

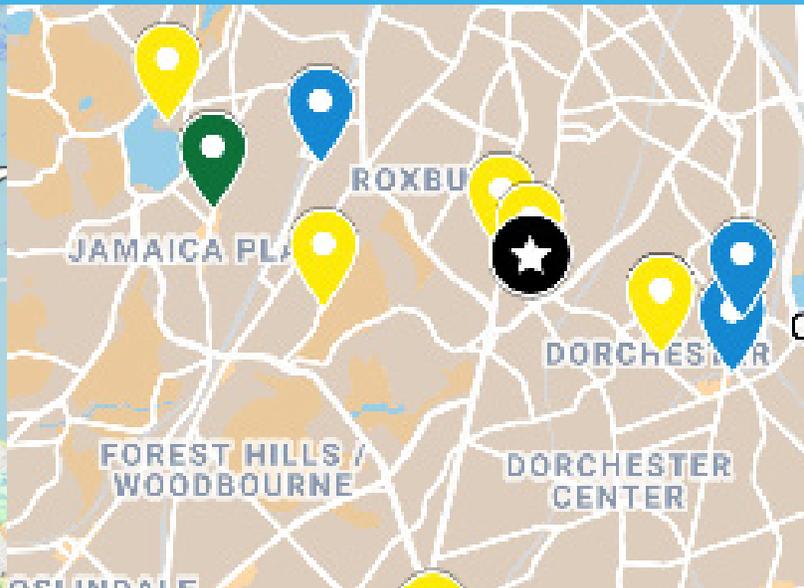
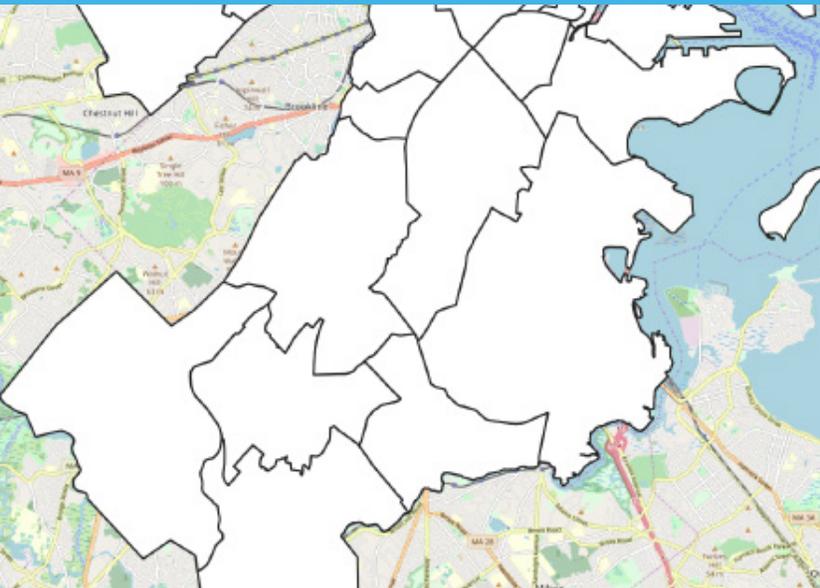


Mapping Our Boston

SUMMARY

In the Map Center's work with students, we use a variety of tools to map our city, from a blank paper map of Boston to a survey tool that creates map layers that can be visualized in a variety of different ways. We've included these examples here.

You may decide you want to try mapping with students in the order we did or just learn about the different approaches and tools and make them entirely your own.



ESSENTIAL QUESTIONS

How can mapping our experiences in our city open up our thinking?

What themes emerge when we think about our city through a geospatial lens?

How do maps expose and obscure ideas about what we think is true about our city?

How can maps help us think about where we feel we belong?

OBJECTIVES

Students will think about the city in expanded ways and become more familiar with parts they don't know much about.

Students will identify different ways **geospatial data** can be visualized on a map, digital and physical, and how these approaches can be employed for different purposes.

Students will consider the notion of spatial justice as it relates to their own experiences.

