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# Houghton Mifflin Harcourt

*Waggle®* Skills and Goals

**correlated to the Wisconsin**  
Math Academic Standards  
Grades 2–8

# Waggle Skills and Goals Correlations

## Wisconsin Academic Standards, Math

### Grade 2



GOAL	SKILL	CCSS
Add and Subtract within 20	Addition to 20	2.OA.2
	Subtraction within 20	2.OA.2
Add to 100	Addition to 100	2.NBT.5
	Solve addition word problems	2.OA.1
Subtract within 100	Subtraction within 100	2.NBT.5
	Solve subtraction word problems	2.OA.1
Add and Subtract within 1,000	Addition and subtraction strategies	2.NBT.9
	Addition to 1,000	2.NBT.7
	Subtraction within 1,000	2.NBT.7
Word Problems	Two-step word problems	2.OA.1
	Represent word problems	2.OA.1
Mental Math	Count to 1,000	2.NBT.2
	Skip-counting	2.NBT.2
	Mental addition	2.NBT.8
	Mental subtraction	2.NBT.8
Even and Odd Numbers	Even and odd numbers	2.OA.3
	Even numbers as sums	2.OA.3
Work with Addition	Add more than two numbers	2.NBT.6
	Arrays	2.OA.4
	Add equal groups	2.OA.4
Hundreds, Tens, and Ones	Three-digit numbers	2.NBT.1
	Make 100	2.NBT.1.a
	Work with hundreds	2.NBT.1.b
Work with Three-Digit Numbers	Read and write numbers to 1,000	2.NBT.3
	Compare three-digit numbers	2.NBT.4
Measure Length	Use tools to measure length	2.MD.1
	Measure length with different units	2.MD.2
	Line plots	2.MD.9
Solve Problems with Length	Estimate length	2.MD.3
	Find the difference between lengths	2.MD.4
	Add and subtract lengths	2.MD.5
Number Lines	Number lines	2.MD.6
	Sums and differences on number lines	2.MD.6
Time and Money	Tell and write time	2.MD.7
	Money	2.MD.8
Graphs	Draw picture graphs	2.MD.10
	Draw bar graphs	2.MD.10
	Solve problems using bar graphs	2.MD.10
Flat and Solid Shapes	Features of shapes	2.G.1
	Make squares in rectangles	2.G.2
	Make equal shares	2.G.3

# Waggle Skills and Goals Correlations

## Wisconsin Academic Standards, Math

### Grade 3



GOAL	SKILL	CCSS
Add and Subtract Whole Numbers	Add to 1,000	3.NBT.2
Picture Graphs and Bar Graphs	Picture graphs	3.MD.3
Time	Tell time	3.MD.1
	Solve problems involving time	3.MD.1
Represent Multiplication	Understand multiplication	3.OA.1
	Missing numbers in multiplication equations	3.OA.4
	Apply properties of operations	3.OA.5
Multiply Whole Numbers	Multiply within 100	3.OA.7
	Multiply by multiples of 10	3.NBT.3
	Solve problems with multiplication	3.OA.3
Patterns	Identify number patterns	3.OA.9
Represent Division	Understand division	3.OA.2
	Relate multiplication and division	3.OA.6
	Missing numbers in division equations	3.OA.4
Divide Whole Numbers	Divide within 100	3.OA.7
	Solve problems with division	3.OA.3
Mass and Capacity	Measure mass	3.MD.2
	Solve mass problems	3.MD.2
	Measure capacity	3.MD.2
	Solve capacity problems	3.MD.2
Round Whole Numbers	Round to the nearest 10	3.NBT.1
	Round to the nearest 100	3.NBT.1
Two-Step Word Problems	Represent two-step word problems	3.OA.8
	Solve two-step word problems	3.OA.8
	Is the answer reasonable?	3.OA.8
Shapes	Understand categories of shapes	3.G.1
	Identify quadrilaterals	3.G.1
Represent Fractions	Understand unit fractions	3.NF.1
	Relate fractions to area	3.G.2
	Understand fractions	3.NF.1
	Unit fractions on a number line	3.NF.2a
	Fractions on a number line	3.NF.2b
Line Plots	Measure length to the nearest quarter inch	3.MD.4
	Line plots with lengths	3.MD.4
Equivalent Fractions	Understand equivalent fractions	3.NF.3a
	Find equivalent fractions	3.NF.3b
	Whole numbers as fractions	3.NF.3c
Compare Fractions	Compare fractions with like denominators	3.NF.3d
	Compare fractions with like numerators	3.NF.3d
	Understand square units	3.MD.5a
Understand Area	Understand area	3.MD.5b
	Measure area by counting unit squares	3.MD.6

