

# **Illinois**

## **Late Elementary Math Goals 6-10 Goals/Standards/Benchmarks**

### **Correlated to AIMS Activities**

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## Illinois State Goals/Standards/Benchmarks Late Elementary Mathematics Goals 6-10

**GOAL 6: Demonstrate and apply a knowledge and sense of numbers, including numeration and operations (addition, subtraction, multiplication, division), patterns, ratios and proportions.**

<b>A. Demonstrate knowledge and use of numbers and their representations in a broad range of theoretical and practical settings.</b>		
6.A.2 Compare and order whole numbers, fractions and decimals using concrete materials, drawings and mathematical symbols.		
<b>Activity</b>	<b>Source</b>	<b>Students will:</b>
Fractions with Pattern Blocks	12.04	Use pattern blocks to explore equivalent addition of fractions and mixed numbers.
Fabulous Fractions (Entire Book)	Fabulous Fractions	Develop a conceptual understanding of fractions.
Tangrammy Squares	10.02	Use tangrams to explore and compare fraction concepts.
Jelly Belly	Pieces and Patterns	Write fractions that represent the color of jelly beans.
Flip	8.05	Decide how numerals can be strategically placed to create the largest or smallest number.
Fraction Dominoes	3.09	Apply their understanding of equivalent fractions in a series of games.
Compression Session	Jawbreakers and Heart Thumpers	Measure and compare their height in the morning and later in the day.
Fat Finder	Jawbreakers	Use foods to determine the amount of fat in a meal they select and compare to 30% limit of calories from fat.
Candy Factory	Jawbreakers	Compare the color distribution within packages of candy and then divide them into four shares.
Making Arrangements	15.06	Seek patterns as they take regroup sets of 1's, 10's, 100's can be taken apart in several ways.

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<b>B. Investigate, represent and solve problems using number facts, operations (addition, subtraction, multiplication, division) and their properties, algorithms and relationships.</b>		
6.B.2 Solve one- and two-step problems involving whole numbers, fractions and decimals using addition, subtraction, multiplication and division.		
<b>Activity</b>	<b>Source</b>	<b>Students will:</b>
Fish and Clips	Mostly Magnets	Quantify, measure, and average the number of paper clips attracted by a magnet.
Facing the Facts: Who Has (Whole Number/Operation) Crazy Clues	11.05	Use mental math to apply operations in a whole class format.
Facing the Facts: Who Has (Fractions)	11.06	Use mental math to apply operations in a whole class format.
Two-Digit Turn Around	12.04	Explore what happens when two digit numbers are subtraction in a certain pattern.
Skip to My Rule	11.03	Generate their own multiplication table.
Fascinating Triangle	Just for the Fun of It!	Arrange digits on a triangle to find common sums and explore patterns created.
Palindromic Ponderings	8.06	Explore properties and patterns of palindromes.
Lattice Multiplication	Historical Connections I	Explore an alternative method of multiplication.
Actions With Fractions (Entire Book)	Actions With Fractions	Apply understanding of fractions.
Fabulous Fractions (Entire Book)	Fabulous Fractions	Develop a conceptual understanding of fractions.
X-cellent Addition	14.02	Place numbers from 1-8 in a double X arrangement so that the sums of the numbers on each diagonal is the same.
Taking Away by Ones and Twos	13.05	Experience a version of the historic “Nim” game and develop strategies based on mathematics.
Teddy Bears Come Ashore	3.06	Develop a conceptual understanding of division.
Russian Peasant Method of Multiplication	2.10	Experience an alternative method of multiplication.
Multiplication of Fractions	Multiplication the Algebra Way	Multiply fractions using arrays to understand the area model of multiplication of fractions.
Distributive Property and Multiplication of Mixed Numbers	Multiplication the Algebra Way	Discover how to use the distributive property of multiplication over addition and how it underlies all multiplication and arithmetic and algebra.

