

## Correlation of the EPGY K-7 Mathematics Course and the Tennessee Mathematics Standards

DRAFT VERSION August, 2009

### Purpose

This document describes how the EPGY Stanford Math K7 Mathematics course content correlates with the new Tennessee state mathematics standards that are in effect for the 2009-10 school year. For each SPI and check in the standards, the corresponding EPGY Stanford Math concepts are listed.

### Organization

This document is organized by grade and standard. For each grade and standard, the standard text and grade level expectations (GLE) are listed. Under each GLE, the corresponding SPIs and checks for understanding are listed, along with their corresponding EPGY Stanford Math concepts. The EPGY Stanford Math concepts are listed by the first concept ID on that topic in that grade.

### Using this Document

This document is a reference document for educators who wish to understand more about the content of the EPGY Stanford Math K7 course content. It is **not necessary** during normal use for educators to direct the EPGY Stanford Mathematics program to any particular standard, because the course motion system controls presentation to students.

Educators may use this document to become generally aware of areas that are fully covered by the EPGY Stanford Math program and therefore require less classroom instruction. Additionally, they may want to focus on areas that are partially covered or cannot be covered by computer assisted instruction (identified as *Teacher Directed*). Occasionally, a standard is covered but at a different grade level. Educators may wish to direct the program to cover that standard out of sequence.

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### Coverage Codes

This document uses coverage codes to designate the extent of coverage for each SPI or check in the state standards. The following table describes each codes and how coverage was determined.

Coverage Codes
<b>F</b> = Full, at least 3 concept classes on the topic
<b>P</b> = Partial, between 1 and 3 concept classes on the topic
<b>nF</b> = Covered in the <i>n</i> grade level
<b>nP</b> = Partially covered in the <i>n</i> grade level.
<b>TD</b> = Teacher direction required
<b>NC</b> = Not covered by K-7 Mathematics

**Correlation of the EPGY K-7 Mathematics Course and the Tennessee Mathematics Standards - DRAFT VERSION August, 2009**

<b>Kindergarten - Standard 1: Mathematical Processes</b>						
<b>Check/ SPI</b>	<b>Reference</b>	<b>Description</b>	<b>Concept ID</b>	<b>Concept Title</b>	<b>Coverage Code</b>	<b>Notes</b>
<b>GLE 0006.1.1 Use mathematical language, symbols, and definitions while developing mathematical reasoning.</b>						
<i>No SPIs or Checks Associated with this Grade Level Expectation.</i>						
<b>GLE 0006.1.2 Apply and adapt a variety of appropriate strategies to problem solving, including estimation, and reasonableness of the solution.</b>						
✓	0006.1.2	Begin to develop the concept of estimation using concrete objects.	AK.999	Concepts: Estimation	P	
			A1.919	Concepts: Estimation 1-4	1P	
<b>GLE 0006.1.3 Develop independent reasoning to communicate mathematical ideas and derive algorithms and/or formulas.</b>						
<i>No SPIs or Checks Associated with this Grade Level Expectation.</i>						
<b>GLE 0006.1.4 Move flexibly between concrete and abstract representations of mathematical ideas in order to solve problems, model mathematical ideas, and communicate solution strategies.</b>						
<i>No SPIs or Checks Associated with this Grade Level Expectation.</i>						
<b>GLE 0006.1.5 Use mathematical ideas and processes in different settings to formulate patterns, analyze graphs, set up and solve problems and interpret solutions.</b>						
✓	0006.1.1	Model addition and subtraction (e.g., using a number chart, number line and/or concrete objects).	AK.540	Concepts: Addition 1-4	F	
			AK.780	Concepts: Addition Applications		
			AK.840	Concepts: Subtraction 1-2		
			S2.444	Interpreting Bar Graphs 3-6	2P	
✓	0006.1.8	Recognize a thermometer as a way of measuring temperature.	N/A	Not Covered	NC	See Grade 4.
<b>GLE 0006.1.6 Read and interpret the language of mathematics and use written/oral communication to express mathematical ideas precisely.</b>						
✓	0006.1.3	Use words to describe time (e.g., day, night, morning, afternoon, yesterday, today, tomorrow).	MK.910	Naming Days 1-2	P	
✓	0006.1.4	Tell time to the hour.	M1.500	Telling Time 1-4	1P	
✓	0006.1.7	Use words to describe temperature (e.g., hot, warm, cool, cold).	N/A	Not Covered	NC	See Grade 4.
<b>GLE 0006.1.7 Recognize the historical development of mathematics, mathematics in context, and the connections between mathematics and the real world.</b>						
✓	0006.1.5	Recognize a calendar as a way of measuring time.	MK.805	Using a Calendar 1-2	P	
✓	0006.1.6	Name and identify coins and their values.	M1.633	Counting Money 1-3	1P	

