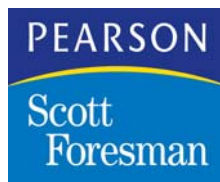


**A Correlation of**



to the

**Nevada**  
**Mathematics**  
**Content Standards**  
Grades K-5



M/M-105

## INTRODUCTION

This document demonstrates how well *Investigations in Number, Data, and Space*<sup>®</sup> integrates with the Nevada Mathematics Content Standards. The citations within this correlation provide Investigation Curriculum Unit title, Investigation number and Session number or Focus Time/Choice Time title correlated to the Nevada Mathematics Content Standards. Thus, teachers know exactly where instruction is located to prepare students for mastery of Nevada Mathematics Content Standards.

*Investigations in Number, Data, and Space*<sup>®</sup> is a Kindergarten through Grade 5 curriculum consisting of a series of Teacher's Editions that focus on major mathematical ideas, content, and pedagogy. Each book emphasizes depth of mathematical thinking over fragmented topics. Students invent strategies and approaches to solving problems and rely less on rote learning stressed in traditional textbooks. The program blends concrete materials with appropriate technology, including calculators in everyday mathematical lessons.

Developed by TERC under a grant from the National Science Foundation, *Investigations in Number, Data, and Space*<sup>®</sup> is comprehensive in its approach to students of diverse cultural, ethnic and language groups. In an effort to give mathematical lessons a broader spectrum, students are encouraged to explore working in groups, individually and as a whole class. By incorporating these methods into everyday learning, students learn to express mathematical thinking through talking, drawing, and writing.

*Investigations in Number, Data and Space*<sup>®</sup> was developed after three years of nationwide field-testing and includes teacher's practical suggestions, student dialogues, and teacher notes.

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**Investigations in Number, Data, & Space  
to the  
Nevada Mathematics Content Standards  
Kindergarten**

**Numbers, Number Sense, and Computation**

**Content Standard 1.0:** To solve problems, communicate, reason, and make connections within and beyond the field of mathematics, students will accurately calculate and use estimation techniques, number relationships, operation rules, and algorithms; they will determine the reasonableness of answers and the accuracy of solutions.

Nevada Mathematics Content Standards	Investigations in Number, Data, & Space
<i><b>By the end of Kindergarten, students know and are able to:</b></i>	
<b>Facts</b>	
<b>1.K.1</b> <b>Use concrete objects to model simple sums and differences.</b>	<i>How Many in All?</i> Investigation 2: Choice Time Investigation 3: Focus Time, Choice Time Investigation 4: Focus Time, Choice Time
<b>Computation</b>	
<b>1.K.5</b> <b>Count to 20.</b>	<i>Mathematical Thinking at Kindergarten</i> Investigation 1: Focus Time Investigation 2: Focus Time, Choice Time Investigation 4: Focus Time <i>Collecting, Counting, and Measuring</i> Investigation 1: Focus Time, Choice Time Investigation 2: Focus Time, Choice Time Investigation 4: Focus Time, Choice Time <i>Counting Ourselves and Others</i> Investigation 1: Focus Time: How Many Are We? Investigation 1: Focus Time: Counting Noses, Counting Eyes Investigation 4: Focus Time <i>How Many in All?</i> Investigation 1: Focus Time, Choice Time

Nevada Mathematics Content Standards	Investigations in Number, Data, & Space
<b>Comparison and Ordering</b>	
<b>1.K.6</b> <b>Recognize, read, and write numbers from 0-10.</b>	<i>Mathematical Thinking on Kindergarten</i> Investigation 1: Focus Time Investigation 2: Focus Time, Choice Time <i>Collecting, Counting, and Measuring</i> Investigation 1: Focus Time, Choice Time Investigation 2: Focus Time, Choice Time <i>Counting Ourselves and Others</i> Investigation 1: Focus Time: How Many Are We? Investigation 1: Focus Time: Counting Noses, Counting Eyes
<b>Estimation and Rounding</b>	
<b>1.K.7</b> <b>Estimate the number of objects in a set to 10 and verify by counting; use ordinal positions first to third.</b>	Can be developed from: <i>How Many in All?</i> Investigation 1: Choice Time Investigation 2: Choice Time
<b>Place value</b>	
<b>1.K.8</b> <b>Match the number of objects to the correct numeral, 0-10.</b>	<i>Mathematical Thinking in Kindergarten</i> Investigation 1: Focus Time Investigation 2: Focus Time, Choice Time Investigation 4: Focus Time, Choice Time <i>Collecting, Counting, and Measuring</i> Investigation 4: Focus Time <i>Counting Ourselves and Others</i> Investigation 1: Focus Time: Counting Noses, Counting Eyes <i>How Many in All?</i> Investigation 4: Focus Time

## Patterns, Functions, and Algebra

**Content Standard 2.0:** To solve problems, communicate, reason, and make connections within and beyond the field of mathematics, students will use various algebraic methods to analyze, illustrate, extend, and create numerous representations (words, numbers, tables, and graphs) of patterns, functions, and algebraic relations as modeled in practical situations.

Nevada Mathematics Content Standards	Investigations in Number, Data, & Space
<b><i>By the end of Kindergarten, students know and are able to:</i></b>	
<b>Patterns</b>	
<b>2.K.1</b> <b>Sort and describe objects by similar attributes; recognize and replicate a pattern.</b>	<i>Mathematical Thinking in Kindergarten</i> Investigation 1: Choice Time <i>Pattern Trains and Hopscotch Paths</i> Investigation 1: Focus Time, Focus Time, Choice Time Investigation 2: Focus Time, Choice Time Investigation 3: Focus Time, Choice Time Investigation 4: Focus Time, Choice Time
<b>Number Sentences and Equations</b>	
<b>2.K.4</b> <b>Identify and create sets of objects with unequal amounts, describing them as more or less.</b>	<i>Collecting, Counting and Measuring</i> Investigation 4: Choice Time Investigation 5: Focus Time, Choice Time

## Measurement

**Content Standard 3.0:** To solve problems, communicate, reason and make connections within and beyond the field of mathematics, students will use appropriate tools and techniques of measurement to determine, estimate, record, and verify direct and indirect measurements.

Nevada Mathematics Content Standards	Investigations in Number, Data, & Space
<i>By the end of Kindergarten, students know and are able to:</i>	
<b>Comparison and Ordering</b>	
<b>3.K.1</b> Compare and order objects by size communicating their similarities and differences.	<i>Collecting, Counting, and Measuring</i> Investigation 3: Focus Time, Choice Time
<b>Money</b>	
<b>3.K.4</b> Identify and sort pennies, nickels, and dimes.	<i>Counting Ourselves and Others</i> Investigation 2: Choice Time
<b>Time</b>	
<b>3.K.6</b> Recite, in order, the days of the week.	<i>Mathematical Thinking in Kindergarten</i> Investigation 3: Focus Time

## Spatial Relationships and Geometry

**Content Standard 4.0:** To solve problems, communicate, and make connections within and beyond the field of mathematics, students will identify, represent, verify, and apply spatial relationships and geometric properties.