Mapping Our Boston: Neighborhoods

WHAT DO WE KNOW?

Before students dive deeper into mapping larger ideas, this lesson offers an overview of the city's neighborhoods. Students use a blank outline map, paper or digital, and try to label as many as they can.

[Blank map of Boston's neighborhoods for printing](#)

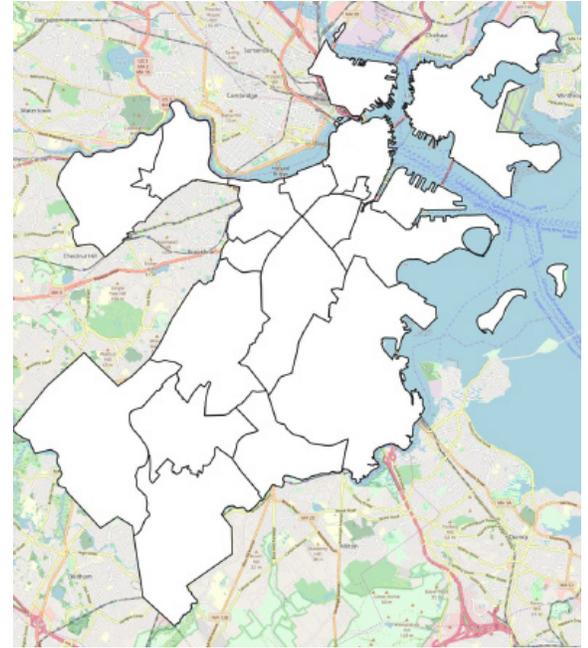
Download this image and load into a platform that allows for adding text boxes to have students complete this exercise online.

Instructions for students:

Label the neighborhoods on this map—what do you know?

Students label independently for five minutes. Then label together as a class while teacher scribes, putting in text boxes on the map projected for students. Students correct and complete as you go, stopping for questions and comments.

Any noticings? What was hard? Is anything surprising?



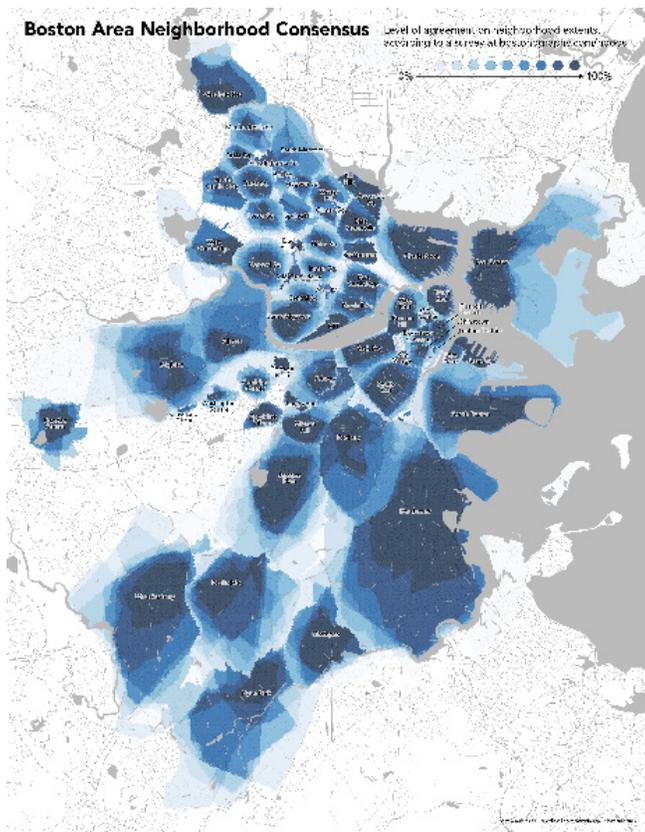
HOW DO WE MAKE SENSE OF THE LINES?

This section of the neighborhood inquiry asks students to think about the significance of neighborhood boundaries after completing the labelling exercise above. What sense do we make of the lines?

Instructions for students:

Explore [this map by Andy Woodruff](#). Talk in pairs, small groups or as a full class about what you notice and what stands out to you. Afterwards, read on and discuss the following questions.

