

ArcGIS Online Mapping and Storymap Guide

This guide provides general instructions on using ArcGIS Online to complete your Storymap assignment
Once and Future Plagues, Fall 2024

Key dates

- 10/9 - In-class overview of StoryMaps for your assignment
- 10/28 - In-class workshop on mapping techniques in ArcGIS Online (GIS Lab)
- 10/28 - 11/8 - Schedule your one-on-one appointment about mapping
- 11/13 - In-class workshop on StoryMaps (GIS Lab)
- 11/13 - 11/28 - Schedule your one-on-one appointment about Storymaps
- 12/4 - In-class Storymap presentations
- 12/7 - Residential College Symposium presentations
- 12/9 - Final StoryMap due

Key links

- Login and edit your Storymap on the [ArcGIS Online website](#)
- Find data and mapping layers in the [class data dictionary](#)
- Find research support in the [Once & Future Plagues Library Guide](#)
- Find tutorials and additional help guides at the [bottom of this guide](#).
- To get help outside of class:
 - Janine Glathar (GIS mapping, data enrichment, StoryMaps) - [Meet with Janine](#)
 - Claire Cahoon (StoryMaps) - [Meet with Claire](#)

Start your Storymap by viewing the [Storymap Template](#) and clicking "Create story from template" in the top right corner.

Storymap Examples

- [ArcGIS StoryMaps Gallery](#)
- ESRI's "Great Examples" series that showcases different Storymap elements including [Image Galleries](#), [Sidecars/Immersive Sections](#), [Audio](#), [Map Tours](#) and [Express Maps](#)
- [Monkeypox, by Danielle Acocella, Political Science '25](#)
- [Anthrax by Madison Toolan '26](#)
- [San Francisco - How immigration policy created and sustained structural inequalities against Asian Americans, by Jessie Zales, Italian Studies & Sociology '24](#)

Table of Contents

[Key dates](#)

[Key links](#)

[Storymap Examples](#)

[Table of Contents](#)

[Logging in to ArcGIS Online](#)

[Working with maps & map layers in ArcGIS Online](#)

[How to make a new map](#)

[How to open a saved map](#)

[How to add map layers shared with your class](#)

[Navigating the ArcGIS Online Map Viewer](#)

[How to change symbology and make thematic maps](#)

[Working with ArcGIS StoryMaps](#)

[Finding and opening your StoryMap for editing](#)

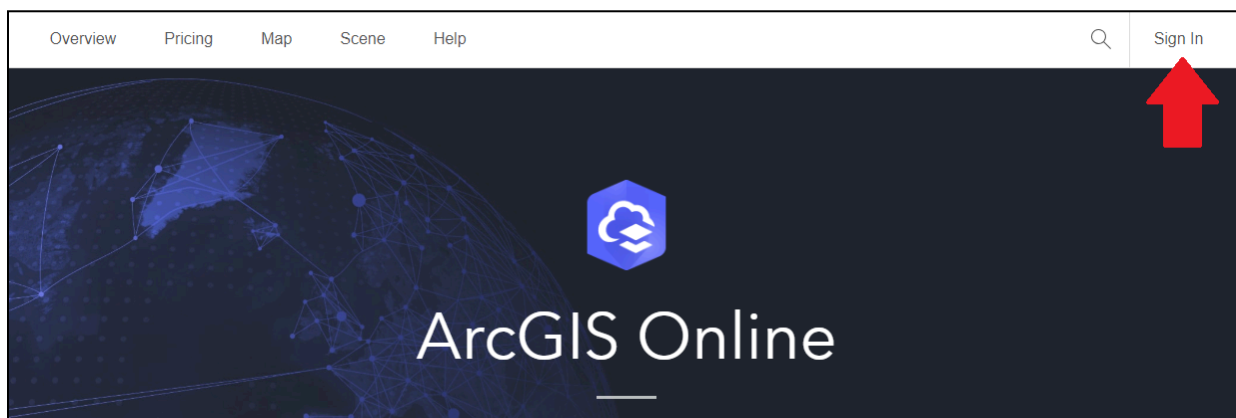
[Saving and publishing your StoryMap](#)

[Help Videos and Links](#)


Logging in to ArcGIS Online

Follow the steps below to log in, or watch [How to log in to ArcGIS Online](#) (1:48).

1. Open a web browser and navigate to [ArcGIS Online website](#). Click on 'Sign In' button in the upper right.



2. Choose the option to login with your **"ArcGIS organization's URL,"** then type **"bucknell"** into the blank text box. Click the **"CONTINUE"** button.
 - a. **Note:** Do NOT click on the Google icon! It won't get you logged in to ArcGIS Online.


Sign in 

ArcGIS login ^

Username





Password


☐ Keep me signed in



[Forgot username?](#) or [Forgot password?](#)

Your ArcGIS organization's URL ^

Sign in with 



ArcGIS login ^

Enterprise login ^

Your ArcGIS organization's URL

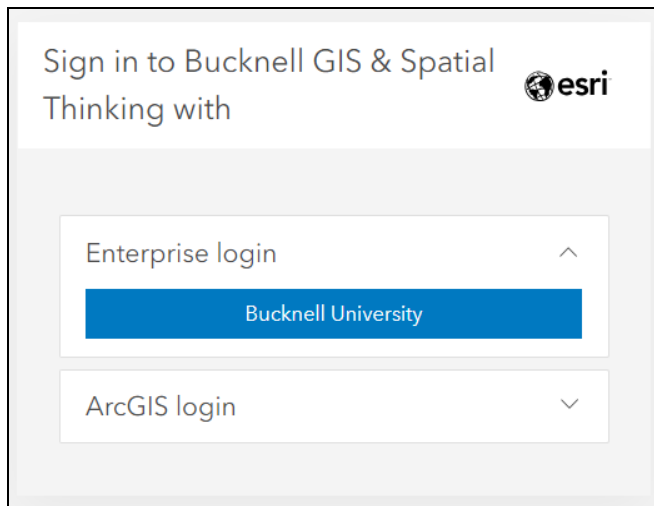
bucknell| .maps.arcgis.com

☐ Remember this URL

 Facebook  Google

No account? [Create a public account.](#)

3. In the next window, click the button for signing in Using “**BUCKNELL UNIVERSITY.**” If you aren't already logged in, you will see the Bucknell login prompt.



4. Once logged in, you should see the ArcGIS Online website.

Working with maps & map layers in ArcGIS Online

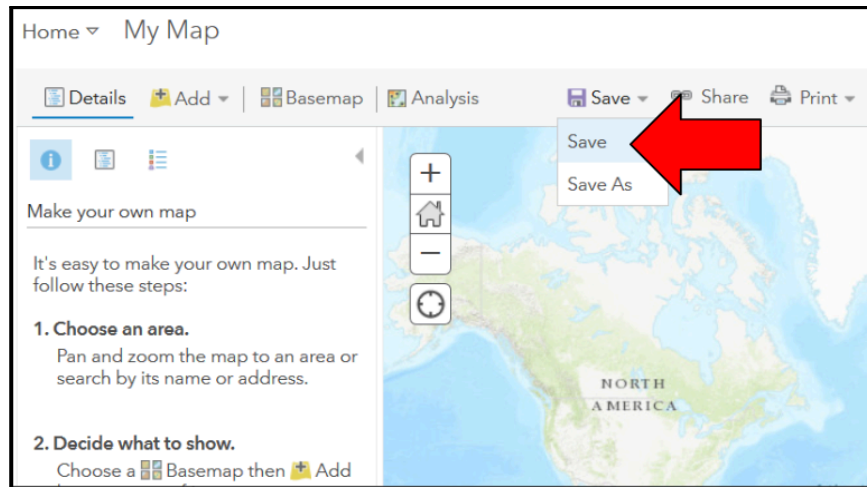
How to make a new map

Read the instructions or watch the video, [How to create a new map, change basemaps & add layers created for your class](#) (8 minutes)

1. Click on the 'Map' button in the main menu to open a new, empty map. Once you are logged into ArcGIS Online, click on the 'Map' button at the top of the interface to open a new, empty map.



2. Save your new map. Once your new, empty map opens, click the save button and give the new map a name. Click the 'Save Map' button to save the map.



Save Map

Title:

Janine's map

Categories:

+ Assign Category

Tags:

Bucknell

BIOL201

Add tags

Summary:

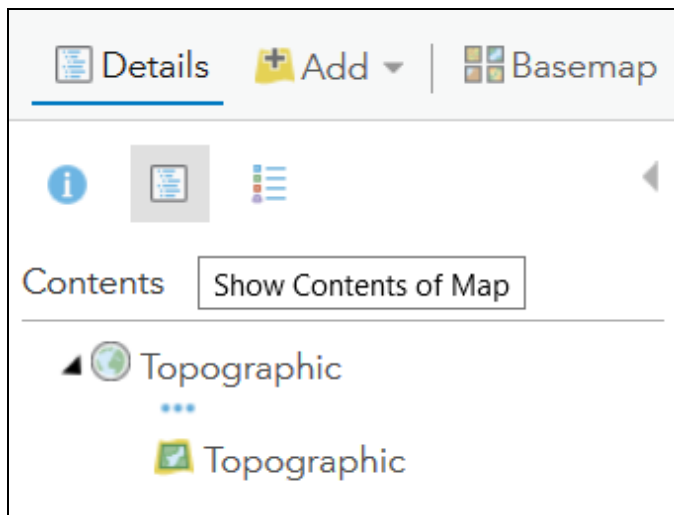
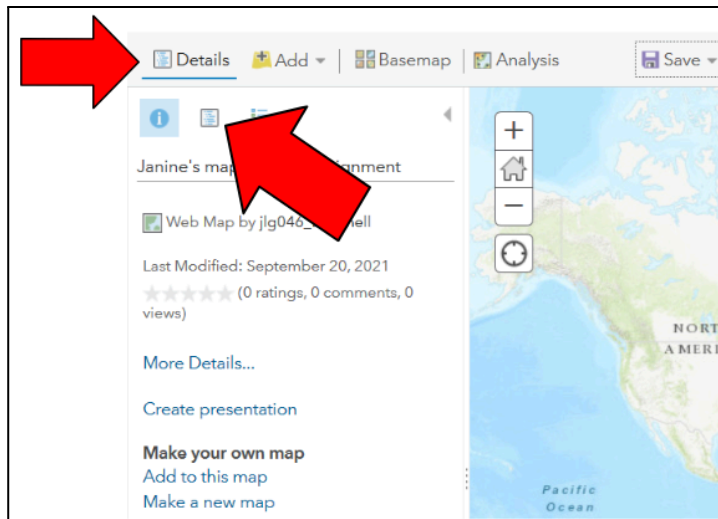
Description of the map.