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<b>Kindergarten - Standard 1: Mathematical Processes</b>						
<b>Check/ SPI</b>	<b>Reference</b>	<b>Description</b>	<b>Concept ID</b>	<b>Concept Title</b>	<b>Coverage Code</b>	<b>Notes</b>
✓	0006.1.9	Use age-appropriate books, stories, and videos to convey ideas of mathematics.	LK.551	Reasoning about Daily Events 1-2	P	
			LK.689	Informal Logical Reasoning 1-8		
<b>GLE 0006.1.8 Use technologies/manipulatives appropriately to develop understanding of mathematical algorithms, to facilitate problem solving, and to create accurate and reliable models of mathematical concepts.</b>						
<b><i>No SPIs or Checks Associated with this Grade Level Expectation.</i></b>						

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Kindergarten - Standard 2: Number and Operations						
Check/ SPI	Reference	Description	Concept ID	Concept Title	Coverage Code	Notes
<b>GLE 0000.6.2.1 Count objects in a set and use numbers, including written numerals to 25.</b>						
✓	0006.2.1	Count objects to 25 using one-to-one correspondence and identify the quantity in the counted group.	AK.130	Numerals and Counting 1-17	P	
			A1.021	Counting 1-7	1P	
✓	0006.2.2	Match quantities to 25 with numerals and written words.	AK.040	Comparing Groups 1-7	P	
			A1.224	Number Words 1-4	1P	
✓	0006.2.3	Count backward from 10 to 1.	AK.130	Numerals and Counting 1-17	P	
			A1.025	Number Relations 1-6	1P	
✓	0006.2.4	Count to 20 by twos.	A1.720	Counting by Twos	1P	
			A2.272	Counting 1	2P	
<b>GLE 0000.6.2.2 Create, represent and recognize a set with a given number of objects.</b>						
✓	0006.2.5	Create a set with a given number of objects.	AK.540	Concepts: Addition 1-4	P	
			AK.780	Concepts: Addition Applications		
✓	0006.2.6	Quickly recognize the number of objects in a small set.	AK.130	Numerals and Counting 1-17	P	
			AK.000	Same Things 1-2		
✓	0006.2.7	Recognize zero (0) as a set with “no objects.”	AK.130	Numerals and Counting 1	P	
✓	0006.2.8	Compare sets of ten or fewer objects and identify which are equal to, more than, or less than others.	AK.040	Comparing Groups 1-7	P	
			AK.540	Concepts: Addition 1-4		
<b>GLE 0000.6.2.3 Recognize, compare and order sets of numerals by using both cardinal and ordinal meanings.</b>						
✓	0006.2.9	Order the numbers through 25 using numerals and words.	A1.008	Ordering Integers 1-8	1P	
			A1.224	Number Words 1-4		
✓	0006.2.11	Recognize and use ordinal numbers (e.g., first, fourth, last).	M1.600	Ordinal Number Words	1P	
			A2.398	Ordinal Numbers 1-3	2P	
<b>GLE 0000.6.2.4 Understand addition as “putting together” and subtraction as “breaking apart.”</b>						
✓	0006.2.12	Model simple joining and separating situations with objects.	AK.540	Concepts: Addition 1-4	P	
			AK.840	Concepts: Subtraction 1-2		
			A1.000	Concepts: Addition 1-24	1P	
			A1.542	Concepts: Subtraction 1-20		
✓	0006.2.13	Add and subtract single-digit numbers whose total or difference is between 0 and 10.	AK.540	Concepts: Addition 1-4	P	
			A1.080	Addition Facts 1-19	1F	
			A1.618	Subtraction Facts 1-5		
			A1.694	Addition and Subtraction 1-2		
			A1.648	Subtraction Equations 1-10		

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**Kindergarten - Standard 2: Number and Operations**

