

## Fourth Grade Internet Sites to support KS Standards

KS and Olathe Indicators	Numbers and Computation
M.4.1.2.K1 4.M.NC.NSP.1	The student identifies, models, reads, and writes numbers using numerals, words, and expanded notation from hundredths place through one-hundred thousands place.
	<p><u>Interactive:</u>  <i>Write numerals for expanded form:</i>  <a href="http://www.aaamath.com/B/g21d_px1.htm">http://www.aaamath.com/B/g21d_px1.htm</a>  <i>Build the largest decimal value game (play robot or partner):</i>  <a href="http://www.decimalsquares.com/dsGames/games/placevalue.html">http://www.decimalsquares.com/dsGames/games/placevalue.html</a>  <i>Identify the place value of a number you create:</i>  <a href="http://mrsbogucki.com/aemes/resource/apps/placeval/placeval.htm">http://mrsbogucki.com/aemes/resource/apps/placeval/placeval.htm</a></p>
	<p><u>Worksheet/Activity:</u>  <i>Baseball game board to practice math facts:</i>  <a href="http://www.education.com/activity/article/Math_Baseball_fourth/">http://www.education.com/activity/article/Math_Baseball_fourth/</a>  <i>Mixed Review &amp; printable worksheets 4th grade:</i>  <a href="http://www.edhelper.com/math_grade4.htm">http://www.edhelper.com/math_grade4.htm</a></p>
M.4.1.2.K5 4.M.NC.NSP.5	<p>The student uses the concepts of these properties with the whole number system and demonstrates their meaning including the use of concrete objects:</p> <ol style="list-style-type: none"> <li>commutative properties of addition and multiplication.</li> <li>zero property of addition and property of one for multiplication.</li> <li>associative properties of addition and multiplication</li> <li>symmetric property of equality applied to addition and multiplication.</li> </ol>
	<p><u>Interactive:</u>  <i>Identify the property of multiplication:</i>  <a href="http://www.aaamath.com/B/pro74bx2.htm#section2">http://www.aaamath.com/B/pro74bx2.htm#section2</a>  <i>Identify the property of addition:</i>  <a href="http://www.aaamath.com/B/pro74ax2.htm">http://www.aaamath.com/B/pro74ax2.htm</a></p>
	<p><u>Worksheet/Activity:</u></p>
M.4.1.4.A1 <b>No Calc</b> 4.M.NC.C.8	<p>The student solves one- and two-step real-world problems with one or two operations using these computational procedures:</p> <ol style="list-style-type: none"> <li>adds and subtracts whole numbers from 0 through 10,000 and when used as monetary amounts.</li> <li>multiplies through a two-digit whole number by a two-digit whole number.</li> <li>multiplies whole dollar monetary amounts (up through three-digit) by a one- or two-digit whole number.</li> <li>multiplies monetary amounts less than \$100 by whole numbers less than ten.</li> <li>figures correct change through \$20.00. ■</li> </ol>
	<p><u>Interactive (java):</u>  <i>Money – change:</i>  <a href="http://www.aaastudy.com/mny.htm#topic11">http://www.aaastudy.com/mny.htm#topic11</a>  <i>Use mail order catalogs to add and subtract decimals:</i>  <a href="http://www.education.com/activity/article/play_rounding_race_fourth/">http://www.education.com/activity/article/play_rounding_race_fourth/</a>  <i>Go shopping and make change:</i>  <a href="http://www.superkidz.com/count1.html">http://www.superkidz.com/count1.html</a></p>