Save in folder:

jlg046_Bucknell

SAVE MAP

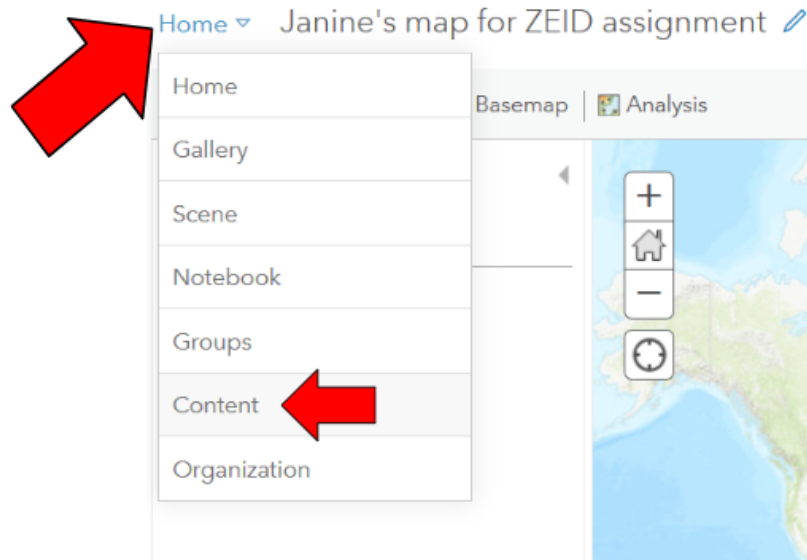
- Switch to the content tab on the map. To the left of the map there is a 'Details' pane with 3 different 'views': (1) info or metadata about the map, (2) content, and (3) legend. The most useful view is the content tab. By default, your new map has only one map layer - a topographic basemap. You'll add more layers later.



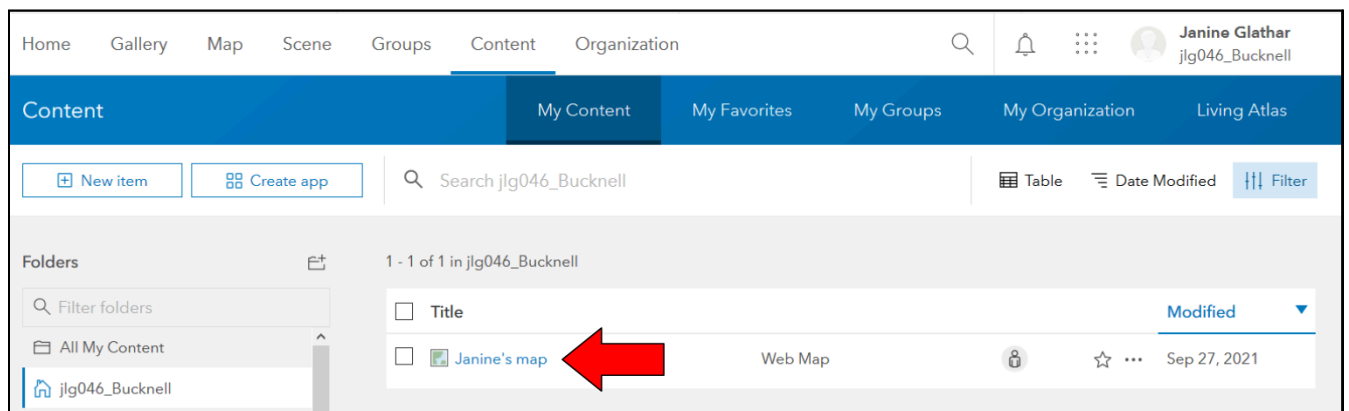
How to open a saved map

Read the instructions or watch the video, [How to open a saved map and add new data from Living Atlas](#) (6 minutes, 14 seconds)

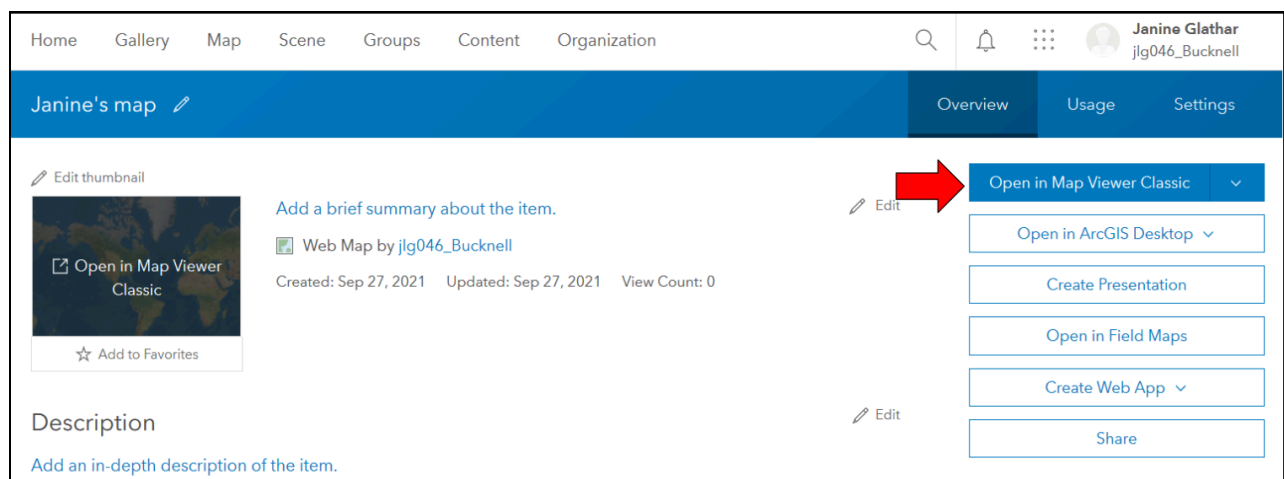
1. Find where your materials are stored in ArcGIS Online. Before you start adding map layers to your map, you'll learn where your map and other materials are stored in ArcGIS Online. Click on the 'Home' button in the upper left corner of the interface. Next, click 'Content' to open up your ArcGIS Online content folder.



2. Review the items in your content folder and reopen your new map. At this point, most of you will have only one item in your content folder - the map that you just created. Don't be concerned if your content folder doesn't look exactly like the image below.



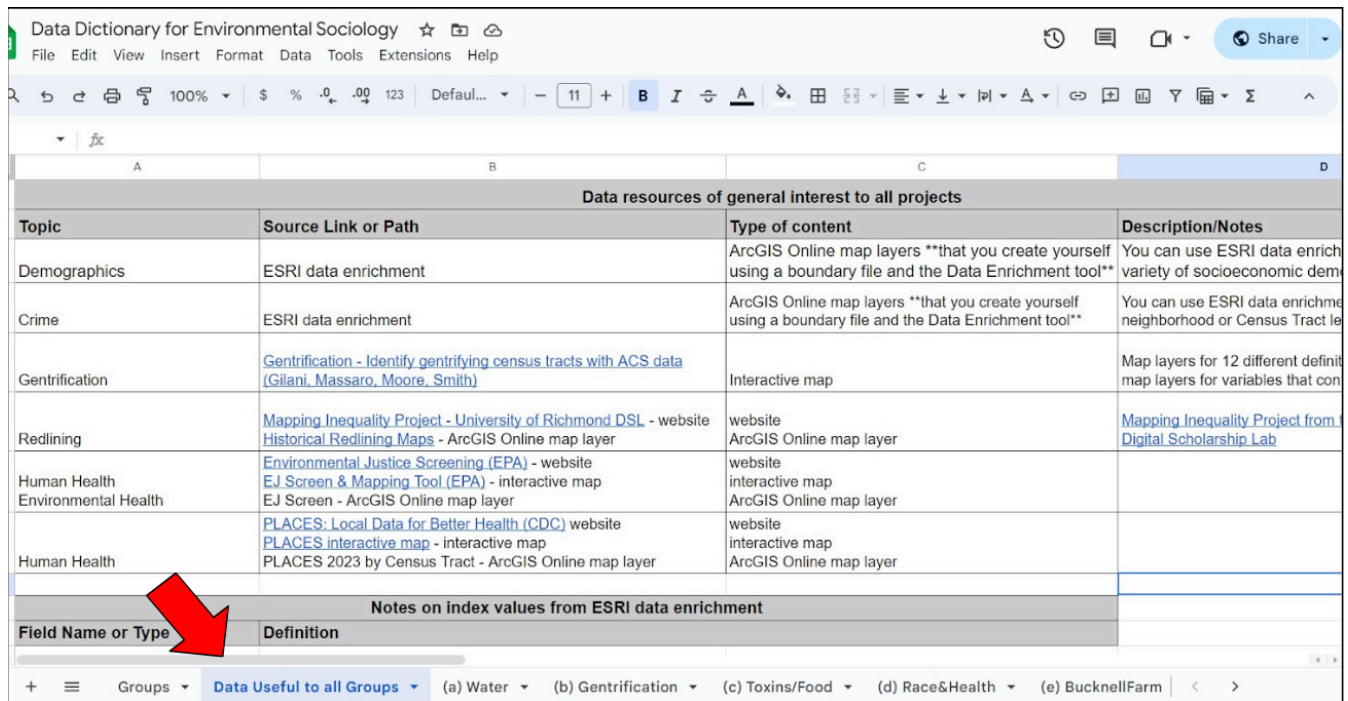
3. When you click on the name of the map, it will open a metadata page for that item. To open the map, click on the thumbnail image or click on the button in the upper right that says 'Open in Map Viewer Classic.'