<b>Check/ SPI</b>	<b>Reference</b>	<b>Description</b>	<b>Concept ID</b>	<b>Concept Title</b>	<b>Coverage Code</b>	<b>Notes</b>
✓	0006.2.14	Understand add as “put together” or “count on” and solve addition problems with sums less than 20.	AK.540	Concepts: Addition 1-4	P	
			A1.165	Addition 1-15	1P	
✓	0006.2.15	Understand subtraction as “break apart” or “take away” and solve subtraction problems using numbers.	AK.840	Concepts: Subtraction 1-2	P	
			A1.626	Subtraction 1-6	1P	
✓	0006.2.16	Model, demonstrate, and solve story problems that illustrate addition and subtraction.	AK.780	Concepts: Addition Applications	P	
			A1.910	Applications: Equations 1-2	1P	
<b>GLE 0000.6.2.5 Model the numbers 1 through 10 as sums or differences of different sets of whole numbers (composing and decomposing numbers).</b>						
✓	0006.2.10	Recognize 6 through 10 as “five and some ones.”	AK.540	Concepts: Addition 1-4	P	
			A1.394	Place Value 1-11	1P	
✓	0006.2.17	Understand that numbers can be represented by different groupings.	AK.130	Numerals and Counting 1-17	P	
			A1.394	Place Value 1-11	1P	

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Kindergarten - Standard 3: Algebra						
Check/ SPI	Reference	Description	Concept ID	Concept Title	Coverage Code	Notes
<b>GLE 0006.3.1 Identify, duplicate, and extend simple number patterns and sequential and growing patterns.</b>						
✓	0006.3.2	Name, copy, and extend patterns.	AK.000	Same Things 1-2	F	
			AK.040	Comparing Groups 1-7		
			LK.620	Patterns 1-4		
✓	0006.3.3	Translate simple patterns into rules.	N/A	Not Covered	NC	
<b>GLE 0006.3.2 Recognize attributes (such as color, shape, size) and patterns (such as repeated pairs, bilateral symmetry).</b>						
✓	0006.3.1	Use a variety of manipulatives (such as connecting cubes, number cards, shapes) to	MK.420	Comparing Size 1-2	P	
			S1.928	Patterns 1-2	1P	
✓	0006.3.4	Sort, order and classify objects by attribute and identify objects that do not belong in a particular group.	AK.840	Concepts: Subtraction 1-2	F	
			GK.536	Identifying Plane Figures 1-5		
			GK.714	Identifying Solid Figures 1-3		
			GK.821	Identifying Properties 1-2		
			GK.892	Identifying Figures & Properties 1-2		
			GK.963	Identifying Solid Figures 1-2		
			LK.138	Sorting 1-8		
			LK.276	Find What Does Not Belong 1-4		
MK.420	Comparing Size 1-2					
<b>GLE 0006.3.3 Describe qualitative change.</b>						
✓	0006.3.5	Describe change in attributes according to qualitative criteria such as longer/shorter, colder/warmer, heavier/lighter.	MK.490	Comparing Width 1-2	F	
			MK.525	Comparing Height 1-2		
			MK.630	Comparing Thickness 1-2		
			MK.665	Comparing Length 1-2		
			MK.770	Comparing Weight		

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Kindergarten - Standard 4: Geometry and Measurement						
Check/ SPI	Reference	Description	Concept ID	Concept Title	Coverage Code	Notes
<b>GLE 0006.4.1 Interpret and describe the physical world with geometric ideas and vocabulary.</b>						
✓	0006.4.1	Identify, name, and describe a variety of shapes (i.e. circles, squares, triangles, rectangles, hexagons, trapezoids) shown in various positions.	MK.420	Comparing Size 1-2	F	
			MK.450	Comparing Width 1-2		
			GK.500	Plane Figures		
			GK.536	Identifying Plane Figures 1-5		
✓	0006.4.2	Identify, name, and describe three-dimensional shapes (such as sphere, cube, cone, cylinder).	MK.595	Comparing Height 2	P	
			GK.714	Identifying Solid Figures 1-3		
✓	0006.4.3	Sort plane figures into groups, name and describe the attributes of the shapes (such as number of sides and corners (vertices)).	GK.821	Identifying Properties	P	
✓	0006.4.4	Sort solid figures into groups, name and describe the attributes of the shapes.	G1.863	Geometric Figures 2	1P	
✓	0006.4.5	Use basic shapes and spatial reasoning to model objects and construct more complex shapes.	GK.536	Identifying Plane Figures 1-5	F	
			GK.714	Identifying Solid Figures 1-3		
			GK.821	Identifying Properties 1-2		
			GK.892	Identifying Figures and Properties 1-2		
✓	0006.4.6	Identify positions (such as beside, inside, outside, above, below, between, on, over, under, near, far, forward, backward, top, middle, bottom, left, right) using models, illustrations, and stories.	G1.000	Inside	1F	
			G1.045	Outside		
			G1.091	Left		
			G1.136	Right		
			G1.227	Review of Relations 2 (Outside)		
			G1.318	Inside and Outside		
			G1.363	Above and Below		
			G1.409	In Front and In Back		
			G1.454	Into and Out of		
			G1.636	Over and Under		
			G1.681	Near To and Far From		
			G1.727	Higher and Lower		
			G1.772	Highest and Lowest		
			G1.908	Before and After		
G1.954	Between					
G1.999	Next To					

