

Numbers represent quantities that can be decomposed into smaller parts.

One-to-one correspondence and a sense of 5 and 10 are essential for fluency with numbers.

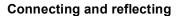
BIG IDEAS

Repeating elements in patterns can be identified.

Objects have attributes that can be described, measured, and compared.

Familiar events can be described as likely or unlikely and compared.

Curricular Competencies	Content
Students are expected to do the following:	Students are expected to know the following:
 Reasoning and analyzing Use reasoning to explore and make connections Estimate reasonably Develop mental math strategies and abilities to make sense of quantities Use technology to explore mathematics Model mathematics in contextualized experiences Understanding and solving Develop, demonstrate, and apply mathematical understanding through play, inquiry, and problem solving Visualize to explore mathematical concepts Develop and use multiple strategies to engage in problem solving Engage in problem-solving experiences that are connected to place, story, cultural practices, and perspectives relevant to local First Peoples communities, the local community, and other cultures 	 number concepts to 10 ways to make 5 decomposition of numbers to 10 repeating patterns with two or three elements change in quantity to 10, using concrete materials equality as a balance and inequality as an imbalance direct comparative measurement (e.g., linear, mass, capacity) single attributes of 2D shapes and 3D objects concrete or pictorial graphs as a visual tool likelihood of familiar life events financial literacy — attributes of coins, and financial role-play
 Communicating and representing Communicate mathematical thinking in many ways Use mathematical vocabulary and language to contribute to mathematical discussions Explain and justify mathematical ideas and decisions Represent mathematical ideas in concrete, pictorial, and symbolic forms 	



- Reflect on mathematical thinking
- Connect mathematical concepts to each other and to **other areas and personal interests**
- **Incorporate** First Peoples worldviews and perspectives to **make connections** to mathematical concepts



Numbers to 20 represent quantities that can be decomposed into 10s and 1s.

Addition and subtraction with numbers to 10 can be modelled concretely, pictorially, and symbolically to develop computational fluency.

BIG IDEAS

Repeating elements in patterns can be identified.

Objects and shapes have attributes that can be described. measured, and compared.

Concrete graphs help us to compare and interpret data and show one-to-one correspondence.

Curricular Competencies	Content
Students are expected to do the following:	Students are expected to know the following:
Reasoning and analyzing Use reasoning to explore and make connections Estimate reasonably Develop mental math strategies and abilities to make sense of quantities Use technology to explore mathematics Model mathematics in contextualized experiences Understanding and solving Develop, demonstrate, and apply mathematical understanding through play, inquiry, and problem solving Visualize to explore mathematical concepts Develop and use multiple strategies to engage in problem solving Engage in problem-solving experiences that are connected to place, story, cultural practices, and perspectives relevant to local First Peoples communities, the local community, and other cultures Communicating and representing Communicate mathematical thinking in many ways Use mathematical vocabulary and language to contribute to mathematical discussions Explain and justify mathematical ideas and decisions	 number concepts to 20 ways to make 10 addition and subtraction to 20 (understanding of operation and process) repeating patterns with multiple elements and attributes change in quantity to 20, concretely and verbally meaning of equality and inequality direct measurement with non-standard units (non-uniform and uniform) comparison of 2D shapes and 3D objects concrete graphs, using one-to-one correspondence likelihood of familiar life events, using comparative language financial literacy — values of coins, and monetary exchanges
Represent mathematical ideas in concrete, pictorial, and symbolic forms	

Connecting and reflecting

- Reflect on mathematical thinking
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Numbers to 100 represent quantities that can be decomposed into 10s and 1s.

Development of computational fluency in addition and subtraction with numbers to 100 requires an understanding of place value.

BIG IDEAS

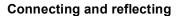
The regular change in increasing patterns can be identified and used to make generalizations.

Objects and shapes have attributes that can be described. measured. and compared.

Concrete items can be represented, compared, and interpreted pictorially in **graphs**.

Learning Standards

Curricular Competencies Content Students are expected to do the following: Students are expected to know the following: Reasoning and analyzing number concepts to 100 · Use reasoning to explore and make connections benchmarks of 25, 50, and 100 and personal referents Estimate reasonably addition and subtraction facts to 20 (introduction of computational strategies) Develop mental math strategies and abilities to make sense of quantities addition and subtraction to 100 Use technology to explore mathematics repeating and increasing patterns • **Model** mathematics in contextualized experiences • change in quantity, using pictorial and symbolic Understanding and solving representation Develop, demonstrate, and apply mathematical understanding through play, inquiry, and symbolic representation of equality and inequality problem solving direct linear measurement, introducing standard metric Visualize to explore mathematical concepts units Develop and use **multiple strategies** to engage in problem solving multiple attributes of 2D shapes and 3D objects Engage in problem-solving experiences that are connected to place, story, cultural pictorial representation of concrete graphs, using onepractices, and perspectives relevant to local First Peoples communities, the local to-one correspondence community, and other cultures • likelihood of familiar life events, using comparative Communicating and representing language • Communicate mathematical thinking in many ways • financial literacy — coin combinations to 100 cents, and Use mathematical vocabulary and language to contribute to mathematical discussions spending and saving Explain and justify mathematical ideas and decisions Represent mathematical ideas in concrete, pictorial, and symbolic forms



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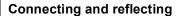
Fractions are a type of **number** that can represent quantities. Development of computational fluency in addition, subtraction, multiplication, and division of whole numbers requires flexible decomposing and composing.