How to add map layers shared with your class

Read the instructions or watch the video, [How to open a saved map and add new data from Living Atlas](#) (6 minutes, 14 seconds)

1. Review class data dictionary. Please open the [class data dictionary](#) to review the map layers created for this class. There is a tab with links to data and resources useful to all groups plus a tab for each of the project groups.

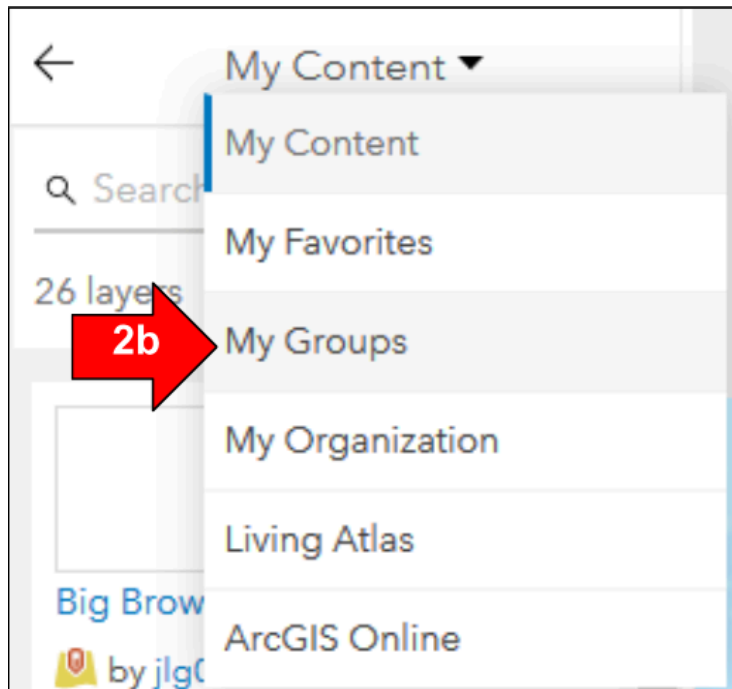
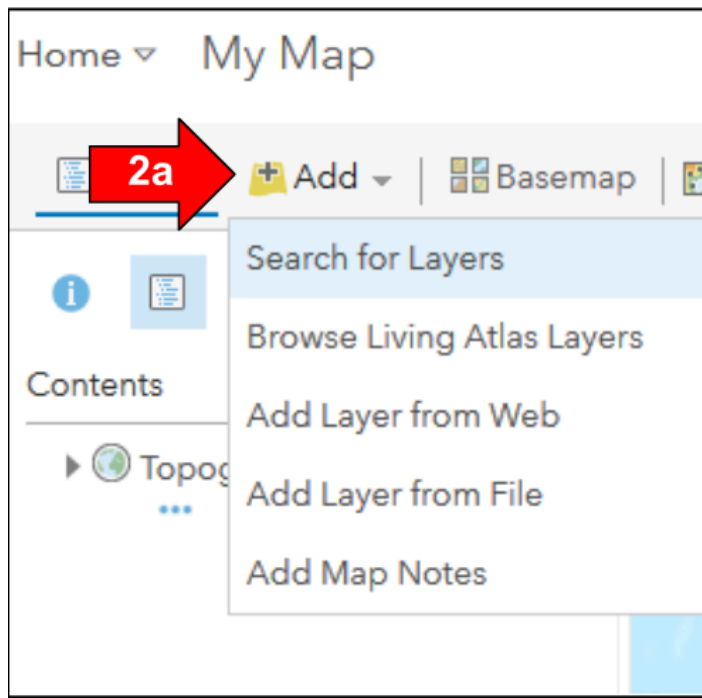


Data resources of general interest to all projects			
Topic	Source Link or Path	Type of content	Description/Notes
Demographics	ESRI data enrichment	ArcGIS Online map layers **that you create yourself using a boundary file and the Data Enrichment tool**	You can use ESRI data enrichment tool to create a variety of socioeconomic demographic map layers
Crime	ESRI data enrichment	ArcGIS Online map layers **that you create yourself using a boundary file and the Data Enrichment tool**	You can use ESRI data enrichment tool to create a variety of socioeconomic demographic map layers
Gentrification	Gentrification - Identify gentrifying census tracts with ACS data (Gilani, Massaro, Moore, Smith)	Interactive map	Map layers for 12 different definitions of gentrification
Redlining	Mapping Inequality Project - University of Richmond DSL - website Historical Redlining Maps - ArcGIS Online map layer	website ArcGIS Online map layer	Mapping Inequality Project from the University of Richmond Digital Scholarship Lab
Human Health	Environmental Justice Screening (EPA) - website EJ Screen & Mapping Tool (EPA) - interactive map EJ Screen - ArcGIS Online map layer	website interactive map ArcGIS Online map layer	
Human Health	PLACES: Local Data for Better Health (CDC) website PLACES interactive map - interactive map PLACES 2023 by Census Tract - ArcGIS Online map layer	website interactive map ArcGIS Online map layer	
Notes on index values from ESRI data enrichment			
Field Name or Type	Definition		

Navigation tabs: Groups | **Data Useful to all Groups** | (a) Water | (b) Gentrification | (c) Toxins/Food | (d) Race&Health | (e) BucknellFarm

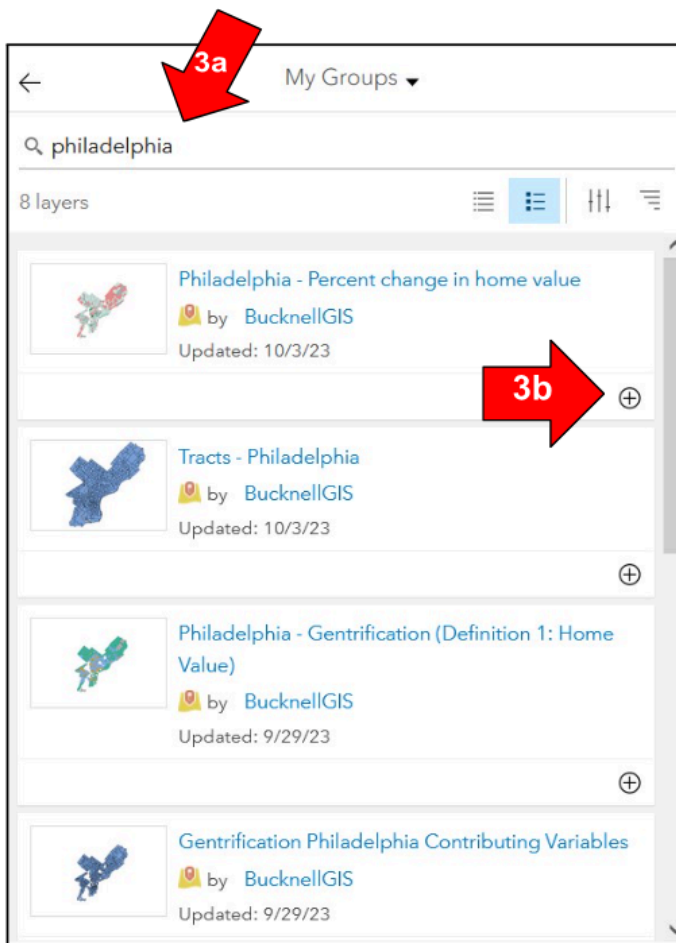
Click on the tabs to explore the data resources that we curated for your class. You are not required to use these sources and may find and use other, additional resources! These are just some suggestions and examples of authoritative sources related to your project topics.

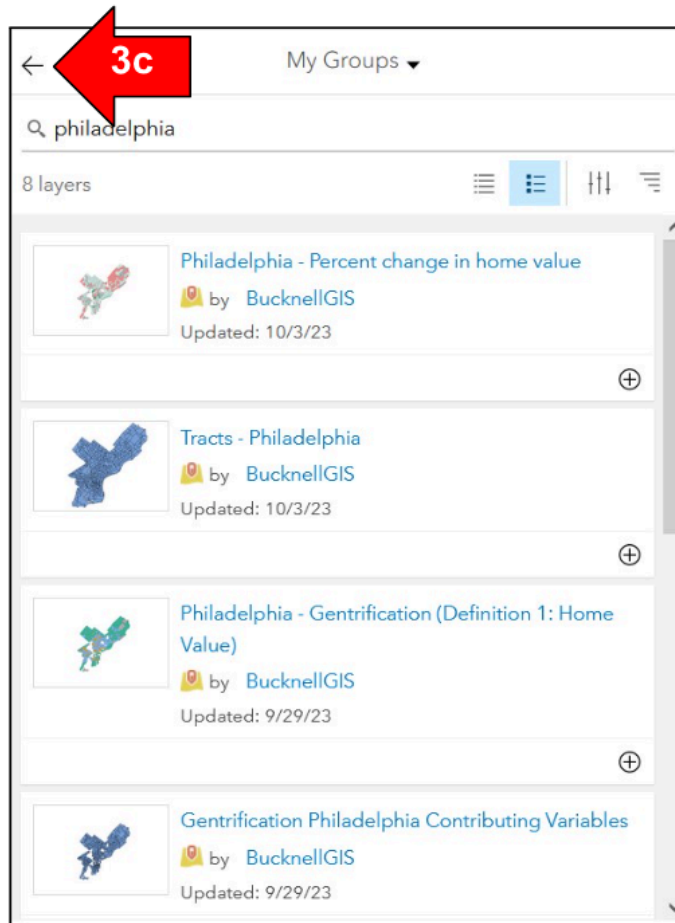
2. Add map layers shared with your group. To add map layers created for your class:
 - a. Click the 'Add' button and choose 'Search for Layers.'
 - b. Next, click the drop down arrow to toggle the search from 'My Content' (which only looks at map layers you created) to 'My Groups' (which shows you all of the map layers created for your class). By default, all of the map layers created for your class are listed.