	Area of rectangles by tiling	3.MD.7a
Area of Rectangles	Area of rectangles by multiplying	3.MD.7b
	Use the distributive property to find area	3.MD.7c
	Area of figures made of rectangles	3.MD.7d
Perimeter and Area	Perimeter of polygons	3.MD.8
	Perimeter and area	3.MD.8

# Waggle Skills and Goals Correlations

## Wisconsin Academic Standards, Math

### Grade 4



GOAL	SKILL	CCSS
Place Value	Place value in whole numbers	4.NBT.1
	Read and write whole numbers	4.NBT.2
	Compare whole numbers	4.NBT.2
	Round whole numbers	4.NBT.3
Addition and Subtraction	Add whole numbers	4.NBT.4
	Subtract whole numbers	4.NBT.4
Add Fractions and Mixed Numbers	Understand addition of fractions	4.NF.3a
	Fractions as sums of fractions	4.NF.3b
	Add fractions with like denominators	4.NF.3c
	Add mixed numbers with like denominators	4.NF.3c
	Solve problems by adding fractions	4.NF.3d
Subtract Fractions and Mixed Numbers	Understand subtraction of fractions	4.NF.3a
	Subtract fractions with like denominators	4.NF.3c
	Subtract mixed numbers with like denominators	4.NF.3c
	Solve problems by subtracting fractions	4.NF.3d
Multiplication	Interpret multiplication equations	4.OA.1
	Multiply by 1-digit numbers	4.NBT.5
	Multiply 2-digit numbers	4.NBT.5
	Solve multiplication word problems	4.OA.2
Division	Divide by 1-digit numbers	4.NBT.6
	Solve division word problems	4.OA.2
Multistep Word Problems	Represent multistep word problems	4.OA.3
	Solve multistep word problems	4.OA.3
	Solve multistep word problems with remainders	4.OA.3
	Reasonable answers	4.OA.3
Patterns	Number patterns	4.OA.5
	Shape patterns	4.OA.5
Factors and Multiples	Factors	4.OA.4
	Multiples	4.OA.4
	Prime and composite numbers	4.OA.4
Equivalent Fractions and Ordering	Extend understanding of equivalent fractions	4.NF.1
	Equivalent fractions	4.NF.1
	Compare fractions	4.NF.2
Fractions and Decimals	Equivalent fractions with denominators of 10 and 100	4.NF.5
	Add fractions with denominators of 10 and 100	4.NF.5
	Rename fractions as decimals	4.NF.6
Compare Decimals	Compare decimals to tenths	4.NF.7
	Compare decimals to hundredths	4.NF.7
Fraction Multiplication	Fractions as multiples of unit fractions	4.NF.4a
	Multiply fractions by whole numbers	4.NF.4b
	Solve problems by multiplying a fraction by a whole number	4.NF.4c
Measurement Problems	Units of measure	4.MD.1

