

USE THIS ROOTS & SHOOTS COMMUNITY MAPPING TOOL ALONG WITH YOUR CRITICAL THINKING SKILLS TO EXPLORE YOUR COMMUNITY AND:

- Learn the geography and layout of your local area
- Determine areas of need for people, other animals and the environment
- Identify resources that may support efforts to meet community needs
- Form a deeper commitment and resulting **empathy** towards the people, other animals and environment that make up your community



TIME REQUIREMENT

2 hours minimum, suggested multi-day/week project



MATERIALS

- Colored pencils, markers, or Crayons
- Regular pencil or pen
- Large sheets of white paper
- Glue or Tape
- Stickers
- Map (printed, purchased or hand drawn)
- Internet
- Esri ArcGIS

Community mapping practices many types of research including observation, internet and print media searches, as well as interviews with family, friends and community leaders who become **collaborators** with you on your efforts.

 **EDUCATORS:** Learn how to align mapping with different subjects at rootsandshoots.org/lessonplans



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1 PART ONE: OBSERVING YOUR COMMUNITY

Take note of what is on the way to school or work when on the bus, in the car, biking, etc. Imagine you are looking at the community from a bird's eye view.

SAMPLE GUIDING QUESTIONS

- Why is it important to learn more about your community?
- What are the roads around your location? Are there any major intersections?
- Notice the cars and people walking outside, imagine where they are going and what they do to have fun, where they work, eat, sleep etc.
- Do you see animals, wild or domestic? Where do they go during the day? get food? play? or go when they are sick?
- Where do you see plants or trees? How do they survive and how did they get there? What makes them important to your community?
- Be introspective! What role do you play in your community? How do the daily actions you take impact the people, other animals and environment around you?

Observations can be recorded in many different ways - photography, artwork, journaling, video production, presentations, the options are endless.

SAMPLE GUIDING QUESTIONS

- How do you feel about your community? Do you feel your community has the resources to meet the needs of both humans and animals? Do you feel that local officials consider the environmental impact of major changes such as new roads, parks, and development?
- What issue have you recently read or heard about that impacts your community? Does this issue primarily impact humans, animals, or the environment? Do you believe the issue will have a positive or negative impact on your community?



2 PART TWO: PREPARING YOUR MAP

Draw, print or purchase a map of your location (OR, skip this step and start your map directly in Esri ArcGIS.) If you are mapping a radius around a zip code or specific location, two to five miles is sufficient. If it is a campus, request a map from the front office. If you are using a purchased map, draw a radius around your community.



OPTIONAL CHALLENGE:

Use a blank sheet of grid paper (or the one included in the end of this guide) and see if you can draw your location from memory. How is your community or campus oriented —to the North, South, East or West?

3 PART THREE: MARKING COMMUNITY ASSETS

See the examples below to identify your community's unique assets. The lists below are just examples of assets, you don't have to map all of them, and you could map others depending on your community. Distinguish the three categories on your map by assigning each a unique identifier (i.e., color, shape, stickers). For example, mark human assets in blue, animal assets in red, and environmental assets in green.

HUMAN ASSETS

- Places for school/work
- Highlight major streets
- Areas of leisure
- Libraries/Community centers
- Places of worship
- Grocery stores, farmer's markets, favorite restaurants
- Hospitals or clinics
- Shelters and food banks
- Fire and police stations

ANIMAL ASSETS

- Animal sightings, species
- Domestic animal use (dog parks, dog friendly trails, etc.)
- Animal shelters
- Animal control facility
- Animal hospitals
- Animal sanctuaries
- Zoos and aquariums



ENVIRONMENTAL ASSETS

- Wild and/or protected spaces
- Bodies of water
- Mountains, beaches, etc.
- Recycling centers, landfill/waste management
- Water facilities
- Power sources (coal, nuclear, wind, solar and geothermal power plants)
- Environmental services (watersheds, reservoirs, wetlands)

4 PART FOUR: REFLECTION

Refer to your map as you reflect on the following suggested questions.