	<p><i>Real-world problems:</i>  <a href="http://www.mathslice.com/ol_pow.php">http://www.mathslice.com/ol_pow.php</a>  and <a href="http://newstanley.schools.kckps.org/newstanley/math/2step/2stepindex.php">http://newstanley.schools.kckps.org/newstanley/math/2step/2stepindex.php</a></p>
	<p><u>Worksheet/Activity:</u>  <i>Vocabulary sort for real world problems</i>  <a href="http://www.education.com/activity/article/play_rounding_race_fourth/">http://www.education.com/activity/article/play_rounding_race_fourth/</a>  <i>Shopping activity with bulletin board display:</i>  <a href="http://www.mhschool.com/math/2003/teacher/teachres/mathwalls/inter/lesson3.html">http://www.mhschool.com/math/2003/teacher/teachres/mathwalls/inter/lesson3.html</a></p>
<p>M.4.1.4.K6  <b>No Calc</b>  4.M.NC.C.6</p>	<p>The student shows the relationship between these operations with the basic fact families (addition facts with sums from 0 through 20 and corresponding subtraction facts, multiplication facts from 1 x 1 through 12 x 12 and corresponding division facts) including the use of mathematical models:</p> <ol style="list-style-type: none"> <li>addition and subtraction.</li> <li>addition and multiplication.</li> <li>multiplication and division.</li> <li>subtraction and division.</li> </ol>
	<p><u>Interactive:</u>  <i>Use fact families:</i>  Subtraction: <a href="http://www.oswego.org/ocsd-web/games/SumSense/sumsub.html">http://www.oswego.org/ocsd-web/games/SumSense/sumsub.html</a>  Addition: <a href="http://www.oswego.org/ocsd-web/games/SumSense/sumadd.html">http://www.oswego.org/ocsd-web/games/SumSense/sumadd.html</a>  Multiplication: <a href="http://www.oswego.org/ocsd-web/games/SumSense/summulti.html">http://www.oswego.org/ocsd-web/games/SumSense/summulti.html</a>  Division: <a href="http://www.oswego.org/ocsd-web/games/SumSense/sumdiv.html">http://www.oswego.org/ocsd-web/games/SumSense/sumdiv.html</a>  <i>Product game:</i>  <a href="http://illuminations.nctm.org/ActivityDetail.aspx?ID=29">http://illuminations.nctm.org/ActivityDetail.aspx?ID=29</a></p>
	<p><u>Worksheet/Activity:</u>  <i>Fact Family practice:</i> <a href="http://www.education.com/activity/article/Fact_Family_third">http://www.education.com/activity/article/Fact_Family_third</a></p>

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KS and Olathe Indicators	Algebra
M.4.2.2.K2 4.M.A.V.2	<p>The student solves one-step equations using whole numbers with one variable and a whole number solution that:</p> <ol style="list-style-type: none"> <li>a. find the unknown in a multiplication or division equation based on the multiplication facts from 1 x 1 through 12 x 12 and corresponding division facts.</li> <li>b. find the unknown in a money equation using multiplication and division based upon the facts and addition and subtraction with values through \$10.</li> <li>c. find the unknown in a time equation involving whole minutes, hours, days, and weeks with values through 200.</li> </ol>
	<p><u>Interactive:</u>  <b>Matho – division game:</b> <a href="http://www.aplusmath.com/games/matho/DivMatho.html">http://www.aplusmath.com/games/matho/DivMatho.html</a></p>
	<p><u>Worksheet/Activity:</u></p>
M.4.2.3.A1 4.M.A.F.5	<p>The student represents and describes mathematical relationships between whole numbers from 0 through 1,000 using concrete objects, pictures, written descriptions, symbols, equations, tables, and graphs.</p>
	<p><u>Interactive:</u></p>
	<p><u>Worksheet/Activity:</u></p>
M.4.2.3.K2 4.M.A.F.2	<p>The student finds the values, determines the rule, and states the rule using symbolic notation with one operation of whole numbers from 0 through 200 using a horizontal or vertical function table (input/output machine, T-table).</p>
	<p><u>Interactive:</u>            Function machine:  <a href="http://www.mathplayground.com/FunctionMachine.html">http://www.mathplayground.com/FunctionMachine.html</a></p>
	<p><u>Worksheet/Activity:</u></p>