Nevada Mathematics Content Standards	Investigations in Number, Data, & Space
<i><b>By the end of Kindergarten, students know and are able to:</b></i>	
<b>Two– Dimensional Shapes</b>	
<b>4.K.1</b> <b>Identify two-dimensional shapes (circles, triangles, rectangles including squares) regardless of position.</b>	<i>Mathematical Thinking in Kindergarten</i> Investigation 1: Focus Time, Choice Time Investigation 2: Focus Time, Choice Time Investigation 4: Focus Time, Choice Time
<b>Congruence, Similarity, and Transformations</b>	
<b>4.K.2</b> <b>Use position words (e.g., middle, before, down) to place objects.</b>	<i>Pattern Trains and Hopscotch Paths</i> Investigation 4: Choice Time <i>Making Shapes and Building Blocks</i> Investigation 2: Focus Time, Choice Time
<b>Coordinate Geometry and Line of Symmetry</b>	
<b>4.K.3</b> <b>Identify two-dimensional figures (e.g., windows are shaped like rectangles) as they appear in the environment.</b>	<i>Making Shapes and Building Blocks</i> Investigation 1: Focus Time, Choice Time



## Data Analysis

**Content Standard 5.0:** To solve problems, communicate, reason, and make connections within and beyond the field of mathematics, students will collect, organize, display, interpret, and analyze data to determine statistical relationships and probability projections.

<b>Nevada Mathematics Content Standards</b>	<b>Investigations in Number, Data, &amp; Space</b>
<b><i>By the end of Kindergarten, students know and are able to:</i></b>	
<b>Data Collection and Organization</b>	
<b>5.K.1 Collect and describe data.</b>	<i>Mathematical Thinking in Kindergarten</i> Investigation 1: Focus Time Investigation 4: Focus Time <i>Counting Ourselves and Others</i> Investigation 1: Focus Time, Focus Time, Choice Time Investigation 2: Focus Time, Choice Time Investigation 3: Focus Time, Choice Time Investigation 4: Focus Time, Choice Time

**Investigations in Number, Data, & Space  
to the  
Nevada Mathematics Content Standards**

**Grade One**

**Numbers, Number Sense, and Computation**

**Content Standard 1.0:** To solve problems, communicate, reason, and make connections within and beyond the field of mathematics, students will accurately calculate and use estimation techniques, number relationships, operation rules, and algorithms; they will determine the reasonableness of answers and the accuracy of solutions.

Nevada Mathematics Content Standards	Investigations in Number, Data, & Space
<i><b>By the end of Grade 1, students know and are able to do everything required in the previous grade and:</b></i>	
<b>Facts</b>	
<b>1.1.1 Identify and model basic addition facts (sums through 10) and the corresponding subtraction facts.</b>	<i>Mathematical Thinking at Grade 1</i> Investigation 2: Session 1-6 Investigation 4: Session 2-4, 6 <i>Building Number Sense</i> Investigation 1: Session 1-6, 9 Investigation 2: Session 1-9 Investigation 4: Session 1-10 <i>Number Games and Story Problems</i> Investigation 1: Session 1-10 Investigation 2: Session 1, 4-5, 13 Investigation 3: Session 1-8, 10-13
<b>Word Problems and Number Theory</b>	
<b>1.1.3 Write, model, and describe one-step addition and subtraction problems.</b>	<i>Mathematical Thinking at Grade 1</i> Investigation 2: Session 4-6 Investigation 4: Session 4, 6 <i>Building Number Sense</i> Investigation 4: Session 1-5, 7-10 <i>Number Games and Story Problems</i> Investigation 3: Sessions 1-13

Nevada Mathematics Content Standards	Investigations in Number, Data, & Space
<b>Computation</b>	
<b>1.1.5</b> <b>Use the inherent patterns in numbers to skip count by 1's, 2's, 5's, and 10's to 100.</b>	<i>Number Games and Story Problems</i> Investigation 2: Session 1-2, 4-8, 10-12
<b>Comparison and Ordering</b>	
<b>1.1.6</b> <b>Read, write, order, and compare numbers from 0-100.</b>	<i>Mathematical Thinking at Grade 1</i> Investigation 2: Session 1-3, 5-6 Investigation 4: Session 1-3, 6 Investigation 5: Session 1 <i>Building Number Sense</i> Investigation 1: Session 2-8 Investigation 2: Session 1-2, 4-9 Investigation 3: Session 1-9 <i>Number Games and Story Problems</i> Investigation 2: Session 6-9
<b>Estimation and Rounding</b>	
<b>1.1.7</b> <b>Estimate the number of objects in a set to 10; read and write number words to 10 and use ordinal positions first to tenth.</b>	<i>Building Number Sense</i> Investigation 3: Session 9
<b>Place value</b>	
<b>1.1.8</b> <b>Use, model, and identify place value positions of 1's and 10's.</b>	Can be developed from: <i>Building Number Sense</i> Investigation 3: Session 1-2 <i>Number Games and Story Problems</i> Investigation 2: Session 6-9
<b>Fractions</b>	
<b>1.1.9</b> <b>Identify and model a whole; identify and model <math>\frac{1}{2}</math>.</b>	<i>Grade 2 Shapes, Halves and Symmetry</i> Investigation 3: Session 1-2, 6-8

## Patterns, Functions, and Algebra

**Content Standard 2.0:** To solve problems, communicate, reason, and make connections within and beyond the field of mathematics, students will use various algebraic methods to analyze, illustrate, extend, and create numerous representations (words, numbers, tables, and graphs) of patterns, functions, and algebraic relations as modeled in practical situations.

Nevada Mathematics Content Standards	Investigations in Number, Data, & Space
<b><i>By the end of Grade 1, students know and are able to do everything required at the previous grade and:</i></b>	
<b>Patterns</b>	
<b>2.1.1</b> <b>Recognize, describe, extend, and create simple repeating patterns using symbols, objects, and manipulatives.</b>	<i>Mathematical Thinking at Grade 1</i> Investigation 3: Session 1-6 Investigation 4: Session 2-3, 5 <i>Building Number Sense</i> Investigation 3: Session 1-2, 8 Investigation 4: Session 10 <i>Quilt Squares and Block Towns</i> Investigation 1: Session 13-15 <i>Number Games and Story Problems</i> Investigation 2: Session 6-9
<b>Number Sentences and Equations</b>	
<b>2.1.4</b> <b>Create, compare, and describe sets of objects as more, less, or equal (amounts).</b>	<i>Building Number Sense</i> Investigation 3: Session 3-4 <i>Number Games and Story Problems</i> Investigation 1: Sessions 7-9

## Measurement

**Content Standard 3.0:** To solve problems, communicate, reason and make connections within and beyond the field of mathematics, students will use appropriate tools and techniques of measurement to determine, estimate, record, and verify direct and indirect measurements.

Nevada Mathematics Content Standards	Investigations in Number, Data, & Space
<i><b>By the end of Grade 1, students know and are able to do everything required in the previous grade and:</b></i>	
<b>Comparison and Ordering</b>	
<b>3.1.1</b> <b>Compare and order objects by length and weight, communicating their similarities and differences.</b>	<i>Bigger, Taller, Heavier, Smaller</i> Investigation 1: Session 1-6 Investigation 3: Session 1-5
<b>Measurement</b>	
<b>3.1.2</b> <b>Compare and measure length and weight, using non-standard measurement.</b>	<i>Bigger, Taller, Heavier, Smaller</i> Investigation 1: Session 1-6 Investigation 3: Session 1-5
<b>Money</b>	
<b>3.1.4</b> <b>Determine the value of any set of pennies, nickels, and dimes.</b>	<i>Number Games and Story Problems</i> Investigation 2: Session 3
<b>Time</b>	
<b>3.1.6</b> <b>Recite the months of the year in order; use a calendar to identify days, weeks, months, and year; read time to the nearest hour; distinguish between day and night.</b>	<i>Survey Questions and Secret Rules</i> Investigation 3: Session 1-3

## Spatial Relationships and Geometry

**Content Standard 4.0:** To solve problems, communicate, and make connections within and beyond the field of mathematics, students will identify, represent, verify, and apply spatial relationships and geometric properties.