SAMPLE GUIDING QUESTIONS

- Do any of the marked assets above serve more than just the one category? (human, other animal and Environment) Example, a recycling center benefits the environment but also provides a service to humans.
- What are some of the assets above that support the people, other animals, and environmental habitat in your community?
- What things do you like about your community?
 - One quality about your community that makes it a great habitat for people
 - One quality about your community that makes it a great habitat for animals
 - One quality about your community that makes it a great environmental habitat
- What makes you most proud (happy?) to live in your community?
- Is your community meeting the basic needs of people and animals?
- Is your community environmentally sustainable?
- What things could be improved for your community?
 - One quality your community could improve to make it a better habitat for people
 - One quality your community could improve to make it a better habitat for animals
 - One quality your community could improve to make it a better environmental habitat
- What other parts of your community should be included on the map? How are they important to the human, animal, or environmental habitats in your community?
- Reflect on the observations made in Part 1. How did your initial observations influence your map? Are there things that surprised you about your community as you were mapping?



Do this on your map, on a separate sheet of paper, or as a conversation.

GLOSSARY OF COMPASSIONATE SKILLS & TRAITS PRACTICED THROUGH MAPPING



CRITICAL THINKING

Exploring a topic from all angles before making a well-thought-out decision



COLLABORATIVE

Embracing the inspiration and participation of others by accepting new ideas and perspectives



EMPATHETIC

Connecting to feelings outside your own by viewing concepts through the lens of another



INTROSPECTIVE

Examining your beliefs to consider how your actions affect the world around you

See more compassionate leadership traits and mapping activities at rootsandshoots.org.

5 GET STARTED WITH ESRI ARCGIS

Go to www.arcgis.com and register for a free 60-day trial to transform your map into a digital masterpiece!

Before You Start: Get organized! We've found it to be very helpful to organize and upload any photos prior to starting your map. You will need to upload them to a web-based photo hosting service like Flickr, SmugMug, etc. You will not be able to directly upload pictures from your computer into the map.

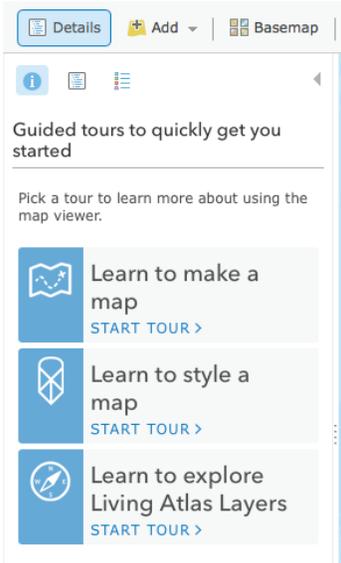
👉 CREATE A NEW MAP

After you log in, get started by clicking on Map in the top left corner.

Home Gallery **Map** Scene Groups My Content My Organization



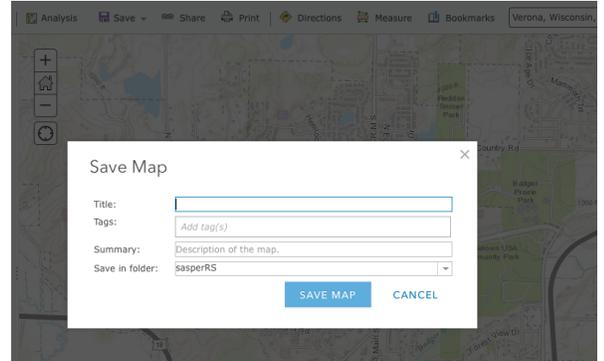
Home ▾ My Map



You'll see helpful **Guided Tours** appear on the left side of your map. These can help you learn how to make a map, style a map and learn about using the Living Atlas Layers. We will cover all of these in this tutorial, but these tools are a great resource as well.



In the top right search bar, zoom and pan to your community. Then click Save → Save As and name the map. You need to enter a description and title for your map and enter “Tags,” (i.e. keywords to define your map.) Don't worry, this doesn't make your map searchable unless you update the share settings on your map (which we will get to later in this guide.)