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KS and Olathe Indicators	Geometry
M.4.3.1.A2 4.M.G.GFP.7	The student identifies the plane figures (circles, squares, rectangles, triangles, ellipses, rhombi, octagons, hexagons, pentagons, trapezoids) used to form a composite figure.
	<p><u>Interactive:</u>  <i>Identifies shapes:</i>  <a href="http://www.thatquiz.org/tq/practice.html?shapes">http://www.thatquiz.org/tq/practice.html?shapes</a></p>
	<p><u>Worksheet/Activity:</u>  <i>Give clues to guess shapes:</i>  <a href="http://www.education.com/activity/article/Shape_Riddles_fourth/">http://www.education.com/activity/article/Shape_Riddles_fourth/</a></p>
M.4.3.2.A2 4.M.G.ME.6	The student estimates to check whether or not measurements and calculations for length, width, weight, volume, temperature, time and perimeter in real-world problems are reasonable.
	<p><u>Interactive:</u>  <i>Instructional video:</i>  <a href="http://www.linkslearning.org/Kids/1_Math/2_Illustrated_Lessons/2_Estimation_of_Length/index.html">http://www.linkslearning.org/Kids/1_Math/2_Illustrated_Lessons/2_Estimation_of_Length/index.html</a></p>
	<p><u>Worksheet/Activity:</u>  <i>A home activity to find perimeter and area:</i>  <a href="http://www.education.com/activity/article/House_Hunter_fourth/">http://www.education.com/activity/article/House_Hunter_fourth/</a>  <i>Measurement lesson – ¼, ½, 1/8 inch using ruler</i>  <a href="http://www.nsa.gov/teachers/es/geom_inch_along.pdf">http://www.nsa.gov/teachers/es/geom_inch_along.pdf</a>  <i>Full measurement lesson:</i>  <a href="http://www.nsa.gov/teachers/es/geom81.pdf">http://www.nsa.gov/teachers/es/geom81.pdf</a></p>
M.4.3.2.K2 4.M.G.ME.2	The student selects, explains the selection of, and uses measurement tools, units of measure, and degree of accuracy appropriate for a given situation to measure: <ol style="list-style-type: none"> <li>a. length, width, and height to the nearest fourth of an inch or to the nearest centimeter.</li> <li>b. volume to the nearest cup, pint, quart, or gallon; to the nearest liter; or to the nearest whole unit of a nonstandard unit.</li> <li>c. weight to the nearest ounce or pound or to the nearest whole unit of a nonstandard unit of measure.</li> <li>d. temperature to the nearest degree.</li> <li>e. time including elapsed time.</li> </ol>
	<p><u>Interactive:</u>  <i>Instructional video on weight and capacity (ounce and pound; cup, pint, quart, gallon):</i>  <a href="http://www.linkslearning.org/Kids/1_Math/2_Illustrated_Lessons/6_Weight_and_Capacity/index.html">http://www.linkslearning.org/Kids/1_Math/2_Illustrated_Lessons/6_Weight_and_Capacity/index.html</a></p>
	<p><u>Worksheet/Activity:</u>  <i>Pantry Math with capacity:</i>  <a href="http://www.education.com/activity/article/play_pantry_math_fourth/">http://www.education.com/activity/article/play_pantry_math_fourth/</a>  <i>Treasure Hunt measurements:</i>  <a href="http://www.education.com/activity/article/go_on_an_inch_hunt_fourth/">http://www.education.com/activity/article/go_on_an_inch_hunt_fourth/</a>  <i>Home activity with elapsed time:</i>  <a href="http://www.education.com/activity/article/Elapsed_Time_fifth/">http://www.education.com/activity/article/Elapsed_Time_fifth/</a>  <i>Full lessons on elapsed time:</i></p>

	<a href="http://www.nsa.gov/teachers/es/geom_elapsed_time.pdf">http://www.nsa.gov/teachers/es/geom_elapsed_time.pdf</a> <a href="http://www.nsa.gov/teachers/es/geom_time_aft_time.pdf">http://www.nsa.gov/teachers/es/geom_time_aft_time.pdf</a>
M.4.3.3.K2 4.M.G.TG.2	The student recognizes, performs, and describes one transformation (reflection/flip, rotation/turn, translation/slide) on a two-dimensional figure or concrete object.
	<u>Interactive:</u> <u>Transformations on a coordinate plane:</u> <a href="http://www.bbc.co.uk/schools/ks2bitesize/maths/activities/transformation.shtml">http://www.bbc.co.uk/schools/ks2bitesize/maths/activities/transformation.shtml</a>
	<u>Worksheet/Activity:</u> <u>Full lesson on transformations:</u> <a href="http://www.nsa.gov/teachers/es/geom_math_move.pdf">http://www.nsa.gov/teachers/es/geom_math_move.pdf</a>
M.4.3.4.K3 4.M.G.AP.3	The student identifies and plots points as whole number ordered pairs in the first quadrant of a coordinate plane (coordinate grid).
	<u>Interactive:</u> <u>Interactive quiz with graphing &amp; geometry questions:</u> <a href="http://www.getsmarter.org/cgi-bin/regproc.cfm">http://www.getsmarter.org/cgi-bin/regproc.cfm</a> <u>Locate the point to feed the bug:</u> <a href="http://www.oswego.org/ocsd-web/games/BillyBug/bugcoord.html">http://www.oswego.org/ocsd-web/games/BillyBug/bugcoord.html</a> <u>Plot point in first quadrant::</u> <a href="http://www.thatquiz.org/tq/practice.html?idpoints">http://www.thatquiz.org/tq/practice.html?idpoints</a>