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Kindergarten - Standard 4: Geometry and Measurement						
Check/ SPI	Reference	Description	Concept ID	Concept Title	Coverage Code	Notes
<b>GLE 0006.4.3 Compare and order measurable attributes of objects directly (by comparing them with each other) and indirectly (by comparing both with a third object).</b>						
✓	0006.4.7	Make direct and indirect comparisons between objects (such as recognize which is shorter, longer, taller, lighter, heavier, or holds more).	LK.000	Same Size 1-2	F	
			LK.069	Not the Same Size 1-2		
			MK.420	Comparing Size 1-2		
			MK.490	Comparing Width 1-2		
			MK.525	Comparing Height 1-2		
			MK.630	Comparing Thickness 1-2		
			MK.665	Comparing Length 1-2		
			MK.630	Comparing Weight		
			G1.182	Review of Relations 1 (Largest)	1F	

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Kindergarten - Standard 5: Data/Probability/Statistics						
Check/ SPI	Reference	Description	Concept ID	Concept Title	Coverage Code	Notes
<b>GLE 0006.5.1 Sort objects and use one or more attributes to solve problems.</b>						
✓	0006.5.1	Sort objects into sets and describe how the objects were sorted.	SK.000	Concepts: Picture Graphs 1-4	P	Sorting only
✓	0006.5.3	Collect and count data	S1.357	Tally Graphs 1-6	1P	Counting only
<b>GLE 0006.5.2 Re-sort objects using new attributes.</b>						
✓	0006.5.2	Sort objects in different ways.	S1.000	Concepts: Picture Graphs 1-2	1P	

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Grade 1 - Standard 1: Mathematical Processes						
Check/SPI	Reference	Description	Concept ID	Concept Title	Coverage Code	Notes
<b>GLE 0106.1.1 Use mathematical language, symbols, and definitions while developing mathematical reasoning.</b>						
✓	0106.1.8	Recognize the “word clues” and mathematical symbols for addition and subtraction.	A1.025	Number Relations 1-6	F	
			A1.080	Addition Facts 1-19		
			A1.093	Addition Equations 1-6		
			A1.165	Addition 1-15		
			A1.224	Number Words 1-4		
			A1.309	Column Addition 1-16		
			A1.317	Equations with Variables 1-17		
			A1.618	Subtraction Facts 1-5		
			A1.626	Subtraction 1-6		
			A1.648	Subtraction Equations 1-10		
			A1.673	Addition and Subtraction Facts		
			A1.677	Comparing Addition & Subtraction 1		
			A1.809	Addition & Subtraction Equations 1-3		
A1.910	Applications: Equations 1-2					
<b>GLE 0106.1.2 Apply and adapt a variety of appropriate strategies to problem solving, including estimation, and reasonableness of the solution.</b>						
<i>No SPIs or Checks Associated with this Grade Level Expectation.</i>						
<b>GLE 0106.1.3 Develop independent reasoning to communicate mathematical ideas and derive algorithms and/or formulas.</b>						
<i>No SPIs or Checks Associated with this Grade Level Expectation.</i>						
<b>GLE 0106.1.4 Move flexibly between concrete and abstract representations of mathematical ideas in order to solve problems, model mathematical ideas, and communicate solution strategies.</b>						
✓	0106.1.7	Apply spatial sense to recreate a figure from memory.	N/A	Not Covered	NC	
✓	0106.1.10	Match the spoken, written, concrete, and pictorial representations of whole numbers, one-half, and one-fourth.	FK.900	Concepts: Fractions 1-2	F	
			A1.000	Concepts: Addition 1-25		
			A1.008	Ordering Integers 1-8		
			A1.021	Counting 1-7		
			A1.025	Number Relations 1-6		
			A1.224	Number Words 1-4		
			A1.394	Place Value 1-11		
			A1.542	Concepts: Subtraction 1-20		
			A1.715	Counting by Tens		
			A1.720	Counting by Twos		
			A1.910	Applications: Equations 1-2		
A1.919	Concepts: Estimation 1-4					