6 CREATE MAP FEATURES & DATA

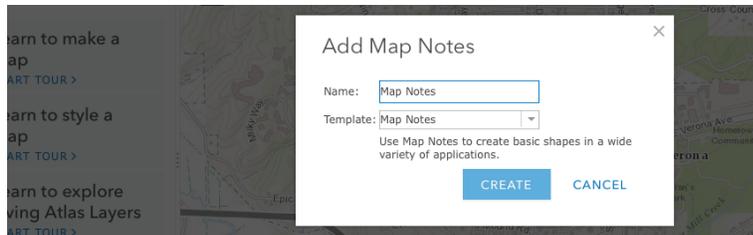
Now, let's start adding features to your map to illustrate your community's human, animal and environmental assets!

- **Points:** represent a specific place on the map (a school, library, police station, etc.)
- **Lines:** represent a path or route (a main roadway, popular running path, etc.)
- **Areas:** polygons that represent an area (a neighborhood, a park, etc.)



TIP: Are there other terms you've been seeing in your exploration of ArcGIS Online? Check out the ArcGIS Dictionary for more definitions: support.esri.com/other-resources/gis-dictionary

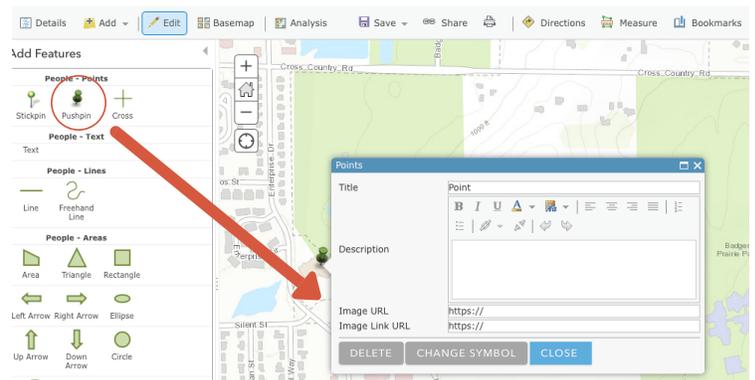
1. First, we need to create a layer. Choose “ADD → Add Map Notes,” located in the top bar toward the left. In the popup window, call the layer “People,” use the standard Map Notes template, and click “Create.”



2. Next, click on the “Edit” button and/or make sure the “Add Features” toolbar appears on the left side. If you lose the toolbar, just click on the “Edit” button again.

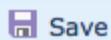
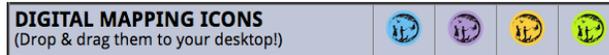
3. Click the “pushpin” button to select the tool. Then, click where you would like to place it on the map.

4. Your screen will now look like the one below. Give your new point a title and description and click “close.” We will learn how to change the symbol later.



You can also use an image as a symbol for your points. We have a set of sample images you can use on www.rootsandshoots.org/mapping, or you can create your own! Adding these is similar to adding photos to your Info Box.

- First, right click on the image and then click “Copy URL” or “Copy Image Address.”
- Then, navigate back to where you choose symbols for your point (see above for instructions). Underneath the provided options, there is a “Use an Image” link. Click this and then paste your image URL here.
- Click “OK” and your point should now have the image as its symbol!



Save

SAVE YOUR PROGRESS

ArcGIS Online does not automatically save your progress, so don't forget to click Save after you've added data or made updates to your map.

Repeat these steps to create and edit several features on the map in your People layer. Make each feature as easy as possible to understand, with clear titles and symbols.

When finished, click on the “Edit” button to exit the creation process. This will bring you back to the “Details” sidebar, where you can see Contents.