	Convert from larger units to smaller units	4.MD.1
	Solve measurement problems (whole numbers)	4.MD.2
	Solve measurement problems (fractions)	4.MD.2
	Solve measurement problems by converting	4.MD.2
Line Plots	Line plots to eighths of a unit	4.MD.4
	Add and subtract to solve problems with line plots	4.MD.4
Perimeter and Area	Perimeter of rectangles	4.MD.3
	Area of rectangles	4.MD.3
Angle Measure	Define angles	4.MD.5a
	Angles and degrees	4.MD.5b
	Draw and measure angles	4.MD.6
	Decompose angles	4.MD.7
	Find unknown angles	4.MD.7
Lines and Angles	Points, lines, line segments, and rays	4.G.1
	Parallel and perpendicular lines	4.G.1
	Types of angles	4.G.1
	Identify parts of two-dimensional figures	4.G.1
Two-Dimensional Figures	Classify figures based on lines	4.G.2
	Classify figures based on angles	4.G.2
	Right triangles	4.G.2
	Lines of symmetry	4.G.3

# Waggle Skills and Goals Correlations

## Wisconsin Academic Standards, Math

### Grade 5



GOAL	SKILL	CCSS
Place Value	Place value concepts	5.NBT.1
	Powers of 10	5.NBT.2
Decimals to Thousandths	Read and write decimals to thousandths	5.NBT.3a
	Compare decimals	5.NBT.3b
	Round decimals	5.NBT.4
Multiply and Divide Whole Numbers	Multiply whole numbers by powers of 10	5.NBT.2
	Multiply whole numbers	5.NBT.5
	Solve multiplication word problems	5.NBT.5
	Divide by 2-digit numbers	5.NBT.6
Decimal Operations	Add decimals to hundredths	5.NBT.7
	Subtract decimals to hundredths	5.NBT.7
	Multiply and divide decimals by powers of 10	5.NBT.2
	Multiply decimals to hundredths	5.NBT.7
	Divide decimals to hundredths	5.NBT.7
Add and Subtract Fractions	Add fractions with unlike denominators	5.NF.1
	Add mixed numbers with unlike denominators	5.NF.1
	Subtract fractions with unlike denominators	5.NF.1
	Subtract mixed numbers with unlike denominators	5.NF.1
	Add and subtract fractions with unlike denominators	5.NF.1
Solve Problems by Adding and Subtracting Fractions	Solve problems by adding fractions and mixed numbers	5.NF.2
	Solve problems by subtracting fractions and mixed numbers	5.NF.2
	Reasonable answers with fractions	5.NF.2
Fractions and Division	Interpret fractions as division	5.NF.3
	Fractions as answers to division problems	5.NF.3
Multiply with Fractions	Multiply a fraction by a whole number	5.NF.4a
	Area of rectangles with fractional side lengths	5.NF.4b
	Solve problems by multiplying fractions and mixed numbers	5.NF.6
Multiplication as Scaling	Compare products to the sizes of factors	5.NF.5a
	Explain multiplication by a fraction	5.NF.5b
	Fraction equivalence	5.NF.5b
Divide with Unit Fractions	Divide a unit fraction by a whole number	5.NF.7a
	Divide a whole number by a unit fraction	5.NF.7b
	Solve problems by dividing unit fractions and whole numbers	5.NF.7c
Numerical Expressions	Write and interpret numerical expressions	5.OA.2
	Evaluate numerical expressions	5.OA.1
Measurement Problems	Convert measurement units within a system	5.MD.1
	Solve multistep measurement problems	5.MD.1
Line Plots	Line plots with fractions of a unit	5.MD.2
	Solve problems with line plots	5.MD.2
The Coordinate Plane	Understand the coordinate plane	5.G.1
	Graph points in the first quadrant	5.G.2
	Interpret ordered pairs	5.G.2

<b>Patterns and Relationships</b>	Generate numerical patterns by using given rules	5.OA.3
	Relationships between corresponding terms	5.OA.3
	Graph patterns	5.OA.3
<b>Understand Volume</b>	Understand cubic units	5.MD.3a
	Understand volume	5.MD.3b
	Measure volume by counting unit cubes	5.MD.4
<b>Volume of Rectangular Prisms</b>	Volume of rectangular prisms with unit cubes	5.MD.5a
	Volume of rectangular prisms with formulas	5.MD.5b
	Volume of figures made of rectangular prisms	5.MD.5c
<b>Classify Shapes</b>	Attributes of shapes	5.G.3
	Classify shapes based on properties	5.G.4