Nevada Mathematics Content Standards	Investigations in Number, Data, & Space
<i><b>By the end of Grade 1, students know and are able to do everything required in the previous grade and:</b></i>	
<b>Two– Dimensional Shapes</b>	
<b>4.1.1</b> Name, sort, and sketch two-dimensional shapes (circles, triangles, rectangles including squares) regardless of position.	<i>Quilt Squares and Block Towns</i> Investigation 1: Session 1-6, 11-15 Investigation 3: Session 3-4
<b>Congruence, Similarity, and Transformations</b>	
<b>4.1.2</b> Use position words (e.g., between, left, near) to describe location of objects.	Can be developed from: <i>Quilt Squares and Block Towns</i> Investigation 1: Session 13-15
<b>Coordinate Geometry and Line of Symmetry</b>	
<b>4.1.3</b> Identify and replicate two-dimensional designs that contain a line of symmetry.	Can be developed from: <i>Quilt Squares and Block Towns</i> Investigation 1: Session 1-6, 11-15

## Data Analysis

**Content Standard 5.0:** To solve problems, communicate, reason, and make connections within and beyond the field of mathematics, students will collect, organize, display, interpret, and analyze data to determine statistical relationships and probability projections.

<b>Nevada Mathematics Content Standards</b>	<b>Investigations in Number, Data, &amp; Space</b>
<b><i>By the end of Grade 1, students know and are able to do everything required in the previous grade and:</i></b>	
<b>Data Collection and Organization</b>	
<b>5.1.1 Collect, organize, and describe data.</b>	<i>Mathematical Thinking at Grade 1</i> Investigation 5: Session 2-6 <i>Survey Questions and Secret Rules</i> Investigation 2: Session 1-6 Investigation 3: Session 1-3 Investigation 4: Session 1-5 <i>Bigger, Taller, Heavier, Smaller</i> Investigation 2: Session 1

**Investigations in Number, Data, & Space  
to the  
Nevada Mathematics Content Standards**

**Grade Two**

**Numbers, Number Sense, and Computation**

**Content Standard 1.0:** To solve problems, communicate, reason, and make connections within and beyond the field of mathematics, students will accurately calculate and use estimation techniques, number relationships, operation rules, and algorithms; they will determine the reasonableness of answers and the accuracy of solutions.

Nevada Mathematics Content Standards	Investigations in Number, Data, & Space
<i><b>By the end of Grade 2, students know and are able to do everything required in the previous grade and:</b></i>	
<b>Facts</b>	
<b>1.2.1 Identify and model basic addition facts (sums to 18) and the corresponding subtraction facts; immediately recall basic addition facts (sums through 10) and the corresponding subtraction facts.</b>	<i>Mathematical Thinking at Grade 2 Investigation 2: Session 2-3, 8 Coins, Coupons and Combinations Investigation 1: Session 1-5, 8-10</i>
<b>Application</b>	
<b>1.2.2 Add and subtract multi-digit numbers without regrouping.</b>	<i>Mathematical Thinking at Grade 2 Investigation 4: Session 1 Investigation 5: Session 3 Putting Together and Taking Apart Investigation 1: Session 1-6 Investigation 4: Session 1-4 Investigation 5: Session 1-8 Coins, Coupons, and Combinations Investigation 1: Session 10 Investigation 2: Session 10 Investigation 3: Session 1-5 Investigation 4: Session 2-4</i>



Nevada Mathematics Content Standards	Investigations in Number, Data, & Space
<b>Word Problems and Number Theory</b>	
<b>1.2.3</b> <b>Generate and solve one-step addition and subtraction problems based on practical situations.</b>	<i>Putting Together and Taking Apart</i> Investigation 1: Session 1-6 Investigation 2: Session 1-7 Investigation 5: Session 2-8 <i>Coins, Coupons and Combinations</i> Investigation 2: Session 10 Investigation 3: Session 1-5
<b>Decimals and Money</b>	
<b>1.2.4</b> <b>Use decimals to show money amounts.</b>	Can be developed from: <i>Coins, Coupons, and Combinations</i> Investigation 2: Sessions 6-9 <i>Putting Together and Taking Apart</i> Investigation 2: Sessions 5-6 Investigation 4: Sessions 3-4
<b>Computation</b>	
<b>1.2.5</b> <b>Use the patterns in numbers to skip count.</b>	<i>Mathematical Thinking at Grade 2</i> Investigation 2: Session 6 Investigation 4: Session 1 <i>Coins, Coupons, and Combinations</i> Investigation 2: Session 1-5
<b>Estimation and Rounding</b>	
<b>1.2.7</b> <b>Estimate the number of objects in a set to 20; read and write number words to 20 and use ordinal positions first to twentieth.</b>	<i>Mathematical Thinking at Grade 2</i> Investigation 5: Session 3 <i>Coins, Coupons, and Combinations</i> Investigation 2: Session 10

Nevada Mathematics Content Standards	Investigations in Number, Data, & Space
<b>Place value</b>	
<b>1.2.8</b> <b>Use, model, and identify place value positions of 1's, 10's, and 100's.</b>	Can be developed from: <i>Putting Together and Taking Apart</i> Investigation 1: Session 1 Investigation 2: Session 1 <i>Coins, Coupons, and Combinations</i> Investigation 3: Session 1-2
<b>Fractions</b>	
<b>1.2.9</b> <b>Identify, model, and label <math>\frac{1}{2}</math> and <math>\frac{1}{4}</math> as parts of a whole.</b>	<i>Shapes, Halves, and Symmetry</i> Investigation 3: Session 1-8

## Patterns, Functions, and Algebra

**Content Standard 2.0:** To solve problems, communicate, reason, and make connections within and beyond the field of mathematics, students will use various algebraic methods to analyze, illustrate, extend, and create numerous representations (words, numbers, tables, and graphs) of patterns, functions, and algebraic relations as modeled in practical situations.

Nevada Mathematics Content Standards	Investigations in Number, Data, & Space
<b><i>By the end of Grade 2, students know and are able to do everything required at the previous grade and:</i></b>	
<b>Patterns</b>	
<b>2.2.1</b> <b>Recognize, describe, extend, and create repeating and increasing patterns using symbols, objects, and manipulatives; use patterns and their extensions to solve problems.</b>	<i>Mathematical Thinking at Grade 2</i> Investigation 4: Session 1 <i>Timelines and Rhythm Patterns</i> Investigation 2: Session 1-5 <i>Putting Together and Taking Apart</i> Investigation 2: Session 1-2 <i>Coins, Coupons, and Combinations</i> Investigation 2: Session 1-5 Investigation 4: Session 1-4
<b>Relationships</b>	
<b>2.2.2</b> <b>Generate and solve problems based on various numerical sentences; represent mathematical situations using numbers, symbols, and words.</b>	<i>Putting Together and Taking Apart</i> Investigation 3: Session 1-5 Investigation 4: Session 1-2
<b>Variables (Unknowns)</b>	
<b>2.2.3</b> <b>Use variables and open sentences to express relationships.</b>	<i>Putting Together and Taking Apart</i> Investigation 3: Session 1-5 Investigation 4: Session 3-4

Nevada Mathematics Content Standards	Investigations in Number, Data, & Space
<b>Number Sentences and Equations</b>	
<b>2.2.4</b> <b>Generate and solve problems based on various numerical sentences; represent mathematical situations using numbers, symbols, and words.</b>	<i>Putting Together and Taking Apart</i> Investigation 3: Session 1-5 Investigation 4: Session 1-2
<b>Equation Solutions</b>	
<b>2.2.7</b> <b>Model, explain and solve a number sentence involving addition and subtraction.</b>	<i>Putting Together and Taking Apart</i> Investigation 3: Session 1-5 Investigation 4: Session 3-4

## Measurement

**Content Standard 3.0:** To solve problems, communicate, reason and make connections within and beyond the field of mathematics, students will use appropriate tools and techniques of measurement to determine, estimate, record, and verify direct and indirect measurements.