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<b>Grade 1 - Standard 1: Mathematical Processes</b>						
<b>Check/SPI</b>	<b>Reference</b>	<b>Description</b>	<b>Concept ID</b>	<b>Concept Title</b>	<b>Coverage Code</b>	<b>Notes</b>
✓	0106.1.10	Match the spoken, written, concrete, and pictorial representations of whole numbers, one-half, and one-fourth.	F1.800	Concepts: One Half	F	
			F1.900	Recognizing One Half		
			AK.130	Numerals and Counting 1-17	KP	
<b>GLE 0106.1.5 Use mathematical ideas and processes in different settings to formulate patterns, analyze graphs, set up and solve problems and interpret solutions.</b>						
✓	0106.1.3	Compare units of time.	M3.901	Converting Units of Time 1-3	3F	
✓	0106.1.5	Use a thermometer to measure temperature.	N/A	Not Covered	NC	See Grade 4.
✓	0106.1.6	Explore problems in different contexts to interpret the meaning of remainders as discrete values or not.	MK.770	Comparing Weight	KP	
<b>GLE 0106.1.6 Read and interpret the language of mathematics and use written/oral communication to express mathematical ideas precisely.</b>						
✓	0106.1.1	Describe the relationship between days and months.	MK.805	Using a Calendar 1-2	KP	
			M3.950	Days, Weeks, and Months 1-3	3P	
✓	0106.1.2	Read and write time to the hour, half-hour, and quarter-hour.	M1.500	Telling Time 1-4	P	Only to the hour
			M2.111	Telling Time 1-6	2P	
<b>GLE 0106.1.7 Recognize the historical development of mathematics, mathematics in context, and the connections between mathematics and the real world.</b>						
✓	0106.1.4	Count the value of a set of coins up to fifty cents.	M1.633	Counting Money 1-3	P	
✓	0106.1.9	Use age-appropriate books, stories, and videos to convey ideas of mathematics.	L1.000	Reasoning about Daily Events 1-4	P	
			L1.154	Informal Logical Reasoning 1-10		
<b>GLE 0106.1.8 Use technologies/manipulatives appropriately to develop understanding of mathematical algorithms, to facilitate problem solving, and to create accurate and reliable models of mathematical concepts.</b>						
<b><i>No SPIs or Checks Associated with this Grade Level Expectation.</i></b>						

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Grade 1 - Standard 2: Number and Operations						
Check/ SPI	Reference	Description	Concept ID	Concept Title	Coverage Code	Notes
<b>GLE 0106.2.1 Understand and use number notation and place value to 100.</b>						
✓	0106.2.1	Read and write numerals up to 100.	A1.008	Ordering Integers 1-8	P	
			A1.021	Counting 1-7		
✓	0106.2.6	Recognize the place value of numbers (tens, ones).	A1.394	Place Value 1-11	P	
			A2.296	Tens and Ones	2P	
✓	0106.2.15	Represent whole numbers between 10 and 100 in groups of tens and ones.	A1.394	Place Value 1-11	P	
			A2.296	Tens and Ones	2P	
<b>GLE 0106.2.2 Compare and order whole numbers to 100.</b>						
✓	0106.2.2	Write numbers up to 10 in words.	A1.224	Number Words 1-4	P	
✓	0106.2.3	Count forward and backward by ones beginning with any number less than 100.	N/A	Not Covered	NC	
✓	0106.2.4	Skip count by twos, fives, and tens.	A1.715	Counting by Tens	P	
			A1.720	Counting by Twos		
✓	0106.2.5	Order and compare (less than, greater than, or equal to) whole numbers to 100.	A1.008	Ordering Integers 1-8	P	
			A1.025	Number Relations 1-6		
✓	0106.2.16	Represent whole numbers up to 100 on a number line.	N/A	Not Covered	NC	
✓	0106.2.17	Use the number line to create visual representations of sequences.	N/A	Not Covered	NC	
<b>GLE 0106.2.3 Develop strategies for learning basic addition facts and related subtraction facts.</b>						
✓	0106.2.7	Develop fluency with addition and subtraction facts of sums through ten.	A1.080	Addition Facts 1-19	F	
			A1.093	Addition Equations 1-14		
			A1.165	Addition 1-16		
			A1.618	Subtraction Facts 1-5		
			A1.626	Subtraction 1-6		
			A1.648	Subtraction Equations 1-10		
✓	0106.2.8	Relate “counting on” and “counting back” to addition and subtraction and understand them as inverse operations.	A1.677	Comparing Addition & Subtraction 1-4	P	
✓	0106.2.9	Add three single-digit numbers.	A1.309	Column Addition 1-16	P	
			A2.252	Addition 1-2	2P	