3. Search for map layers by keyword:

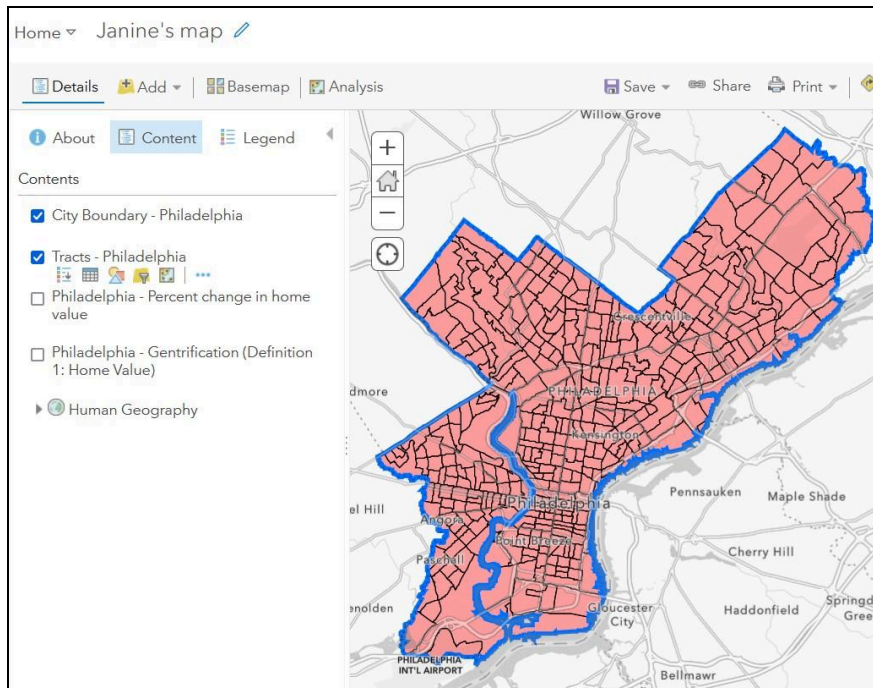
- a. Type keywords to find the map layers listed in your data dictionary.
- b. Click the '+' sign in the bottom right to add a map layer to your map.
- c. Next, click the 'back' button in the upper right to get out of the add data interface and back to your map.
- d. Once you click the back button to get out of the add data interface, you'll see the new map layer(s) you added.



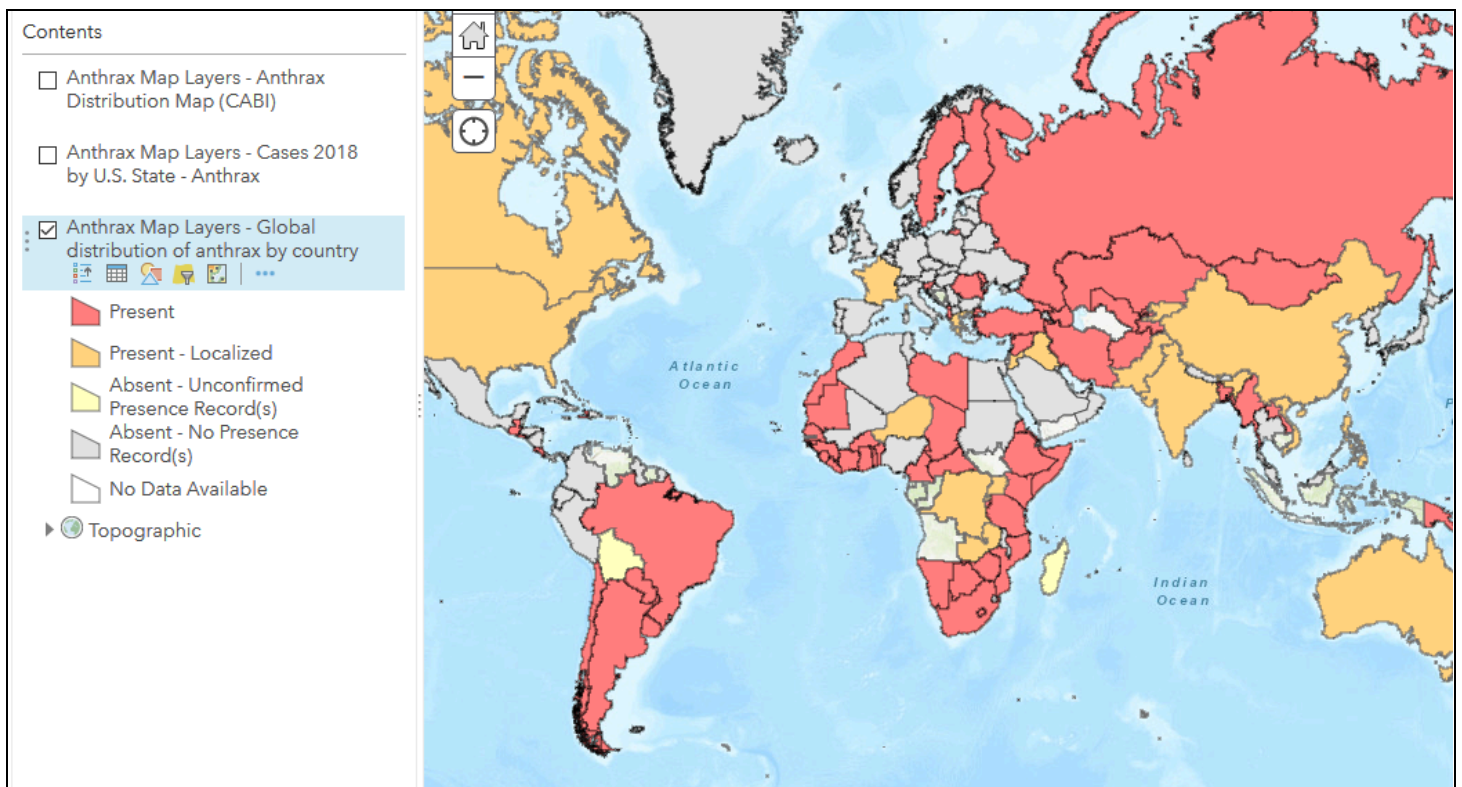


Stop and save your map! Your map doesn't auto-save - you have to click the save button to make sure you don't lose any changes you make to your map.

4. Review map layers. Look over the data once you've added it to your map. The example below shows a map with five map layers (city boundary, Census tracts, percent change in home value, gentrification definition 1: home value, and a basemap called 'Human Geography.'



- Turn map layers on or off by clicking the checkbox to the left. If you hover over the map layer's name you have options for [opening its table](#), [changing the symbology](#) in the map, [filtering the data](#) (i.e. to only show certain locations), [label features](#) and many other options. See the diagram on the next page for an overview of the ArcGIS Online map interface and map layer properties.