Mapping Our Boston: Neighborhoods



Woodruff asked Boston-area residents to select the small hexagonal shapes that they think make up their neighborhood. Then he combined all the responses to make this map. What might this map tell you about how people understand where their neighborhood IS? What questions does this map raise for you? What are possible reasons why people included some areas of their official city neighborhood but leave other areas out? What do you think accounts for the lightly colored in between areas? Does this map contribute to thinking about how we make sense of our neighborhood boundaries? What could a mapmaker do next to further explore the questions raised by this map?

Students might follow up by reading [this news article](#) about the border between Roxbury and the South End. After reading, discuss how boundaries and borders matter and don't matter depending on how they are being used. Thinking about the city from different perspectives, who do different boundaries serve and how? Who decides where the lines are drawn? Who benefits from certain ways of dividing and who doesn't?

[‘It Is Erasing Our History’: New Development Blurs Boundaries](#)

Suarez, Miranda.”It Is Erasing Our History’: New Development Blurs Boundaries.” WBUR.org, July 8, 2019.

REDRAWING THE LINES

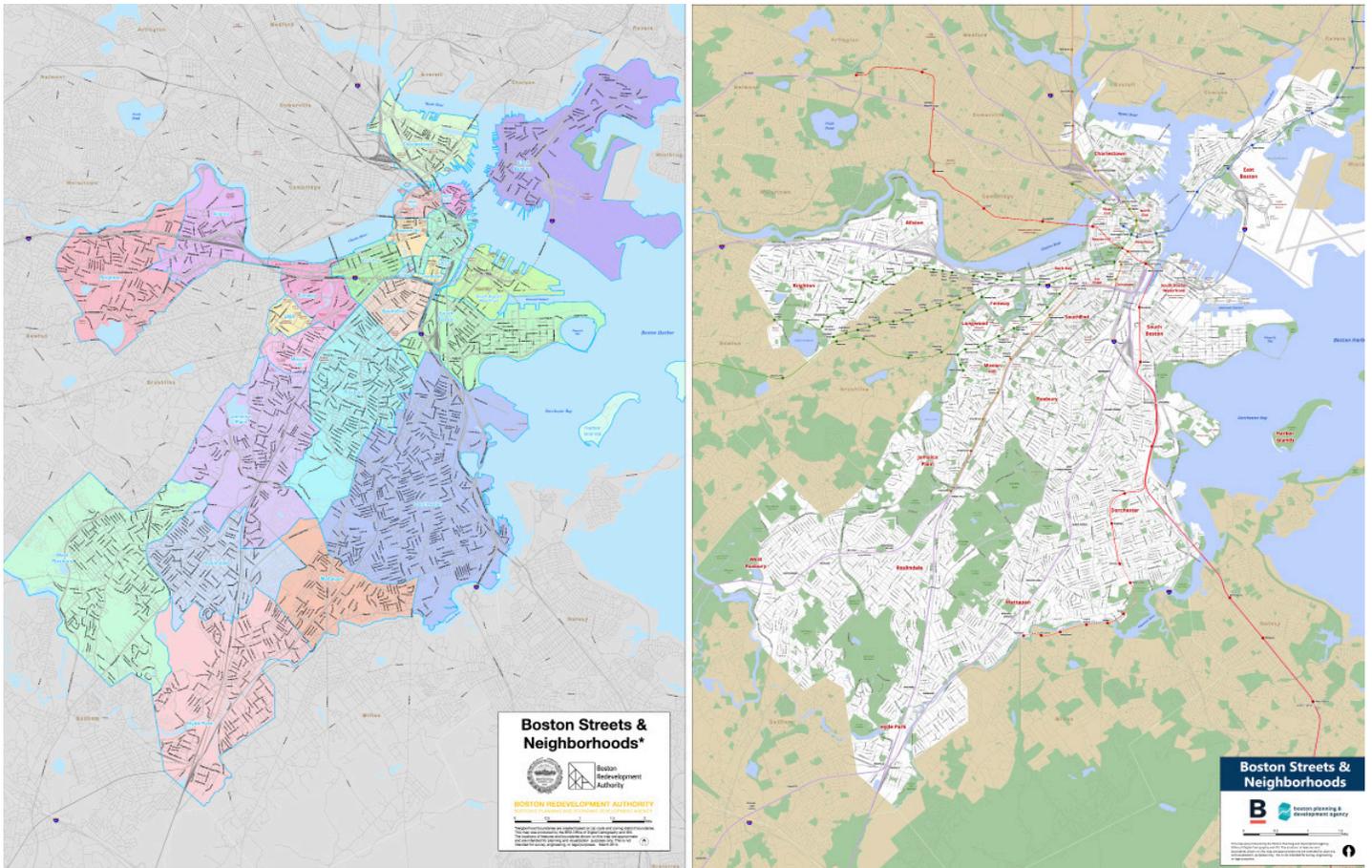
In the wrap-up to this neighborhood inquiry, students consider how they might create different types of boundaries in the city than the official ones labeled on city maps. This can be hard for students to imagine at first, so it's useful to do some brainstorming together before students go off to do the activity. Be sure to brainstorm not just other ways the city could be divided up, but **for what purpose**. For example, “in order to know where to find the best Dominican, Vietnamese, and Mexican (etc.) food, it could be divided up this way.” Or “here's the city divided up into where people look at teenagers of color suspiciously and not.” Or “here's the city divided into where I go and where I don't.” Emphasize that boundaries send messages.