Create new layers for Animal and Environment and add those assets as well. **Make sure to only have one layer checked (ie. visible) when you are editing. This will make the “Add Features” sidebar less confusing.**

9 USE YOUR MAP AS A CAMPAIGN RESOURCE

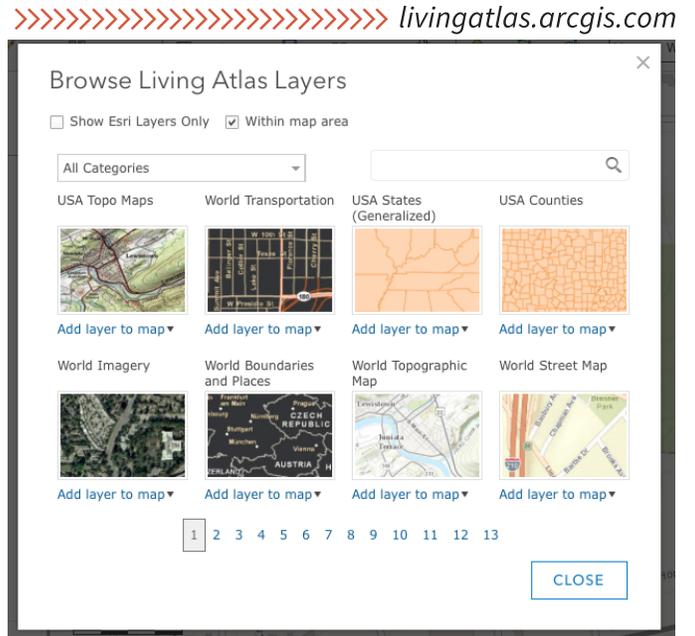
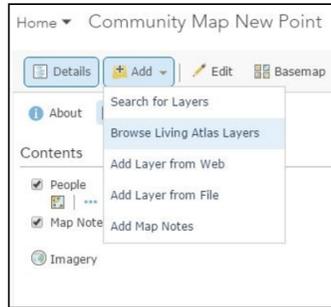
As you work through your long-term service campaign, don't forget to add your projects and activities to your map! You can add a new layer and then add text updates like this example, or add new points, lines and areas.



10 ADDING PUBLIC LAYERS TO YOUR MAP

As you work through your long-term service campaign, don't forget to add your projects and activities to your map! You can add a new layer and then add text updates like this example, or add new points, lines and areas.

- There are several ways to add external information into your map with "Layers." Just click "Add" and choose the option that best fits with your needs.
- In this tutorial we're going to use the Living Atlas Layers. "The Living Atlas is the foremost collection of authoritative, ready-to-use global geographic information ever assembled."
- When you open the Living Atlas, search the maps by category or keyword. Hover over each map to read a brief description of the map content.



TIP: If you can't find the information you're looking for in the Living Atlas, government agencies and universities are great resources that often have databases of GIS data that you can add to your map. You can search for them on the web and within ArcGIS Online.

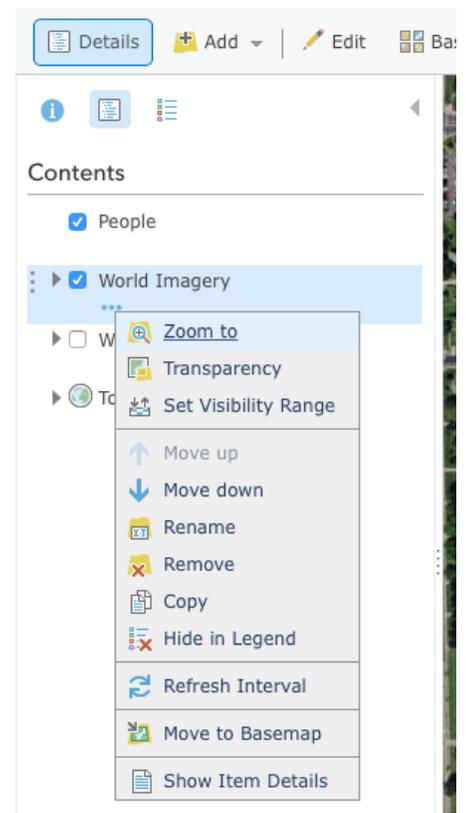
- Then click the arrow next to "Add Layer to Map" to choose whether you want to add it as a layer or as your basemap. Adding as a layer will allow you to click it on and off, adding it as a basemap will make it the background of your map, which always appears.
- Now, hover over your living atlas layer in the "contents" toolbar and three dots will appear underneath. Click on this to get more layer options, such as the layer information, data table, legend, and transparency adjustments. This may be helpful for your campaign!