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Grade 1 - Standard 2: Number and Operations						
Check/SPI	Reference	Description	Concept ID	Concept Title	Coverage Code	Notes
✓	0106.2.10	Use models (such as discrete objects, connecting cubes, and number lines) to represent “part-whole,” “adding to,” “taking away from,” and “comparing to” situations to develop understanding of the meaning of addition and subtraction.	A1.000	Concepts: Addition 1-25	P	
			A1.038	Concepts: Addition Equations 1-15		
<b>GLE 0106.2.4 Use multiple representations (including groups of ten) to model two-digit addition and subtraction.</b>						
✓	0106.2.12	Use various models to develop strategies for solving arithmetic problems.	A1.000	Concepts: Addition 1-25	P	
			A1.038	Concepts: Addition Equations 1-15		
✓	0106.2.13	Solve problems that require addition and subtraction of numbers through 100.	A1.309	Column Addition 1-16	P	
			A1.626	Subtraction 1-6		
✓	0106.2.14	Use composition and decomposition of numbers to identify and discuss patterns.	A1.394	Place Value 1-11	P	
✓	0106.2.11	Recognize the “part-whole” relationship in representations of basic fractions such as $\frac{1}{2}$ , $\frac{1}{4}$	F1.800	Concepts: One Half	P	
			F1.900	Recognizing One Half		
			F2.000	Concepts: One Half 1-2	2F	
			F2.062	Concepts: Halves and Quarters		
			F2.187	Concepts: One Third		
			F2.250	Concepts: One Fourth		

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Grade 1 - Standard 3: Algebra						
Check/ SPI	Reference	Description	Concept ID	Concept Title	Coverage Code	Notes
<b>GLE 0106.3.1 Identify, describe, and extend simple number patterns to develop strategies for adding and subtracting whole numbers.</b>						
✓	0106.3.1	Find repeating patterns on the number line, addition table, and hundreds chart.	A1.021	Counting 1-7	P	
✓	0106.3.2	Determine a reasonable next term in a given sequence and describe the rule.	A1.008	Ordering integers 1-8	P	
<b>GLE 0106.3.2 Understand that addition and subtraction are inverse operations.</b>						
✓	0106.3.3	Use objects to illustrate the commutative property with basic facts and show that subtraction is not commutative.	A3.583	Concepts: Commutative Law 1-25	3P	Addition/ Subtraction
✓	0106.3.4	Demonstrate understanding of the basic equation $a + b = c$ by using objects to illustrate the number sentences (fact families) associated with any particular sum.	A1.000	Concepts: Addition 1-24	P	
			A1.038	Concepts: Addition Equations 1-15		
✓	0106.3.5	Use various strategies to find unknowns in problems involving addition and subtraction.	A1.000	Concepts: Addition 1-24	P	
			A1.038	Concepts: Addition Equations 1-15		
✓	0106.3.6	Use objects to demonstrate the inverse relationship between addition and subtraction.	A1.542	Concepts: Subtraction 1-20	P	
✓	0106.3.7	Use the inverse relation between addition and subtraction to check arithmetic problems.	A1.677	Comparing Addition & Subtraction 1-4	P	
<b>GLE 0106.3.3 Extend the strategies for basic facts to include other properties of number and operations.</b>						
✓	0106.3.8	Determine whether a number is odd or even by pairing objects.	L3.365	Even and Odd Numbers 1-6	3P	
✓	0106.3.9	Recognize that zero is the identity element for addition.	A1.038	Concepts: Addition Equations 1-15	P	See Grade 5.

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**Correlation of the EPGY K-7 Mathematics Course and the Tennessee Mathematics Standards - DRAFT VERSION August, 2009**

