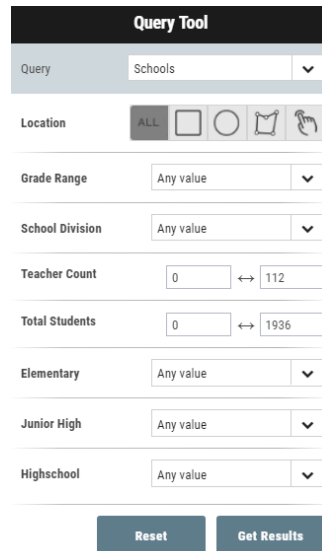# Topic #11

How can I extract a list of schools, and a generate a summary report of student counts by grade in a custom defined area within 1 km of a specific address or location

Scenario: How to extract a list of features or facilities within a custom area.
Example: Find all of the schools within a 2-kilometer radius of a client's address.

Tools to Use: The Search Tool, and the Query Tool

Instructions: The first step is to this query is to identify on the map, the clients address that you are interested in. To do this, use the search bar on the top right corner of the map frame. Remember – this is a suggestive search bar and you must click on the correct address that appears below the search bar.

Search Bar

90 Kirkwall Cres

Address **Data**

90 Kirkwall Cres, Winnipeg, MB R2K 2W9

Suggested Result. You must select the correct address before it will be identified on the map.

Once you have entered the address into the search bar and click on the suggested search result, the map will locate that address and mark it with a pin point.
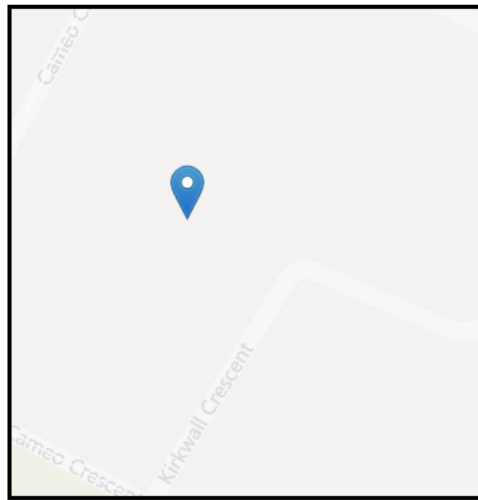
This pin point will act as the center of your radius when using the query tool.

The second step in this query is setting up the query tool. The Query tool is located on the toolbar on the right-hand side of the map frame. Click on the tool icon to launch it.

Query Tool

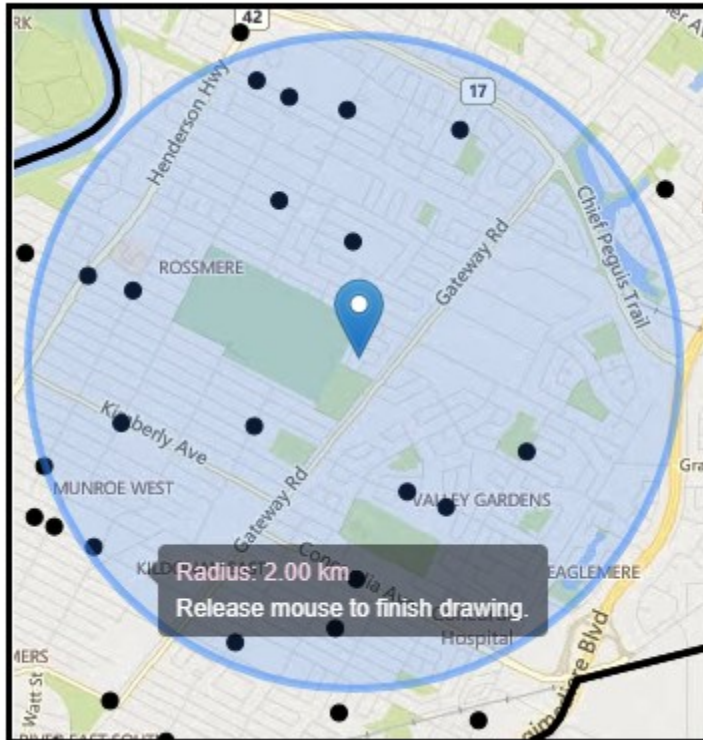| Query	Schools
Location	ALL □ ○ ▱ ☞
Grade Range	Any value
School Division	Any value
Teacher Count	0 ↔ 112
Total Students	0 ↔ 1936
Elementary	Any value
Junior High	Any value
Highschool	Any value

Reset   Get Results

Complete the query tool by selecting the features that you are looking to identify within a radius of the client's address. For this example, select "Schools".

Next, select the method in which you would like to define your area of interest. For this example, we want to find the schools within a 2 km radius of a the clients address defined in the first step of this problem. When finding features within a radius, you must select the Circle method to define your Area of Interest. For this problem, use the Address Point that was put on the map, as the center of our radius.

Location   ALL □ ◉ ▱ ☞
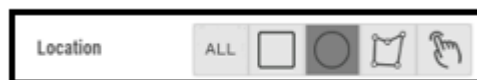
Once you have selected the circle tool to define your area of interest, use your cursor to define the area. Click your cursor at the pin point added on the address searched in the first step, and drag it outward. As you drag your cursor away from the point of interest, a distance will appear. Use this to define the radius when establishing your area of interest.

In the query tool, you are given the option to filter the schools within the defined radius by school type [elementary, junior high, or high school], or by the size of the school (# of Students). To filter the results, use the drop downs and select "Yes" if you would like to restrict your search results to a certain type of school.

For this example, we are going to select all schools and will not be filtering the results.

Once the query tool is completely set up, click on the "Get Results" Button in the query tool window.

Interpreting the Results: You can view the results of this query in three ways:
1. As a report – This will tell you the total number of students and teachers in all of the schools selected.
2. A Table – This will give you a list of each individual school within the defined area. It will provide you the number of students and teachers in the schools, as well as the number of students that are in each grade.
3. Download – This will download the table previously described as a CSV which can be opened in excel and shared via e-mail, or printed.

Additional Comments: When drawing the radius, it is easiest to be zoomed in as close as possible.

Variations of this Exercise:

- Use the Trace tool to define a custom extraction area instead of the circle tool

Video Tutorial: