GETTING STARTED WITH OPENSTREETMAP
Module 1: Getting to know OpenStreetMap

Recommended For:
High School Students
College Students

Course Time Needed
Preparation: <1 hour
Execution: 50-90 minutes of class time

Learning Objectives
After completing this lesson, students will be able to:
1) Use 4 basic OpenStreetMap utilities
2) Navigate around the OpenStreetMap interface
3) Do some simple tasks from the OpenStreetMap interface

This Lesson Meets:

National Geography Standards
Standard 1: How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information

Standard 2: How to use mental maps to organize information about people, places and environments in a spatial context.

Advanced Placement – Human Geography
Unit 1 – Thinking Geographically:
→ Different types of maps and what they tell you
→ How geographers collect and use data

Materials Needed
For the educator:
Computer w/ Internet
Computer mouse
Web Browser

For the student(s):
Same as for the educator

Have questions or comments?
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Overview

This module introduces both the instructor and students to the OpenStreetMap interface. Each of these activities entails the use of a tool, or utility on the OpenStreetMap website. As instructor, make sure you can use these tools to navigate around the map as well as provide context for learners.

Preparation & Prerequisites

- No preparation
- No prerequisites

Activity 1: Use OpenStreetMap to Find a Place

In this activity, you and your students will use Nominatim, OpenStreetMap’s gazetteer function to focus the map on a specific place, such as a town, a city, or location.

1. Students should point their browsers to openstreetmap.org
2. In the search box (shown below), students should enter a place name, e.g. ‘Fargo North Dakota’ and hit ‘return’.
3. The left-hand pane will display a list of search results, if there are more than one. The map will be centered over the first result in the list.
4. Students may re-center the map by selecting a different entry in the list OR by panning around the map using the mouse (see Using the Map Controls, below).

Activity 2: Using the Map Controls

The map controls are essential to adjusting the map view. In this activity, students will use the embedded map controls to tailor their view of the map.

1. Have students locate the map controls (shown at right).
2. Show the Zoom feature using the plus/minus (+/-) buttons.
3. Instruct the students to Pan: click and hold the left mouse button down and dragging.
Activity 3: Changing the Map Style

One key feature of web maps is the ability to change the way the map is displayed. OpenStreetMap allows for multiple renderings, or map styles. Each map style emphasizes different features for different uses, such as bicycling or public transportation.

1. From the controls on the right-hand side of the map, select the Layers button:

2. This opens a list of available map styles, as shown to the right.

3. Choose ‘CyclOSM’ style. What differences do you notice?

4. Choose ‘Transport Map’. How does this differ from CycleOSM and Standard?

Activity 4: Save & Share a Map

OpenStreetMap gives you the ability to create a map image and share it, or embed it in other documents and web sites.

1. Students should first center and focus the map on the area of interest, the part of the map they want to share. Using a combination of the search box (to find a place) and the pan & zoom controls have students focus the map on an area they want to share.

2. Click the ‘Share’ button, shown here:

3. From the ‘Share’ panel (shown right), have students select ‘JPEG’ from the ‘Format’ drop down list.

4. Then have students tick the box to ‘Set custom dimensions’ and adjust the image to approximately 500 x 500 pixels.

5. Click ‘Download’ to save the map image, which now can be used elsewhere.

6. Alternately, have students tick the box to ‘Include marker’, then copy the link and share (via email, etc.).
Knowledge Check

a. Panning & zooming are the ways we adjust the view of the map. Describe how to pan across the map.

b. What are two ways to share an image of the map?

c. What map style would you select to use to travel by bus?

d. Describe how you would center the map over Stockholm, Sweden.

e. What are some of the other map controls available on OpenStreetMap and what do they do?

Activity 5: Investigate things on the map

Things on the map can be identified using the ‘Query Features’ button. A ‘feature’ is something of interest on the map. As you can see from the list at right, a feature can be anything on the map.

1. From the map controls on the right-hand side of the map, students should click the ‘Query Features’ button, shown at right.

2. The cursor will change to a black circle with a white question mark in the center.

3. Click any feature on the map, which will return a list of features. Note that the query returns features that enclose the selected feature as shown in the image to the right.

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Continue to Module 2: Adding to the Map