4. Click **OK**.



*Note: You may also share your plan with your county or city group as well as with other groups.*

# Naming System for final maps:

There are three parts to your files final name:

- A. County OR City
- B. "Insert name"
- C. Type of map

Examples:

- County Warren Precincts
- County Howard Supervisor Districts
- City Winterset Wards