

# GRADE 6/7 LANGUAGE ARTS AND MATH: Literacy Week

## Summary of Learning Opportunity

As part of a school-wide literacy week, students in all classes listened to read-alouds of five picture books around the theme of Perseverance. The Grade 6/7 class wanted to find out the school's favourite book and communicate this to the community. Through discussions they defined criteria, planned an accessible survey, agreed on how to process the data, represented the data visually, interpreted and presented their findings, and evaluated their results. The teacher checked in with individual students and small groups to assist students, encourage self-assessment, and make observations to inform assessment and reporting.

<b>Curricular Competencies and Content</b>	<b>English Language Arts</b>	<ul style="list-style-type: none"> <li>Respond to text in personal, creative, and critical ways (6/7)</li> <li>Construct meaningful personal connections between self, text, and world (6/7)</li> <li>Strategies and processes-metacognitive (6/7)</li> </ul>
	<b>Math</b>	<ul style="list-style-type: none"> <li>Develop, demonstrate, and apply mathematical understanding through play, inquiry, and problem solving (6/7)</li> <li>Engage in problem-solving experiences that are connected to place...[and] the local community (6/7)</li> <li>Connect mathematical concepts to each other and to other areas and personal interests (6/7)</li> <li>Relationships between decimals, fractions, ratios, and percents (7)</li> <li>Circle graphs (7)</li> </ul>

Literacy and Numeracy Connections	Instruction and Assessment	Competencies Developed, Practiced, and/or Assessed
NUMERACY: Interprets— Understands the real-world problem, Identifies parameters and limitations →	1. Students developed an inquiry question: What was the school's favourite book during Literacy Week? Students agreed on a definition of "favourite" and set criteria: clear theme communicated through pictures and characters. →	Respond to text in personal, creative, and critical ways
NUMERACY: Applies— Develops a plan of approach →	2. Students planned how to collect data. They agreed on a vote with a ballot for each student in the school. Each ballot had a picture of the front cover of the books to include students who may not be able to read independently yet. →	Engage in problem-solving experiences that are connected to place...[and] the local community
NUMERACY: Solves— Solves the mathematical problem; Communicates— Represents processes and solution →	3. Students brainstormed different ways to process the data as well as how to present the data. They decided to count each division's ballots first, then present the data in a circle graph. Small groups of students created their own graphs based on agreed-upon criteria (clear, colourful, need elements like a title, key, and data in percentage). →	Develop, demonstrate, and apply mathematical understanding through...inquiry, and problem solving; Engage in problem-solving experiences that are connected to place...[and] the local community
NUMERACY: Analyzes— Reflects on the reasonableness of the solution in context →	4. Students analyzed the results of the survey with reference to the original context of the problem, why a book becomes a favourite with reference to Language Arts features like characters, images, and plot. →	Connect mathematical concepts to each other and to other areas and personal interests; Construct meaningful personal connections between self, text, and world

## Proficient Student Work



Data Calculation Sheet

Results as a Fraction	Fraction to Decimal	Decimal to Percent	Decimal to Degrees
number of tallies total number surveyed	Divide numerator by denominator. *Round to hundredths	Decimal $\times 100$ or Move decimal two places to the right	Decimal $\times 360^\circ$
Category 1: The Dot $\frac{18}{77}$	0.2337	23.3% 23.5	$23.3 \times 360^\circ = 8398$ $233 \times 360$
Category 2: Beautiful Oops $\frac{14}{77}$	0.1818	18%	
Category 3: Ish $\frac{14}{77}$	0.1818	18%	
Category 4: Giraffes $\frac{13}{77}$	0.168	17%	
Category 5: mm $\frac{18}{77}$	0.2337	23.5 23.3%	
Category 6: (if needed)			
Category 7: (if needed)			
Total = 77	Total = 1.0	Total = 100%	Total =

## Teacher's Assessment

The student was **proficient** in working with their group to plan the ballot and approach to collecting data. They demonstrated an understanding of the context by prompting their classmates to differentiate the ballots for younger students. They sorted and recorded data from each division. During class discussion, the student showed proficiency by inquiring if the presented graph matched the students' expectations.

The student is **developing** in applying math content learning standards as they needed teacher assistance to change the raw data to fractions, decimals, and percentages to solve for the circle graph proportions. The student's circle graph demonstrated a proficient and accurate representation of the results.

### Key Considerations

The teacher built numerate critical thinking skills by emphasizing collaboration a way to build knowledge, work through alternative processes, and for students to check their thinking and final product. An important part of the process was for the class to agree and establish their own success criteria, part of building understanding of the context of the scenario.

The teacher differentiated the unit by practicing various methods of assessment, such as listening to conversations. The teacher modeled learning through communication and through the use of large vertical surfaces for representing mathematical problem solving.

The teacher was able to assess and communicate student learning of the Math content learning standards and the development of the student's numerate critical thinking and communication competencies.