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<b>C. Compute and estimate using mental mathematics, paper-and-pencil methods, calculators and computers.</b>		
6.C.2a Select and perform computational procedures to solve problems with whole numbers, fractions and decimals.		
6.C.2b Show evidence that computational results using whole numbers, fractions and decimals are correct and/or that estimates are reasonable.		
<b>Activity</b>	<b>Source</b>	<b>Students will:</b>
Fabulous Fractions (Entire Book)	Fabulous Fractions	Develop a conceptual understanding of fractions.
Actions With Fractions (Entire Book)	Actions With Fractions	Build mental images of fractional parts and operations on fractions.
Jelly Belly	Pieces and Patterns	Write fractions to represent colors of jelly beans.
Clock-WISE Fractions	11.04	Construct sums of fractions with unlike denominators using sectors of a clock as a manipulative.
Weight in Space	Out of This World	Calculate their weight on moon and other planets.
Scatter Beans	10.04	Play an adapted version of a Native American game using mental math to keep track of their score.
Digits in Disguise	14.01	Create number riddles to investigate number patterns and relationships.
To A+D+D or Not to Add	15.05	Use a series of numbers and choose an operation to play a game of odd and even.
A Close Call	6.01	Devise a strategy to estimate the number of objects in a container.
I've Got Your Number	Just For the Fun of It	Use inference to determine an unknown number by asking yes and no questions.
Circles, Squares, and Sums	15.04	Arrange the numbers 1-9 in a microworld so that any number in a square is the sum of the numbers in the circles connected to that square.
Calendar Capers	Just for the Fun of It	Look for patterns in calendars.
Amazing Arithmetic Arrays	13.02 Just for the Fun of It	Place consecutive numbers and multiples into a square grid and explore number patterns.
Charting Numbers	16.02	Explore and compare patterns that exist in a 0-99 number chart and a 1-100 chart.

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<b>D. Solve problems using comparison of quantities, ratios, proportions and percents.</b>		
6.D.2 Describe the relationship between two sets of data using ratios and appropriate notations (e.g., $a/b$ , $a$ to $b$ , $a:b$ ).		
<b>Activity</b>	<b>Source</b>	<b>Students will:</b>
By Golly, By Gum	Jaw Breakers Heart Thumpers	Collect and record data using ratios to compare mass of chewed and unchewed gum.
By Golly, By Gum, By Time	Jaw Breakers Heart Thumpers	Collect and record data using ratios to compare mass of chewed and unchewed gum and time chewed.
Clock-WISE Fractions	11.04	Explore relationships of fractional parts of a circle.
Hands On The Giant	Jaw Breakers Heart Thumpers	Use human body ratios to determine height of giant given hand print.
Hands On The Giant	16.02	(Teacher Article)
Bubbling Around	16.02	Investigate soap bubbles to discover the relationship between height and diameter and how diameter is related to circumference.
Now That's Using Your Head	Jaw Breakers Heart Thumpers	Explore relationship between their height and circumference of their head.
Oranges For the Most Part	10.05	Collect and record data using ratio to compare edible and inedible parts of an orange.
Are You a Square?	Hardhatting in a Geo-World	Investigate how their height and arm span compare.
Round About Our Heads and Feet	14.04	Compare the measures of head circumference and foot perimeters and examine ratios.

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**GOAL 7: Estimate, make and use measurements of objects, quantities and relationships and determine acceptable levels of accuracy.**