Mapping Our Boston: Neighborhoods

Instructions for students:

Using the Boston Planning and Development Agency (BPDA) [map of Boston neighborhoods](#) (on the left in the image below) and anything you know about the city, discuss what you notice about Boston when looking at this one version of “official” neighborhood boundaries.



How might we imagine boundaries not seen on this official map? How else might we divide up the city? Thinking about your own experience of the city: how would you divide it up to reflect THAT? Or think about the city overall. What other kinds of divisions could we make to show something particular about Boston?

Use either a printed or digital version of [this BPDA map of the city](#) (on the right in the image above), one that is not already colored in, to draw new divisions that are useful, funny, interesting, unusual, or truthful. Use colored pencils, markers, watercolors, whatever you like. What did you do and why? Share your version of Boston with its new divisions and explain your thinking.



Mapping Our Boston: Participatory Mapping

Having students create their own maps allows for discussion and discovery about their own experiences compared with others in their class. Once their data has been added to a map, they can begin to look for larger patterns and ideas. Participatory mapping can be used at multiple points in a unit. Students who are exploring an issue in their city might begin with some broad questions about community assets and can mark places they know. You might also ask students to map out locations that connect to a research project they have completed to serve as a presentation tool for their final work. These mapping exercises also serve as lessons in understanding how visualizing data in different ways can change the meaning of the map as students are given the power to adjust labels, colors, the basemap, etc.

[As this article lays out](#), students can explore ideas of spatial justice or a “geography of injustice” that exists where we live. Since most schools have access to Google tools, we’ve provided instructions for these exercises in Google MyMaps. [ArcGIS online](#) has many more tools but requires an educator’s account to use. If you are interested in learning more about ArcGIS and how to use it in your classroom, there are many tutorials online.

OUR BOSTON: GOOGLE MY MAPS

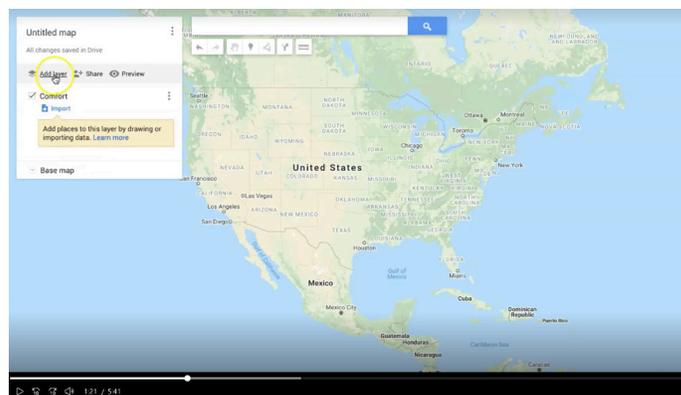
In this exercise, students are asked to map 4 points around Boston.

