

Comparing 1st and 2nd Edition Grade 4 Units: Where Is It Now?

The following describes the work of the second edition, in relation to the first edition. Note that, while many first edition activities are part of the second edition, they may be presented and used differently.

Unit 1: Factors, Multiples and Arrays (Multiplication and Division 1)

Investigation 1: Representing Multiplication with Arrays	The work in this unit comes from the multiplication and division work in <i>Arrays and Shares</i> and <i>Landmarks in the Thousands</i> . There is new work in which students are given more time to practice and learn their multiplication facts.
Investigation 2: Multiplication Combinations	
Investigation 3: Finding Factors	

Unit 2: Describing the Shape of the Data (Data Analysis and Probability)

Investigation 1: Landmarks in the Data	The data work in the first two Investigations is mainly the same as the work with numerical data in <i>The Shape of The Data</i> .
Investigation 2: Using Data to Compare	
Investigation 3: Finding and Comparing Probabilities	This Investigation is new to Grade 4 and is based on work from the Grade 5 unit, <i>Between Never and Always</i> . Students create a Likelihood Line and conduct probability experiments.

Unit 3: Multiple Towers and Division Stories (Multiplication and Division 2)

Investigation 1: Breaking Apart Multiplication Problems	This unit is a combination of the multiplication and division work from <i>Arrays and Shares</i> and <i>Packages and Groups</i> . The work of building Multiple Towers as a model for the relationship between multiplication and division is extended.
Investigation 2: Division	
Investigation 3: Multiplying 10s	
Investigation 4: Strategies for Multiplication	There are new sessions in this Investigation on the effect on a product when a factor is doubled.

Unit 4: Shapes, Size and Symmetry (2-D Geometry and Measurement)

Investigation 1: Linear Measurement	This Investigation is new. Students estimate and measure length in US and metric units. They practice using measurement tools accurately, and review perimeter. <i>Geo-Logo</i> activities have been modified for use in the new software, <i>LogoPaths</i> .
Investigation 2: Polygons of Many Types	The work on rectangles in this Investigation is taken from the Grade 5 Unit, <i>Picturing Polygons</i> with an emphasis on sorting and classifying quadrilaterals.
Investigation 3: Measuring Angles	This Investigation is new to Grade 4 and is taken from Grade 5, <i>Picturing Polygons</i> . Students identify, construct, and measure angles of varying degrees by relating them to 90 degrees.
Investigation 4: Finding Area	This work is new to Grade 4. Students measure the area of polygons in both non-square and square units of measure, by decomposing shapes and using symmetry. <i>Crazy Cakes</i> , from Grade 4, <i>Different Shapes, Equal Pieces</i> , is part of this 2-D work.

Unit 5: Landmarks in Large Numbers (Addition, Subtraction and the Number System)

Investigation 1: How Much is 1000?	The work of this unit is based on the work with addition and subtraction from <i>Landmarks in the Thousands</i> and <i>Money, Miles, and Large Numbers</i> . Students work with larger numbers and compare and analyze addition and subtraction strategies.
Investigation 2: Adding it Up	
Investigation 3: Working with Numbers to 10,000	
Investigation 4: Subtraction	

Unit 6: Fraction Cards and Decimal Squares (Fractions and Decimals)

Investigation 1: Parts of Rectangles	These Investigations are based on the work of dividing squares and rectangles into fractions from <i>Different Shapes, Equal Pieces</i> .
Investigation 2: Ordering Fractions	This Investigation is based on the work of ordering fractions from <i>Different Shapes, Equal Pieces</i> .
Investigation 3: Working With Decimals	This Investigation includes work from Grade 5, <i>Name That Portion</i> as well as Investigation 2 (Miles and Tenths of Miles) from <i>Money Miles and Large Numbers</i> . Students use representations to compare and add decimals.