Nevada Mathematics Content Standards	Investigations in Number, Data, & Space
<i><b>By the end of Grade 2, students know and are able to do everything required in the previous grade and:</b></i>	
<b>Comparison and Ordering</b>	
<b>3.2.1</b> <b>Compare and order objects by various measurable attributes (e.g., time, temperature, length, weight, capacity and area) communicating their similarities and differences.</b> <small>S 2.2.1</small>	<i>How Long? How Far?</i> Investigation 1: Session 1-8 Investigation 2: Session 4-5
<b>Measurement</b>	
<b>3.2.2</b> <b>Compare objects to standard whole units to find objects that are greater than, less than, and/or equal to a given unit (e.g., inch, yard, centimeter, meter).</b>	<i>How Long? How Far?</i> Investigation 1: Session 1-8 Investigation 2: Session 4-5
<b>Money</b>	
<b>3.2.4</b> <b>Determine the value of any given set of coins.</b>	<i>Mathematical Thinking at Grade 2</i> Investigation 4: Session 2 <i>Putting Together and Taking Apart</i> Investigation 2: Session 5-6 <i>Coins, Coupons, and Combinations</i> Investigation 2: Session 6-9
<b>Time</b>	
<b>3.2.6</b> <b>Read time to the nearest quarter hour; distinguish between A.M. and P.M.</b>	Can be developed from: <i>Timelines and Rhythm Patterns</i> Investigation 1: Session 4-6

## Spatial Relationships and Geometry

**Content Standard 4.0:** To solve problems, communicate, and make connections within and beyond the field of mathematics, students will identify, represent, verify, and apply spatial relationships and geometric properties.

Nevada Mathematics Content Standards	Investigations in Number, Data, & Space
<i>By the end of Grade 1, students know and are able to do everything required in the previous grade and:</i>	
<b>Two– Dimensional Shapes</b>	
<b>4.2.1</b> Describe, and compare two dimensional shapes (circles, triangles, rectangles including squares) regardless of position.	<i>Shapes, Halves, and Symmetry</i> Investigation 1: Session 1 Investigation 2: Session 1-6
<b>Congruence, Similarity, and Transformations</b>	
<b>4.2.2</b> Compare the size (larger and smaller) of similar two-dimensional figures (e.g., circles, triangles); identify congruent shapes.	<i>Shapes, Halves, and Symmetry</i> Investigation 2: Session 2-3 Investigation 3: Session 3-5
<b>Coordinate Geometry and Line of Symmetry</b>	
<b>4.2.3</b> Identify figures with symmetry as they appear in the environment; create two-dimensional designs that contain a line of symmetry.	<i>Shapes, Halves, and Symmetry</i> Investigation 4: Session 1-7
<b>Two- and three- dimensional figures</b>	
<b>4.2.4</b> Identify, name, sort, describe, two- and three- dimensional geometric figures and objects (e.g., circle/sphere, square/cube).	<i>Mathematical Thinking at Grade 2</i> Investigation 3: Session 1-5 <i>Shapes, Halves, and Symmetry</i> Investigation 1: Session 1-3 Investigation 2: Session 1-6

## Data Analysis

**Content Standard 5.0:** To solve problems, communicate, reason, and make connections within and beyond the field of mathematics, students will collect, organize, display, interpret, and analyze data to determine statistical relationships and probability projections.

Nevada Mathematics Content Standards	Investigations in Number, Data, & Space
<i><b>By the end of Grade 2, students know and are able to do everything required in the previous grade and:</b></i>	
<b>Data Collection and Organization</b>	
<b>5.2.1</b> <b>Collect, organize, record, and explain classification of data using concrete materials.</b>	<i>Mathematical Thinking at Grade 2</i> Investigation 2: Session 6 Investigation 5: Session 1-6 <i>How Many Pockets? How Many Teeth?</i> Investigation 1: Session 1-5 Investigation 2: Session 1-6 Investigation 3: Session 1-5 <i>Does It Walk, Craw, or Swim?</i> Investigation 1: Session 1-2, 6 Investigation 2: Session 1-4 Investigation 3: Session 1-3 Investigation 4: Session 1-3 <i>Coins, Coupons, and Combinations</i> Investigation 1: Session 11 Investigation 2: Session 10

**Investigations in Number, Data, & Space  
to the  
Nevada Mathematics Content Standards  
Grade Three**

**Numbers, Number Sense, and Computation**

**Content Standard 1.0:** To solve problems, communicate, reason, and make connections within and beyond the field of mathematics, students will accurately calculate and use estimation techniques, number relationships, operation rules, and algorithms; they will determine the reasonableness of answers and the accuracy of solutions.

Nevada Mathematics Content Standards	Investigations in Number, Data, & Space
<i><b>By the end of Grade 3, students know and are able to do everything required in the previous grade and:</b></i>	
<b>Facts</b>	
<b>1.3.1</b> <b>Immediately recall and use addition, subtraction, and multiplication facts to 81.</b>	<i>Combining and Comparing</i> Investigation 1: Session 3 Investigation 3: Session 1-3 Investigation 4: Session 1-3 <i>Mathematical Thinking</i> Investigation 2: Session 1 Investigation 3: Sessions 1-3 Investigation 4: Session 1 <i>Up and Down the Number Line</i> Investigation 1: Session 1-2
<b>Application</b>	
<b>1.3.2</b> <b>Add and subtract multi-digit numbers with regrouping.</b>	<i>Mathematical Thinking at Grade 3</i> Investigation 2: Session 1-7 Investigation 3: Session 3-4 Investigation 4: Session 1 <i>Combining and Comparing</i> Investigation 1: Session 1-3 Investigation 2: Session 1-2 Investigation 3: Session 1-3 Investigation 4: Session 2-4 Investigation 5: Session 1-3



Nevada Mathematics Content Standards	Investigations in Number, Data, & Space
<b>Word Problems and Number Theory</b>	
<p><b>1.3.3</b>  <b>Generate and solve 2-step addition and subtraction and 1-step multiplication problems based on practical situations using pencil and paper, mental computation, and estimation.</b></p>	<p>Representative Examples:  <i>Mathematical Thinking at Grade 3</i>  Investigation 4: Session 2  <i>From Paces to Feet</i>  Investigation 1: Session 3-4  <i>Combining and Comparing</i>  Investigation 1: Session 1-2  Investigation 3: Session 1-3  Investigation 4: Session 3-4  Investigation 5: Sessions 1-3  <i>Landmarks on the Hundreds Chart</i>  Investigation 2: Session 4-6  Investigation 3: Session 2-3  <i>Turtle Paths</i>  Investigation 2: Session 1-2  Investigation 3: Session 1-2  <i>Things That Come in Groups</i>  Investigation 1: Session 4  Investigation 2: Session 3-4  Investigation 3: Session 1-2  Investigation 4: Session 3-4  Investigation 5: Session 1-4</p>
<b>Decimals and Money</b>	
<p><b>1.3.4</b>  <b>Add and subtract decimals using money as a model</b></p>	<p><i>Mathematical Thinking at Grade 3</i>  Investigation 2: Session 5-7  <i>Combining and Comparing</i>  Investigation 3: Session 1-3</p>