# Waggle Skills and Goals Correlations

## Wisconsin Academic Standards, Math

### Grade 6



GOAL	SKILL	CCSS
Divide Whole Numbers and Fractions	Divide whole numbers	6.NS.2
	Divide whole numbers by fractions	6.NS.1
	Divide fractions	6.NS.1
Decimal Operations	Add decimals	6.NS.3
	Subtract decimals	6.NS.3
	Multiply decimals	6.NS.3
	Divide decimals	6.NS.3
	Solve two-step word problems with decimals	6.NS.3
Positive and Negative Numbers	Represent quantities with positive and negative numbers	6.NS.5
	The opposite of a number	6.NS.6a
	Rational numbers on number lines	6.NS.6c
Compare Numbers	Interpret statements of inequality	6.NS.7a
	Compare rational numbers	6.NS.7b
Absolute Value	Understand absolute value	6.NS.7c
	Absolute value and statements about order	6.NS.7d
	Absolute value and magnitude	6.NS.7c
Numerical Expressions	Repeated multiplication and exponents	6.EE.1
	Evaluate numerical expressions with exponents	6.EE.1
Algebraic Expressions	Parts of expressions	6.EE.2b
	Translate verbal expressions into algebraic expressions	6.EE.2a
	Write expressions using variables	6.EE.6
Evaluate Algebraic Expressions	Evaluate algebraic expressions	6.EE.2c
	Evaluate formulas	6.EE.2c
GCF and LCM	Greatest common factor	6.NS.4
	Least common multiple	6.NS.4
	Rewrite numeric expressions using the distributive property	6.NS.4
Equivalent Expressions	Generate equivalent expressions	6.EE.3
	Generate equivalent expressions using the Distributive Property	6.EE.3
	Decide if expressions are equivalent	6.EE.4
Equations	Decide if a number makes an equation true	6.EE.5
	Solve one-step addition equations	6.EE.7
	Solve one-step multiplication equations	6.EE.7
Inequalities	Write simple inequalities	6.EE.8
	Decide if a number makes an inequality true	6.EE.5
	Represent inequalities on number lines	6.EE.8
Ratios and Rates	Understand ratios	6.RP.1
	Convert measurement units	6.RP.3d
	Understand unit rates	6.RP.2
	Solve unit rate problems	6.RP.3b
Tables of Equivalent Ratios	Complete ratio tables	6.RP.3a
	Compare ratios shown in tables	6.RP.3a
	Equivalent ratios on the coordinate plane	6.RP.3a

<b>Percent</b>	Find a percent of a number	6.RP.3c
	Find the whole given a part and a percent	6.RP.3c
<b>Dependent and Independent Variables</b>	Identify dependent and independent variables	6.EE.9
	Relationship between independent and dependent variables	6.EE.9
	Equations relating variables	6.EE.9
<b>The Coordinate Plane</b>	Quadrants on the coordinate plane	6.NS.6b
	Ordered pairs on the coordinate plane	6.NS.6c
	Reflections of points on the coordinate plane	6.NS.6b
<b>Using the Coordinate Plane</b>	Polygons in the coordinate plane	6.G.3
	Lengths of sides of polygons on the coordinate plane	6.G.3
	Solve problems on the coordinate plane	6.NS.8
<b>Area</b>	Area of triangles	6.G.1
	Area of parallelograms and trapezoids	6.G.1
	Area of polygons	6.G.1
<b>Volume and Surface Area</b>	Volume of rectangular prisms with fractional edge lengths	6.G.2
	Nets of solid figures	6.G.4
	Use nets to find surface area	6.G.4
<b>Statistical Variability</b>	Recognize statistical questions	6.SP.1
	Center, spread, and shape	6.SP.2
	Measures of center	6.SP.3
	Measures of variation	6.SP.3
<b>Summarize Numerical Data Sets</b>	Mean and median	6.SP.5c
	Mean absolute deviation	6.SP.5c
	Range and interquartile range	6.SP.5c
	Determine appropriate measures of center and variability	6.SP.5d
<b>Display Data</b>	Box plots	6.SP.4
	Dot plots	6.SP.4
	Histograms	6.SP.4
<b>Describe Data</b>	Report the number of observations	6.SP.5a
	Describe the nature of collected data	6.SP.5b
	Identify overall patterns and deviations from patterns	6.SP.5c