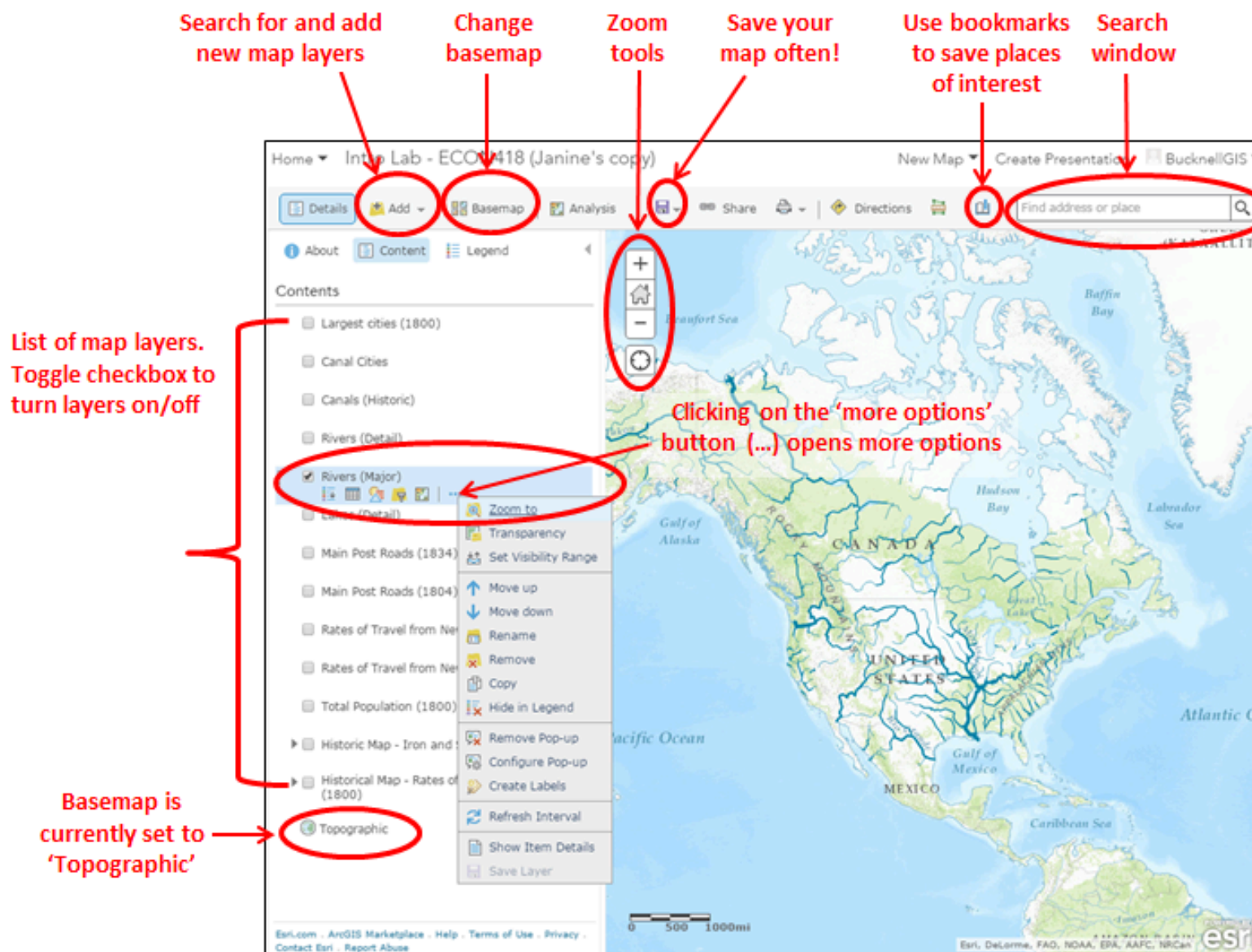


- Review the new map layers. Look over the data once you've added it to your map. The example below shows a map with three map layers on anthrax. To turn a map layer on, click the checkbox to the left.

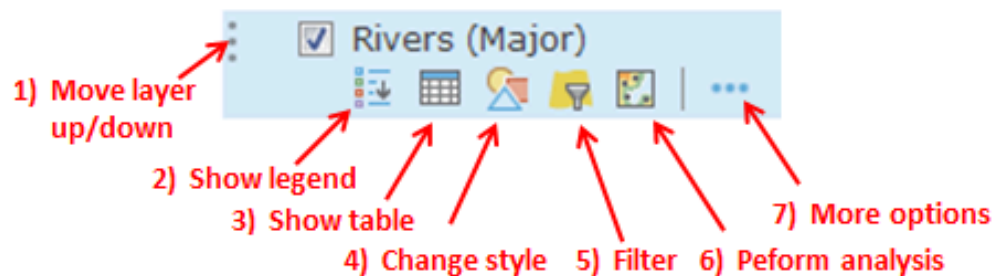
7. If you hover over the map layer's name you have options for [opening its table](#), [changing the symbology](#) in the map, [filtering the data](#) (i.e. to only show certain locations), [label features](#) and many other options. See the diagram below for an overview of the ArcGIS Online map interface and map layer properties.

Navigating the ArcGIS Online Map Viewer

Get familiar with Map Viewer interface. Spend some time getting familiar with the buttons and menus on the. Use the diagram below to help orient yourself to the [ArcGIS Online Map Viewer interface](#).



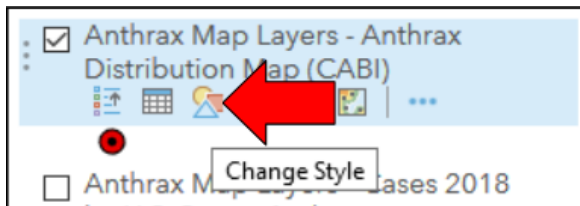
Hover over layer name to see options for opening its table, changing its symbology, filtering data and performing analysis.



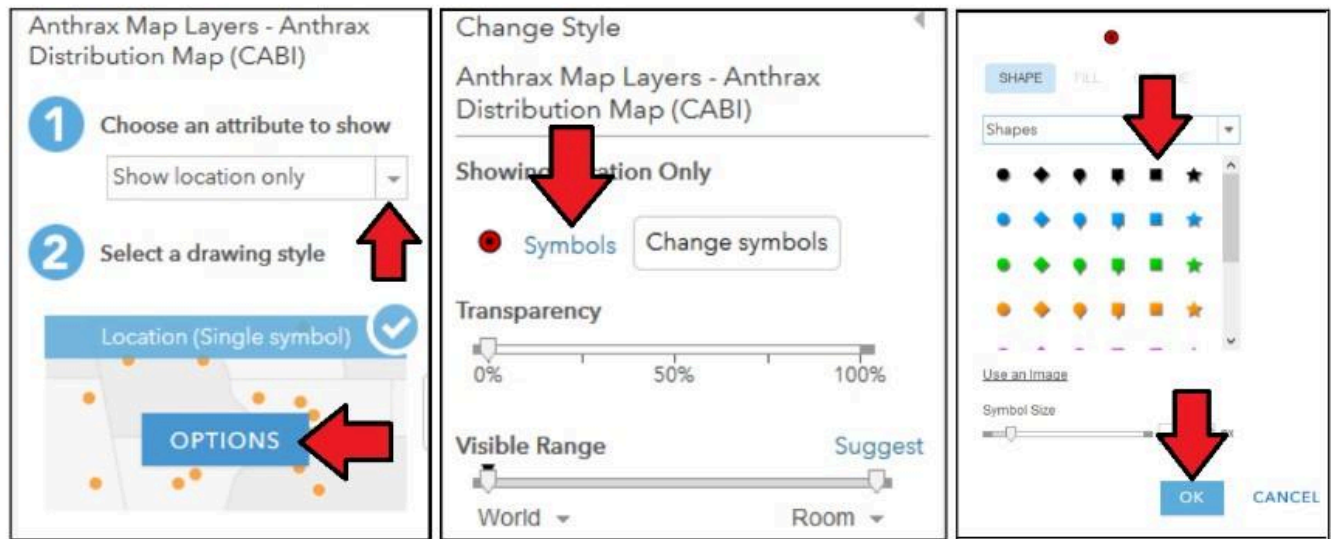
How to change symbology and make thematic maps

Read the instructions or watch the video, [How to visualize thematic map layers using categorical, qualitative or quantitative data variables](#) (13 minutes, 25 seconds)

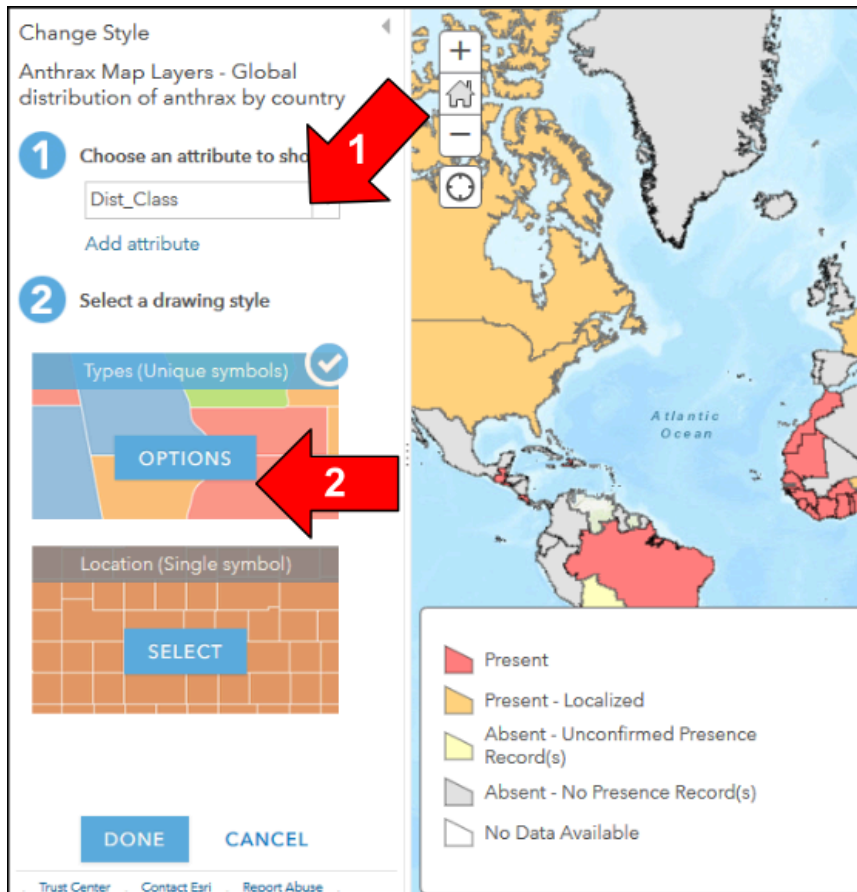
Change map layer symbology. Symbology options vary depending on the kind of data in the map layer. To change symbology, click on the 'change' style icon for the map layer.



Show location only. If you want to symbolize all of the features in the map using the same symbology, you can pick the symbol you want to use by clicking on 'options' and then 'symbols.' Choose the symbol you want to use, click on it to select it and then click 'OK' and 'DONE' to save the changes.



Visualize categories or quantities. Some map layers have categorical (e.g. countries by presence or absence of a pathogen) or quantitative (e.g. countries by number of cases or incidence rate per 100,000 population) data variables. To visualize the data using quantitative variables, you'll click the 'change style' button and pick the attribute (or data variable) you want to show in the map. The drawing options you get in (2) section 2 of the graphic depends on whether you pick a categorical or quantitative field.