<b>A. Measure and compare quantities using appropriate units, instruments and methods.</b>		
7.A.2a Calculate, compare and convert length, perimeter, area, weight/mass and volume within the customary and metric systems.		
<b>Activity</b>	<b>Source</b>	<b>Students will:</b>
The Food Tube	11.10	Calculate and compute length of the digestive track.
Mini Metric Olympics	3.03	Measure, record, and compare results of classroom Olympic events.
Weight Watchers	Math + Science A Solution	Estimate and measure mass of a collection of objects.
Rulers Line Up	Hardhatting in a Geo-World	Construct a non-standard ruler to develop understanding of standard measurement.
Cups 'n Stuff	Hardhatting in a Geo-World	Measure and order the mass of 5 different objects with equal volumes.
Links to Lengths	Hardhatting in a Geo-World	Create longest paper chain possible from limited materials.
Massive Boxes	Floater and Sinkers	Find the relationship between mass, volume, and density.
Metric Scavenger Hunt	Math + Science A Solution	Use estimation and measurement skills to find an object to match a given measurement.
Bear Facts	1.02	Compare the measurements of their body parts with the measurements of a teddy bear.
Cutting Corners	8.02	Construct various boxes and compare capacity.
Measure Hunt	14.09	Select a measurement tool and unit to measure a variety of real-world objects.
Now That's Using Your Head	Jawbreakers & Heart Thumpers	Explore ratio of height to circumference of head.
Hands on the Giant	Jawbreakers & Heart Thumpers	Determine the approximate height of a giant given only an example of a giant's handprint.
Balance Bazaar	11.05	Use a balance to directly compare objects according to measurable attributes.
Balance Baffler	Just for the Fun of It	Develop a strategy to identify which of 8 film canisters has a different mass.
Are You a Square?	Hardhatting in a Geo-World	Compare measurement of arm span to height and organize class data.
All Bottled Up	Water, Precious Water	Predict, compare, and order the volume of different bottles.

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<b>Activity</b>	<b>Source</b>	<b>Students will:</b>
Round About Our Heads and Feet	14.04	Compare the measurement of their head circumference and foot perimeter and determine the ratio between the two.
Inquiring About Lenses	16.02	Discover that the focal length of a convex lens varies with different thickness.
Focus Pocus	16.01	Use lenses to investigate the relationship between area, lens thickness and focal length.
Flight Patterns	15.07	Plot three city flight paths on a US map and precisely measure angles formed by these paths.
Beat the Heat	16.01	Determine the amount of water lost.
Bottom Line	14.09	Estimate, make, and use measurement to describe and compare soil and substrate.

7.A.2b Solve addition, subtraction, multiplication and division problems using currency.

<b>Activity</b>	<b>Source</b>	<b>Students will:</b>
Peddle the Metal	Hardhatting in a Geo-World	Make pasta jewelry and calculate selling price based on mass.
Cash Combos	11.09	Explore an open-ended problem to discover how to make combination of \$50.00.
Going Shopping/Back to School	4.05	Investigate the cost of school supplies.
Changing A Quarter	7.02	Determine the number of ways to make change for a quarter.

**B. Estimate measurements and determine acceptable levels of accuracy.**

7.B.2a Determine and communicate possible methods for estimating a given measure, selecting proper units in both customary and metric systems.

<b>Activity</b>	<b>Source</b>	<b>Students will:</b>
Our Body of Water	Jaw Breakers Heart Thumpers	Measure and display the amount of water in the human body.
Sky High	Hardhatting in a Geo-World	Construct and measure free-standing structures.
Looking for a Liter	10.09	Find the dimensions of at least 5 cartons that can hold 1 liter.
Leapin' Frogs	13.09	Make an origami frog and measure and graph results.
Classifying Cotton	Crazy About Cotton	Compare the mass of seeds, lint, and trash to determine the percentage of those in a sample boll of cotton.
Metric Scavenger Hunt	Math + Science- A Solution	Estimate measurements in metric system and search for items of specific lengths.
Hands On The Gian	Jaw Breakers Heart Thumpers	Use human body ratios to determine height of giant given hand print.

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<b>Activity</b>	<b>Source</b>	<b>Students will:</b>
Hands On The Giant	Jaw Breakers Heart Thumpers	(Teacher Article)
Measure Hunt	14.09	Identify attributes such as length, area, and volume and know the type of unit and tool needed to measure each attribute.
Mixing Measures	Proportional Reasonings	Measure items in centimeter and inches to determine a conversion rate and make a scatter plot of the data.

