

Standards / Objectives	Excel/ Math Lesson Numbers	Stretch Lesson Numbers Activity Numbers
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## STANDARD 1 ALGEBRAIC REASONING

**The student will use algebraic methods to describe patterns and simplify algebraic expressions in a variety of contexts.**

1. Extend and create patterns from tables, graphs, rules and number properties and generalize patterns algebraically (e.g., recursive patterns like the Fibonacci numbers, number sequences, prime and composite numbers).	2, 21, 33, 40, 50, 54, 56, 64, 72, 73, 84, 100, 122, 128, 132, 149	1, 6, 9, 12, 13, 15, 20, 21, 24, 26, 30, 32, 57, 58, 60, 61, 62, 64, 66, 70, 72, 75, 81, 86, 88, 90, 93, 94, 99, 103, 104, 109, 112, 114, 119, 121, 125, 128, 131, 135, 139, 140, 141, 149, 151, 153
2. Use substitution and order of operations to simplify and evaluate algebraic expressions (e.g., if $x = 5$ evaluate $2x + 3$ ).	3, 18, 37, 40, 48, 57, 61, 83, 91, 100, 114, 115, 116	5, 8, 16, 22, 27, 28, 37, 39, 46, 62, 65, 68, 69, 70, 73, 76, 78, 81, 82, 83, 86, 87, 96, 98, 102, 110, 113, 115, 117, 123, 124, 130, 132, 133, 138, 142, 155

## STANDARD 2 NUMBER SENSE

**The student will use numbers and number relationships to solve problems.**

1. Multiply and divide fractions and mixed numbers to solve problems using a variety of methods.	5, 18, 19, 57, 67, 85, 101, 104, 107, 112, 117, 118, 120, 126, 127, 133, 142, 150, 153  Add / Subtract: 5, 28, 39, 62, 93, 106, 146  Whole numbers: 1, 6, 9, 12, 16, 17, 26, 38, 62, 82, 103, 107, 122, 132, 134, 136, 147  Decimals: 31, 51, 52, 71, 81, 102, 110, 138	12, 104  Whole: 115  Decimals: 46, 89, 152
2. Convert, compare and order decimals (terminating and non-terminating), fractions and percents using a variety of methods.	18, 22, 27, 35, 44, 46, 47, 48, 52, 53, 57, 66, 67, 71, 74, 78, 83, 87, 90, 93, 94, 95, 97, 99, 105, 110, 111, 113, 116, 119, 123, 127, 128, 129, 133, 135, 151  Whole Numbers: 2, 3  Positive / Negative Numbers: 63, 130, 131, 143, 144, 155	49, 50, 119, 143, 144, 147, 152  Activity 12  Whole Numbers: 3, 29, 36

\*Gives opportunity to teach specific State Standard



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3. Estimate solutions to single and multi-step problems using whole numbers, decimals, fractions, and percents and assess whether solutions are reasonable (e.g., $78 + 89$ is about 2, $0.9 + 0.3$ is about 1).	1, 9, 20, 24, 26, 29, 42, 49, 55, 58, 61, 67, 69, 72, 79, 86, 89, 92, 96, 98, 105, 108, 117, 120, 123, 134, 140, 151, 152, 154  Deductive Reasoning: 7	1, 2, 6, 7, 10, 17, 18, 20, 25, 30, 31, 32, 35, 37, 38, 41, 44, 48, 54, 76, 85, 88, 91, 93, 101, 120, 124, 126, 135, 143, 150, 152, 154  Deductive Reasoning: 10, 11, 19, 25, 43, 52, 90, 95, 101, 105, 106, 107, 112, 114, 122, 127, 134, 136, 137, 145, 148
4. Build and explore multiples and their patterns to develop the concept of exponents.	1, 6, 17, 26, 64, 77, 132	67, 92, 139  Activity 12
5. Simplify numerical expressions with exponents and parentheses using order of operations.	3, *37, 77	5, 22, 27, 28, 56, 63, 69, 75, 82, 132, 141
<b>STANDARD 3 GEOMETRY</b>		
<b>The student will use geometric properties and relationships to recognize, describe and analyze shapes and representations in a variety of contexts.</b>		
1. Angles		
a. Compare, estimate and determine the measurement of angles.	25, 33, *80, 88, 148	Activity 2
b. Find the complement and supplement of an angle.	*25, <b>80</b> , *148	Activity 2
2. Differentiate between congruent and similar figures.	23, 148	*45, *53, *71, 119, 131  Activity 6, 8
3. Describe the effect of performing basic transformations on objects and figures in a variety of contexts. (e.g., explore reflection [flip] with mirrors, explore rotation [turn] and translation [slide] by designing the layout of different shapes of floor tile).	23, *145  Terminology: 14, 15, 21  Coordinate Points: 32, 36, 68, 76, 109, 115, 145	14, 51, 57, 58, 61, 64, 108, 116, 118, 121, 129, 131  Activity 1, 2, 3 (surface area), 4 (3-D figures), 7, 8

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### STANDARD 4 MEASUREMENT

The student will use measurements within the metric and U.S. customary system to solve problems in a variety of contexts.

1. Collect data and develop formulas to find the circumference and area of circles (e.g., use string the length of the diameter of various circular lids to approximate the circumference and develop the concept of pi).	60, 125  Area of Triangle: 124, 139  Area/Perimeter of Rectangles: 30, 75, 76, 100, 121  Volume: 59, 139	55  Activity 1, 3  Area / Perimeter Rectangle: 28, 39, 56, 63, 77, 84  Volume: 59  Density: Activity 13  Range / Velocity: Activity 14
2. Compare and convert units within the same measurement system; express conversions using appropriate unit labels (e.g., square inches to square feet, centimeters to millimeters, hours to minutes); and compute measurements of combined units (e.g., 9'8" + 3'6" = ?' and ?" , 150 minutes = ? hours and ? minutes).	4, 10, 11, 13, 29, 41, 43, 89, 126, 137, 141	39, 42, 44, 54, 74, 84, 89, 111, 137  Activity 14
3. Find reasonable estimates for measurements using measurements in standard and metric units.	10, 11, *126, *137, *141	28, 120, 136

### STANDARD 5 DATA ANALYSIS AND STATISTICS

The student will use data analysis and statistics to interpret data in a variety of contexts.

1. Collect, organize, and interpret data to solve problems (e.g., data from student experiments, tallies, Venn diagrams, tables, circle and bar graphs, spreadsheets).	2, 8, 15, 40, 45, 56, 69, 70, 72, 150, 152	4, 11, 19, 33, 43, 52, 154  Activity 9, 10, 11
2. Construct and interpret graphs of statistical data (e.g., explain how different representations lead to different interpretations and may distort information).	2, 8, 40, 45, 56, 69, 70, 72, 94, 150, 152	4, 11, 21, 33, 36, 43, 52, 60, 65, 91, 154  Activity 9, 10
3. Find the median and mode for a set of data in a variety of contexts.	65  Average: 55, 120	47  Activity 10  Average: 138

Probability

34, 70, 97, 99, 133, 150

146, 147

Possibilities:

34, 40, 79, 80, 97

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