Unit 7: Moving Between Solids and Silhouettes (3D Geometry)

Investigation 1: Geometric Solids	These two Investigations include the work on solids and silhouettes from <i>Seeing Solids and Silhouettes</i> .
Investigation 2: Making and Visualizing Cube Buildings	
Investigation 3: Understanding Volume	This is a new Investigation, building on the work of volume of rectangular prisms from Grade 3, and from “The Packaging Factory” from the Grade 5 Unit, <i>Containers and Cubes</i> .

Unit 8: How Many Packages? How Many Groups? (Multiplication and Division 3)

Investigation 1: Multiplication with 2-Digit Numbers	This unit contains most of the multiplication and division work of <i>Packages and Groups</i> . Students work with larger numbers, and the division work is extended.
Investigation 2: Strategies for Multiplication	
Investigation 3: Solving Division Problems	

Unit 9: Penny Jars and Plant Growth (Patterns, Functions, and Change)

Investigation 1: Looking at Graphs	This unit engages students in the same work as <i>Changes Over Time</i> , but a new context has been added (Penny Jar Growth). The work is also extended to asking students to use tables, graphs, arithmetic expressions, and symbolic notation to represent and describe situations of constant change.
Investigation 2: Penny Jars and Towers	
Investigation 3: Collecting and Analyzing Measurements	

Ten-Minute Math

Counting Around the Class	This is the same as the first edition Ten-Minute Math, Counting Around the Class.
Closest Estimate	This is new and is based on the Ten-Minute Math, Nearest Answer from Grade 5
Practicing Place Value	This is new.
Quick Images	This is the same as the first edition Ten-Minute Math, Quick Images. It also includes the first edition Ten-Minute Math, Seeing Numbers from Grade 5.
Quick Survey	This is the same This is the same as the first edition Ten-Minute Math, Quick Survey.
Today's Number	This is the same as the first edition Ten-Minute Math, and includes the variation, "Broken Calculator."

Comparing 1st and 2nd Edition Grade 4 Units: What's Gone?

The following first edition activities and/or Investigations no longer appear in the second edition of the Grade 4 *Investigations* curriculum. Note that some content has moved to other grade levels.

Mathematical Thinking at Grade 4 (Introduction)

- Skip Counting on the 100 Charts
- Building with 100 Cubes
- 101 to 200 Bingo

Arrays and Shares (Multiplication and Division)

- Skip Counting on the 100 Charts

Seeing Solids and Silhouettes (3-D Geometry)

- Investigation 3: "How-To" Instructions for Cube Buildings
- Investigation 4: The Cube Toy Project

Landmarks in the Thousands (The Number System)

- Investigation 1: Working with 100
- Skip Counting on the 300 Chart
- Factors of 200, 300 and Up is now in Unit 3: Multiple Towers and Division Stories

Different Shapes, Equal Pieces (Fractions and Area)

- Crazy Cakes for Two – has been moved to Unit 4: Shapes, Size and Symmetry

The Shape of the Data (Statistics)

- How Many People are in Your Family?
- How Long do People Sleep?

Money, Miles and Large Numbers (Addition and Subtraction)

- Investigation 1: Everyday Uses of Money
- A Tour of Our Town

Changes Over Time (Graphs)

- Investigation 1: Graphing Population Changes

Packages and Groups (Multiplication and Division)

- Making a Multiplication Table Using Arrays
- Finding Multiples on the Multiplication Table

Sunken Ships and Grid Patterns (2-D Geometry)

- Investigation 1: Locating Houses and Ships on a Grid
- Placing Rectangles on a Grid
- Software: Sunken Ships, Taxi, Bulletin Board, Rectangle Pictures

Three Out of Four Like Spaghetti (Data and Fractions)

- Investigation 1: Using Fractions to Describe Data (the ideas in this Investigation—fractions of a group and using fractions to describe data are included in the work of the Grade 4 fraction and data units.
- Investigation 2: Looking at Data in Categories

Ten-Minute Math

- Guess My Number
- Estimation and Number Sense (this has been replaced with Practicing Place Value and Closest Estimate)
- Likely or Unlikely
- What is Likely
- Guess My Rule
- Graph Stories
- Length and Perimeter