**C. Select and use appropriate technology, instruments and formulas to solve problems, interpret results and communicate findings.**

7.C.2a Describe relationships in a simple scale drawing.

<b>Activity</b>	<b>Source</b>	<b>Students will:</b>
A Whale of a Scale	11.10	Make a scale drawing of a whale using their heights.
Scale the Room	Finding Your Bearings	Record room measurements and draw a map to scale.
Up & Down the Scale	12.05	Draw top-down views of various objects and replicate in different scales.
Shrinking Boundaries	Finding Your Bearings	Create a scale drawing of half a basketball court and combine with another student's drawing to complete a full court.
What a Plan!	Finding Your Bearings	Interpret and enlarge to scale plans for a house.

7.C.2b Construct or draw figures with given perimeters and areas.

<b>Activity</b>	<b>Source</b>	<b>Students will:</b>
Twenty-4 Square	9.01	Make as many different rectangles as they can using 24 squares.
Working Out the Wiggles	Hardhatting in a Geo-World	Construct, test, and find ways to stabilize various polygons.
Side by Side	8.09	Make squares, find area and perimeter, and graph perimeter and area relating to side length.
Cube Construction	Just for the Fun of It	Use 2, 3, and 4 wooden cubes to make a variety of constructions.
Think Cards 1-5	Spatial Visualization	Construct blocks with precise volume, perimeter, and area.
Geo Strips	2.06	Use geo-strips to explore triangles.
Paper Pinchers	Hardhatting in a Geo-World	Fold squares in various ways to explore area.
Constant Areas	13.07	Use different perimeters to construct rectangular figures with constant areas.

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**GOAL 8: Use algebraic and analytical methods to identify and describe patterns and relationships in data, solve problems and predict results.**

<b>A. Describe numerical relationships using variables and patterns.</b>		
8.A.2a Identify, describe and extend simple geometric and numeric patterns.		
<b>Activity</b>	<b>Source</b>	<b>Students will:</b>
Picking Apart Patterns	8.05	Construct, describe, and group similar patterns.
Fibonacci Magic	Historical Connections III	Create a numerical pattern using Fibonacci as a model.
The Up and Down Staircase	9.02	Use cubes to identify, describe, and extend a geometric pattern.
Bear Soccer	Primarily Bears	Solve a logic matrix.
Now What?	What's Next? Vol 3	Extend a variety of visual patterns.
In and Out	What's Next? Vol 1	Explore function using a table.
Bicycles, Tricycles, and Wagons	12.01	Investigate a numeric pattern through the use of a T table.

8.A.2b Construct and solve number sentences using a variable to represent an unknown quantity.		
<b>Activity</b>	<b>Source</b>	<b>Students will:</b>
Stamp Patterns	15.09	(Teacher Article)
Stamp It Paid	15.09	Determine the pattern of sums possible using a set of fixed values.

<b>B. Interpret and describe numerical relationships using tables, graphs and symbols.</b>		
8.B.2 Analyze a geometric pattern and express the results numerically.		
<b>Activity</b>	<b>Source</b>	<b>Students will:</b>
Fractions with Pattern Blocks	12.04	Use pattern blocks to explore equivalency and write algebraically.
Tangrammy Squares	Fabulous Fractions	Use tangrams to explore geometric patterns.
Rectangle Round-Up	What's Next? Volume III	Determine the total number of rectangles on an 8X8 checkerboard and express numerically.
Pizza Party	What's Next? Vol 3	Discover a formula for the maximum amount of pieces possible when making 8 straight cuts.

