

Curriculum Planning & Assessment Resource

Mathematics Grade 1



**Alberta Regional Professional
Development Consortia**

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opportunities at the local, regional and provincial levels*



Curriculum Planning & Assessment Resource

Mathematics

Grade 1 Number 3

About This Document

This Curriculum Planning & Assessment Resource is intended to be a collection of sample activities, assessments, and resources that teachers may wish to use as they develop their unit plans. This document is not intended to be a sequential list of activities. Rather, the intent is that teachers choose from this resource what is appropriate for their context, and sequence it in their planning.

The sample activities, assessments and resources included in this document have undergone an initial review to determine appropriateness and alignment to the curriculum. However, it is expected that teachers use their professional judgment in selecting activities, assessments and resources that are appropriate for their context.

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Table of Contents		Important Links	
Important Links	2	New Learn Alberta Progressions	Planners and Concept Maps
Introduction	2	<ul style="list-style-type: none"> • Competency Progressions • Numeracy Progressions • Literacy Progressions 	<ul style="list-style-type: none"> • K-3 Math Planners • 4-6 Math Planners (under development) • Assessment Planners (under development) • K-3 Math Action Verbs and 4-6 Math Verb Resources
KUSP 1N3	4	Recorded Video:	Curriculum Progressions
Literature Connections	9	<ul style="list-style-type: none"> • How to Read these Curriculum Planning & Assessment Resources 	<ul style="list-style-type: none"> • Skills and Procedures Progression K-3 (under development) • Concept Progressions (under development)
			Interactive Numbered Outcomes Document with Skills

Acknowledgements

Thank you to all the teachers, numeracy specialists, and technical expertise from Alberta school divisions and ARPDC who collaborated to develop, review, and revise these planning and assessment documents to support curriculum implementation.

Grade 1 Number 3

Organizing Idea

Quantity is measured with numbers that enable counting, labeling, comparing, and operating

Guiding Question

In what ways can parts and wholes be related?

Learning Outcome

Students examine one-half as a part-whole relationship.

Summative Assessment(s) - Transfer *(In Progress)*

Summative assessments can include the following.

- *Understanding/making sense of a novel context from the real world using one or more concepts (eg. “How are place value and money related?).*
- *Understanding/making sense of a novel context using one or more understandings (eg. Students use money to model the conversion of base 10 values and relate them to base 10 block’).*
- *Being able to describe why (linking concepts) something is true, a result, or what might be an extension using learned concepts and understandings.*
- *Apply learning (create products; undertake projects; taking action such as creating a campaign) in a novel context or taking action using the understanding(s).*
- *Construct arguments by taking a position and verifying/proving it with known understandings.*

Summative Assessment(s)

[\[understanding surface vs deep vs transfer\]](#)

[Let’s Go Halvers!](#)

[Half-Part-Whole Summative \(EN\)](#)

[Les parties et les tous \(FR\)](#)



KUSP 1N3

[Literature Connections](#)

KUSP 1N3

Assumable Curriculum / Prerequisite Knowledge / Vocabulary

Quantities within 10 can be compared (e.g. more, less, **same**, etc.).

Student Language | Essential vocabulary & concepts

- **Same:** equal, not different
- **Equal:** having the same amount, size, number, or value
- **Even:** a number that, when arranged in pairs, has no leftovers
- **One-half:** one of two equal groups

Pre-Assessments

Pre-Assessments 1: Finding Each Students Pathway

- Number Paths .8
- More of fewer - p.9
- Part-Part Whole Addition - p.11

Nelson Leaps and Bounds Pages will be referenced in the Assessments to follow up for emerging learners.