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KS and Olathe Indicators	Data Analysis and Probability
<p>M.4.4.2.K1 4.M.D.S.1</p>	<p>The student organizes, displays, and reads numerical (quantitative) and non-numerical (qualitative) data in a clear, organized, and accurate manner including a title, labels, categories, and whole number intervals using these data displays:</p> <ol style="list-style-type: none"> <li>a. graphs using concrete objects.</li> <li>b. pictographs with a symbol or picture representing one, two, five, ten, twenty-five, or one-hundred including partial symbols when the symbol represents an even amount.</li> <li>c. frequency tables (tally marks).</li> <li>d. horizontal and vertical bar graphs.</li> <li>e. Venn diagrams or other pictorial displays, e.g., glyphs.</li> <li>f. line plots.</li> <li>g. charts and tables</li> <li>h. line graphs</li> <li>i. circle graphs</li> </ol>
	Interactive:
	Worksheet/Activity:
<p>M.4.4.2.A2 4.M.D.S.4</p>	<p>The student uses these statistical measures of a data set using whole numbers from 0 through 1,000 with less than ten whole number data points to make reasonable inferences and predictions, answer questions, and make decisions:</p> <ol style="list-style-type: none"> <li>a. minimum and maximum values.</li> <li>b. range</li> <li>c. mode</li> <li>d. median when the data set has an odd number of data points.</li> <li>e. mean when the data set has a whole number mean</li> </ol>
	Interactive:
	<p>Worksheet/Activity:</p> <p><i>Mean, median, mode, and range game with cards:</i></p> <p><a href="http://www.education.com/activity/article/Mean_Mode_fifth/">http://www.education.com/activity/article/Mean_Mode_fifth/</a></p>

# Math Facts

## Interactive:

*Flashcards – select operation:*

<http://www.allmath.com/flashcards.php>

*Select operation & math topic:*

<http://www.scienceacademy.com/BI/index.html>

*Instruction on Lattice Multiplication:*

<http://www.coolmath4kids.com/times-tables/times-tables-lesson-lattice-multiplication-1.html>

*Wolf and Rabbit game:*

<http://www.cut-the-knot.org/Games/WolfRabbit.shtml>

*Practice addition, subtraction, multiplication, division:*

[http://www.edbydesign.com/math/number\\_cruncher\\_challenger.html](http://www.edbydesign.com/math/number_cruncher_challenger.html)

*Addition attack – space ship, fire at answer:*

[http://funschool.kaboose.com/formula-fusion/games/game\\_addition\\_attack.html](http://funschool.kaboose.com/formula-fusion/games/game_addition_attack.html)

*Multiplication Matho:*

<http://www.aplusmath.com/games/matho/MultiMatho.html>

*Play against others on the web:*

<http://www.learningplanet.com/act/mayhem/index.asp?contentid=196>

*Multiplication practice – 1x1 through 12x12:*

<http://mathcentral.uregina.ca/RR/database/RR.09.06/rutherford1.html>

*Time yourself on add, subtract, multiply or divide:*

[http://www.mathslice.com/ol\\_60secmath.php](http://www.mathslice.com/ol_60secmath.php)

*Addition Jeopardy game:*

<http://www.mathslice.com/oljpdy.php>

*Choose a multiplication game to practice:*

[http://www.multiplication.com/interactive\\_games.htm](http://www.multiplication.com/interactive_games.htm)

*All operations:*

[www.4kids.org](http://www.4kids.org)

## Worksheet/Activity:

*Math War with a deck of cards*

[http://www.education.com/activity/article/play\\_pantry\\_math\\_fourth/](http://www.education.com/activity/article/play_pantry_math_fourth/)

*Rules and cards for games to practice number sense including fraction dominoes:*

<http://mathcentral.uregina.ca/RR/database/RR.09.99/sawatzky1/taskcards-numb.pdf>