# Waggle Skills and Goals Correlations

## Wisconsin Academic Standards, Math

### Grade 7



GOAL	SKILL	CCSS
Opposites and Inverses	Combine opposite quantities	7.NS.1a
	Identify additive inverses	7.NS.1b
Addition and Subtraction of Rational Numbers	Describe the location of a sum on a number line	7.NS.1b
	Interpret sums of rational numbers	7.NS.1b
	Distance between numbers on a number line	7.NS.1c
	Understand subtraction of rational numbers	7.NS.1c
	Add and subtract rational numbers	7.NS.1d
Multiplication and Division of Rational Numbers	Understand multiplication of integers	7.NS.2a
	Multiply signed numbers	7.NS.2a
	Interpret products of rational numbers	7.NS.2a
	Understand division of integers	7.NS.2b
	Interpret quotients of rational numbers	7.NS.2b
	Multiply and divide rational numbers	7.NS.2c
Fractions and Decimals	Convert fractions to decimals	7.NS.2d
	Terminating and repeating decimals	7.NS.2d
Solve Problems with Rational Numbers	Compute unit rates associated with ratios of fractions	7.RP.1
	Solve problems with rational numbers	7.NS.3
	Solve multistep problems with rational numbers	7.EE.3
	Assess the reasonableness of answers	7.EE.3
Area, Surface Area, and Volume	Area of figures made of polygons	7.G.6
	Surface area of figures made of prisms	7.G.6
	Volume of figures made of prisms	7.G.6
Equivalent Expressions	Add and subtract expressions	7.EE.1
	Factor and expand expressions	7.EE.1
	Rewrite expressions to better understand relationships	7.EE.2
Circumference and Area of Circles	Area and circumference of circles	7.G.4
	Relating circumference and area of circles	7.G.4
Equations	Write and solve two-step equations	7.EE.4a
	Compare algebraic and arithmetic solutions	7.EE.4a
Inequalities	Write and solve two-step inequalities	7.EE.4b
	Graph and interpret solution sets of inequalities	7.EE.4b
Working with Shapes and Angles	Geometric shapes with given characteristics	7.G.2
	Possible triangles given side lengths and angle measures	7.G.2
	Cross sections of three-dimensional figures	7.G.3
	Find unknown angle measures in multistep problems	7.G.5
Proportional Relationships	Proportional relationships and equivalent ratios	7.RP.2a
	Proportional relationships and ordered pairs	7.RP.2a
	Constant of proportionality	7.RP.2b
	Equations representing proportional relationships	7.RP.2c
	Interpret points on the graph of a proportional relationship	7.RP.2d
Use Proportional Reasoning to Solve Problems	Solve problems involving scale drawings	7.G.1
	Resize a scale drawing	7.G.1

	Solve multistep ratio and percent problems	7.RP.3
Random Sampling	Understand and identify representative samples	7.SP.1
	Understand random sampling	7.SP.1
	Analyze and interpret data from a random sample	7.SP.2
	Variation in results from multiple random samples	7.SP.2
Analyze Data from Two Populations	Compare two data distributions	7.SP.3
	Draw inferences about populations by analyzing samples	7.SP.4
Understand Probability	Understand probability as a number between 0 and 1	7.SP.5
	Interpret the likelihood of a chance event	7.SP.5
	Find the experimental probability of an event	7.SP.6
	Predict the relative frequency of an event	7.SP.6
Probability Models	Develop and apply uniform probability models	7.SP.7a
	Develop a probability model using collected data	7.SP.7b
Compound Events	Represent sample spaces for compound events	7.SP.8b
	Determine probabilities of compound events	7.SP.8a
	Simulate relative frequencies of compound events	7.SP.8c

