

**Materials Required:** paper or notebook/journal, something to write with (pen, pencil, marker etc.), measuring tape OR string/rope + ruler\*, sidewalk chalk (optional).

## Instructions:

Take a walk along your block, sidewalk or street\*. What do you notice around you? Use your pen or pencil to count, record and/or draw the answers to the questions below.

1. Count how many cars are parked on the street. If 4 people can fit in each car, how many people does each car represent?
2. A standard city bus can seat 32 people; how many cars would be taken off the road if all the people from question 1 took the bus?
3. Walk along the block in front of your house/building, where do you see 90° angles? Acute and obtuse angles? Make a chart to track how many you find. (*Hint: look for simple shapes around your community, such as squares, triangles and other polygons. See example picture on right*)
4. Use a measuring tape to measure and record the following:
  - a. Length (L) of one section of sidewalk
  - b. Width (W) of one section of sidewalk
  - c. Area (L x W) of one section of sidewalk
  - d. Repeat A to C for 2 sections of sidewalk; then 3, 4 and 5 sections. Display the calculated areas in graph format.
5. Analyze the surface of a sidewalk:
  - a. How flat is it? Are there cracks, bumps, or parts missing?
  - b. Who do you think that would help or hinder the most? (*Hint: think of who uses the sidewalk & how they get around*)
  - c. How wide is the sidewalk? How many human friends could walk side by side on this sidewalk?
  - d. What if they were ants or other creatures that live in your community, then how many could walk side by side? Draw different animal friends sharing the sidewalk using chalk



Typical sidewalk sections, or “flag”.

## Extension:

Spend 15 minutes counting people walking and biking, and answer the following questions:

- a. If you had a lemonade stand and everyone you saw bought one drink at \$0.25 per glass, how much money could you raise? How many neighbours would you meet?
- b. If all of the kids you see could play street hockey, would there be enough for a game?

## Share Your Learning!

If you tried out any of our activities, we would love to hear how it went! Take a photo while out in your community or share a picture of your work. Sharing on social media? Tag us!

**@cityofcalgary #neighbourhoodstreets #yycstreets**

*\*If you do not have a measuring tape, use a piece of string/rope to measure things, then measure the string/rope with a ruler. Ask an adult or older student to help you, if needed.*

This activity incorporates learning outcomes in Math, Science, and Social Studies as outlined in the Alberta Education Program of Studies. More details on the learning skills used in this activity as well as links to references are outlined below.

**MATH:**

Children make sense of their environment through observations and interactions at home [...] and in the community. Activities can contribute to the development of number and spatial sense in children. Curiosity about mathematics is fostered when children are engaged in, and talking about, such activities as comparing quantities, searching for patterns, sorting objects, ordering objects, creating designs and building with blocks. ([Mathematics, K-9, p.2](#))

General Learner outcomes include 1) developing number sense and 2) using patterns to describe the world and to solve problems. 3) Using direct and indirect units of measurement to solve problems. Grade specific learner outcomes include:

- (Gr. 4): Describe and apply mental mathematics strategies to determine basic multiplication facts to  $9 \times 9$  and related division facts
- (Gr. 5): Collect, display and analyze data to solve problems. Construct and interpret double bar graphs to draw conclusions.
- (Gr.6): Represent and describe patterns and relationships, using graphs and tables. Demonstrate an understanding of ratio, concretely, pictorially and symbolically.

**SCIENCE**

An elementary science program engages students in a process of inquiry and problem solving in which they develop both knowledge and skills. The purpose of the program is to encourage and stimulate children's learning by nurturing their sense of wonderment, by developing skill and confidence in investigating their surroundings and by building a foundation of experience and understanding upon which later learning can be based. ([Science, Elementary, A.1](#)) In science inquiry, the focus is on asking questions and finding answers based on evidence. The outcome of inquiry is knowledge. Specific Learner Expectations (SLE's) related to "Reflect and Interpret" include:

- describe what was observed, using pictures and oral language
- appreciation of the value of experience and careful observation

**SOCIAL STUDIES:**

Students become engaged and involved in their communities by asking questions and making connections with their local community ([Program Rational & Philosophy, SS K-6, p. 5](#)). In early grades, there is a strong focus on exploring your own community.