Using Tables and Filters in ArcGIS Online

esri Canada

Tutorial Overview

In this tutorial, you will use tables and filters in the ArcGIS Online Map Viewer to analyze features in a feature layer. Seeing a tabular view of the data can be a quick way to analyze information. A filter presents a focused view of a feature layer. By limiting the visibility of features in a layer, you can reveal data important to you.

Skills:	• Working with tables in an ArcGIS Online web map • Selecting and zooming to layer attributes • Filtering features within a feature layer.
Time Required:	10 – 15 minutes
Materials Required:	• An ArcGIS Online organization account. If you have not been given an account, speak with your teacher. Teachers - for information on joining an ArcGIS Online Organization, please visit www.esri.ca/agolaccess. For more information on ArcGIS Online, visit: www.arcgis.com. • An electronic version of this tutorial is available at: http://bit.ly/2nFikPz

Part A: Getting Started

In this tutorial, you will apply filters and query tables from a map service (data) hosted on ArcGIS Online.

1. Start by typing the URL www.arcgis.com/home/ into your Web browser. If you want to save your map, you can sign in now.

2. In the **search bar** located at the top right corner of the Web page, type 'ArcCanada Wealth' and press **enter**.

Note: The Education and Research group at Esri Canada tag (keyword) all their content in ArcGIS Online with the keyword "ArcCanada."

3. If you have signed in with a subscription account, **uncheck** the box on the right side of the page that has a check mark in it. This default limits your search to your own organization. When you uncheck the box, this will allow you to search all the content in ArcGIS Online.

4. From the search results, click **Open** to open the Feature Layer by *EsriCanadaEducation* titled "**Wealth Distribution"** as shown below.
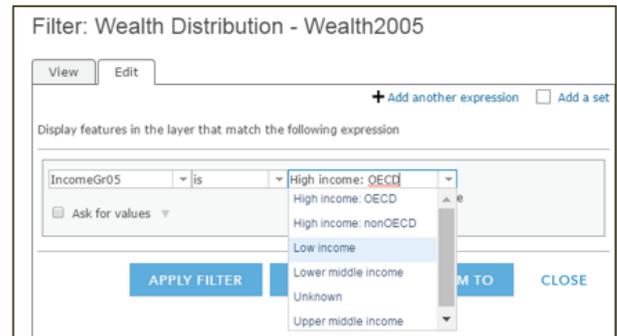
Part B: Applying Filters

Now that you have a map with some feature layers you can analyze, you can create a filter to see a subset of the data. Let's begin with looking at where the rich and poor countries are located according to the World Bank 2005 data on wealth.

1. Ensure your view is set to **Content** **Show Contents of Map**.

2. **Uncheck** the **Wealth Distribution for 1995 and 2000** layers.

3. **Hover** over the **Wealth Distribution – Wealth2005** layer and select

   Filter .

Contents

- ☐ Wealth Distribution - Wealth1995
- ☐ Wealth Distribution - Wealth2000
- ☑ Wealth Distribution - Wealth2005

4. Create a filter to view the low-income countries in 2005.

   a. Change the field to **IncomeGr05**

   b. Ensure "is" is selected.

   c. Click on the **Unique** radio button, go to the down arrow and select **Low Income**.

   d. click **Apply Filter and Zoom To**

The map now shows the low income – poor countries in the world based on comprehensive wealth, adjusted net saving, and non-renewable resource rents indicators, as published in "[The Changing Wealth of Nations](http://bit.ly/1oEROO9)" (2011) - http://bit.ly/1oEROO9.

5. You can perform another filter to determine where the high income – rich countries are located.

   a. Open the **Filter** for the **Wealth Distribution – Wealth2005** layer again.

   b. Under the **Edit** tab, change the unique value to **High income: OECD***.

   c. Click **Apply Filter and Zoom To**

*The Organisation for Economic Co-operation and Development (OECD) - http://www.oecd.org/about/

6. Create another filter to determine where the high income non-OECD countries are located. These countries don't belong to the OECD.

   a. Open the **Filter** for the **Wealth Distribution – Wealth2005** layer again.

   b. Under the **Edit** tab, change the unique value to **High income: nonOECD***.

   c. Click **Apply Filter and Zoom To**

Now you can create a filter to show the countries that have a **per capita of at least $500,000 (USD).**

7. Open the **Filter** for the **Wealth Distribution – Wealth2005** layer again.

   a. Under the **Edit** tab, change the first field to **PerCap05**

    b. Change the operator to **is at least**

    c. Type in **500000**

    d. **Apply Filter and Zoom To.**

8. Click **Show Table** 🔲 to view the table connected to the data.

Wealth Distribution - Wealth2005 (18 features, 0 selected)				Table Options ▾
CNTRY_NAME	IncomeGr05	Pop05	TotWlth05	PerCap05
United States	High income: OECD	296410404	217623159000000	734195.414347
Japan	High income: OECD	127774000	70116072700000	548750.706136
Germany	High income: OECD	82469400	45127355700000	547201.213219
United Kingdom	High income: OECD	60226500	39907530900000	662624.108847
France	High income: OECD	60873000	35698823800000	586447.584475

Tip: You can also discover how many features are in your table. In the example above, 18 features have been selected from the filter as shown to the right of the table title. When a filter is not in use, the total number of features in the layer will be shown here.

Using the table, you can select records and zoom to their location on the map.

9. To select records in your filter, click on the first record, scroll down using the side arrow bar or the down key, then press and hold shift while selecting the last record or row that you want selected in your filtered table. An example is shown below.

Wealth Distribution - Wealth2005 (18 features, 5 selected)				Table Options ▾
CNTRY_NAME	IncomeGr05	Pop05	TotWlth05	PerCap05
United States	High income: OECD	296410404	217623159000000	734195.414347
Japan	High income: OECD	127774000	70116072700000	548750.706136
Germany	High income: OECD	82469400	45127355700000	547201.213219
United Kingdom	High income: OECD	60226500	39907530900000	662624.108847
France	High income: OECD	60873000	35698823800000	586447.584475

10. Once your records are selected, go to **Table Options**, and choose to **Center on Selection**.

The map will zoom to and centre on your selected features.

11. **Select** one of the features on your map by clicking on it. Note that the table will be updated to only show that selection as well. This shows that the data records in the table and the features visible on the map are related.

12. Clear your selections by going to **Table Options,** and choose **Clear Selection.**

13. Don't forget to remove your filter to see the complete map again.

    e. Go to **Table Options**, and then **Filter**.

    f. Under the **View** tab, click **Remove Filter**.

This tutorial has shown you how to apply filters and use tables in ArcGIS Online. Select another "ArcCanada" feature layer (data) and take some time to experiment with the process on your own and apply your own filters and selections.

Note: The filter and query functionality may not be available with some feature layers. This is dependent on how the author of the feature layer has set up the service.

Next Steps

Want to learn how to save and share the Web map that you just created? Check out the **Introduction to ArcGIS Online** tutorial to learn how to get started:
http://k12.esri.ca/resourcefinder/data/files/IntroAGOL.pdf

Want to learn how to use the ArcGIS Online Map Viewer to create your own data? Check out the **Creating Features in ArcGIS Online** tutorial to learn how to get started:
http://k12.esri.ca/resourcefinder/data/files/CreatingFeatures_Web.pdf

Search for more K-12 tutorials and lessons at k12.esri.ca/resourcefinder .