# Waggle Skills and Goals Correlations

## Wisconsin Academic Standards, Math

### Grade 8



GOAL	SKILL	CCSS
Rational and Irrational Numbers	Understand irrational numbers	8.NS.1
	Common examples of irrational numbers	8.EE.2
	Decimal expansions of numbers	8.NS.1
	Convert decimals to fractions	8.NS.1
Approximations of Irrational Numbers	Irrational numbers on a number line	8.NS.2
	Compare irrational numbers	8.NS.2
	Expressions with irrational numbers	8.NS.2
Exponents and Roots	Expressions with integer exponents	8.EE.1
	Square roots of perfect squares	8.EE.2
	Cube roots of perfect cubes	8.EE.2
	Use square root and cube root symbols to represent solutions	8.EE.2
Scientific Notation	Understand scientific notation	8.EE.3
	Express quantities in scientific notation	8.EE.4
	Operations with numbers in scientific notation	8.EE.4
Pythagorean Theorem	The Pythagorean Theorem	8.G.6
	Apply the Pythagorean Theorem	8.G.7
	Distance on the coordinate plane	8.G.8
Volume	Volume of a cylinder	8.G.9
	Volume of a cone	8.G.9
	Volume of a sphere	8.G.9
	Volume of composite figures	8.G.9
Proportional Relationships and Slope	Graphs of proportional relationships	8.EE.5
	Compare proportional relationships represented in different ways	8.EE.5
	Slope of a line and similar triangles	8.EE.6
	Equations of the form $y = mx$	8.EE.6
	Equations of the form $y = mx + b$	8.EE.6
Solve Linear Equations	Linear equations with one, many, or no solutions	8.EE.7a
	Solve linear equations	8.EE.7b
Systems of Equations	Identify solutions to systems of equations from graphs	8.EE.8a
	Estimate solutions to systems of equations graphically	8.EE.8b
	Solve systems of equations algebraically	8.EE.8b
	Solve systems of equations by inspection	8.EE.8b
	Write and solve systems of linear equations	8.EE.8c
Functions	Understand functions	8.F.1
	Graphs of functions	8.F.1
	Compare properties of functions represented differently	8.F.2
	Understand the equation $y = mx + b$ defines a linear function	8.F.3
	Identify non-linear functions	8.F.3
Model Relationships with Functions	Interpret rates of change and initial values of functions	8.F.4
	Use functions to model relationships	8.F.4
	Describe relationships represented in graphs	8.F.5
	Graphs of qualitative relationships	8.F.5

<b>Scatter Plots</b>	Patterns in scatter plots	8.SP.1
	Display data in scatter plots	8.SP.1
	Trend lines	8.SP.2
	Use linear models to interpret data	8.SP.3
<b>Two-Way Tables</b>	Analyze associations in two-way tables	8.SP.4
	Display data in two-way tables	8.SP.4
<b>Rigid Transformations and Congruence</b>	Lines and line segments in rigid transformations	8.G.1a
	Angles in rigid transformations	8.G.1b
	Parallel lines in rigid transformations	8.G.1c
	Congruence and rigid transformations	8.G.2
	Demonstrate the congruence of figures	8.G.2
<b>Translations, Rotations, and Reflections</b>	Translations on the coordinate plane	8.G.3
	Rotations on the coordinate plane	8.G.3
	Reflections on the coordinate plane	8.G.3
<b>Dilations and Similarity</b>	Understand dilations	8.G.3
	Dilations on the coordinate plane	8.G.3
	Similarity and transformations	8.G.4
	Demonstrate the similarity of figures	8.G.4
<b>Angle Relationships</b>	Angle relationships in triangles	8.G.5
	Parallel lines cut by a transversal	8.G.5



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