

An Introduction to Digital Mapping in the Classroom

August 18, 9:30 am to 3 pm

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A one-day introduction to ArcGIS online including using surveys to create maps of local community issues and creating GIS maps from pre-existing data sets to support project-based local inquiry.

Teachers grade 7-12

Goals:

- Introduce benefits of using maps and mapping in the classroom for project-based lessons
- Introduce ArcGIS online as one tool for this work
- Learn to manipulate mapped data and how to visualize in different ways
- Introduce concepts of data and metadata and how to teach with students
- Give teachers specific lessons to leave with that use mapping and data to address community/social justice issues

Before the session:

1) Complete [this reading](#) on engaging students with mapping to address social justice issues (tip: download the file in order to be able to rotate it).

2) [Complete this reading](#) called 10 Versions of the Same Scene

3) [Fill out the survey](#) based on the 10 versions of landscape.

4) Set up a free account at ArcGIS online: https://doc.arcgis.com/en/arcgis-online/get-started/create-account.htm#ESRI_SECTION1_D91DD2A709AE4FB68A9CC095F1688E05

5) Sign up for the free education bundle from ArcGIS online (you'll need to fill out a short form and they will email you back): <https://www.esri.com/en-us/industries/education/schools/schools-mapping-software-bundle>

6) Come prepared to talk about one area of your teaching where you might want to include mapping.

Agenda:

Day at a glance:

9:30-12:00: ONLINE together

12:00-1:30: OFFLINE (break and work time)

1:30-3:00: ONLINE together

Slides for today

ONLINE

Introductions:

9:30 – 9:50 – Introductions: Tell us about yourself and why you are here

9:50 – 10:15 – Introduction to the Map Center and Resources and our Maptivist work with BPS

[Education page](#): Sign up for programs, Tools for Teachers, PD opportunities

[Digital collections](#): Search for maps

[Exhibitions](#): A great way to find maps by theme with fuller context.

Maptivists:

10:15-10:30: [This StoryMap](#) features student work at two of our Maptivist partner schools

Survey to Map:

10:30-10:45: Discussion of Meinig article

10:45-11:15 – [Survey 123 to Map](#): Uses in the classroom

Adding a data set to a map:

***we'll be using mostly Boston examples in this course for practice but know that you all live in many locations!**

11:15 – 12:00 – Experiment with ArcGIS's main mapping interface and map a data set.

OFFLINE

Lunch Break and An Introductory Lesson on Data Mapping from Bending Lines:

12:00- 1:30: Complete the [Kids Count lesson](#) over break. [Link to Google doc](#) for answers

Be ready to discuss your thoughts about using this lesson with students

ONLINE

Review Lesson:

1:30-1:45: Discussion: What is useful? What more would you want? What would kids think?

Adding Map Layers: What do we want to know?

1:45 – 2:30: <https://www.arcgis.com/index.html>

Now let's look for an additional layer that we might add to our previous map.

What question are we asking? Let's search for a new layer (online together)

Then add an additional layer connected to a question—what do you want to show? How might this connect to your teaching?

Reviewing new map layers:

2:30 – 2:45: How do these help? How do they complicate?

What questions do you have about finding layers? What was hard? What did you notice?

Other Helpful Resources:

2:45 – 3:00: [Boston Area Research Initiative](#)

[GeoInquiries](#) (lessons using pre-made data maps—no login needed)

[Visualizing Boston](#) (a lesson using already-created data maps)

[Storymaps how-to](#) (a great presentation tool to tell stories with maps)

[ArcGIS tutorials](#)