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<b>C. Solve problems using systems of numbers and their properties.</b>		
8.C.2 Explain operations and number properties including commutative, associative, distributive, transitive, zero, equality and order of operations.		
<b>Activity</b>	<b>Source</b>	<b>Students will:</b>
Four Fours	Historical Connections I	Make equations using exactly four 4's and the operations.
Counting on Combinations	10.07	Investigate the commutative and associative properties as they create number combinations that produce a sum of fourteen.
Multiplying with Tens	Multiplication the Algebra	Use the associative and commutative property of addition and the distributive property of multiplication over addition to simplify computation of integers, fractions, and decimals.
Building Rectangles	Multiplication the Algebra Way	Use the area model to develop the relation of powers of 10 to multiply.
Picturing a Rectangle	Multiplication the Algebra Way	Multiply by partial products in an area model
Writing Rectangles	Multiplication the Algebra Way	Learn to solve multi-digit multiplication problems as a partial product algorithm.
Display Multiplication	Multiplication the Algebra Way	Learn to multiply using the display multiplication method.
Expanding the View	Multiplication the Algebra Way	Use their understanding of place value to write numbers in expanded notation form.
Horizontal Multiplication	Multiplication the Algebra Way	Determine the algorithm for using the distributive property when factors are arranged horizontally.
Picturing Multiplication	Multiplication the Algebra Way	Understand the effects of multiplying and dividing numbers.
Interpretations	Multiplication the Algebra Way	Learn to read and interpret pictures resulting from multiplication to determine factors and products involved.
From Tens to Tenths	Multiplication the Algebra Way	Use base ten materials and the distributive property to show multiplication with decimals.

<b>D. Use algebraic concepts and procedures to represent and solve problems.</b>		
8.D.2 Solve linear equations involving whole numbers.		
<b>Activity</b>	<b>Source</b>	<b>Students will:</b>
Zap It!	Looking At Lines	Write a statement describing the pattern in a set of lines.
Worm Scaler	Brick Layers II	Explore gear ratios and apply understanding to develop a system to measure objects with the model.

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**GOAL 9: Use geometric methods to analyze, categorize and draw conclusions about points, lines, planes and space.**

<b>A. Demonstrate and apply geometric concepts involving points, lines, planes and space.</b>		
9.A.2a Build physical models of two-and three-dimensional shapes.		
<b>Activity</b>	<b>Source</b>	<b>Students will:</b>
Slice Me Twice	Hardhatting in a Geo-World	Cut through different sized circles and construct quadrilaterals.
Geo-Panes	Hardhatting in a Geo-World	Construct physical models of 3-D shapes.
Building Boxes	9.02	Construct as many possible different sized boxes with a fixed area of 24 square units.
Squarely Constructed	9.01	Explore puzzles to cut a given shape into two pieces that can be rearranged to form a square.
Stick With Triangles	15.02	Build different triangles using Geo-sticks.
Straws Take a Stand	Hardhatting in a Geo-World	Construct a cube.
Tri-Square	13.01	Solve a puzzle in which they must construct squares each with the same area and perimeter.
Net-Sense	Hardhatting in a Geo-World	Explore pentominoes and construct boxes.
Working Out the Wiggles	Hardhatting in a Geo-World	Construct, test, and find ways to stabilize polygons.
Shape Maker	15.01	Reassemble squares and triangles to create a variety of geometric shapes.
Property Lines	16.03	Identify, compare, and analyze attributes of 2 and 3 dimensional shapes and develop vocabulary to describe the attributes.

9.A.2b Identify and describe how geometric figures are used in practical settings (e.g., construction, art and advertising).		
<b>Activity</b>	<b>Source</b>	<b>Students will:</b>
A Triangle T Party	11.04 (pgs. 12-14)	Experience 12 stations to explore triangle relationships.
Shaping Up	Hardhatting in a GeoWorld	Observe and draw geometric shapes in nature and made by people.
Sizing Shapes	14.07	Investigate with figures from “Shaping Up” how the perimeter of shapes with a constant area changes.
Puzzling Pyramids	Historical Connections II	Problem solve how to construct pyramids with a set number of pieces.