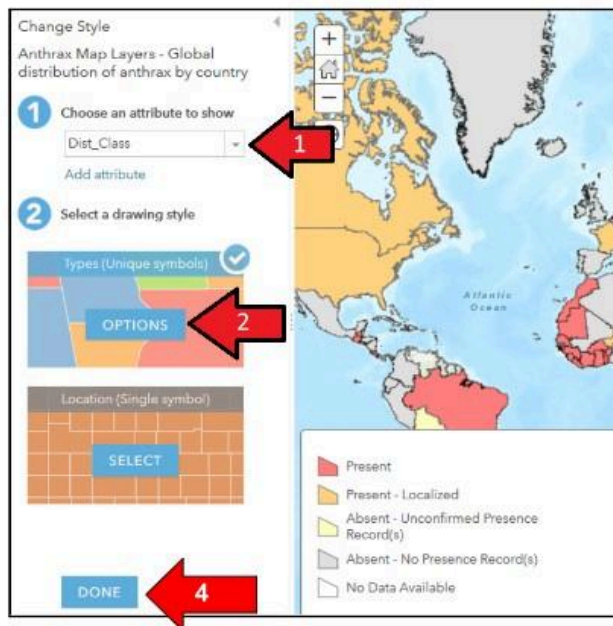


Visualize Categories: To make a color-coded or ‘thematic’ map from categorical variables, choose the attribute you want to show from the drop down list in section 1.

Next, click ‘Types (Unique symbols)’ and then click on the ‘Options’ button to choose which colors to use for each category.

Next, you’ll click on the color patches to choose a new color for each category. You can also rearrange the order the categories are listed in and the labels used to describe each category.

Click the ‘Done’ button to save the changes you made to the symbology.



Change Style

Anthrax Map Layers - Global distribution of anthrax by country

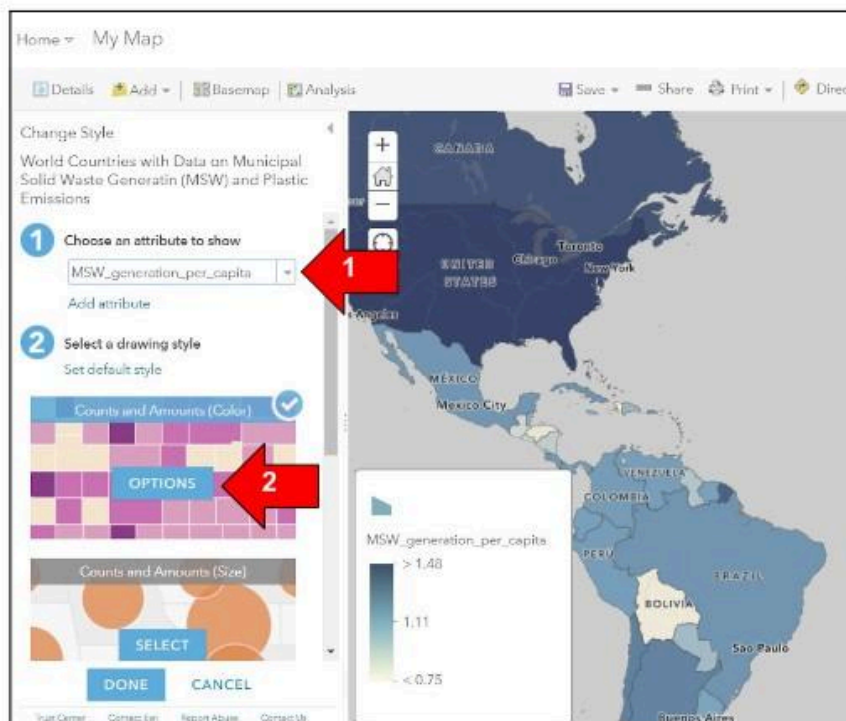
Dist_Class

3 Click to edit symbol or label.

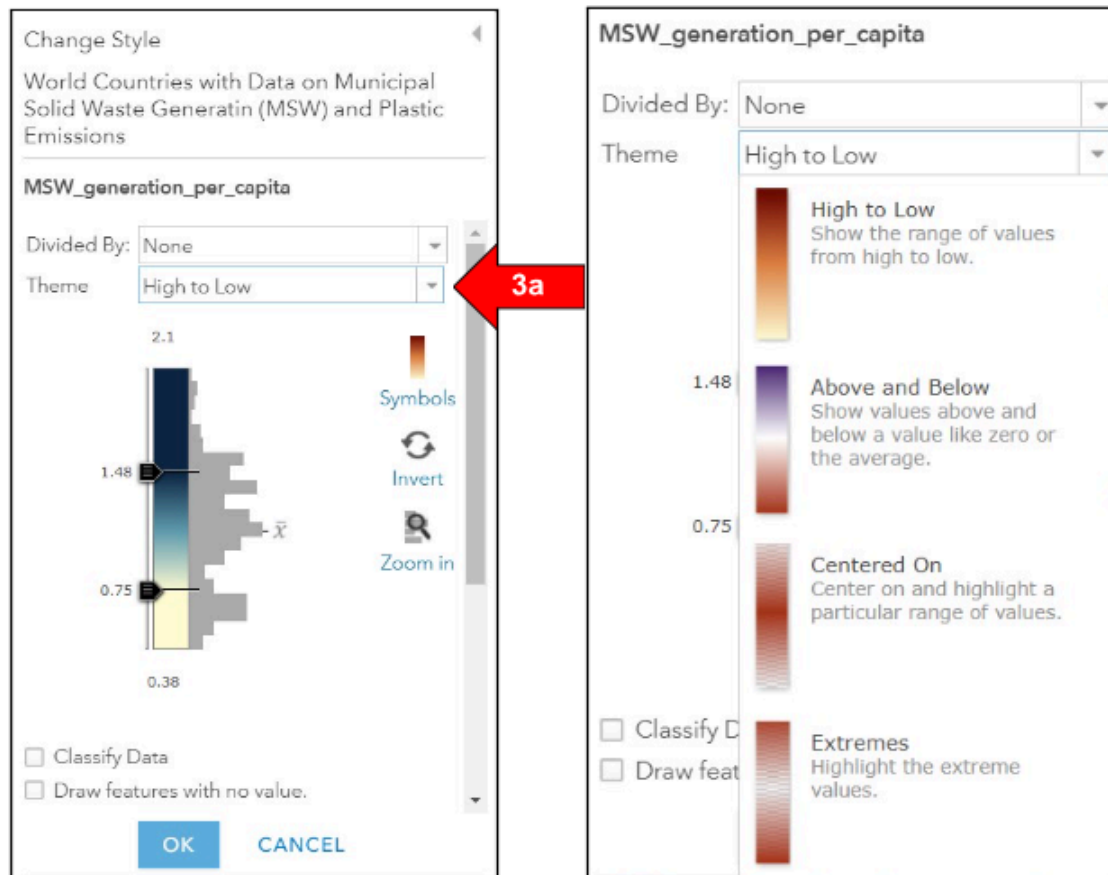
LABEL	COUNT	Symbols
Present	59	
Present - Localized	18	
Absent - Unconfirmed Presence Record(s)	2	
Absent - No Presence Record(s)	92	
No Data Available	0	
Other	78	
No value	78	

Ungroup

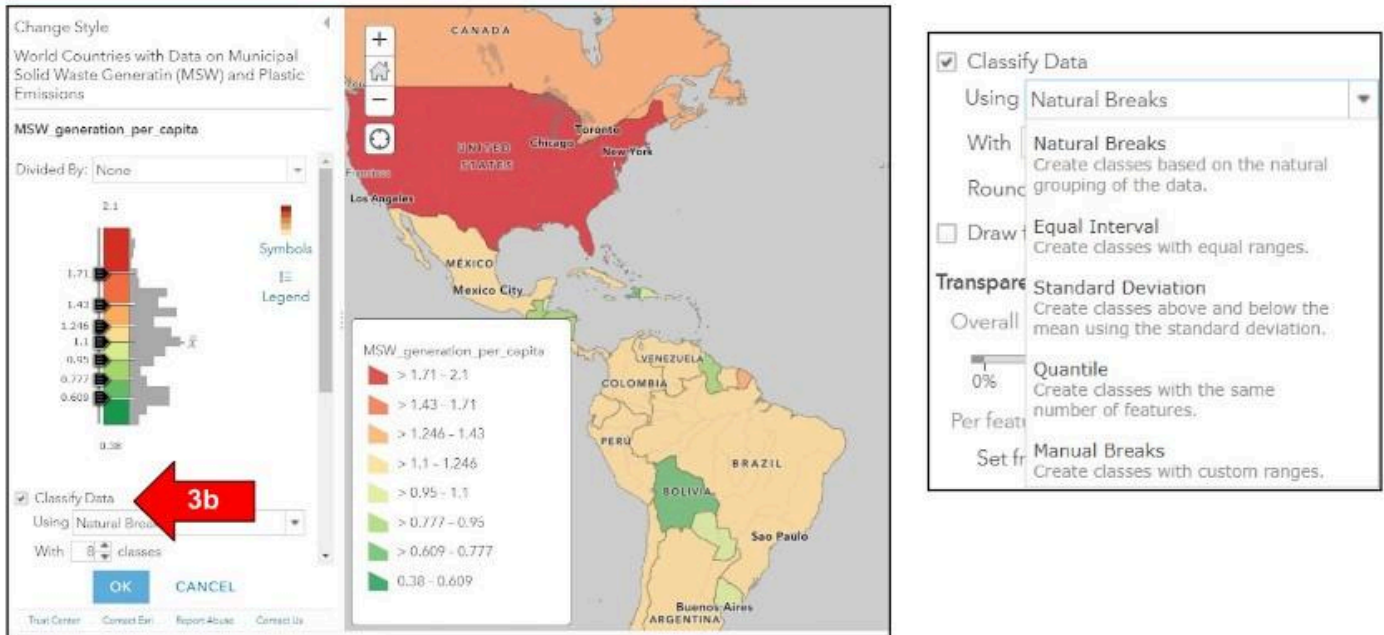
Visualize Quantities. Some map layers have quantitative data for the features they show (e.g. population by block group). To create a color-coded map (sometimes called a choropleth or thematic map) using a quantitative variable, click the 'change style' button and pick the data variable (or attribute) you want to show in the map. Next, click 'Counts and Amounts (Color)' and once you've selected that option, click 'Options' to pick the classification scheme and colors for each class. Learn more about working with quantitative data in ArcGIS Online by reading this [documentation from ESRI](#) or [this article by Michael Camponovo](#).