Nevada Mathematics Content Standards	Investigations in Number, Data, & Space
<b>Computation</b>	
<b>1.3.5</b> <b>Model and explain multiplication, including as repeated addition.</b>	<i>Mathematical Thinking at Grade 3</i> Investigation 2: Session 3-4 Investigation 4: Session 1 <i>Things That Come in Groups</i> Investigation 1: Session 1-4 Investigation 2: Session 1-6 Investigation 3: Session 1-5 Investigation 4: Session 1-4 Investigation 5: Session 1-4 Ten Minute Math: Counting Around the Class <i>Landmarks in the Hundreds</i> Investigation 1: Session 1-7 Investigation 2: Session 1-6
<b>Comparison and Ordering</b>	
<b>1.3.6</b> <b>Read, write, order, and compare numbers from 0-999; read and write number words.</b>	<i>Mathematical Thinking at Grade 3</i> Investigation 3: Session 3-4 <i>Combining and Comparing</i> Investigation 1: Session 1-3 Investigation 2: Session 2 Investigation 4: Session 1-4 Investigation 5: Session 1-3
<b>Estimation and Rounding</b>	
<b>1.3.7</b> <b>Round to nearest tens and hundreds to determine reasonableness of the answer; read and write number words.</b>	<i>From Paces to Feet</i> Ten Minute Math: Estimation and Number Sense <i>Up and Down The Number Line</i> Ten Minute Math: Estimation and Number Sense
<b>Place value</b>	
<b>1.3.8</b> <b>Use, model, and identify place value positions up to 10,000.</b>	<i>Mathematical Thinking at Grade 3</i> Investigation 1: Session 1-3

Nevada Mathematics Content Standards	Investigations in Number, Data, & Space
<b>Fractions</b>	
<b>1.3.9</b> <b>Model, sketch, and label fractions with denominators to 10; write fractions with numbers and words.</b>	<i>Mathematical Thinking at Grade 3</i> Investigation 4: Session 2 <i>Fair Share</i> Investigation 1: Session 1-4 Investigation 2: Session 1-7 Investigation 3: Session 1-3

## Patterns, Functions, and Algebra

**Content Standard 2.0:** To solve problems, communicate, reason, and make connections within and beyond the field of mathematics, students will use various algebraic methods to analyze, illustrate, extend, and create numerous representations (words, numbers, tables, and graphs) of patterns, functions, and algebraic relations as modeled in practical situations.

Nevada Mathematics Content Standards	Investigations in Number, Data, & Space
<b><i>By the end of Grade 3, students know and are able to do everything required at the previous grade and:</i></b>	
<b>Patterns</b>	
<b>2.3.1</b> <b>Recognize, describe, and create patterns using numbers; use number patterns and their extensions to solve problems.</b>	<i>Mathematical Thinking at Grade 3</i> Investigation 1: Session 2-3 <i>Landmarks in the Hundreds</i> Investigation 2: Session 1-3 Ten Minute Math: Counting Around the Class <i>Things That Come in Groups</i> Investigation 2: Session 1-6 Investigation 5: Session 1
<b>Variables (Unknowns)</b>	
<b>2.3.3</b> <b>Identify missing terms and missing numbers in open number sentences involving number facts in addition and subtraction.</b>	<i>Up and Down the Number Line</i> Investigation 1: Session 6-7
<b>Number Sentences and Equations</b>	
<b>2.3.4</b> <b>Complete number sentences with the appropriate words and symbols for addition, subtraction, less than, greater than, and equal to (+, -, &lt;, &gt;, =).</b>	<i>Combining and Comparing</i> Investigation 1: Session 1-2 Investigation 4: Session 2

## Measurement

**Content Standard 3.0:** To solve problems, communicate, reason and make connections within and beyond the field of mathematics, students will use appropriate tools and techniques of measurement to determine, estimate, record, and verify direct and indirect measurements.

Nevada Mathematics Content Standards	Investigations in Number, Data, & Space
<i><b>By the end of Grade 3, students know and are able to do everything required in the previous grade and:</b></i>	
<b>Measurement</b>	
<b>3.3.2</b> <b>Select and use appropriate units of measurement; measure to a required degree of accuracy, and record results.</b>	<i>From Paces to Feet</i> Investigation 1: Session 1-6 Investigation 2: Session 1-2, 5-7
<b>Estimation and formulas</b>	
<b>3.3.3</b> <b>Estimate and use measuring devices with standard and non-standard units to measure length, surface area, liquid volume, capacity, temperature, and weight, communicating the concepts of more, less, and equivalent.</b>	<i>From Paces to Feet</i> Investigation 1: Session 1-6 Investigation 2: Session 1-7 Investigation 4: Session 1-3 <i>Combining and Comparing</i> Investigation 2: Session 1-2 <i>Flips, Turns, and Area</i> Investigation 2: Session 1-4
<b>Money</b>	
<b>3.3.4</b> <b>Read, write, and use money notation determining possible combinations of coins and bills to equal given amounts.</b>	<i>Mathematical Thinking at Grade 3</i> Investigation 2: Session 5-7 <i>Combining and Comparing</i> Investigation 3: Session 1-3
<b>Time</b>	
<b>3.3.6</b> <b>Tell time to the nearest minute, using analog and digital clocks, and identify elapsed time.</b>	Can be developed from: <i>Up and Down the Number Line</i> Investigation 2: Session 2-3 <i>Combining and Comparing</i> Investigation 5: Session 1-3

## Spatial Relationships and Geometry

**Content Standard 4.0:** To solve problems, communicate, and make connections within and beyond the field of mathematics, students will identify, represent, verify, and apply spatial relationships and geometric properties.

Nevada Mathematics Content Standards	Investigations in Number, Data, & Space
<i><b>By the end of Grade 3, students know and are able to do everything required in the previous grade and:</b></i>	
<b>Two– Dimensional Shapes</b>	
<b>4.3.1</b> <b>Describe, sketch, compare, and contrast plane geometric figures.</b>	<i>Exploring Solids and Boxes</i> Investigation 2: Session 1-2 <i>Turtle Paths</i> Investigation 2: Session 3-4
<b>Congruence, Similarity, and Transformations</b>	
<b>4.3.2</b> <b>Demonstrate and describe the motion (transformation) of geometric figures as a slide, rotation, or a flip.</b>	<i>Flips, Turns, and Area</i> Investigation 1: Session 2-3 <i>Turtle Paths</i> Investigation 2: Session 1-4
<b>Two- and three- dimensional figures</b>	
<b>4.3.4</b> <b>Compare, contrast, sketch, model, and build two- and three-dimensional geometric figures and objects.</b>	<i>Exploring Solids and Boxes</i> Investigation 1: Session 1-2 Investigation 2: Session 1-5 Investigation 3: Session 1-2 Investigation 4: Session 1-3 <i>Turtle Paths</i> Investigation 3: Session 1-5

## Data Analysis

**Content Standard 5.0:** To solve problems, communicate, reason, and make connections within and beyond the field of mathematics, students will collect, organize, display, interpret, and analyze data to determine statistical relationships and probability projections.

Nevada Mathematics Content Standards	Investigations in Number, Data, & Space
<i><b>By the end of Grade 3, students know and are able to do everything required in the previous grade and:</b></i>	
<b>Data Collection and Organization</b>	
<b>5.3.1</b> <b>Collect, organize, display, and describe simple data using number lines, pictographs, bar graphs, and frequency tables.</b>	<i>Mathematical Thinking at Grade 3</i> Investigation 3: Session 1-4 <i>Things That Come in Groups</i> Investigation 1: Session 1 Investigation 5: Session 1-4 <i>From Paces to Feet</i> Investigation 1: Session 1-2, 5-6 Investigation 2: Session 2-4 <i>Up and Down the Number Line</i> Investigation 1: Session 1-2 Investigation 2: Session 1-4 <i>Combining and Comparing</i> Investigation 4: Session 1 Ten Minute Math: Exploring Data
<b>Probability</b>	
<b>5.3.2</b> <b>Use concepts of probability (e.g., impossible, likely, certain) to make predictions about future events.</b>	<i>Things That Come in Groups</i> Ten Minute Math: Likely or Unlikely? <i>Exploring Solids and Boxes</i> Investigation 2: Session 2 Ten Minute Math: What is Likely?