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9.A.2c Describe and draw representations of geometric relationships, patterns, symmetries, and design in two- and three- dimensions with and without technology.		
<b>Activity</b>	<b>Source</b>	<b>Students will:</b>
Nine-Square Toothpick Challenge	15.02	Create a number of geometric shapes by moving/removing various numbers of toothpicks.
Families of Flakes	14.05	Draw, create, describe, and classify snowflakes.
Toothpick Triangle Challenges	15.10	Design equilateral triangles using six toothpicks.
Tessellating Triangles	16.08	Use origami to explore tessellation of congruent triangles.
Record-Making Cubes	Just For the Fun of It	Use soma cubes to record their solution to a construction puzzle.

**B. Identify, describe, classify and compare relationships using points, lines, planes and solids.**

9.B.2 Compare geometric figures and determine their properties including parallel, perpendicular, similar, congruent and line symmetry.

<b>Activity</b>	<b>Source</b>	<b>Students will:</b>
3-D Plot Line	11.10	Sort 3-D shapes by attributes and create a “real” line plot.
Back Talk	10.09	Determine what geometric figure label is on their back by asking peers “yes” or “no” questions.
Digging into Diagonals	15.03	Investigate how the number of sides of a polygon are related to the number of diagonals extending from the vertex.
Congruent Shape Detective	12.04	Divide congruent squares into pairs of congruent “halves”.
Searching for Congruent Halves	12.06	Divide congruent squares with no center cell into two congruent halves.
Dick & Bob Are Twins	4.01	Explore horizontal and vertical symmetry.
What Symmetry!	What’s Next Vol. 3	Draw and record the number of lines of symmetry.
Mirrors Reflect	Primarily Physics	Investigate symmetry using mirrors.
A Hat Trick	14.04	Investigate lines of symmetry using a “Reflect/View”.

**C. Construct convincing arguments and proofs to solve problems.**

9.C.2 Formulate logical arguments about geometric figures and patterns and communicate reasoning.

<b>Activity</b>	<b>Source</b>	<b>Students will:</b>
Rectangular Reckonings	8.07	Identify and justify the number of rectangles in a figure.

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<b>Activity</b>	<b>Source</b>	<b>Students will:</b>
How Many Squares?	12.01	Use problem solving to determine the number of squares contained in a figure.
Twenty Four Square	9.01	Use problem solving to construct rectangles out of 24 squares.
Counting Quad	8.10	Determine the number of quadrilaterals in a 4 X 4 grid.
Recreating Rectangles	13.08	Use 8 pieces to find all of the possible rectangles.
Pick Out Four	8.07	Arrange 16 toothpicks to solve a variety of puzzles.
Arranging Rectangles	7.10	Use 7 shapes and arrange them to create all possible rectangles.
Give Me Five	What's Next? Volume I	Solve a problem by seeking patterns and creating a table.
Geoboard Patterns	15.01	(Teacher Article)
Junks Puzzles	16.08	Identify the number of moves it takes to transfer blocks in a geometric figure from one side to the other.
Penny Patterns	Just For the Fun of It	Find all possible solutions to arrange five pennies in a 5X5 grid and explain their answer and solution process.
That's Sum Face	Just For the Fun of It	Arrange the numbers 1-8 on the vertices of a cube so the sum of the numbers on each of the 6 faces is equal and seek patterns in the solutions.
Slides and Jumps Part I & II	Just For the Fun of It	Use markers of different colors to solve a slide and jump puzzle and discover patterns that exist.

**D. Use trigonometric ratios and circular functions to solve problems.**

<b>Activity</b>	<b>Source</b>	<b>Students will:</b>
Circle Sighs	Hardhatting in a Geo-World	Use paper clips to draw circles and determine radii and diameters.
Can You Believe It?	2.08	Predict and compare the relationship between circumference and height of a variety of cylinders.
ME Highs	15.02	Make and use a clinometer to determine the heights of vertical objects.
Practically Pi	Math + Science a Solution	Discover the relationship between the circumference and diameter of any given circle.
Bubbling Around	15.01	Use soap bubbles to explore properties of circles and explore the relationship between radius and diameter.