Grade 1 - Standard 4: Geometry and Measurement						
Check/ SPI	Reference	Description	Concept ID	Concept Title	Coverage Code	Notes
<b>GLE 0106.4.1 Recognize, describe, and draw geometric figures.</b>						
✓	0106.4.1	Recognize and describe similarities and differences between 2-dimensional figures (geometric attributes and properties).	GK.714	Identifying Solid Figures	KP	
			G1.272	Geometric Figures 1-2	P	
			G2.768	Properties of Polygons and Ways	2P	
			G2.845	Properties of Polygons 1-2		
			G3.250	Properties of Plane Figures 1	3P	
✓	0106.4.2	Recognize 2- and 3-dimensional figures from different perspectives and orientations.	GK.714	Identifying Solid Figures	KP	
			G1.272	Geometric Figures 1-2	P	
			G2.768	Properties of Polygons and Ways	2P	
			G2.845	Properties of Polygons 1-2		
			G3.250	Properties of Plane Figures 1	3P	
✓	0106.4.4	Identify 2-dimensional shapes as faces of 3-dimensional figures.	GK.714	Properties of Polygons and Ways	KP	
			G1.272	Geometric Figures 1-2	P	
			G2.768	Properties of Polygons and Ways	2P	
			G2.845	Properties of Polygons 1-2		
			G3.250	Properties of Plane Figures 1	3P	
<b>GLE 0106.4.2 Compose and decompose geometric shapes.</b>						
✓	0106.4.3	Model part-whole relationships and properties of plane and solid figures by combining two or more shapes to make a larger shape or by breaking	GK.536	Identifying Plane Figures 1-5	KP	
			GK.714	Identifying Solid Figures 1-3		
			G3.250	Properties of Plane Figures 1	3P	
<b>GLE 0106.4.3 Use non-standard units in linear measurement.</b>						
✓	0106.4.5	Estimate and measure length using non-standard units (counting by using groups of tens and ones) to represent addition.	M2.250	Concepts: Linear Measure 1-8	2P	
✓	0106.4.6	Recognize the essential role of units in measurement, and understand the difference between standard and non-standard units.	M1.500	Telling Time 1-4	F	
			M1.600	Ordinal Number Words		
			M1.633	Counting Money 1-3		
			M1.833	Pints and Quarts		
			M1.900	Using a Ruler 1-2		
			M1.933	Feet and Inches		
			M1.999	Length and Perimeter		
✓	0106.4.7	Understand and use comparative words such as long, longer, longest; short, shorter, shortest; tall, taller, tallest; high, higher, highest.	MK.665	Comparing Length 1-2	KP	
			MK.525	Comparing Height 1-2		
			G1.772	Highest and Lowest	P	
			G1.727	Higher and Lower		

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**Correlation of the EPGY K-7 Mathematics Course and the Tennessee Mathematics Standards - DRAFT VERSION August, 2009**

<b>Grade 1 - Standard 5: Data/Probability/Statistics</b>						
<b>Check/SPI</b>	<b>Reference</b>	<b>Description</b>	<b>Concept ID</b>	<b>Concept Title</b>	<b>Coverage Code</b>	<b>Notes</b>
<b>GLE 0106.5.1 Use various representations to display and compare data.</b>						
✓	0106.5.1	Represent measurements and discrete data using concrete objects, picture graphs, and bar graphs.	S1.143	Interpreting Graphs 1-5	P	Picture & bar graphs only
✓	0106.5.2	Represent data in both horizontal and vertical form.	S1.785	Interpreting Graphs 4-5	P	Count data in horizontal and
✓	0106.5.3	Display data using appropriate titles and labels.	N/A	Teacher Directed	TD	
✓	0106.5.4	Count and compare collected data.	S1.357	Tally Graphs 1-6	P	Counting only

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**Correlation of the EPGY K-7 Mathematics Course and the Tennessee Mathematics Standards - DRAFT VERSION August, 2009**

Grade 2 - Standard 1: Mathematical Processes						
Check/ SPI	Reference	Description	Concept ID	Concept Title	Coverage Code	Notes
<b>GLE 0206.1.1 Use mathematical language, symbols, and definitions while developing mathematical reasoning.</b>						
<i>No SPIs or Checks Associated with this Grade Level Expectation.</i>						
<b>GLE 0206.1.2 Apply and adapt a variety of appropriate strategies to problem solving, including estimation, and reasonableness of the solution.</b>						
✓	0206.1.3	Use strategies to make estimates of time.	M3.884	Computing Future Times	3P	
✓	0206.1.4	Solve problems involving elapsed time in hour and half-hour intervals.	M2.638	Time Intervals 1-6	P	
<b>GLE 0206.1.3 Develop independent reasoning to communicate mathematical ideas and derive algorithms and/or formulas.</b>						
<i>No SPIs or Checks Associated with this Grade Level Expectation.</i>						
<b>GLE 0206.1.4 Move flexibly between concrete and abstract representations of mathematical ideas in order to solve problems, model mathematical ideas, and communicate solution strategies.</b>						
✓	0206.1.8	Use concrete models or pictures to show whether a fraction is less than a half, more than a half, or equal to a half.	F2.000	Concepts: One Half, 1-2	P	
			F2.062	Concepts: Halves and Quarters		
✓	0206.1.9	Match the spoken, written, concrete, and pictorial representations of halves, thirds, and fourths.	F2.000	Concepts: One Half, 1-2	F	
			F2.062	Concepts: Halves and Quarters		
			F2.187	Concepts: One Third		
			F2.250	Concepts: One Fourth		
			F2.312	Halves, Fourths		
			F2.375	Halves, Thirds 1-2		
			F2.437	Two-thirds, Three-fourths		
			F2.500	Concepts: Denominators		
			F2.562	Denominators		
			F2.624	Concepts: Numerators		
			F2.687	Numerators		
			F2.749	Finding Fractions of a Number, 1-3		
			F2.812	Recognizing Fractions of a Whole		
<b>GLE 0206.1.5 Use mathematical ideas and processes in different settings to formulate patterns, analyze graphs, set up and solve problems and interpret solutions.</b>						
✓	0206.1.6	Read thermometers with Fahrenheit and Celsius scales.	M4.744	Celsius and Fahrenheit	4P	
✓	0206.1.7	Measure weight to the nearest pound or kilogram.	M4.170	Weight Measure 1-3	4F	Conversions only
			M4.255	Applications: Measure 2		Addition only
			M4.404	Rounding Measurements 1		Rounding only