BIG IDEAS

Regular increases and decreases in **patterns** can be identified and used to make generalizations.

Standard units are used to describe, measure, and compare attributes of objects' shapes. The likelihood of possible **outcomes** can be examined, compared, and interpreted.

	Content
Students are expected to do the following:	Students are expected to know the following:
Reasoning and analyzing	number concepts to 1000
Use reasoning to explore and make connections	 fraction concepts
Estimate reasonably	addition and subtraction to 1000
 Develop mental math strategies and abilities to make sense of quantities Use technology to explore mathematics 	 addition and subtraction facts to 20 (emerging computational fluency)
Model mathematics in contextualized experiences	 multiplication and division concepts
Understanding and solving	 increasing and decreasing patterns
 Develop, demonstrate, and apply mathematical understanding through play, inquiry, and problem solving 	 pattern rules using words and numbers, based on concrete experiences
Visualize to explore mathematical concepts	 one-step addition and subtraction equations with an unknown number
Develop and use multiple strategies to engage in problem solving	measurement, using standard units (linear, mass, and
Engage in problem-solving experiences that are connected to place, story, cultural	capacity)
practices, and perspectives relevant to local First Peoples communities, the local community, and other cultures	• time concepts
	construction of 3D shapes
Communicating and representing Communicate mathematical thinking in many ways	• one-to-one correspondence with bar graphs, pictographs,
	charts, and tables
 Use mathematical vocabulary and language to contribute to mathematical discussions 	likelihood of simulated events , using comparative language
Explain and justify mathematical ideas and decisions	 financial literacy — fluency with coins and bills to 100 dollars, and earning and payment
Represent mathematical ideas in concrete, pictorial, and symbolic forms	dollars, and earning and payment



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Fractions and decimals are types of numbers that can represent quantities.

Development of computational fluency and multiplicative thinking requires analysis of patterns and relations in multiplication and division.

BIG IDEAS

Regular changes in patterns can be identified and represented using tools and tables.

Polygons are closed shapes with similar attributes that can be described, measured, and compared.

Analyzing and interpreting experiments in data probability develops an understanding of chance.

