Learning Objectives

After completing this lesson, students will be able to:

1) Identify and provide examples of the “on the ground features” that collectively comprise the OSM
2) Articulate guidelines surrounding contributing to the OSM and understand why they are important
3) Begin contributing to OpenStreetMap with a registered account

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

**Advanced Placement – Human Geography**

Unit 1 – Thinking Geographically:

- Different types of maps and what they tell you
- How geographers collect and use data
Overview

This module organizes basic OSM contributing resources for teachers to introduce to students to the concept of students making contributions to the OSM project. In this module, students will be fully prepared to contribute to the OSM project. Students will familiarize themselves with these mapping-ready resources and answer open-ended questions on important points of the three resources. The three resources students will learn about include:

1. **Map features**: the representation of physical things on the ground that together make up the map.
2. **Good practices**: guidelines that increase the quality and value of OSM data
3. **Getting started**: learn step by step how to navigate the OSM site, view maps, and sign up for a user account

Preparation

Facilitators should familiarize themselves with the content and navigation of the resources students will explore in this lesson.

1. **Explore the OSM Wiki Map Features page** - https://wiki.openstreetmap.org/wiki/Map_Features
   a. Run a search on the Map Features page.
      
      On a Windows machine, press (and hold) the ‘Control’ key + click the ‘F’ key. On an Apple machine, press (and hold) the ‘Command’ key + click the ‘F’ key.
   
   b. For practice, search for transportation-related keywords such as:
      i. “transportation”, “public transport”, “ferry” and “railway”
   
   c. Search for additional features found in your area and compile an introductory list of ~20 to present to students. For example, local non-governmental organization offices such as the Red Cross and elementary, middle and high schools.

   a. Make a bulleted list of good and bad mapping practices.
   
   b. Review the Good Changeset Comments page. Understand that a changeset is OSM’s equivalent to a document “save as” or a git version control “commit”.
      
      Students will start off editing using the iD editor. Pay attention to documentation related to this editor opposed to others including JOSM and Potlatch.
Preparation (continued)

a. Constant review and student critique relative to these mapping habits is important. As such, this resource should be referred to regularly throughout the course of students contributing to the project.

3. Learn about navigating the map, viewing different map styles, and searching for features by reviewing the “Browsing the Map” section on the OSM Wiki Browsing page - https://wiki.openstreetmap.org/wiki/Browsing

4. Facilitators should already have an active OpenStreetMap account ahead of time. If not, follow instructions provided in Activity 2: Sign up for an OpenStreetMap Account before proceeding.

5. This lesson provides opportunity for students to contribute to a student journal. If not already set-up, facilitators should create a folder for journals and ask students to save their journals to the folder (e.g. Google Drive folder or some other place where all students and teachers access and save to). Students should use this journal to describe their contributions with text and screenshots as well as issues, questions, etc. when making contributions to OSM.

Educator Lecture

1. Show students the Map Features page - https://wiki.openstreetmap.org/wiki/Map_Features
   a. Explain to students that features are physical features on the ground that are fixated in their spatial position.
   b. Talk about those that are not features on the map, like automobiles.
   c. Ask students for features they would expect to find on the page based on content covered in the course. Compile a list of these and discuss each either locally or in some place studied thus far in the course.
   d. Show students the search method described in “Preparation” to search the page for features. Click on a couple different features and read their definitions. For instance, some more granular features such as “high school” are specified in the attributes for the school feature.
   e. Split the class into groups and have each group look for features they would expect to find associated with the sections of the course covered thus far. Upon completion, have students present the lists to the class.

   a. Review all good practice points.
Educator Lecture (continued)

b. Ask students to identify five best practices that they would prioritize. As a class, discuss why they chose their priorities.

c. As a class, discuss a few of these points in further detail. For example: Correcting errors. Why is it as important to maintain the attribute data of the features as it is to maintain the correct geospatial location of the feature?

d. Drive home the message, that the reason for having these suggested practices is to create a healthy contribution environment that is structured. In turn, this forms the foundation of the proper way to contribute to the project.