- A place that you feel comfortable
- A place where you feel uncomfortable
- A place you would bring someone visiting your neighborhood
- A place you like to eat

We used these questions to see where students go and don’t go around Boston as well as an icebreaker to get to know one another.

Option 1: Google MyMaps—students add their own locations directly to the map

[Watch this tutorial](#) or read on and follow the instructions below:

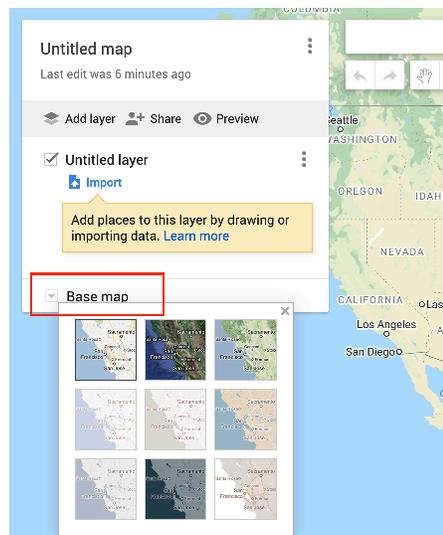


Mapping Our Boston: Participatory Mapping

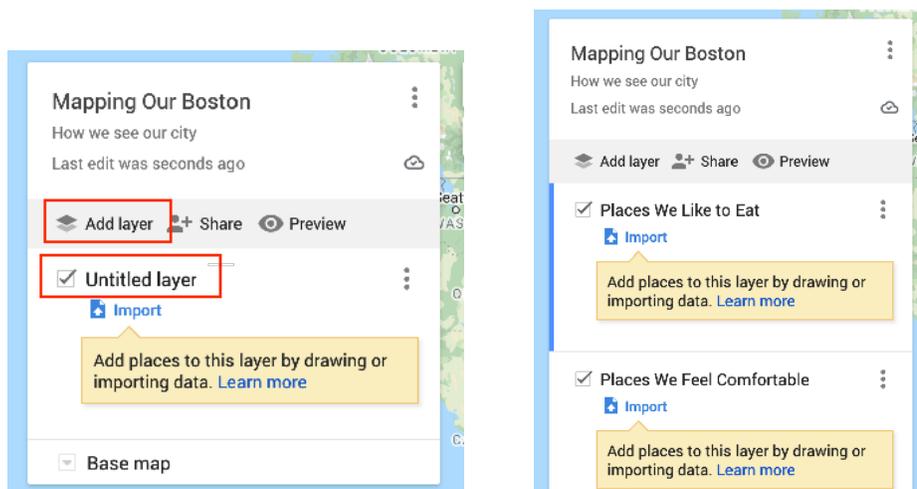
Step-by-step instructions for creating a collaborative Google My Map

1. Go to [Google My Maps](https://www.google.com/maps), make sure you are logged into your Google account.
2. Select “+ CREATE A NEW MAP”. Name your map by clicking on “Untitled map” and adding a title and description.

Tip: At this point we recommend selecting a different base map. Google’s default map includes lots of businesses and other landmarks that will make seeing the students’ points more difficult. The “Simple Atlas” base map is a good one to use that includes street names.