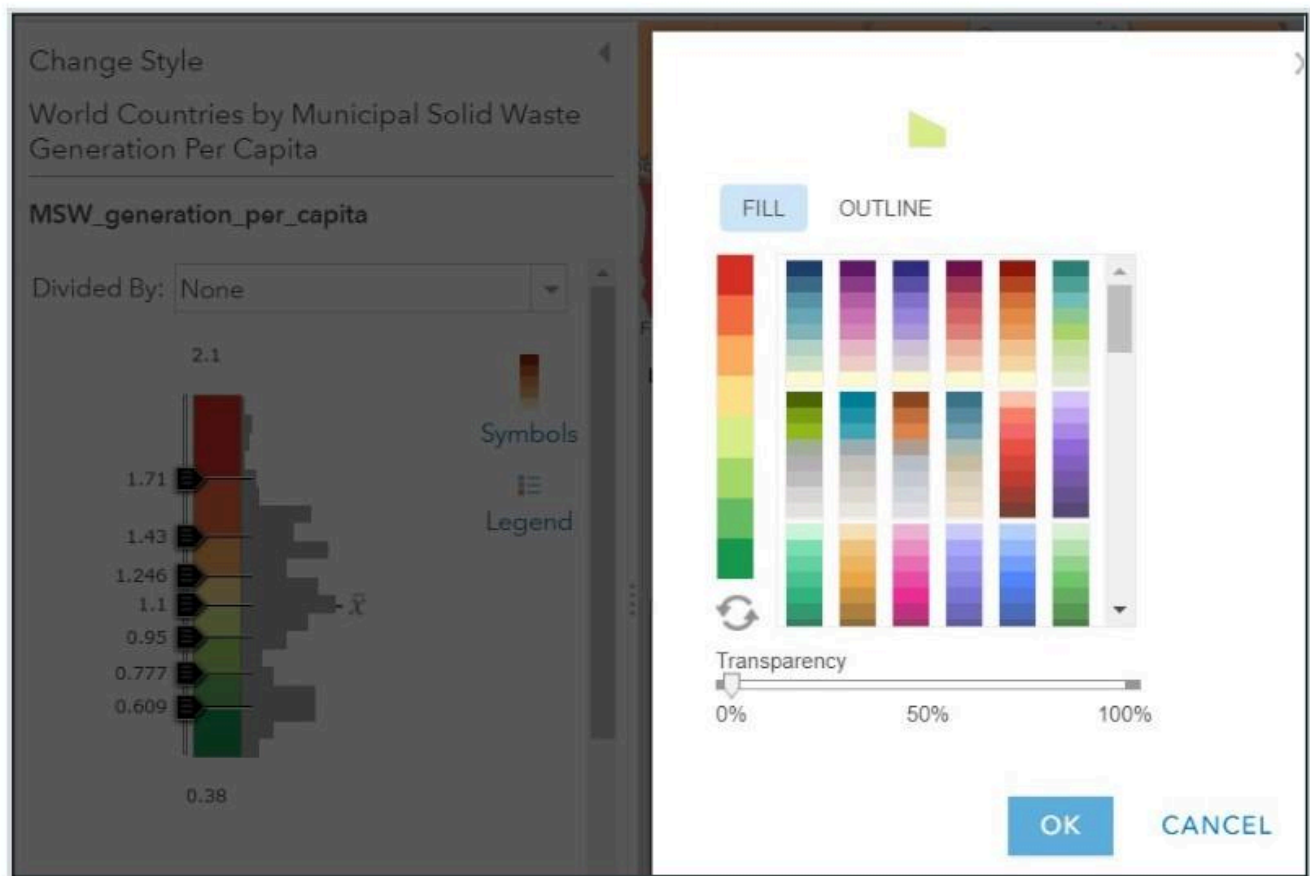
Choose a classification scheme. By default the features in the map layer will be visualized using the 'high to low' classification scheme. If you click the drop down for 'theme' there are three other options to pick from, including above & below, centered on and extremes. Your goal in choosing a classification scheme is first and foremost to accurately represent the data, but also to emphasize the specific patterns or trends you've found through your research and careful analysis of the data. Using one of the four default classification schemes is almost always a good option as they are based on statistically sound algorithms that will stand up to scrutiny.



But you also have the option to classify the data using alternative statistical methods and/or manually. If you click the 'Classify Data' button you can choose the number of classes to break the data into and the method for setting those classes (natural breaks, equal interval, standard deviation, quantile or manual). It's important to have a solid, justifiable rationale for how you classify data. One example might be if you want to show areas above or below a certain benchmark (e.g. national unemployment rate or median household income). Another example would be emphasizing areas where a particular phenomenon increases, remains the same/stable, or decreases - such as life expectancy or population growth).



Pick a color ramp. Choose a color ramp to visualize the features. There are color ramps that show a single color with varying degrees of saturation, and other color ramps that have a range of colors. Think about what your choice of color ramp communicates about your data. There are times when a neutral color ramp might be the best choice, or other situations where a 'good to bad' or 'hot to cold' color ramp might most effectively communicate a pattern you want to show. Regardless of the color ramp you choose, make sure that it's oriented the right way. Intuitively people see the darker shaded features and interpret them as having higher or more of whatever is shown and the lighter shaded features as having lower or less. You can flip the color ramp if necessary.



Stop and save your map! Your map doesn't auto-save - you have to click the save button to make sure you don't lose any changes you make to your map.

Working with ArcGIS StoryMaps

ArcGIS StoryMaps are a great way to combine the maps you created, your writing, images, and other media to tell a story.

Finding and opening your StoryMap for editing

We've created a StoryMap template for each of you and added it to your ArcGIS Online content folder.

We've created a storymap template for each of you and added it to your ArcGIS Online content folder. The template has the sections you'll need:

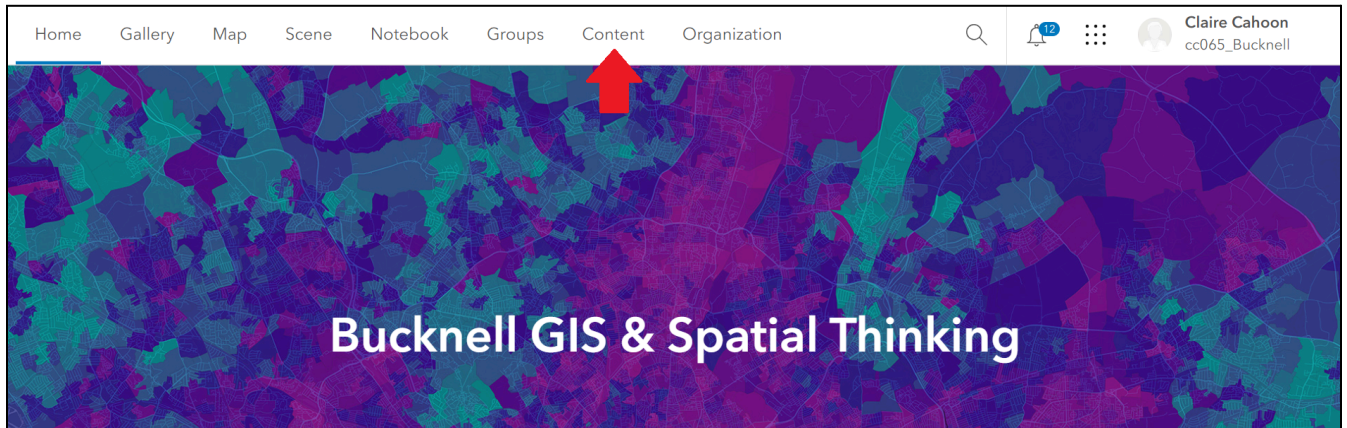
1. Introduction
2. The Pathogen
3. Epidemiology, Infection and Disease
4. Past efforts to control the disease
5. Background of your geographic focus area
6. Proposed efforts to reduce effects of the disease

7. Conclusion/the Future

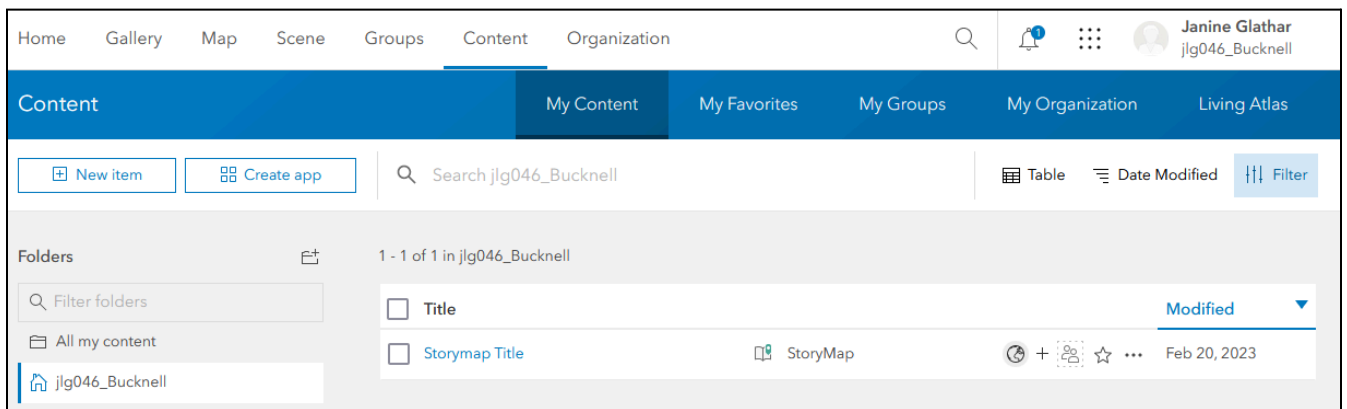
You'll fill in each section with your research on your topic to create a digital essay that will also serve as your presentation tool.

