

SD 38 K-12 Mathematics & Numeracy

Grades 6-7: Week Ten

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

Curricular Content: probability (theoretical and experimental), creating and interpreting line graphs, interpreting circle graphs

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

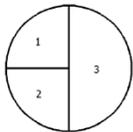
Core Competencies focus: Critical and Reflective Thinking

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? Compare the results of your graph to what theoretically should happen.



Here is a 0-9 spinner. What is the likelihood of spinning each number? How could you express that likelihood with a fraction or percent? 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? How could you use mathematics language and numbers (fractions, decimals or percents) to describe the spinner's colours?



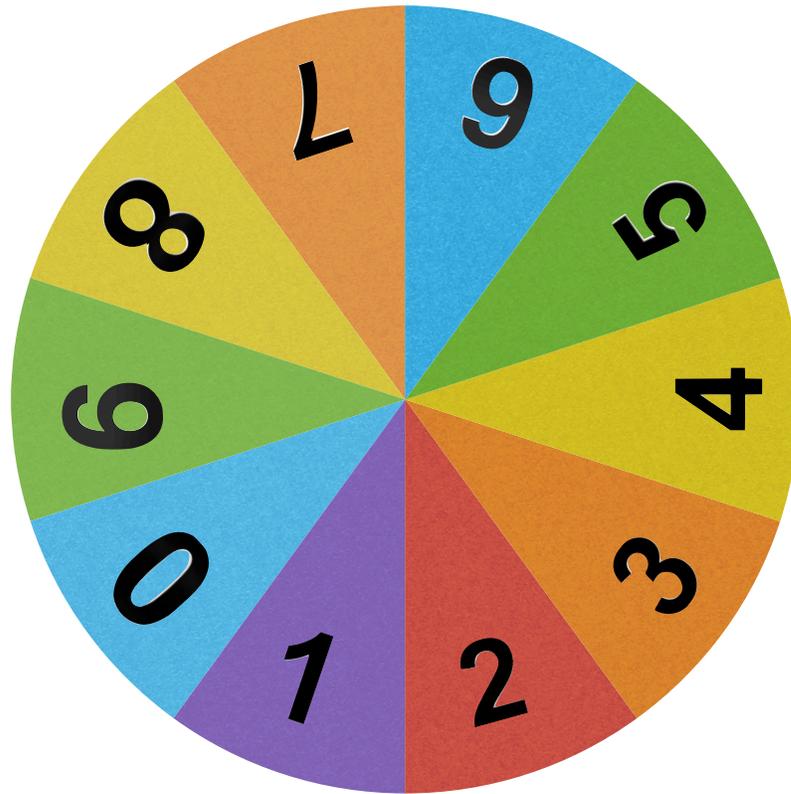
If you used this spinner 10 times, what is the theoretical probability that it would spin to a 3? To a 1? To a 2? Represent this probability as a fraction, decimal and percent. Draw a spinner like this and use a paper clip as the spinner and a pencil to hold it in the centre. Spin it 10 times and record your results. How does your experimental probability compare to the theoretical probability?

Here is temperature data for a week in May. Create a line graph using this data, rounding decimal numbers to the nearest whole number. How could you describe what is happening in the graph? What questions do you have about temperature changes in different months?

Actual	03	04	Actual	05	06	Actual	07	Actual	08	09
13.7	15.9	17.7	16	16	22.6	23				
201 Nov 8:00										

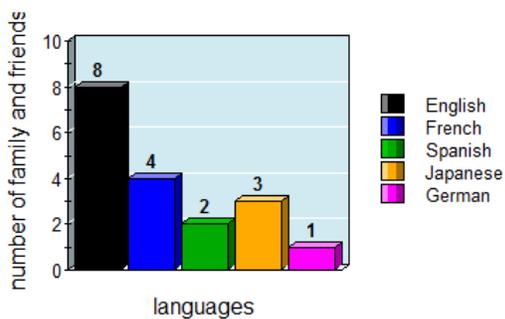
Numeracy Task:

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.

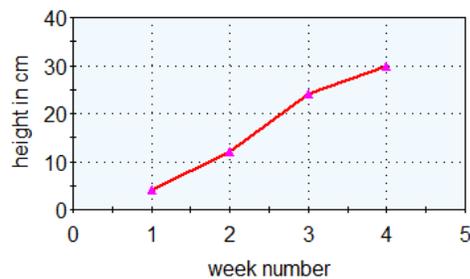


Example of a bar graph and a line graph:

What languages do you speak?



Growth of Spuds in Tubs Potato Plants in April



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>	