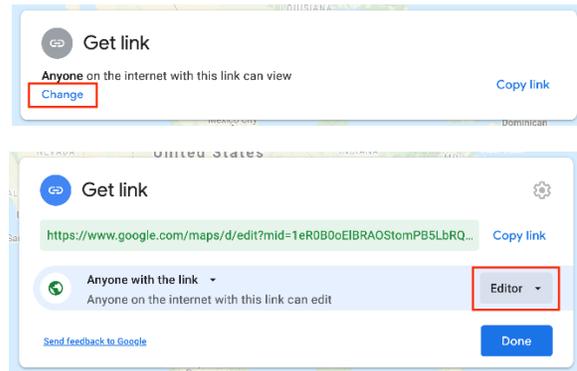
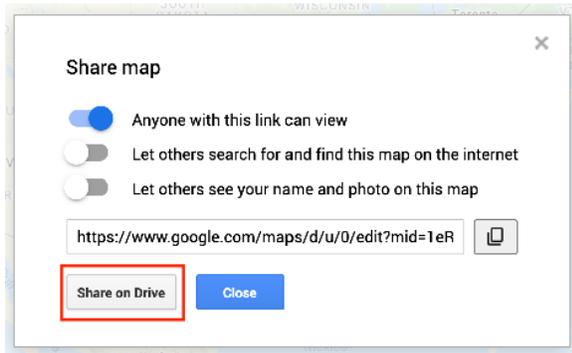
3. In order to create layers for this map: click on “Untitled layer” and name your first layer after what you want students to add in that category (places they feel comfortable/uncomfortable, a place they like to eat, etc.) If you want students to place points in other categories, select “Add layer” and repeat for as many different kinds of responses you want on the map.



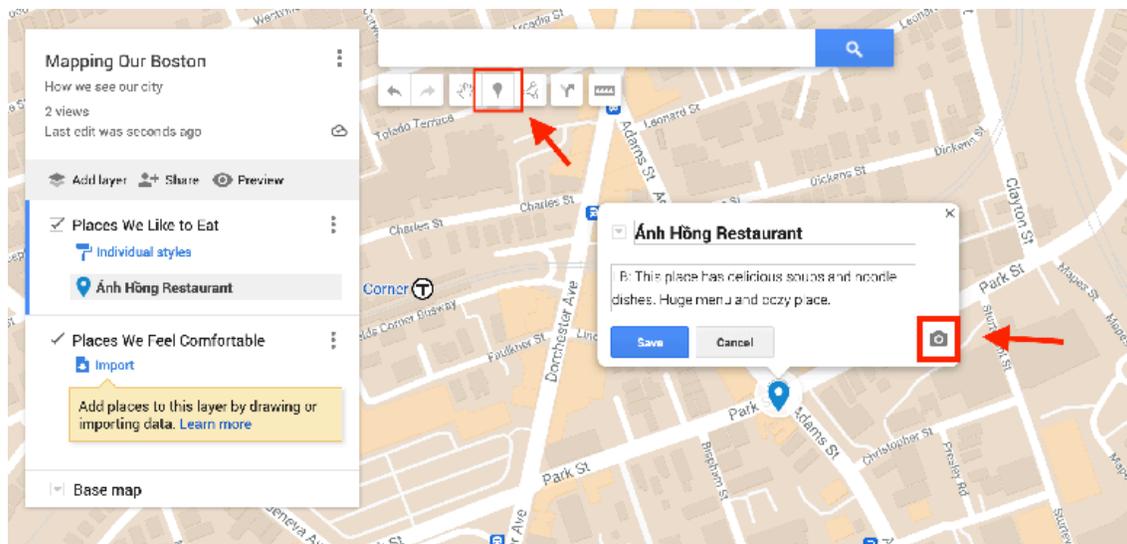
Mapping Our Boston: Participatory Mapping

4. Share the map with students so they can add their points.

To share the map with students, be sure to share it on your Google drive and change the permissions to “Editor” when copying the link.