Adding these layers is a great way to get a larger picture of what is going on in your community. Adding public layers can create new and better questions your group can use to address the issue they've identified.

Roots & Shoots Suggested Layers

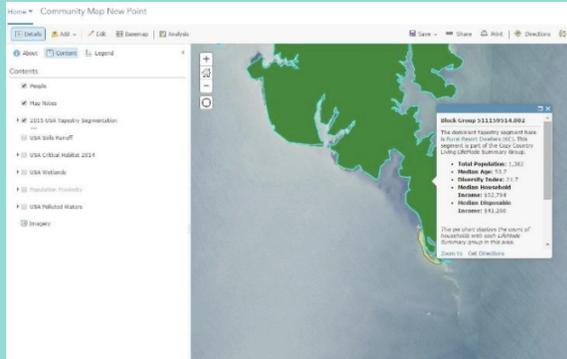
Here are some layers in the Living Atlas that you can search for which may be helpful for Roots & Shoots campaigns:

- USA Tapestry Segmentation
- USA Census Populated Places
- World Imagery
- USA Parks
- USA Detailed Streams

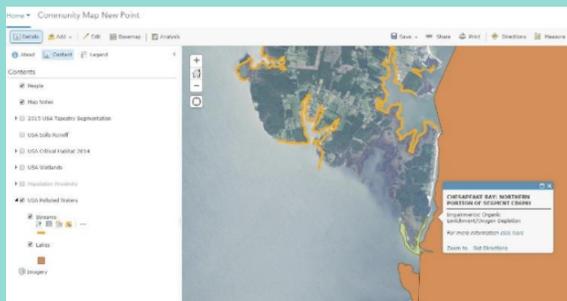


There are many, many layers to choose from so feel free to browse and experiment with the ones that best fit your campaign! You can always delete the layers by clicking on the 3 dots below the layer name and clicking "Remove."

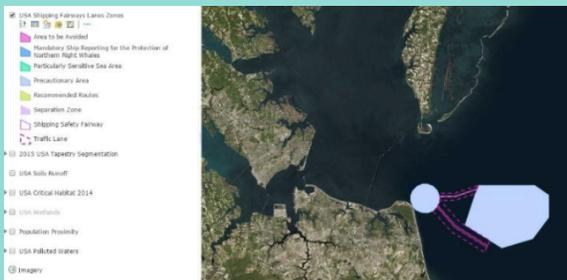
Example: Hockley Roots & Shoots group completed their community map and identified litter on a local beach as an issue in their community. They then started mapping in ArcGIS Online and decided to explore the issue further.



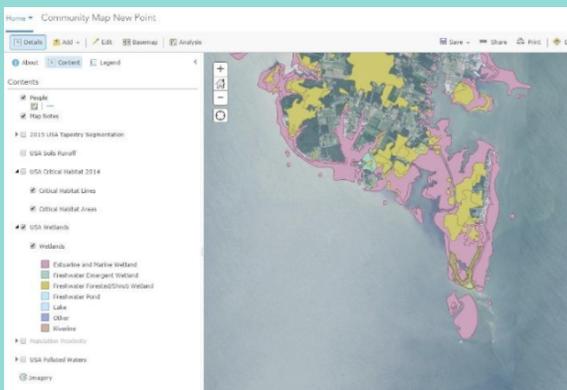
They started with the “USA Tapestry Segmentation” layer, which displays summary group information for the population shown in your map area.



Another good layer for Hockley R&S to add was the “US Wetlands” layer that identifies the types and areas of wetlands.



They also added the “USA Polluted Waters” layer to see what scientific data is available about the area.



And finally the “USA Shipping Fairways, Lanes and Zones” layer. This one is particularly interesting since they had noticed that a lot of the litter seemed to be washing ashore and they weren’t sure where it was coming from.