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**GOAL 10: Collect, organize and analyze data using statistical methods; predict results; and interpret uncertainty using concepts of probability.**

<b>A. Organize, describe and make predictions from existing data.</b>		
10.A.2a Organize and display data using pictures, tallies, tables, charts, bar graphs, line plots and stem-and-leaf graphs.		
10.A.2b Using a data set, determine mean, median, mode and range, with and without the use of technology.		
10.A.2c Make predictions and decisions based on data and communicate their reasoning.		
<b>Activity</b>	<b>Source</b>	<b>Students will:</b>
I've Got Your Number	9.03 Just For the Fun of It	Use inference to determine an unknown number by asking "yes" and "no" questions.
Fish & Clips	Mostly Magnets	Quantify, measure, and average the number of paper clips attracted by a magnet.
Cat Scan	7.07	Use pictures of cats and represent the data in circle graphs, Binary Tree Diagrams, Venn Diagrams, and Bar Graphs.
Bicycles, Tricycles, Wagons, and Wheels	12.01	Use manipulatives to create vehicles in order to see the use of a line graph to show the relationship between the x and y axis.
What's My Line?	10.05	Interpret the line of a graph produced by the volume and height of water in bottles.
Links to Length	Hardhatting in a Geo-World	Use paper chains to create a line plot to examine range and mode.
Worldwide Highs	11.05	Collect world temperature data for a week and interpret patterns.
Life Lines	15.03	Represent data using tables and graphs of animal life expectancies.
Heroes Take a Spin	14.08	Demonstrate Newton's Third Law of motion and run the mode in statistics.
Labor Day Dilemma	15.01	Analyze calendar data to describe and interpret patterns.
Polar Brrrs	15.04	Construct an investigation to gather, organize, and interpret data.

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<b>B. Formulate questions, design data collection methods, gather and analyze data and communicate findings.</b>		
10.B.2a Formulate questions of interest and design surveys or experiments to gather data.		
10.B.2b Collect, organize and describe data using tables, charts, bar graphs, line graphs, circle graphs, line plots and stem-and-leaf graphs.		
10.B.2c Analyze the data using mean, median, mode and range, as appropriate, with or without the use of technology.		
10.B.2d Interpret results or make relevant decisions based on the data gathered.		
<b>Activity</b>	<b>Source</b>	<b>Students will:</b>
Fish & Clips	Mostly Magnets	Measure and average-- by number and mass—the small and large clips they catch.
Collecting Data	12.09	Collect, organize, and display data.
How High? How Far?	13.02	Measure and compare their heights to the class data and examine median, extremes, and graphic displays.
Ring Around the Posies	14.01	Compare and construct graph based on characteristics of flower parts.
Getting To Know You	12.01	Collect, organize, and display data about classmates.
The Marbleous Rolls	8.01	Collect data using marbles and an inclined plane and determine median, mean, and range.
M & M Count and Crunch	Math + Science-A Solution	Determine the numerical frequency of the color of M&Ms.s

<b>C. Determine, describe and apply the probabilities of events.</b>		
10.C.2a Calculate the probability of a simple event.		
10.C.2b Compare the likelihood of events in terms of certain, more likely, less likely or impossible.		
10.C.2c Determine the probability of an event involving “and”, “or” “not”.		
<b>Activity</b>	<b>Source</b>	<b>Students will:</b>
Spinning Sums	11.08 Just For the Fun of It	Use a spinner (0-9) to explore probability and find most common sums.
Sharing Birthdays	9.06	Explore the probability of sharing a birthday with at least one other person.
The Maelstrom	10.07	Construct a model of a maelstrom and test probability outcomes.
Sum Domino Discoveries	3.10	Discover the probability of prime sums.
Ahlewus	4:10	Native American game based on predictions of an event.

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<b>Activity</b>	<b>Source</b>	<b>Students will:</b>
Scissors, Rock, or Paper	3.05	Students will explore theoretical and experimental probabilities.
Dueling Dice	14.03	Construct and use non-standard dice to study probability.