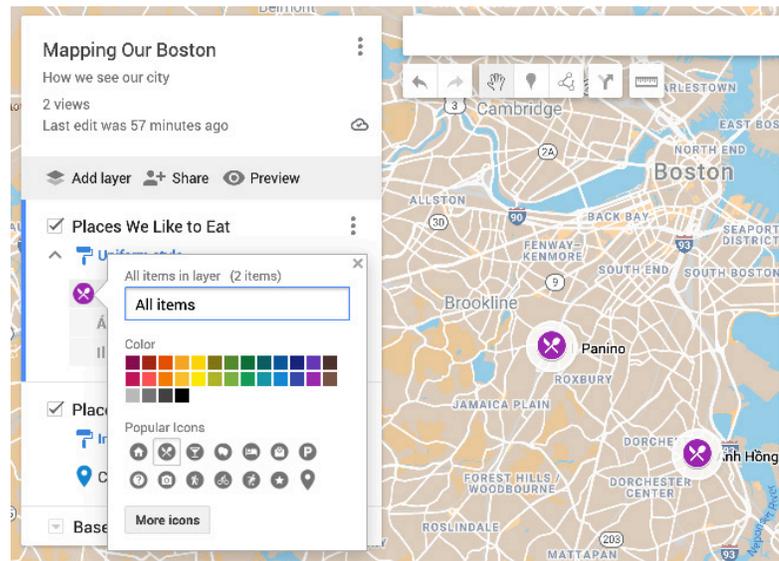
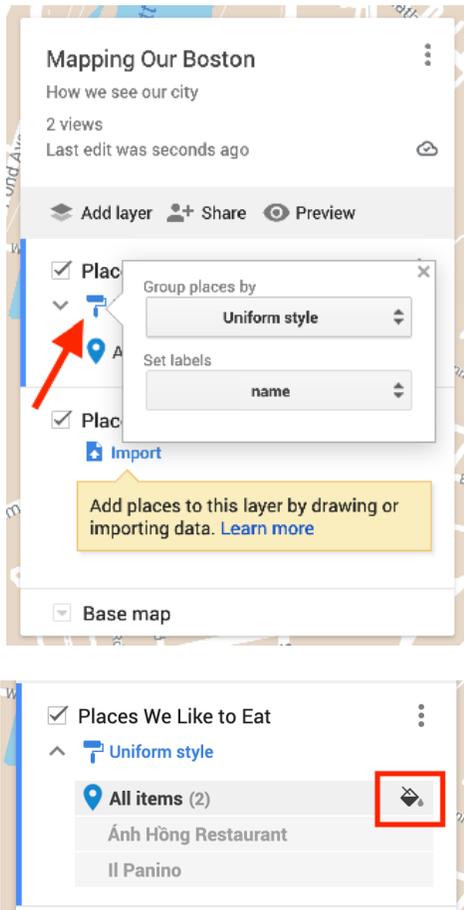


Instruct students to add their points to the map using a location point. To add a point to each layer, they will need to make sure they have first selected the layer they want. A blue bar will show up on the side of the layer when it is selected. Then students can select the point symbol and click on the map where they want to place the point, or they can use the search bar to type in an address. They can also move the point marker after placing it if they need to. Make sure each student names their location, adds their name and a description of why they selected each location. They may need to click the pencil icon to start editing the text on the point. They can also add a photo or video to any description.



Mapping Our Boston: Participatory Mapping

5. In order to be able to differentiate the 4 different layers of the map, you will want to customize the color or icon for each layer. You can only do this once students start adding points to each layer. To do this, click on the paint roller icon and select “Uniform style.” Then select the paint can icon next to the heading “All items”, and you can select a uniform color and icon for all points in that layer.



6. Once students have added their points and you have cleaned up the layers and made the points uniform, you can debrief as a group.

Turn the layers on and off by clicking the box next to each one and look at one layer at a time. Click on all the points and read all the descriptions.

What are some ideas or themes that came up as we notice and talk about the kinds of places we put on the map? What did you notice about your choices?

Students can write their thoughts and questions on a Jamboard or slide for class discussion.

You can also have students choose different base maps than the one you selected. Define *base map* after looking at them (base maps are not neutral). How are these base maps different from each other? Choose two to show and compare: what is shown and what isn't shown and how does each one "feel"? What is Google's default view and why do you think that is? Which base map would you choose for this activity and why?