Video instructions: [StoryMap Series: How to open and start editing your StoryMap template](#) (6:24)

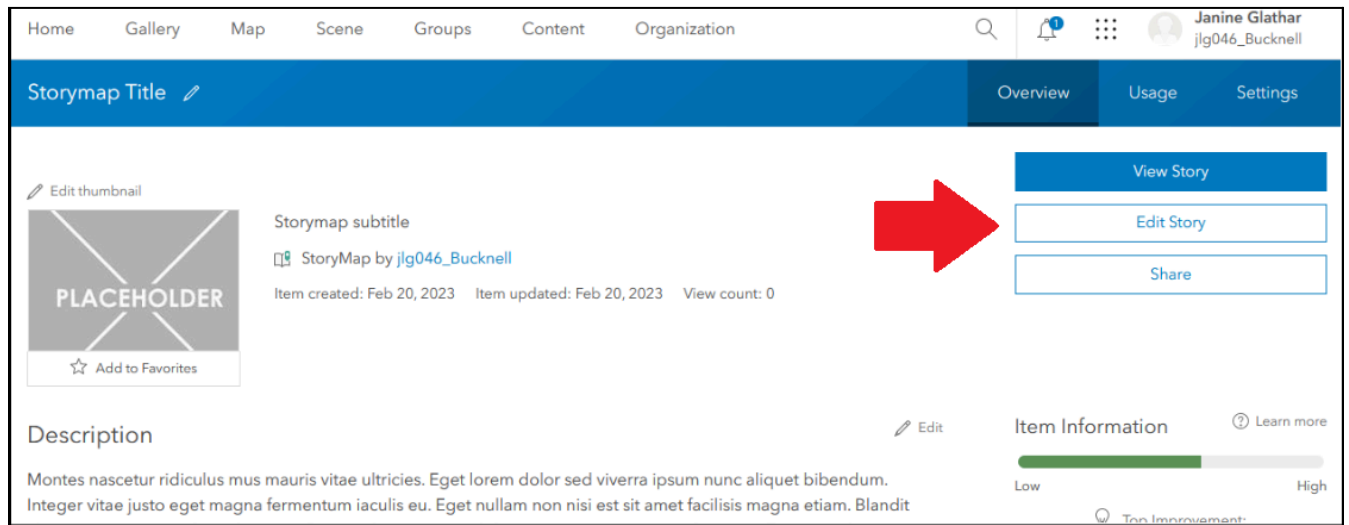
1. **Go to the Content tab** at the top of the page. Once you're logged into ArcGIS Online, you'll see your name and/or username in the upper right corner. Click on the 'Content' menu.



2. **Open your StoryMap template for editing.** In the Content tab, you will see a list of all of your content, including the StoryMap template. Click on the title of the storyMap to open its details page.



3. **Open your StoryMap for editing.** Click on the 'Edit Story' button to open your StoryMap for editing.



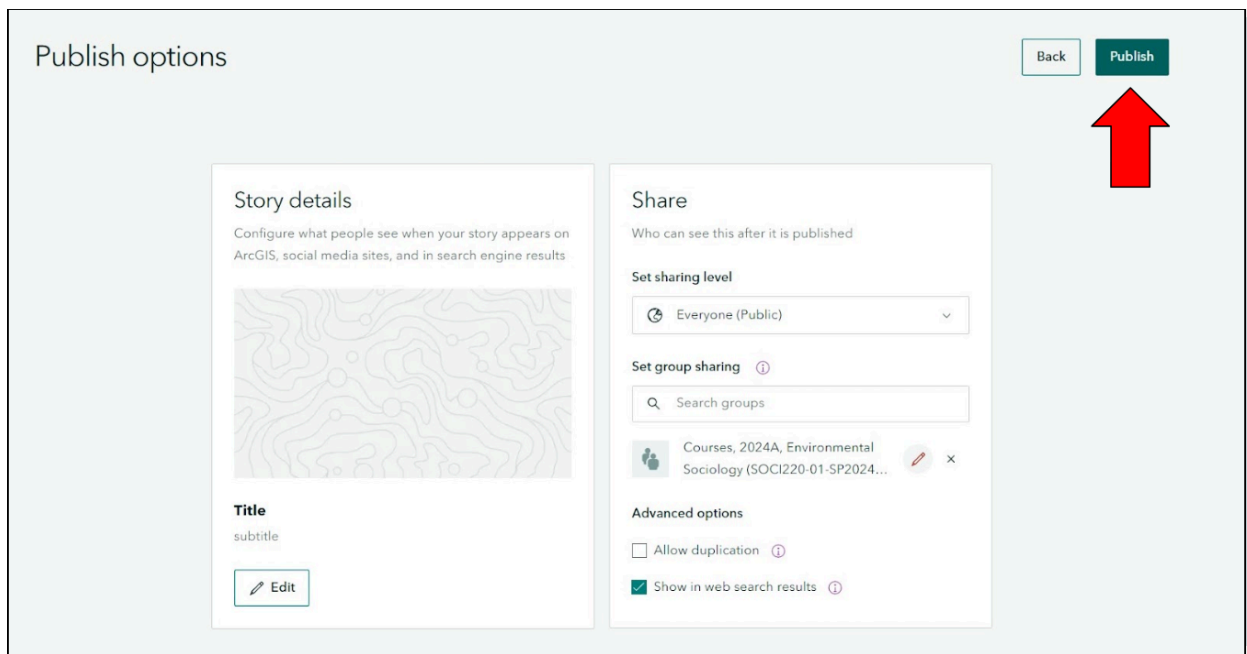
Saving and publishing your StoryMap

Note: only one person can edit a StoryMap at a time. If you are working in a group, please coordinate so that only one person is editing at any given time! Otherwise, your work may not save correctly.

1. StoryMaps save drafts automatically as you work. You don't need to do anything to save your draft work!
2. To make your edits visible, you need to **publish your StoryMap**. Click the "Publish" button in the top right of the StoryMap editor.



3. Click on "Publish" again in the top right corner. Except in special circumstances, you will not need to change any settings on the next screen.



4. To **return to edit mode** after publishing, click the "..." button in the upper right of the screen and click "edit."



Recommendations on image file typ, resolution and size

For detailed information on image specs supported and/or recommended for ArcGIS Storymaps, please refer to the ESRI [Guide to working with images in ArcGIS StoryMaps](#). Key info is listed below, but more detail is available in the guide.

Supported image types:

.jpg, .png, .gif, .svg, .bmp, .webp, .heic, .heif, .tif, and .tiff

Recommended resolution:

72ppi

Image and file size:

The maximum width and height for images in ArcGIS StoryMaps is 5,000 pixels. The maximum file size for images is 10 MB

Help Videos and Links

ArcGIS Mapping:

- [Getting started with ArcGIS Online maps](#) webpage or the [ArcGIS Online main page](#) for general help
- [Organize layers](#) - to rename, reorder or remove layers
- [Change layer transparency](#) - to see more (or less) of underlying layers
- [Change symbols](#) - how to change the way features look in your map
- [Create labels](#) - add labels to your map to make it easier to navigate and interpret
- [Working with tables](#) open layer tables, sort values, select and identify features in map
- [Create a filter](#) to control which features are displayed in a map layer.
- [Use map notes](#) to add your own information, annotation or comments to the map.
- Watch the full Map Series video tutorials:
 - [How to login to ArcGIS Online](#)
 - [Map Series: \(1\) How to open a new map or a class map in ArcGIS Online](#)
 - [Map Series: \(2\) How to open a saved map and add new data](#)
 - [Map Series: \(3\) How to change basic map layer properties and add map notes](#)
 - [Map Series: \(4\) How to visualize thematic map layers using categorical, qualitative or quantitative data](#)

ArcGIS StoryMaps:

- [Getting Started With ArcGIS StoryMaps](#)
- [Quick tips for mastering the ArcGIS StoryMaps builder](#)
- [Getting started with accessible storytelling](#)
- Help with media (images, videos, etc.)
 - [Working with images in ArcGIS StoryMaps](#)
 - [Working with media in StoryMaps](#)
 - [ESRI FAQ on media in StoryMaps](#)
- Watch the full video tutorial StoryMap Series:
 - [StoryMap Series: \(1\) How to find, rename & open your StoryMap for editing](#)
 - [StoryMap Series: \(2\) How to add an image or looping video to your title page](#)
 - [StoryMap Series: \(3\) How to add captions to your images and include citations for sources](#)
 - [StoryMap Series: \(4\) How to add an interactive map to your StoryMap](#)
 - [StoryMap Series: \(5\) How to add an immersive section to your StoryMap](#)

To get help outside of class:

- Janine Glathar (GIS mapping, data enrichment, StoryMaps) - [Meet with Janine](#)
- Claire Cahoon (StoryMaps) - [Meet with Claire](#)