Learning Recovery


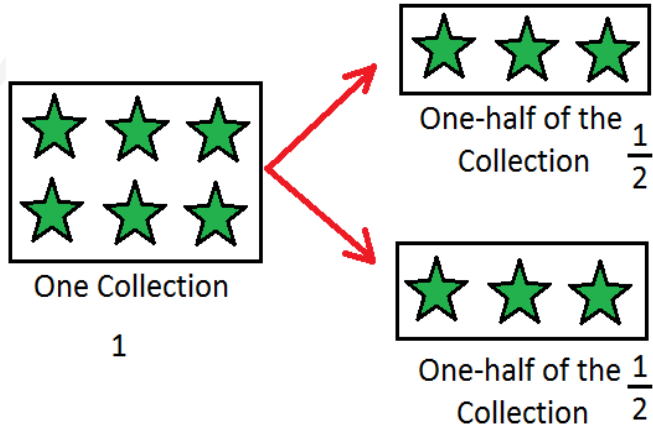

I Know Statements | Metacognition

- I know that one of two equal groups is one-half.

I Can Statements | Skills

- I can identify one-half in situations around me.
- I can arrange an even set of objects into two equal groups.

Enhancement

Learning Outcome					
1N3.1 Students examine one-half as a part-whole relationship.					
Knowledge	Understanding	Skills & Procedures	Achievement Indicators	Illustrative Examples	Assessment (Explainer)
One-half can be one of two equal groups or one of two equal pieces.	<p>In a quantity partitioned into two equal groups, each group represents one half of the quantity.</p> <p>In a shape or object partitioned into two identical pieces, each piece represents one part of the whole.</p>	<p>Identify one-half in familiar situations.</p> <p>Describe one of two equal groups or pieces as one-half.</p>	<p>Identify one-half in familiar situations.</p>		<p>1N3 Pictures of Halves - surface - 1N3 Picture of Halves Template</p> <p>1N3 Halves Fraction Worksheet – surface Source: Kindergarten Worksheets</p>
		<p>Partition an even set of objects into two equal groups, limited to sets of 10 or less.</p>	<p>Partition an even set of objects into 2 equal groups to demonstrate equal sharing.</p> <p>Note: symbolic notation is for reference only</p>	 <p>Color one half of the stars.</p> 	<p>1N3 Partitioning Objects into Two Equal Groups - deep</p>

Partition a shape or object into two equal pieces.

Verify that the two halves of one whole group, shape, or object are the same size.

Partition a shape or object into two equal pieces.

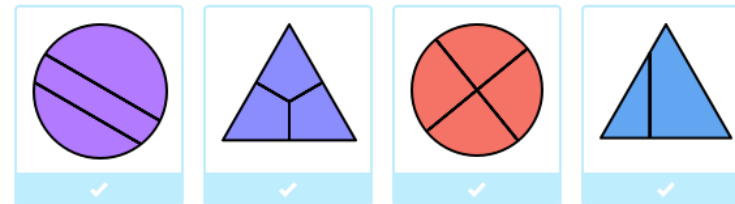
Verify that the two halves of one whole group, shape or object are the same size.

Equal Shares

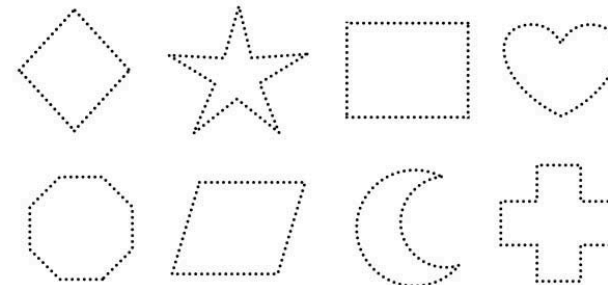
Have one student partition, and give one portion to a partner ... discuss equal / not equal and its relationship to halves (one-half is equal shares).

Are the halves equal or not equal?

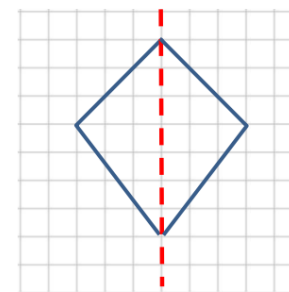
Select all the pictures that show equal parts.



Are the objects split into equal parts?



Cut a shape in half or draw a line of symmetry, place the two halves on top of each other to verify they are the same.