3. Show students the OSM Wiki Browsing page - https://wiki.openstreetmap.org/wiki/Browsing

   a. Ask students to review the “Browsing the Map” section.

   b. Students should navigate to openstreetmap.org and identify or practice using all 11 features explained in this section.
Activity 1: Journal Entry

Ask students to answer the following questions in their journal. This activity could also be done as a class or group discussion activity.

1. List and give specific examples of at least 20 map features in your neighborhood or the neighborhoods you frequent most. Do these features tell us anything about our community? Are these features found in other countries in North America, Europe, Asia, South America, Africa, Australia or Antarctica or are they only found in North America or your area?

2. Why are good practices important? Read Editing Standards and Conventions. When editing, how accurate is “accurate enough”? Discuss why you think OSM is so successful when the data that comprises the map is editable by anyone when anyone could update the features with inaccurate data?

3. For good practices, do you see anything missing? Do you see any conflict between them? Keep in mind at all times when contributing to OSM, which would they be?

Activity 2: Sign up for an OpenStreetMap Account

Considerations for signing up large numbers of individuals at once.

→ Prior to beginning the OSM registration process, all individuals signing up for OSM accounts will need to have an existing and accessible email account. If registering a large group of individuals at one time, we recommend asking the group if they have accessible email accounts. If facilitators are unsure if all students have email addresses, we also recommend planning for time in assisting individuals with setting up email accounts.

→ Consider internet connectivity and capacity prior to registering large numbers of individuals for OSM accounts. Having individuals taking turns to register or running registration simultaneous to other activities can reduce the load on a slow internet connection.

→ It is crucial that usernames and passwords are remembered by participants so that they can access other tools that require OSM accounts to log-in. We recommend encouraging participants to find a way of safely storing this information for future reference.

→ Facilitators should record OSM usernames and student names when students register. This will help facilitate assessment later on.

→ Advise students on how to choose a good username before students begin to sign up. Ensure they
  ○ Do NOT use their email address as a username
  ○ Do NOT put spaces in their username. E.g. “MapMaker”, but not “Map Maker”

Watch: Two Minute Tutorials: How to sign up for OpenStreetMap
https://youtu.be/suk8uRplBQw
Activity 2: Sign up for an OpenStreetMap Account (cont’d)

1. Individually or as a class, watch the video below for an overview of signing up for an OpenStreetMap Account.

2. Students should navigate to OpenStreetMap in their browser.

3. Click the Sign Up tab in the top right corner to begin.

4. Fill in all the fields in the form. We recommend using an email you have easy access to e.g. your school email, as you will receive a confirmation email to verify your account. You will not receive any spam/marketing emails. Click the blue Sign Up button when finished.

5. Read and accept the contributor terms and agreements by selecting where you are based (France, Germany, or the Rest of the World).

6. It is not required, but we recommend that all students check the box next to In addition to the above agreement, I consider my contributions to be in the Public Domain.
Activity 2: Sign up for an OpenStreetMap Account (cont’d)

10. Click the blue **Agree** button on the bottom of the screen.

11. To activate the account, students should now check their email and click on the link provided. (Make sure to check the spam folder if the email doesn’t appear after a few minutes.)

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OpenStreetMap

Hi there!
Someone (hopefully you) just created an account at www.openstreetmap.org.

Before we do anything else, we need to confirm that this request came from you, so if it
did then please click the link below to confirm your account:

https://www.openstreetmap.org/user/jess%20osmuser/confirm?confirm_string=
YUnWrN4FyLrAoudmoTmu8BnQIfEqL2!

After you confirm your account, we’ll provide you with some additional information to get
you started.
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12. Have students return to OpenStreetMap and log in with their credentials.

13. Read through the welcome page in its entirety.

14. Once complete, click **Start Mapping**.

Share your photos and experiences from this lesson with other educators by tweeting @TeachOSM

For more lesson plans on geography and open mapping visit teachosm.org

Continue to Module 3: Making Your First Edits in OSM