**Investigations in Number, Data, & Space  
to the  
Nevada Mathematics Content Standards  
Grade Four**

**Numbers, Number Sense, and Computation**

**Content Standard 1.0:** To solve problems, communicate, reason, and make connections within and beyond the field of mathematics, students will accurately calculate and use estimation techniques, number relationships, operation rules, and algorithms; they will determine the reasonableness of answers and the accuracy of solutions.

Nevada Mathematics Content Standards	Investigations in Number, Data, & Space
<i><b>By the end of Grade 4, students know and are able to do everything required in the previous grade and:</b></i>	
<b>Facts</b>	
<b>1.4.1</b> <b>Immediately recall and use multiplication and corresponding division facts through 12s.</b>	<i>Arrays and Shares</i> Investigation 1: Session 1-3 Investigation 2: Session 1-8 Investigation 3: Session 1-4 <i>Packages and Groups</i> Investigation 2: Session 1 Investigation 3: Session 1-2
<b>Word Problems and Number Theory</b>	
<b>1.4.3</b> <b>Generate and solve 2-step multiplication and division problems based on practical situations using pencil and paper, mental computation, and estimation.</b>	<i>Arrays and Shares</i> Investigation 2: Session 1-8 Investigation 3: Session 2-5 <i>Packages and Groups</i> Investigation 3: Session 4-6, 9-10
<b>Decimals and Money</b>	
<b>1.4.4</b> <b>Multiply and divide money amounts by a one-digit whole number producing a solution with no remainder.</b>	Can be developed from: <i>Money, Miles and Large Numbers</i> Investigation 1: Session 7-8



Nevada Mathematics Content Standards	Investigations in Number, Data, & Space
<b>Computation</b>	
<b>1.4.5</b> <b>Multiply and divide multi-digit numbers by a one-digit number with regrouping, model and explain division including as repeated subtraction.</b>	<i>Arrays and Shares</i> Investigation 1: Session 7-8 Investigation 2: Session 1-4 Investigation 3: Session 2-4 <i>Landmarks in the Thousands</i> Investigation 2: Session 1 <i>Packages and Groups</i> Investigation 1: Session 3-5 Investigation 2: Session 1-3 Investigation 3: Session 1-10
<b>Comparison and Ordering</b>	
<b>1.4.6</b> <b>Read, write, order, and compare whole numbers.</b>	<i>Landmarks in the Thousands</i> Investigation 3: Session 1 Investigation 4: Session 1-3
<b>Estimation and Rounding</b>	
<b>1.4.7</b> <b>Use estimation to determine the reasonableness of an answer.</b>	<i>Mathematical Thinking at Grade 4</i> Investigation 1: Session 2-4 <i>Landmarks in the Thousands</i> Investigation 3: Session 3-5 <i>Money, Miles and Large Numbers</i> Investigation 3: Session 1 <i>Packages and Groups</i> Investigation 2: Session 2-3
<b>Place value</b>	
<b>1.4.8</b> <b>Use and identify place value positions of whole numbers.</b>	<i>Mathematical Thinking at Grade 4</i> Investigation 1: Session 2-4 <i>Landmarks in the Thousands</i> Investigation 3: Session 1 Investigation 4: Session 1-3

Nevada Mathematics Content Standards	Investigations in Number, Data, & Space
<b>Fractions</b>	
<p><b>1.4.9</b>  <b>Identify and compare fractions with like denominators using numbers, models, and drawings.</b></p>	<p><i>Different Shapes, Equal Pieces</i>  Investigation 1: Session 1-5  Investigation 2: Session 1-4  Investigation 3: Session 1-5  <i>Money, Miles, and Large Number</i>  Investigation 2: Session 1-2  <i>Three Out of Four Like Spaghetti</i>  Investigation 1: Session 2</p>

## Patterns, Functions, and Algebra

**Content Standard 2.0:** To solve problems, communicate, reason, and make connections within and beyond the field of mathematics, students will use various algebraic methods to analyze, illustrate, extend, and create numerous representations (words, numbers, tables, and graphs) of patterns, functions, and algebraic relations as modeled in practical situations.

Nevada Mathematics Content Standards	Investigations in Number, Data, & Space
<b><i>By the end of Grade 4, students know and are able to do everything required at the previous grade and:</i></b>	
<b>Patterns</b>	
<b>2.4.1</b> <b>Identify, describe, and represent numeric and geometric patterns and relationships.</b>	<i>Mathematical Thinking at Grade 4</i> Investigation 4: Session 1-6 <i>Arrays and Shares</i> Investigation 1: Session 1-2 <i>Landmarks in the Thousands</i> Investigation 1: Session 1 Investigation 2: Session 1 <i>Packages and Groups</i> Investigation 1: Session 1-3 Investigation 3: Session 4-6 <i>Sunken Ships and Grid Patterns</i> Investigation 2: Session 8-9
<b>Variables (Unknowns)</b>	
<b>2.4.3</b> <b>Find solutions to given equalities from a given replacement set, (e.g. find the solution to <math>3 \times 7 = \underline{\hspace{1cm}}</math>, given the replacement set {19, 20, 21}).</b>	<i>Mathematical Thinking at Grade 4</i> Investigation 3: Session 3 <i>Packages and Groups</i> Investigation 3: Session 7-8

## Measurement

**Content Standard 3.0:** To solve problems, communicate, reason and make connections within and beyond the field of mathematics, students will use appropriate tools and techniques of measurement to determine, estimate, record, and verify direct and indirect measurements.

Nevada Mathematics Content Standards	Investigations in Number, Data, & Space
<i><b>By the end of Grade 3, students know and are able to do everything required in the previous grade and:</b></i>	
<b>Measurement</b>	
3.4.2 Measure and compare length in inches, feet, yards, and miles to the nearest $\frac{1}{2}$ , $\frac{1}{4}$ ); measure and compare lengths in metric units (millimeter, centimeter, meter, kilometer; <b>convert</b> within each system.	<i>The Shape of the Data</i> Investigation 2: Session 1-4 <i>Money, Miles and Large Numbers</i> Investigation 2: Session 1-4 Investigation 3: Session 2-4 <i>Changes Over Time</i> Investigation 3: Session 3-4 <i>Sunken Ships and Grid Patterns</i> Investigation 1: Session 3-6
<b>Estimation and formulas</b>	
3.4.3 Communicate the difference between <b>perimeter</b> and <b>area</b> ; describe and determine the perimeter of <b>polygons</b> and the area of rectangles (including squares).	Can be developed from: <i>Sunken Ships and Grid Patterns</i> Ten Minute Math: Lengths and Perimeters <i>Different Shapes, Equal Pieces</i> Investigation 1: Session 1 Investigation 2: Session 1-2
<b>Money</b>	
3.4.4 Determine totals for monetary amounts in problem- solving situations.	<i>Money, Miles and Large Numbers</i> Investigation 1: Session 1-8 <i>Mathematical Thinking at Grade 4</i> Investigation 2: Session 1-4

Nevada Mathematics Content Standards	Investigations in Number, Data, & Space
<b>Proportion and Ratio</b>	
<p>3.4.5 Describe and determine the perimeter of polygons and the area of rectangles (including squares).</p>	<p><i>Sunken Ships and Grid Patterns</i> Ten Minute Math: Lengths and Perimeters <i>Different Shapes, Equal Pieces</i> Investigation 1: Session 1 Investigation 2: Session 1-2</p>

## Spatial Relationships and Geometry

**Content Standard 4.0:** To solve problems, communicate, and make connections within and beyond the field of mathematics, students will identify, represent, verify, and apply spatial relationships and geometric properties.

