Connect With Nearby Nature
Mapping Instructions and Template

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Educator Instructions

Creating a map may be one component of your **Connect with Nearby Nature** action. Mapping doesn't need to be confined to the geography curriculum! Creating a map for a special outdoor space can be a way to deepen familiarity and spark inquiry across subjects. Incorporating a spatial element to environmental learning may open new opportunities for kinaesthetic engagement, mindfulness, and geographic inquiry. The final product can also be a tool to help others connect with nearby nature, too. In addition to recommendations in the Educator Booklet, consider these steps to facilitate a nearby nature mapping activity:
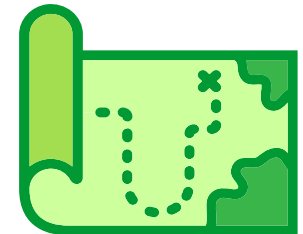
1 Choose an outdoor location that is easily accessible. Refer to the *Scouting: Before You Begin* section of the Educator Booklet for additional support with outdoor learning.

2 Determine how your maps will integrate with other components of the Connect with Nearby Nature action. Will students also create a field guide and signage, or will the maps be the primary focus? Maps could be included as an element of the field guide, produced as a large sign for public enjoyment, or created on their own.

3 Review the Mapping Template (pages 4-5) and use learning objectives to determine the audience and intended-use for your maps. For example, you may choose to create:

- Navigational maps for recreationalists in the outdoor area.
- Reference maps to highlight "points of interest" along a trail.
- Relational/story maps to share the history of human-nature interactions in a place, including students' personal experiences.
- Collaborative observational map to record sightings of species in the area.

4 Based on the audience and intended use, create criteria to guide students' mapping activities. The Mapping Template (pages 4-5) provides an outline that may be adapted to your context. Some questions to consider include:

- What kinds of information should be represented on the map?
- What level of accuracy or detail is required?
- What format should the map be? Digital or analogue? To-scale or representative?

5 Collect materials

- Mapping can be done analogue, using GIS, or digitally using the EcoSchools template on pages 4-5. Choose the option that is most appropriate for curriculum objectives and student accessibility.
- For specific materials, see the list below.

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6 Go outside! Start mapping.

- Establish safety protocols for your class. Be sure to communicate clear spatial boundaries, emergency response plans, and learning expectations so students know how to respond in unexpected situations.
- Teach students how to use mapping tools and technologies in the field, as applicable. Barefoot Mapping, GIS guides, or the EcoSchools template (pages 4-5) are all useful tools.
- Students can record the location of field observations on a blank Mapping Template, in a GIS device, or any other way that is appropriate. Encourage students to take notes, photos, or videos along with their geographic information to help build a rich, detailed map later.
- To support the creation of signage for your outdoor space, students may choose to physically flag the locations of field observations so they can be revisited in the future.

7 Finalize maps.

- After collecting geographic data in the field, students should refine their draft maps to a polished, final product that suits the intended use and audience needs. Consider incorporating a peer-review process so students can refine their work and share learning with each other.

8 Share your learning!

- Students can share their maps with their school and broader communities. See the *Trailhead: Getting Started* section of the Educator Booklet for

Materials

The following list provides an overview of materials that could be used to create analogue or digital maps. Educators should adapt the material list to their learning objectives and resources:

- EcoSchools digital mapping materials
  - Digital copy of Mapping Template (pages 4-5)
  - .JPG or .PNG file of a basemap (a blank map of the area that students can annotate, such as a Google Maps screen-capture)
  - Notebooks OR printouts of Mapping Template (pages 4-5)
  - Writing tools
  - Compasses
  - Measuring tapes
  - Location markers (stakes, flagging tape, etc)

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- Analogue mapping materials
  - Printouts of the Mapping Template (page 5) OR blank/grid paper
  - Writing tools
  - Compasses
  - Measuring tapes
  - Location markers (stakes, flagging tape, etc)

- GIS mapping materials
  - Notebook
  - Writing tools
  - Internet-connected, GPS-enabled device (to log GPS coordinates of observations)
  - Location markers (stakes, flagging tape, etc. to corroborate GPS coordinates with real-world locations)
  - GIS software and student accounts. There are many free options. For example:

| Survey123 and ArcGIS Online | Google MyMaps | StoryMap | ScribbleMap | NatGeo Mapmaker | AllTrails |

Additional Resources

These are additional resources that may be useful for your mapping action. Resources have been compiled from across Canada and international environmental education organizations as applicable:

- Barefoot Mapping (Sierra Club of British Columbia) - English

- Fieldwork Learning Path (Esri Canada) - English

- Teach with GIS: An Implementation Guide for Teachers, Schools, and Districts (ArcGIS) - English / French

- Schoolyard Bioblitz Education Kit (Nature NB) - English / French
  - Materials for Grade K-5 and 9-12 are also available from Nature NB

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Mapping Template

The example template below describes how to make a map. There is also a blank template plus slides with icons and images. There are two ways to use this template:

1) Embed a blank basemap (such as a Google Maps screen-capture) into the blank template (page 5) and print for students to annotate by hand.

2) Provide students with a digital copy of the template and icons to manipulate and make into their own digital maps. To create digital copies, share the following link with your students: https://docs.google.com/presentation/d/1f_peMr8E885KJjRLQdBa-QJKjEkY-VSSAgYtgxyEbvI/copy. Then ask them to embed a blank basemap (such as a Google Maps screen-capture) into the template.

Name:	Provide a clear title so people know exactly what to expect from this map
Authors and acknowledgements:	Include the names of the map creators as well as anyone who provided essential information or training, such as local Indigenous partners, conservation authorities, etc.

EcoSchools Digital Mapping tips:

- Fill this space with a generic basemap of your outdoor space. This could be a screenshot of a Google Map or satellite image.
- Copy, paste, and move icons from the Mapping Template Icons slide to indicate the locations of your observations.
- Type to fill in the necessary info on the sidebar

Analogue Mapping tips:

- Fill this space with a generic basemap of your outdoor space. This could be a screenshot of a Google Map or satellite image. Print the template so students can mark it up.
- Alternatively, have students survey the area using flags, compasses, and measuring tapes to make maps from scratch. See the Barefoot Mapping resource for guidance.

Whether you make a digital or analogue map, consider including:

- Directional indicators. This may be a compass rose or more personal indicators like known landmarks.
- Measurements/scale. Depending on learning objectives, the map could include measures of distance between points, elevation, etc.
- Page numbers. If points on the map are correlated to field guide entries, consider including page numbers for people to easily cross-reference.

Description:

Students may provide:

- a description of the map's intended use or audience
- additional information about points of interest from their maps
- a brief history, personal anecdote, or other narrative to contextual the map

Legend:

- During the field-work stage, students can use this space to create a "working legend" based on patterns of observation
- Alternatively, the educator may choose to prescribe what types of observations students should record

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Name:

Authors and acknowledgements:

Description:

Legend:

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