

SD 38 K-12 Mathematics & Numeracy

Grades 3-5: Week Ten

Big Idea: Analyzing data and chance enables us to compare and interpret information.

Curricular Content: likelihood of simulated events using comparative language, single outcome probability experiments, one-to-one and many-to-one correspondence in bar graphs, pictographs, charts and tables

Curricular Competencies: use reasoning to explore and make connections, develop, demonstrate, and apply mathematical understanding through play, inquiry and problem solving, communicate mathematical thinking in many ways, explain and justify mathematical ideas and decisions, reflect on mathematical thinking

Core Competencies focus: Critical and Reflective Thinking

Teachers and Families: The following are five problems/tasks to choose from for this week, based on the above curricular areas of focus.

Roll two dice at least twenty times and record the sum (adding the numbers) for each roll in a table or chart. Which sum is rolled most often? Which sum is rolled least often? What sum is the most likely? What sum is the least likely? Explain your thinking. Create a bar graph to share your results. What questions could you ask about your graph?



Here is a 0-9 spinner. What is the likelihood of spinning each number? Is spinning a number on a red spot more or less likely than spinning a number on a green spot? What other questions could you ask about the spinner? What words could you use to describe your thinking – likely, unlikely, more likely, less likely, equally likely, a chance, not a chance, possible, impossible?

Choose three colours. Using tallies, walk around your home or neighbourhood and count and record how many things you see that has one of the three colours.

Create a bar graph or table to represent your findings.

What colour was the most common? Why do you think that is?

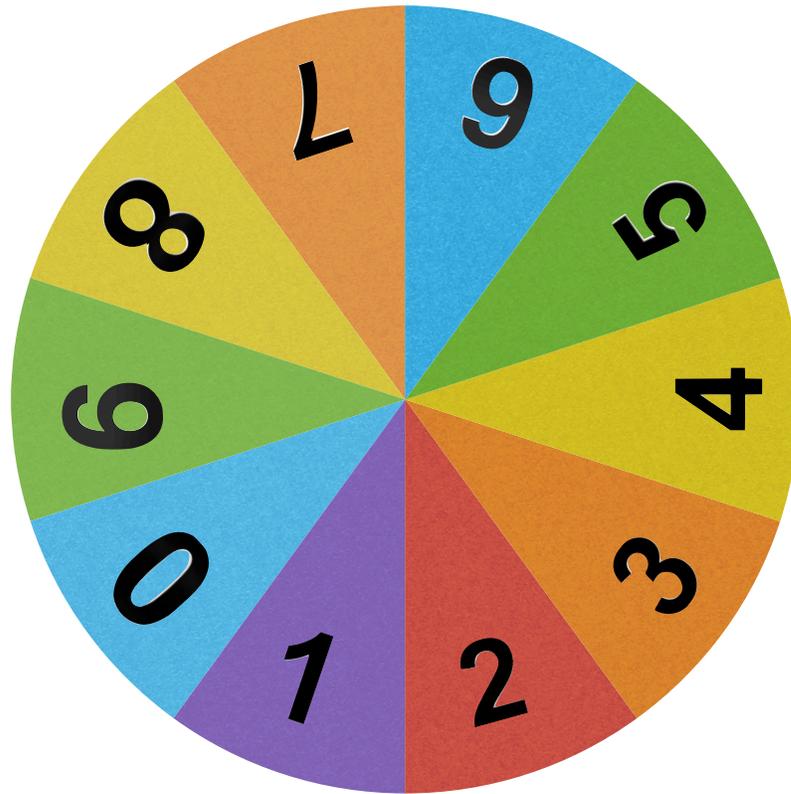
Think of a question you would like to ask your family and friends, for example, you might ask: What is your favourite season?

Ask at least 10 people your question and record their answers in a chart.

Create a bar graph with your results. What questions could you ask about your graph? If you asked a different ten people the same question, what do you think the results would be?

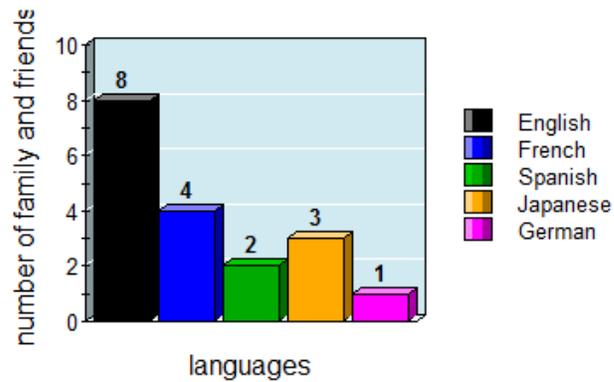
Numeracy Task:

Design a math game that is based on chance. For example, a chance game often involves rolling dice, using a spinner or playing cards – it is chance what number you will roll or spin or what cards you will receive. It could be a dice or card game or a gameboard. Think about what your family's interests are and what they would enjoy playing. Draw or write instructions for your game, teach it to someone and play it. Ask for feedback on your game and think about how you could improve it.



Example of a bar graph:

What languages do you speak?



Core Competencies

Reflection and Self-Assessment

As you design a math game, you were asked to think about what your family's interests are and use that information to inform your design decisions and then to reflect on their feedback. This is an important part of developing your competency in Critical and Reflective Thinking.

 <p>Critical & Reflective Thinking</p>	<p><i>How is analyzing and reflecting on data or information connected to mathematics?</i></p>
<p>Share an example of how mathematics helps you think about, analyze and investigate information and problems.</p> <p><i>For example, think of a time when you asked questions, made predictions or gathered information to make a decision or judgment using mathematics.</i></p>	
<p>When completing a math task or solving a problem, what do you do to reflect on your learning? What goals do you have for your math learning?</p>	