Students are expected to do the following: Reasoning and analyzing • Use reasoning to explore and make connections • Estimate reasonably • Develop mental math strategies and abilities to make sense of quantities • Use technology to explore mathematics • Model mathematics in contextualized experiences Understanding and solving • Develop, demonstrate, and apply mathematical understanding through play, inquiry, and problem solving Students are expected to know the following: • number concepts to 10 000 • decimals to hundredths • addition and subtraction to 10 000 • multiplication and division of two- or three-digit numbers by one-digit numbers • addition and subtraction of decimals to hundredths • addition and subtraction facts to 20 (developing computational fluency)	Curricular Competencies	Content
 Use reasoning to explore and make connections Estimate reasonably Develop mental math strategies and abilities to make sense of quantities Use technology to explore mathematics Model mathematics in contextualized experiences Understanding and solving Develop, demonstrate, and apply mathematical understanding through play, inquiry, and decimals to hundredths addition and subtraction to 10 000 multiplication and division of two- or three-digit numbers by one-digit numbers addition and subtraction of decimals to hundredths addition and subtraction facts to 20 (developing computational fluency) 	Students are expected to do the following:	Students are expected to know the following:
 Estimate reasonably Develop mental math strategies and abilities to make sense of quantities Use technology to explore mathematics Model mathematics in contextualized experiences Understanding and solving Develop, demonstrate, and apply mathematical understanding through play, inquiry, and ordering and comparing fractions addition and subtraction to 10 000 multiplication and division of two- or three-digit numbers by one-digit numbers addition and subtraction of decimals to hundredths addition and subtraction facts to 20 (developing computational fluency) 	Reasoning and analyzing	• number concepts to 10 000
 Develop mental math strategies and abilities to make sense of quantities Use technology to explore mathematics Model mathematics in contextualized experiences Understanding and solving Develop, demonstrate, and apply mathematical understanding through play, inquiry, and addition and subtraction to 10 000 multiplication and division of two- or three-digit numbers by one-digit numbers addition and subtraction of decimals to hundredths addition and subtraction facts to 20 (developing computational fluency) 	Use reasoning to explore and make connections	 decimals to hundredths
 Use technology to explore mathematics Model mathematics in contextualized experiences Understanding and solving Develop, demonstrate, and apply mathematical understanding through play, inquiry, and multiplication and division of two- or three-digit numbers by one-digit numbers addition and subtraction of decimals to hundredths addition and subtraction facts to 20 (developing computational fluency) 	Estimate reasonably	 ordering and comparing fractions
 Model mathematics in contextualized experiences Understanding and solving Develop, demonstrate, and apply mathematical understanding through play, inquiry, and addition and subtraction of decimals to hundredths addition and subtraction facts to 20 (developing computational fluency) 	 Develop mental math strategies and abilities to make sense of quantities 	 addition and subtraction to 10 000
 Understanding and solving Develop, demonstrate, and apply mathematical understanding through play, inquiry, and addition and subtraction of decimals to hundredths addition and subtraction facts to 20 (developing computational fluency) 	Use technology to explore mathematics	
 Develop, demonstrate, and apply mathematical understanding through play, inquiry, and addition and subtraction facts to 20 (developing computational fluency) 	Model mathematics in contextualized experiences	
Develop, demonstrate, and apply mathematical understanding through play, inquiry, and computational fluency)	Understanding and solving	addition and subtraction of decimals to hundredths
		` ' '
 Visualize to explore mathematical concepts multiplication and division facts to 100 (introductory computational strategies) 	Visualize to explore mathematical concepts	,
 Develop and use multiple strategies to engage in problem solving Develop and degraphing and degraphing netterns, using tables and 	Develop and use multiple strategies to engage in problem solving	-
 Engage in problem-solving experiences that are connected to place, story, cultural increasing and decreasing patterns, using tables and charts 		9.
practices, and perspectives relevant to local First Peoples communities, the local community, and other cultures • algebraic relationships among quantities	·	 algebraic relationships among quantities
		 one-step equations with an unknown number, using all operations
 Communicate mathematical thinking in many ways how to tell time with analog and digital clocks, using 12- 	Communicate mathematical thinking in many ways	how to tell time with analog and digital clocks, using 12-
Use mathematical vocabulary and language to contribute to mathematical discussions and 24-hour clocks	Use mathematical vocabulary and language to contribute to mathematical discussions	
• Explain and justify mathematical ideas and decisions • regular and irregular polygons	Explain and justify mathematical ideas and decisions	 regular and irregular polygons
 Represent mathematical ideas in concrete, pictorial, and symbolic forms perimeter of regular and irregular shapes 	Represent mathematical ideas in concrete, pictorial, and symbolic forms	 perimeter of regular and irregular shapes

Connecting and reflecting

- Reflect on mathematical thinking
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- line symmetry
- one-to-one correspondence and many-to-one correspondence, using bar graphs and pictographs
- probability experiments
- financial literacy monetary calculations, including making change with amounts to 100 dollars and making simple financial decisions



Numbers describe quantities that can be represented by equivalent fractions.

Computational **fluency** and flexibility with numbers extend to operations with larger (multi-digit) numbers.

BIG IDEAS

Identified regularities in number **patterns** can be expressed in tables.

Closed shapes have **area and perimeter** that can be
described, measured,
and compared.

Data represented in graphs can be used to show many-to-one correspondence.

Curricular Competencies	Content
Students are expected to do the following:	Students are expected to know the following:
Reasoning and analyzing	number concepts to 1 000 000
Use reasoning to explore and make connections	decimals to thousandths
Estimate reasonably	equivalent fractions
 Develop mental math strategies and abilities to make sense of quantities 	 whole-number, fraction, and decimal benchmarks
Use technology to explore mathematics	 addition and subtraction of whole numbers to 1 000 000
Model mathematics in contextualized experiences	multiplication and division to three digits, including division
Understanding and solving	with remainders
Develop, demonstrate, and apply mathematical understanding through play,	addition and subtraction of decimals to thousandths
inquiry, and problem solving	 addition and subtraction facts to 20 (extending computational fluency)
Visualize to explore mathematical concepts	**
Develop and use multiple strategies to engage in problem solving	 multiplication and division facts to 100 (emerging computational fluency)
Engage in problem-solving experiences that are connected to place, story, Whyteland the second parameters are least first Parameters are represented to place.	 rules for increasing and decreasing patterns with words,
cultural practices, and perspectives relevant to local First Peoples communities, the local community, and other cultures	numbers, symbols, and variables
Communicating and representing	one-step equations with variables
Communicate mathematical thinking in many ways	 area measurement of squares and rectangles
	 relationships between area and perimeter
 Use mathematical vocabulary and language to contribute to mathematical discussions 	 duration, using measurement of time
Explain and justify mathematical ideas and decisions	classification of prisms and pyramids
Represent mathematical ideas in concrete, pictorial, and symbolic forms	single transformations
	one-to-one correspondence and many-to-one

Connecting and reflecting

- Reflect on mathematical thinking
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correspondence, using double bar graphs

- probability experiments, single events or outcomes
- financial literacy monetary calculations, including making change with amounts to 1000 dollars and developing simple financial plans