IXL Skill Plan

Alberta Program of Studies: Grade 5

Use IXL's interactive skill plan to get up-to-date skill alignments, assign skills to your students, and track progress.

ca.ixl.com/math/skill-plans/alberta-program-of-studies-grade-5

N | Number

N.1 Develop number sense.

N.1.1: Represent and describe whole numbers to 1 000 000.

Expanded form

1. Expanded form up to 100 000 65Y
2. Expanded form up to 1 000 000 EX9

Place value

3. Place value up to 100 000 VC7
4. Place value up to 1 000 000 K9Q
5. Relationship between place values KM6
6. Convert between place values 57J

Word names

7. Word names for numbers up to 100 000 XYB
8. Word names for numbers up to 1 000 000 YRR
9. Spell word names for numbers up to 100 000 24G
10. Spell word names for numbers up to 1 000 000 ATX

N.1.2: Use estimation strategies in problem-solving contexts.

1. Estimate sums and differences of whole numbers CCJ
2. Estimate sums and differences: word problems UVJ

N.1.3: Apply mental mathematics strategies and number properties in order to understand and recall basic multiplication facts (multiplication tables) to 81 and related division facts.

Multiplication facts

1. Multiplication facts to 10 5KF
2. Multiplication facts to 12 HLC

Division facts

3. Division facts to 10 JK8
4. Division facts to 10: word problems PWE
5. Division facts to 12 YFN
6. Division facts to 12: word problems VM7

Relate multiplication to division

7. Relate multiplication and division 9C7

N.1.4: Apply mental mathematics strategies for multiplication.

Place value patterns

1. Multiplication patterns over increasing place values FFN
2. Multiply numbers ending in zeros A2M
3. Multiply numbers ending in zeros: word problems Q2C

Properties

4. Properties of multiplication QQN
5. Multiply using properties YGY

N.1.5: Demonstrate, with and without concrete materials, an understanding of multiplication (2-digit by 2-digit) to solve problems.

Area models

1. Multiply 2-digit numbers by 2-digit numbers using area models I A8E
2. Multiply 2-digit numbers by 2-digit numbers using area models II UNJ

Standard algorithm

3. Multiply 2-digit numbers by 2-digit numbers: complete the missing steps ZQK
4. Multiply 2-digit numbers by 2-digit numbers W8R

Word problems

5. Multiply 2-digit numbers by 2-digit numbers: word problems SP2

N.1.6: Demonstrate, with and without concrete materials, an understanding of division (3-digit by 1-digit), and interpret remainders to solve problems.

1. Divide by 1-digit numbers F6Q
2. Divide by 1-digit numbers: word problems 42Y
3. Divide by 1-digit numbers: interpret remainders QMA

N.1.7: Demonstrate an understanding of fractions by using concrete, pictorial and symbolic representations to:

N.1.7.a: create sets of equivalent fractions.

Area models

1. Find equivalent fractions using area models 45V

Number lines

2. Graph equivalent fractions on number lines JP5

Equivalent fractions

3. Equivalent fractions XHS

4. Patterns of equivalent fractions KR8

Lowest terms

5. Write fractions in lowest terms NQJ

N.1.7.b: compare fractions with like and unlike denominators.

Compare fractions

1. Graph and compare fractions on number lines 6BL
2. Benchmark fractions A9U
3. Compare fractions using benchmarks XA7
4. Compare fractions EZS
5. Compare fractions and mixed numbers HBZ

Order fractions

6. Order fractions with like denominators 9ZY
7. Order fractions with like numerators HTV
8. Order fractions with unlike denominators K93
9. Order fractions review JVG

N.1.8: Describe and represent decimals (tenths, hundredths, thousandths), concretely, pictorially and symbolically.