The Hockley Roots & Shoots group had initially planned to just do a beach cleanup, but after looking at all the intersecting issues on their map, they decided to investigate the issue further. They started a monthly clean up analyzing the type of trash on the beach, where it was found and whether it appeared to have been left by beachgoers or to have washed ashore. They also decided to look at tidal data to see if they could pinpoint where the trash that washed ashore might be coming from. This switched the focus of their project from just addressing litter on the beach to addressing the source(s) of the litter.



SAVE YOUR PROGRESS

ArcGIS Online does not automatically save your progress, so don't forget to click Save after you've added data or made updates to your map.

12 SHARE YOUR MAP

There are a variety of ways to share the map you've created. Click "Share" next to the save button to get started! You will see the screen similar to the one below with many options.

Everyone (public): This allows anyone to view your map, as long as they have the link found in the "link to this map" bar below.

Facebook & Twitter: Click one of these buttons to be directed to the social media website and post a link to your map. If you do this, make sure you have the "everyone" or "organization" box checked so people can view.

Embed in Website: This will allow you to create a "button" image with a small preview of your map. You can then add the given coding to you class or organization website, but make sure you have the "everyone" box checked.

We suggest using the provided link to share your map, once you have chosen who can view it. Copy and paste the link to preview what your map will look like to others.

Share

Choose who can view this map.

Your map is currently shared with these people.

Note: This map has Esri layers that may not be viewable by others. [Learn more.](#)

- Everyone (public)
- Roots & Shoots test

Link to this map

<https://arcg.is/rjk4r>

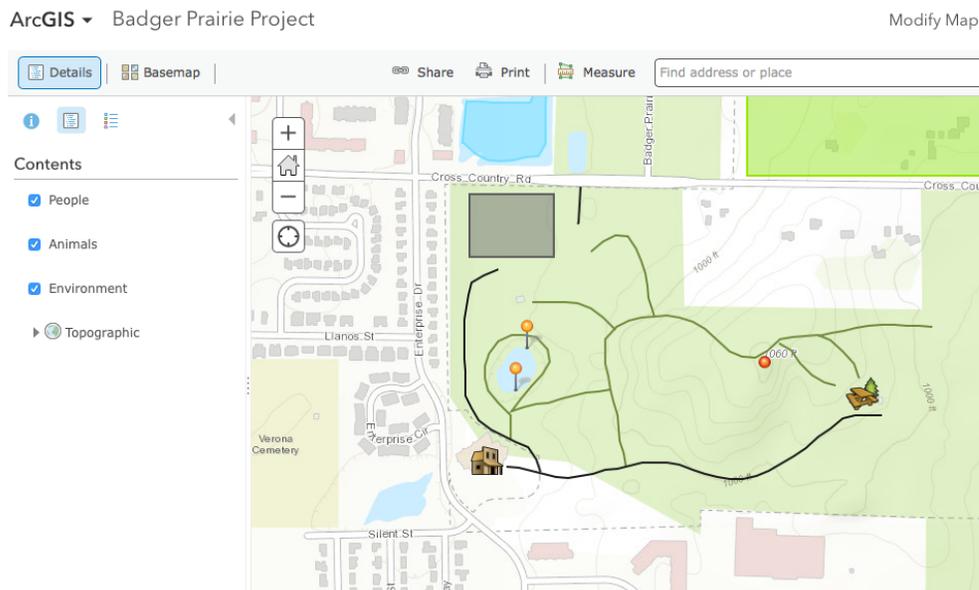


- Share current map extent

Embed this map

EMBED IN WEBSITE

CREATE A WEB APP



Congratulations! You have completed your map. You can always go back and add more features throughout your campaign to update your progress.

13 START YOUR CAMPAIGN

- Plan your project! Visit www.rootsandshoots.org/getstarted to get some project planning tips and enter your project idea.
- Be counted! Update your project report www.rootsandshoots.org/createproject with your campaign outcomes.
- Visit www.rootsandshoots.org/takeaction for some ideas on how you can use your digital community map throughout your Roots & Shoots campaign.
- Celebrate your impact! Visit www.rootsandshoots.org/celebrate for some ideas.