Nevada Mathematics Content Standards	Investigations in Number, Data, & Space
<i>By the end of Grade 4, students know and are able to do everything required in the previous grade and:</i>	
<b>Two– Dimensional Shapes</b>	
<b>4.4.1</b> Identify, draw, and classify angles according to their measurement, including right, obtuse, and acute.	<i>Sunken Ship and Grid Patterns</i> Investigation 2: Session 1, 5
<b>Congruence, Similarity, and Transformations</b>	
<b>4.4.2</b> Represent concepts of similarity congruence, and symmetry using transformational motion.	<i>Mathematical Thinking at Grade 4</i> Investigation 4: Session 1-2, 5-6 <i>Sunken Ships and Grid Patterns</i> Investigation 2: Session 2-3, 5-7
<b>Two- and three- dimensional figures</b>	
<b>4.4.4</b> Identify, describe, and classify two- and three - dimensional figures by relevant properties including the number of vertices (corners), edges, and shapes of faces, using models.	<i>Seeing Solids and Silhouettes</i> Investigation 1: Session 1 Investigation 2: Session 1-5 Investigation 3: Session 1-3 Investigation 4: Session 1-4 <i>Sunken Ships and Grid Patterns</i> Investigation 2: Session 1-4, 6-7
<b>Lines, Angles, and Geometric Figures</b>	
<b>4.4.6</b> Identify, describe, and draw geometric figures including points, intersecting lines, parallel lines, line segments, rays, and angles.	<i>Sunken Ships and Grid Patterns</i> Investigation 2: Session 1-7

## Data Analysis

**Content Standard 5.0:** To solve problems, communicate, reason, and make connections within and beyond the field of mathematics, students will collect, organize, display, interpret, and analyze data to determine statistical relationships and probability projections.

Nevada Mathematics Content Standards	Investigations in Number, Data, & Space
<i><b>By the end of Grade 4, students know and are able to do everything required in the previous grade and:</b></i>	
<b>Data Collection and Organization</b>	
<b>5.4.1</b> <b>Collect, organize, display, describe, and interpret simple data using number lines, pictographs, bar graphs, and frequency tables.</b>	<i>The Shape of the Data</i> Investigation 1: Session 1-3 Investigation 2: Session 1-7 Investigation 3: Session 1-5 <i>Changes Over Time</i> Investigation 1: Session 1-6 Investigation 3: Session 1-8 <i>Three Out of Four Like Spaghetti</i> Investigation 2: Session 1-7
<b>Probability</b>	
<b>5.4.2</b> <b>Conduct simple probability experiments using concrete materials and represent the results using fractions.</b>	<i>Three Out of Four Like Spaghetti</i> Investigation 1: Session 1, 3-4 Ten Minute Math: What is Likely? <i>Money, Miles and Large Numbers</i> Ten Minute Math: Likely or Unlikely? <i>Landmarks in the Thousands</i> Ten Minute Math: What is Likely?

**Investigations in Number, Data, & Space  
to the  
Nevada Mathematics Content Standards**

**Grade Five**

**Numbers, Number Sense, and Computation**

**Content Standard 1.0:** To solve problems, communicate, reason, and make connections within and beyond the field of mathematics, students will accurately calculate and use estimation techniques, number relationships, operation rules, and algorithms; they will determine the reasonableness of answers and the accuracy of solutions.

Nevada Mathematics Content Standards	Investigations in Number, Data, & Space
<i><b>By the end of Grade 5, students know and are able to do everything required in the previous grade and:</b></i>	
<b>Facts</b>	
<b>1.5.1</b> <b>Use and apply multiplication and corresponding division facts through 12's.</b>	<i>Mathematical Thinking at Grade 5</i> Investigation 1: Session 1-3 Investigation 2: Session 2-4 <i>Building on Numbers You Know</i> Investigation 1: Session 1-5
<b>Application</b>	
<b>1.5.2</b> <b>Generate and solve addition, subtraction, multiplication, and division problems using whole numbers in practical situations.</b>	<i>Mathematical Thinking at Grade 5</i> Investigation 1: Session 4-6 Investigation 4: Session 1-6 <i>Building on Numbers You Know</i> Investigation 1: Session 1-8 Investigation 2: Session 1-4, 7 Investigation 5: Session 4-6
<b>Word Problems and Number Theory</b>	
<b>1.5.3</b> <b>Use order of operations to solve problems.</b>	Can be developed from: <i>Building on Numbers You Know</i> Investigation 2: Session 1-2



Nevada Mathematics Content Standards	Investigations in Number, Data, & Space
<b>Decimals</b>	
<b>1.5.4</b> <b>Add and subtract decimals; multiply and divide decimals by whole numbers in problems representing practical situations.</b>	<i>Name That Portion</i> Investigation 3: Session 1-7
<b>Computation</b>	
<b>1.5.5</b> <b>Multiply and divide multi-digit numbers by 2-digit numbers, including strategies for powers of 10.</b>	<i>Mathematical Thinking at Grade 5</i> Investigation 3: Session 2-5 Investigation 4: Session 2-6 <i>Building on Numbers You Know</i> Investigation 1: Session 1-5 Investigation 2: Session 1-6 Investigation 3: Session 1-10 Investigation 4: Session 1 Investigation 5: Session 3-7
<b>Comparison and Ordering</b>	
<b>1.5.6</b> <b>Compare and order negative numbers within the context of everyday happenings (e.g., temperature) and plot those numbers on a number line.</b>	<i>Picturing Polygons</i> Investigation 1: Session 2-4 Investigation 2: Session 4-5
<b>Estimation and Rounding</b>	
<b>1.5.7</b> <b>When rounding, identify which place value will be most helpful in estimating an answer and determine the reasonableness of the answer.</b>	<i>Building on Numbers You Know</i> Investigation 5: Session 1-2
<b>Place value</b>	
<b>1.5.8</b> <b>Use and identify place value.</b>	<i>Mathematical Thinking at Grade 5</i> Investigation 2: Session 5 Investigation 4: Session 2-4 <i>Building on Numbers You Know</i> Investigation 4: Session 1-2

Nevada Mathematics Content Standards	Investigations in Number, Data, & Space
<b>Fractions</b>	
<p><b>1.5.9</b>  <b>Use models and drawings to identify, compare, add, and subtract fractions with like denominators and to add and subtract decimals; use both to solve problems.</b></p>	<p><i>Name That Portion</i>  Investigation 1: Session 1-7  Investigation 2: Session 1-9  Investigation 3: Session 1, 5-8  Investigation 4: Session 2, 5-7  <i>Between Never and Always</i>  Investigation 1: Session 1-2  <i>Data: Kids, Cats and Ads</i>  Investigation 3: Session 1  Investigation 4: Session 1-3</p>

## Patterns, Functions, and Algebra

**Content Standard 2.0:** To solve problems, communicate, reason, and make connections within and beyond the field of mathematics, students will use various algebraic methods to analyze, illustrate, extend, and create numerous representations (words, numbers, tables, and graphs) of patterns, functions, and algebraic relations as modeled in practical situations.