Decimals to hundredths

1. What decimal number is illustrated? BQV
2. Understanding decimals expressed in words: up to hundredths VZF
3. Place values in decimal numbers up to hundredths 87M
4. Expanded form of decimals up to hundredths HR2
5. Decimal number lines ZMP

Decimals to thousandths

6. Understanding decimals expressed in words: up to thousandths QVQ
7. Place values in decimal numbers up to thousandths HDQ
8. Relationship between decimal place values P6J
9. Expanded form of decimals up to thousandths AYP
10. Compose and decompose decimals in multiple ways FWU

N.1.9: Relate decimals to fractions and fractions to decimals (to thousandths).

Decimals to hundredths

1. Convert fractions to decimals: up to hundredths D5M
2. Convert decimals to fractions: up to hundredths 5A7
3. Convert decimals between standard and expanded form using fractions: up to hundredths WXY

Decimals to thousandths

4. Convert fractions to decimals: up to thousandths 9YA
5. Convert decimals to fractions: up to thousandths 9Y4
6. Convert decimals between standard and expanded form using fractions: up to thousandths CX7

N.1.10: Compare and order decimals (to thousandths) by using:

N.1.10.a: benchmarks.

1. Compare decimals on number lines 9NK

N.1.10.b: place value.

Decimals to hundredths

1. Compare decimals using grids VE7
2. Compare decimal numbers up to hundredths 5C9
3. Put decimals in order: up to hundredths Q7G

Decimals to thousandths

4. Compare decimal numbers up to thousandths YYS
5. Put decimals in order: up to thousandths H5W

N.1.10.c: equivalent decimals.

Decimals to hundredths

1. Equivalent decimals up to hundredths PWX

Decimals to thousandths

2. Equivalent decimals up to thousandths 6UN
3. Compare, order and round decimals: word problems KGU

N.1.11: Demonstrate an understanding of addition and subtraction of decimals (limited to thousandths).

Decimals to hundredths

1. Add decimal numbers up to hundredths 9Q7
2. Use properties to add three decimals up to hundredths 9T3
3. Subtract decimal numbers up to hundredths 92T
4. Add and subtract decimal numbers up to hundredths KZQ
5. Use compensation to add and subtract decimals up to hundredths 2EW
6. Add and subtract decimals up to hundredths: word problems 9H6
7. Choose decimals with a particular sum or difference: up to hundredths 5BD
8. Complete the decimal addition or subtraction sentence: up to hundredths 9E6

Decimals to thousandths

9. Add decimal numbers up to thousandths 5AM
10. Subtract decimal numbers up to thousandths EFA
11. Add and subtract decimal numbers up to thousandths DPN
12. Add and subtract decimals up to thousandths: word problems PH8
13. Choose decimals with a particular sum or difference: up to thousandths JNA
14. Complete the decimal addition or subtraction sentence: up to thousandths E9S

Money

15. Add and subtract money amounts XUB
16. Add and subtract money: word problems NYM
17. Price lists with addition and subtraction BY2

Estimation

18. Estimate sums and differences of decimals using rounding: up to hundredths 5FJ
19. Estimate sums and differences of decimals using benchmarks ZRB
20. Estimate sums and differences of decimals using rounding: up to thousandths 9GZ

PR | Patterns and Relations

PR.1 Use patterns to describe the world and to solve problems.

PR.1.1: Determine the pattern rule to make predictions about subsequent elements.

Shape patterns

1. Find the next shape in a repeating pattern PXA
2. Complete a repeating pattern 47Q
3. Make a repeating pattern TEP
4. Find the next row in a growing pattern of shapes PRM

Number patterns

5. Use a rule to complete a number sequence S8H
6. Compare number patterns UHU
7. Identify mistakes in number patterns D6R
8. Complete an increasing number sequence AXY
9. Complete a geometric number sequence TKN
10. Number sequences: word problems WKK
11. Number sequences: mixed review 9Y8

PR.2 Represent algebraic expressions in multiple ways.

PR.2.2: Express a given problem as an equation in which a letter variable is used to represent an unknown number (limited to whole numbers).

