

# Six by Six New Brunswick



## Tutorial Overview

In this tutorial, you will learn the basics of ArcGIS Online by completing six activities you can do in six minutes each. If you or your students do not have an account, you can request accounts here: [www.esri.ca/agolaccess](http://www.esri.ca/agolaccess).

### Activity One: See Your World

1. Go to [www.arcgis.com](http://www.arcgis.com) and sign into your ArcGIS Online account. Click on **Map**.
2. Left click, hold the left mouse button and drag ('pan') the map around to change its focus.
3. To change map scale by zooming in and out, use the map's (+ and -) zoom buttons, the mouse's scroll-wheel, double-click the left mouse button, or "shift+left click and drag".
4. Zoom all the way out to the world, and all the way in to your home. Notice the change in map content detail when you zoom in and out.
5. Use the Search box in the top right  to find the address of a friend, a relative, or a place, like your provincial capital city of Fredericton.
6. Click the **Basemap** button and look at each of the different basemaps available within ArcGIS Online. Zoom in and out and notice what happens in each basemap as you do this.

### Activity Two: Measure and Mark Your World

1. Zoom out to Canada. Click **Measure** and choose **Distance** . Left click to start a line, move the cursor, click again, then repeat to change direction, and double-click to stop the line. Use this method to measure the distance between the west and east coasts of Canada.
2. Change the *Distance* tool from the ruler to the *Location* tool . Explore the map by panning and zooming, then zoom in and find the coordinates for your home, Magnetic Hill, and the Hopewell Rocks. Close the *Measure* window.
3. Click the **Add** button, choose **Add Map Notes**, and accept the default by clicking **Create**. Drop a pushpin  on the Hopewell Rocks and give it a title. Zoom back to Magnetic Hill, drop a pin, and give it a title. This time, click **Change Symbol**, and scroll through the symbol choices, in the Basic and other symbol sets.
4. Zoom back to your home and use the *Area*  tool to outline your school grounds and home and a *Line*  feature to describe your route between school and home. Click **Details** (top left) when you have finished creating data.

### Activity Three: Explore Your World

1. At the top of the map, click **New Map > Create New Map**. This will give you a new clean map canvas with the Topographic basemap, and no additional layers.
2. Choose **Add > Search for Layers > My Content > ArcGIS Online** and type in the search window "2016 Canada median age." Scroll down to see the returned result "2016 Canada Median Age" by esri. Click on the layer name to view information about it, and click on **Add to map**. Or you can click  to add the layer to the map.
3. Click on the  and then click on the **Legend** to view the map details.



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4. Zoom and pan so you can see all provinces and territories. Using the map's zoom buttons, zoom to your province, and then to your home. How does the legend change as you zoom in and out?
5. Pan around your home area and see how it compares to surrounding areas. You can see through the median age layer to the landmarks below by changing the transparency. Click **Content** and hover the mouse over the layer name "2016 Canada Median Age " until you see the **More Options** icon  under the name. Click the icon, select **Transparency**, and play with the slider to change the transparency of the layer.

### Activity Four: Expand Your World: Open a saved map

1. Go directly to the following Web address: <http://bit.ly/1PbYjvH>. Explore the map and learn more about the crown land conservation areas in New Brunswick.
2. Use ArcGIS Online to search for a map. Go to [www.arcgis.com](http://www.arcgis.com), and in the search box at the top-right of the page (NOT your browser's search box), type "ArcCanada Historical" and scroll to the map by EsriCanadaEducation. Hover over the thumbnail and click to open. See how Canada grew as a nation by using the *time slider* at the bottom of the map. Try turning the different layers on and off.

### Activity Five: App the World: Try out a focused app

1. Landforms of Canada Elevation Profile : <http://arcg.is/2fA1pNd>
2. Exploring Canada's Geography: <http://arcg.is/1NgRxgQ>
3. New Brunswick Trails and Waterfalls: <http://arcg.is/1n6UV8w>
4. Canada's Federal Elections: <http://arcg.is/1mW7e7D>
5. The Ocean: <http://arcg.is/21oAe6f>

### Activity Six: Create the World: Make an earthquake map

1. Go to [www.arcgis.com](http://www.arcgis.com) and sign into your ArcGIS Online account. Click **Map** to open a new map canvas.
2. In your browser, open a new tab and visit the United States Geological Survey's (USGS) Web site <http://earthquake.usgs.gov/earthquakes/feed/v1.0/csv.php>. Here you will access data on earthquakes from the *Past Day*. Select **All Earthquakes** and save the comma-separated values (CSV) text file (note that you can open this file in a program such as Microsoft Excel, Apple Numbers, or Google Sheets if you wish to review its contents). You will add the earthquake data to your map by clicking on, holding and dragging the CSV file onto your map.
3. You can change how the earthquake data are displayed on your map by changing the style. After you add the earthquake data, this option will appear on the left-side of your map. Change the *attribute* to show **mag** (magnitude) and click **Done**. Explore the earthquake locations and magnitudes. What spatial patterns do you see in terms of their locations?
4. Now that we have explored earthquakes, let's investigate volcanoes and tectonic plates. Click **Add > Search for Layers** > click **My Content** and select **ArcGIS Online**. Type in the search window "Earth's Tectonic Plates" by EsriCanadaEd and click  to add it to your map. Search for "World Volcanoes" created by EarthScienceAtlas and add it to your map. Click on the  and then click on the **Legend** to view the map details. What relationship exists between plates, faults, earthquakes and volcanoes?
5. Add further information to your map. Click the **Add** button, choose **Add Map Notes**, and accept the default by clicking **Create**. Choose an arrow icon from the *Area* features and add this to your map to show the direction of plate movement. You can edit the arrow size and direction by using the small boxes that appear around your arrow feature. Add a *text* feature to your map to label/describe a convergent, divergent and transform tectonic plate boundary.

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