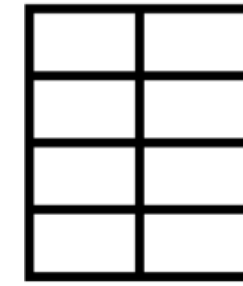


Color one half of a shape, fold the shape to verify the colored portion is one-half.

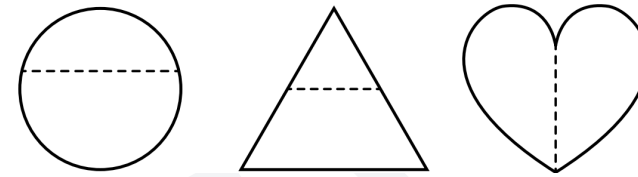
[1N3 Dividing Shapes into Two Equal Parts - surface](#) (K5 learning)

[1N3 Lines of Symmetry - surface](#) (K5 Learning)

[1N3 Strategies for Finding the Lines of Symmetry](#)

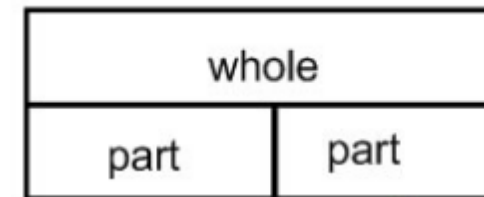


Color the shape that has a line of symmetry (e.g. the shape can be folded in half).



Part-Part-Whole

Use cuisenaire rods (e.g. 2, 4, 6, 8, 10) to demonstrate halves, equal parts, and symmetry.



[Interactive Cuisenaire Environment](#)

Represent a problem scenario using manipulatives that demonstrate half.

Akreem used 7 ice cubes from the freezer in his drink. If he used half of the ice cubes, how many ice cubes were in the freezer?

$$\begin{aligned} ? - 7 &= 7 \\ 7 + 7 &= ? \\ 7 &\text{ is half of what number?} \end{aligned}$$

Resources

Mathology

[Mathology Free Resources on New Learn Alberta](#)

Mathology Little Book: [My Best Birthday](#)

Math UP

Grade 1

- Lessons being developed for this learning outcome

Existing Textbooks

Math Focus 4 - Chapter 5

Math Makes Sense 3

Unit 5 Student textbook pages 180-184

NCETM (teacher guides and resources)

[Guidance on the teaching of fractions in Key Stage 1](#)

Spine 3: Fractions – Topic 3.0 (teaching points 1-3 address this outcome)

Websites/Other

[Kentucky Intervention Guide KNP](#) - provides great lessons and activities (outcomes based) for Teachers K-4

[Mathematics Developmental Continuum](#) - Indicators of Progress Tasks/Activities (Australia)

Gizmos New Learn Alberta (Teacher Login Required)

[Critter Count \(Modeling Multiplication\)](#)

[Equivalent Fractions \(Fraction Tiles\)](#)

[Fraction Artist 1 \(Area Models of Fractions\)](#)

[Fraction Artist 2 \(Area Models of Fractions\)](#)

[Fraction Garden \(Comparing Fractions\)](#)

[Toy Factory \(Set Models of Fractions\)](#)

For access to additional resources, request a Gizmos account alberta@explorellearning.com

Indigenous Lesson Plans and Resources

Read the book [My Heart Fills With Happiness](#) by Monique Gray Smith

- My Heart Fills With Happiness [YouTube](#)
- Have students look for symmetry - lines of symmetry - star blanket, regalia, animals, medicine wheel

Problem Solving

Coming Soon

Click to jump!



KUSP 1N3

[Literature Connections](#)

Literature Connections

Title	Author	Format (Picture Book, Novel, Non-fiction, other)	Publisher	ISBN	Notes
Give Me Half!	Stuart J. Murphy	Picture Book	HarperCollins; Illustrated edition (April 1 1996)	9780064467018, 978-0064467018	Fractions
Seeing Symmetry	Loreen Leedy	Picture Book	Holiday House (2013)	0823427625 978-0823427628	Symmetry

IN Progress