1. Write an equation from words 8GC
2. Write a one-step equation: word problems UPG
3. Which word problem matches the one-step equation? 3E8

PR.2.3: Solve problems involving single-variable, one-step equations with whole number coefficients and whole number solutions.

Identify solutions

1. Does x satisfy an equation? N7Y
2. Which value makes the equation true? ZRD

Model and solve equations

3. Model and solve equations using algebra tiles EBF
4. Write and solve equations that represent diagrams X8H

Solve equations

5. Solve addition and subtraction equations with whole numbers S92

6. Solve multiplication and division equations with whole numbers NVY
7. Solve equations with whole numbers 6G2

SS | Shape and Space

SS.1 Use direct and indirect measurement to solve problems.

SS.1.1: Identify 90° angles.

SS.1.2: Design and construct different rectangles, given either perimeter or area, or both (whole numbers), and make generalizations.

1. Rectangles: relationship between perimeter and area LRM

SS.1.3: Demonstrate an understanding of measuring length (mm) by:

SS.1.3.a: selecting and justifying referents for the unit mm.

1. Which metric unit of length is appropriate? L2N

SS.1.3.b: modelling and describing the relationship between mm and cm units, and between mm and m units.

1. Compare and convert metric units of length M5C

SS.1.4: Demonstrate an understanding of volume by:

SS.1.4.a: selecting and justifying referents for cm^3 or m^3 units.

SS.1.4.b: estimating volume, using referents for cm^3 or m^3.

SS.1.4.c: measuring and recording volume (cm^3 or m^3).

1. Volume of rectangular prisms made of unit cubes F5F
2. Volume of irregular figures made of unit cubes KBK
3. Volume of cubes and rectangular prisms MDJ

SS.1.4.d: constructing right rectangular prisms for a given volume.

SS.1.5: Demonstrate an understanding of capacity by:

SS.1.5.a: describing the relationship between mL

1. Compare and convert metric units of

and L.	capacity 5YN
SS.1.5.b: selecting and justifying referents for mL or L units.	
SS.1.5.c: estimating capacity, using referents for mL or L.	1. Which metric unit of capacity is appropriate? MBG
SS.1.5.d: measuring and recording capacity (mL or L).	

SS.2 Describe the characteristics of 3-D objects and 2-D shapes, and analyze the relationships among them.

SS.2.6: Describe and provide examples of edges and faces of 3-D objects, and sides of 2-D shapes that are parallel, intersecting, perpendicular, vertical and horizontal.	1. Parallel, perpendicular and intersecting lines QZG 2. Parallel sides in quadrilaterals WBU
SS.2.7: Identify and sort quadrilaterals, including rectangles, squares, trapezoids, parallelograms and rhombuses according to their attributes.	**Rectangles** 1. Identify rectangles TJE **Quadrilaterals** 2. Classify quadrilaterals V7Q 3. Pick all the names for a quadrilateral 59Y 4. Identify the relationships between quadrilaterals J8B 5. Describe relationships among quadrilaterals NLQ

SS.3 Describe and analyze position and motion of objects and shapes.

SS.3.8: Identify and describe a single transformation, including a translation, rotation and reflection of 2-D shapes.	1. Reflection, rotation and translation RBV 2. Combinations of reflections, rotations and translations MXU
SS.3.9: Perform, concretely, a single transformation (translation, rotation or reflection) of a 2-D shape, and draw the image.	

SP | Statistics and Probability

SP.1 Collect, display and analyze data to solve problems.

SP.1.1: Differentiate between first-hand and second-hand data.

SP.1.2: Construct and interpret double bar graphs to draw conclusions.

1. Interpret double bar graphs HVR
2. Complete double bar graphs LBQ

SP.2 Use experimental or theoretical probabilities to represent and solve problems involving uncertainty.

SP.2.3: Describe the likelihood of a single outcome occurring, using words such as impossible, possible and certain.

1. Understanding probability T7F

SP.2.4: Compare the likelihood of two possible outcomes occurring, using words such as less likely, equally likely and more likely.

1. Understanding probability T7F