Mapping Our Boston: Participatory Mapping

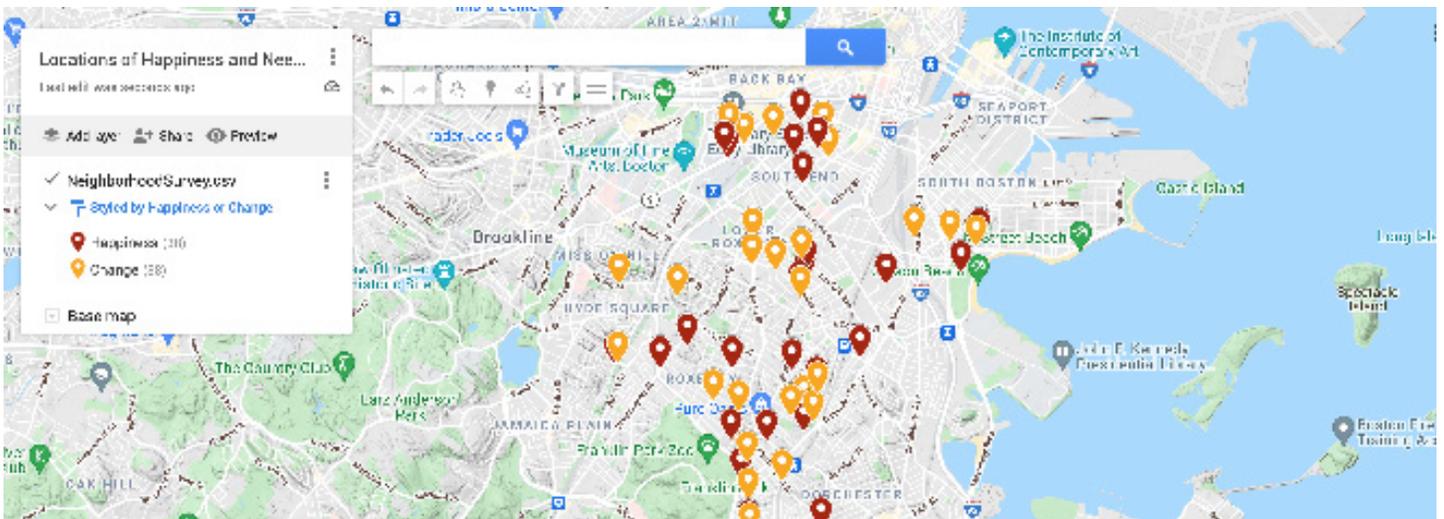
Option 2: Using Google Forms to map

This option will give you more control over how student data gets mapped but it does take more set-up on the part of the teacher. Using a form or survey also allows you to gather data from a larger group and control how it looks. If students are collecting their own data from others in their community, this is also a means of doing that. You may have to do some clean-up of the student data if they are not careful when manually adding addresses or other information.

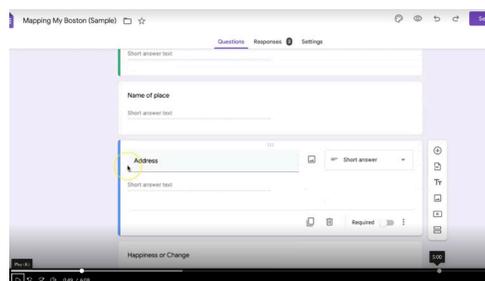
When the data collection using the form is complete, you can map the data yourself or you can make the responses available as a spreadsheet for students in Google Drive and teach them to bring the layer or layers in and visualize it themselves.

1. Create a Google form to collect information. This is a [simple sample form](#).

In this form, we are collecting locations of “happiness” and places we want to “change” in our communities. By having categories to choose from, we’ll be able to create a map with points that are different colors for each category.



[This short video](#) shows you how to take the survey data, bring it into your map and customize how you want to visualize it.



Mapping Our Boston: Talk to Us!

The ideas and approaches here are just a few of many you can explore to have your students think geospatially about Boston, or any city. In our programs, we use many different platforms and interactive online maps to add to our understanding of conditions and trends, be they demographic, economic, environmental and more. Please reach out to us if you want to talk about possibilities. And if your students make maps, share them with us! We'd love to see what you are up to.

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