Nevada Mathematics Content Standards	Investigations in Number, Data, & Space
<b><i>By the end of Grade 5, students know and are able to do everything required at the previous grade and:</i></b>	
<b>Patterns</b>	
<b>2.5.1</b> <b>Identify, describe, and explain patterns and relationships in the number system (e.g., formed by triangular numbers, perfect squares, arithmetic and geometric sequences) using concrete materials, paper and pencil, and calculators.</b>	<i>Mathematical Thinking at Grade 5</i> Investigation 2: Session 1, 5 Investigation 3: Session 1 <i>Picturing Polygons</i> Investigation 3: Session 5-6 <i>Name That Portion</i> Investigation 3: Session 5-6 <i>Building on Numbers You Know</i> Investigation 1: Session 1-5 <i>Patterns of Change</i> Investigation 1: Session 1-4
<b>Variables (Unknowns)</b>	
<b>2.5.3</b> <b>Using whole numbers as a replacement set, find possible solutions to such inequalities as <math>8 + 4 &gt; n</math>.</b>	Can be developed from: <i>Building on Numbers You Know</i> Investigation 1: Session 3-4 Investigation 2: Session 5-6
<b>Number Sentences and Equations</b>	
<b>2.5.4</b> <b>Use variables in open sentences and to describe simple functions and relationships.</b>	<i>Building on Numbers You Know</i> Investigation 1: Session 3-4 Investigation 2: Session 5-6

Nevada Mathematics Content Standards	Investigations in Number, Data, & Space
<b>Algebraic Basics</b>	
<p><b>2.5.5</b>  <b>Generate number sequences given the first term and any basic computation rule (e.g., given a 4 and the rule of add 6, 10, 16, 22, 28, ...).</b></p>	<p><i>Mathematical Thinking at Grade 5</i>            Investigation 2: Session 1            Investigation 3: Session 1-5</p>
<b>Equation Solutions</b>	
<p><b>2.5.7</b>  <b>Solve simple equations using a variety of methods (e.g. inverse operations, mental math, and estimate and verify).</b></p>	<p>Can be developed from:  <i>Building on Numbers You Know</i>            Investigation 1: Session 3-4            Investigation 2: Session 5-6</p>

## Measurement

**Content Standard 3.0:** To solve problems, communicate, reason, and make connections within and beyond the field of mathematics, students will use appropriate tools and techniques of measurement to determine, estimate, record, and verify direct and indirect measurements.

Nevada Mathematics Content Standards	Investigations in Number, Data, & Space
<i><b>By the end of Grade 5, students know and are able to do everything required at the previous grade and:</b></i>	
<b>Estimation and formulas</b>	
<b>3.5.3</b> Estimate measures of length, volume, capacity, quantity, and weight, communicating degree of accuracy needed and when a more precise measure is required.	<i>Measurement Benchmarks</i> Investigation 1: Session 1-8 Investigation 2: Session 1-8 <i>Containers and Cubes</i> Investigation 1: Session 1-4 Investigation 2: Session 1-5 Investigation 3: Session 1-4 Investigation 4: Session 1-9
<b>Money</b>	
<b>3.5.4</b> Determine totals and change due for monetary amounts in problem-solving situations.	Grade 4: <i>Money, Miles and Large Numbers</i> Investigation 1: Session 1-8 <i>Mathematical Thinking at Grade 4</i> Investigation 2: Session 1-4
<b>Proportion and Ratio</b>	
<b>3.5.5</b> Communicate the difference between perimeter and area.	Can be developed from: <i>Data: Kids, Cats and Ads</i> Investigation 4: Session 1-3
<b>Time</b>	
<b>3.5.6</b> Identify equivalent periods of time, including relationships between and among seconds, minutes, hours, days, months, and years (e.g., 60 sec = 1 min).	<i>Measurement Benchmarks</i> Investigation 3: Session 1-3

## Spatial Relationships and Geometry

**Content Standard 4.0:** To solve problems, communicate, reason, and make connections within and beyond the field of mathematics, students will identify, represent, explain, verify, and apply spatial relationships and geometric properties.

Nevada Mathematics Content Standards	Investigations in Number, Data, & Space
<i><b>By the end of Grade 5, students know and are able to do everything required at the previous grade and:</b></i>	
<b>Two -Dimensional Shapes</b>	
<b>4.5.1</b> Draw and classify triangles, according to their properties; (e.g., right, scalene, obtuse, equilateral); identify and draw circles and parts of circles, describing the relationships between the various parts (e.g., central angle, arc, diameter)	<i>Picturing Polygons</i> Investigation 2: Session 1-9
<b>Congruence, Similarity, and Transformations</b>	
<b>4.5.2</b> Identify shapes that have congruence, similarity, and/or symmetry of figures using a variety of methods including transformational motions (e.g., translation/slide, rotation/turn, reflection/flip, enlargement/reduction) and models, drawings, and measurement tools.	<i>Picturing Polygons</i> Investigation 3: Session 4-6
<b>Coordinate Geometry and Line of Symmetry</b>	
<b>4.5.3</b> Using a grid, identify coordinates for a given point or locate points of given coordinates in the first quadrant.	<i>Picturing Polygons</i> Investigation 1: Session 2-4

Nevada Mathematics Content Standards	Investigations in Number, Data, & Space
<b>Two and Three Dimensional Figures</b>	
<p><b>4.5.4</b>  <b>Identify, describe, compare, and classify two and three- dimensional figures by relevant properties including number of vertices (corners), edges, and shapes of faces; identify and predict the effects of combining, dividing, and changing shapes into other shapes.</b></p>	<p><i>Picturing Polygons</i>            Investigation 1: Session 1-4            Investigation 2: Session 1-9            Investigation 3: Session 1-3</p>
<b>Lines, Angles, and Geometric Figures</b>	
<p><b>4.5.6</b>  <b>Identify, describe, define, and draw geometric figures including points, intersecting, perpendicular and parallel lines, line segments, rays, angles, and planes.</b></p>	<p><i>Picturing Polygons</i>            Investigation 1: Session 2-4            Investigation 2: Session 1-9            Investigation 3: Session 1-3</p>

## Data Analysis

**Content Standard 5.0:** To solve problems, communicate, reason, and make connections within and beyond the field of mathematics, students will collect, organize, display, interpret, and analyze data to determine statistical relationships and probability projections.

Nevada Mathematics Content Standards	Investigations in Number, Data, & Space
<i><b>By the end of Grade 5, students know and are able to do everything required at the previous grade and:</b></i>	
<b>Data Collection and Organization</b>	
<b>5.5.1</b> <b>Collect, organize, read, and interpret data using a variety of graphic representations including tables, line plots, stem and leaf plots, scatter plots, histograms; use data to draw and explain conclusions and predictions.</b>	<i>Name That Portion</i> Investigation 4: Session 1-7 <i>Between Never and Always</i> Investigation 1: Session 1-6 Investigation 2: Session 1-3 <i>Measurement Benchmarks</i> Investigation 2: Session 7-8 <i>Patterns of Change</i> Investigation 1: Session 1-4 Investigation 2: Session 2-5 Investigation 3: Session 1-6 <i>Data: Kids, Cats and Ads</i> Investigation 1: Session 1-4 Investigation 2: Session 1-3 Investigation 3: Session 2-4 Investigation 4: Session 1-3 Investigation 5: Session 1-5
<b>Central Tendency</b>	
<b>5.5.4</b> <b>Model and then compute measures of central tendency including mean, median, and mode.</b>	<i>Data: Kids, Cats and Ads</i> Investigation 1: Session 2-4



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<b>Design</b>	
<p><b>5.5.6</b>  <b>Describe the limitations of various graph formats; select an appropriate type of graph to accurately represent the data and justify the selection.</b></p>	<p>Can be developed from:</p> <p><i>Name That Portion</i>  Investigation 4: Session 1-7</p> <p><i>Between Never and Always</i>  Investigation 1: Session 1-6  Investigation 2: Session 1-3</p> <p><i>Measurement Benchmarks</i>  Investigation 2: Session 7-8</p> <p><i>Patterns of Change</i>  Investigation 1: Session 1-4  Investigation 2: Session 2-5  Investigation 3: Session 1-6</p> <p><i>Data: Kids, Cats and Ads</i>  Investigation 1: Session 1-4  Investigation 2: Session 1-3  Investigation 3: Session 2-4  Investigation 4: Session 1-3  Investigation 5: Session 1-5</p>