Fourth Grade
Math Frameworks Correlation

Mathematics and Economics Connections for Life: 3-5

⇓ Frameworks/Lessons ⇒	1	2	3	4	5	6	7	8	9	10	11	12
NUMBERS AND OPERATIONS												
Standard 1: Number Sense: Students shall understand numbers, ways of representing numbers, relationships among numbers and number systems												
Whole Numbers												
NO.1.4.1 Recognize equivalent representations for the same whole number and generate them by composing and decomposing numbers	X			X							X	
NO.1.4.3 Use mathematical language and symbols to compare and order any whole numbers with and without appropriate technology (<, >, =)						X						
Rational Numbers												
NO.1.4.4 Write a fraction to name part of a whole, part of a set, a location on a number line, and the division of whole numbers, using models up to 12/12		X								X		
NO.1.4.5 Utilize models, benchmarks, and equivalent forms to recognize that the size of the whole determines the size of the fraction	X									X		
NO.1.4.6 Use the place-value structure of the base-ten number system and be able to represent and compare decimals to hundredths (using models, illustration, symbols, expanded notation and problem solving)	X			X							X	
NO.1.4.8 Write a fraction that is equivalent to a given fraction with the use of models										X		
Standard 2: Properties of Number Operations: Students shall understand meanings of operations and how they relate to one another												

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Number Theory												
NO.2.4.2 Apply number theory: determine if any number is even or odd; use the terms multiple, factor, and divisible by in an appropriate context; generate and use divisibility rules for 2, 5, and 10; demonstrate various multiplication & division relationships				X	X							
Whole Number Operations												
NO.2.4.3 Use conventional mathematical symbols to write equations for contextual problems involving multiplication				X	X	X			X	X		
NO.2.4.4 Represent and explain division as measurement and partitive division including equal groups, related rates, price, rectangular arrays (area model), combinations and multiplicative comparison			X	X	X				X	X		X
Standard 3: Numerical Operations and Estimation: Students shall compute fluently and make reasonable estimates												
Computational Fluency-Addition and Subtraction												
NO.3.4.1 Demonstrate, with and without appropriate technology, computational fluency in multi-digit addition and subtraction in contextual problems	X		X	X	X	X		X	X		X	X
Computational Fluency-Multiplication and Division												
NO.3.4.2 Demonstrate fluency with combinations for multiplication and division facts (12 x 12) and use these combinations to mentally compute related problems (30 x 50)					X	X			X			

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NO.3.4.3 Attain, with and without appropriate technology, computational fluency in multiplication and division using contextual problems using: two-digit by two-digit multiplication (larger numbers with technology); up to three-digit by two-digit division (larger numbers with technology), strategies for multiplying and dividing numbers; performance of operations in more than one way; estimation of products and quotients in appropriate situations; relationships between operations			X	X	X				X	X		X
Application of Computation												
NO.3.4.4 Solve simple problems using operation involving addition, subtraction and multiplication using a variety of methods and tools	X	X	X	X	X	X	X	X	X	X	X	X
Estimation												
NO.3.4.5 Use estimation strategies to solve problems and judge the reasonableness of the answer			X	X								
ALGEBRA												
Standard 4: Patterns, Relations and Functions: Students shall recognize, describe and develop patterns, relations and functions												
Recognize, Describe and Develop Patterns												
A.4.4.2 Use repeating and growing numeric and geometric patterns to make predictions and solve problems					X							
Standard 5: Algebraic Representations: Students shall represent and analyze mathematical situations and structures using algebraic symbols												
Expressions, Equations and Inequalities												
A.5.4.1 Select and/or write number sentences (equations) to find the unknown in problem-solving contexts involving two-digit by one-digit division using appropriate labels			X	X	X							
A.5.4.2 Express mathematical relationships using simple equations and inequalities (>, <, =)						X						

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A.5.4.3 Use a variable to represent an unknown quantity in a number sentence involving contextual situations and find the value						X					X	
Standard 6: Algebraic Models: Students shall develop and apply mathematical models to represent and understand quantitative relationships												
Algebraic Models and Relationships												
A.6.4.1 Complete a chart or table to organize given information and to understand relationships and explain the results		X	X	X	X	X		X	X	X	X	X
Standard 7: Analysis of Change: Students shall analyze change in various contexts												
Analyze Change												
A.7.4.1 Identify, describe and generalize relationships in which quantities change proportionally												X
GEOMETRY												
Standard 8: Geometric Properties: Students shall analyze characteristics and properties of 2 and 3 dimensional geometric shapes and develop mathematical arguments about geometric relationships												
Characteristics and Properties - Three Dimensional												
G.8.4.1 Identify, describe and classify 3-D solids by properties including the number of vertices, edges, and shapes of faces using models							X					
Characteristics and Properties-Two Dimensional												
G.8.4.2 Identify regular and irregular polygons including octagon							X					
Standard 10: Coordinate Geometry: Students shall specify locations and describe spatial relationships using coordinate geometry and other representational systems												
Coordinate Geometry												
G.10.4.1 Locate and identify points on a coordinate grid and name the ordered pair (quadrant one only) using common language and geometric vocabulary (horizontal and vertical)								X				
MEASUREMENT												
Standard 12: Physical Attributes: Students shall use attributes of measurement to describe and compare mathematical and real-world objects												

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Time: Clock												
M.12.4.1 Recognize that 60 seconds equals 1 minute									X			
Temperature												
M.12.4.2 Distinguish the temperature in contextual problems using the Fahrenheit scale on a thermometer			X									
Standard 13: Systems of Measurement: Students shall identify and use units, systems and processes of measurement												
Clock												
M.13.4.2 Solve problems involving conversions between minutes and hours									X			
M.13.4.3 Restate the time in multiple ways given an analog clock to the nearest 1-minute									X			
Money												
M.13.4.5 Apply money concepts in contextual situations	X					X					X	X
Temperature												
M13.4.6 Read temperatures on Fahrenheit and Celsius scales			X									
DATA ANALYSIS AND PROBABILITY												
Standard 14: Data Representation: Students shall formulate questions that can be addressed with data and collect, organize and display relevant data to answer them												
Collect, Organize and Display Data												
DAP.14.4.1 Create a data collection plan after being given a topic and collect, organize, display, describe and interpret simple data using frequency tables or line plots, pictographs and bar graphs		X						X				
Standard 15: Data Analysis: Students shall select and use appropriate statistical methods to analyze data												
Data Analysis												
DAP.15.4.1 Read and interpret data using pictographs, bar graphs and line graphs in which symbols or intervals are greater than one								X				
Standard 16: Inferences and Predictions: Students shall develop and evaluate inferences and predictions that are based on data												
Inferences and Predictions												

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DAP 16.4.1 Make predictions for a given set of data	X	X	X	X	X	X		X	X		X	
Standard 17: Probability: Students shall understand and apply basic concepts of probability												
Probability												
DAP.17.4.3 Find all possible combinations of 2 or 3 sets of objects				X	X							