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Grade 2 - Standard 1: Mathematical Processes						
Check/ SPI	Reference	Description	Concept ID	Concept Title	Coverage Code	Notes
<b>GLE 0206.1.6 Read and interpret the language of mathematics and use written/oral communication to express mathematical ideas precisely.</b>						
✓	0206.1.10	Develop a story problem that illustrates a given addition or subtraction number sentence.	A1.910	Applications: Equations 1-2	1P	Match English to number sentences
			M3.164	Mathematical Sentences 1-12	3P	
✓	0206.1.12	Write numbers and translate word clues to number sentences and vice versa.	A2.572	Applications with Variables	F	
			A2.611	Applications: Equations 1-5		
			A2.713	Applications: Sums & Differences 1-2		
<b>GLE 0206.1.7 Recognize the historical development of mathematics, mathematics in context, and the connections between mathematics and the real world.</b>						
✓	0206.1.1	Read and write time up to five-minute intervals.	M2.111	Telling Time 1-6	P	
✓	0206.1.2	Relate days, dates, weeks, months, and years to a calendar.	MK.805	Using a Calendar 1-2	KP	
			M3.950	Days, Weeks, and Months 1-3	3P	
✓	0206.1.5	Count the value of a set of coins up to one dollar and use the transitive property of equality to recognize equivalent forms of values up to \$1.00.	M2.056	Counting Money 1-2	P	
			M4.340	Value of Coins 1-2	4P	
✓	0206.1.15	Use age-appropriate books, stories, and videos to convey ideas of mathematics.	L2.000	Reasoning about Daily Living 1-4	P	
			L2.182	Informal Reasoning 1-8		
<b>GLE 0206.1.8 Use technologies/manipulatives appropriately to develop understanding of mathematical algorithms, to facilitate problem solving, and to create accurate and reliable models of mathematical concepts.</b>						
✓	0206.1.11	Use manipulatives to demonstrate addition and subtraction sentences written symbolically.	N/A	Teacher Directed	TD	
✓	0206.1.13	Use manipulatives such as pattern blocks, tangrams, etc. to explore geometric concepts of symmetry and transformations.	N/A	Teacher Directed	TD	See Grade 5.
✓	0206.1.14	Create and observe numerical patterns on a calculator by repeatedly adding or subtracting the same number from some starting number.	N/A	Teacher Directed	TD	

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**Correlation of the EPGY K-7 Mathematics Course and the Tennessee Mathematics Standards - DRAFT VERSION August, 2009**

Grade 2- Standard 2: Number and Operations						
Check/ SPI	Reference	Description	Concept ID	Concept Title	Coverage Code	Notes
<b>GLE 0206.2.1 Understand and use place value concepts to 1000.</b>						
✓	0206.2.2	Read and write numbers up to 1000 using numerals and up to 100 using words.	A2.272	Counting 1-3	P	
✓	0206.2.5	Compare and order multi-digit numbers up to 1000.	A2.412	Number Relations 1-11	P	
<b>GLE 0206.2.2 Understand and use the base-ten numeration system.</b>						
✓	0206.2.1	Starting at any number, count by ones, twos, fives, tens, and hundreds up to 1000.	A2.272	Counting 1-3	F	
			A2.296	Tens & Ones		
			A2.301	Hundreds, Tens, & Ones 1-8		
✓	0206.2.3	Locate and interpret numbers on a number line.	A4.759	Comparing Integers 1-4	4P	
✓	0206.2.4	Recognize that place-value notation represents the sums of multiples of powers of ten (e.g., 853 as 8 hundreds + 5 tens + 3 ones).	A2.301	Hundreds, Tens, & Ones 1-8	F	
			A2.325	Addition With Tens		
			A2.373	Addition With Hundreds		
			A2.378	Addition With Tens & Hundreds	3P	
A3.121	Concepts: Place Value 1-14					
<b>GLE 0206.2.3 Use efficient and accurate strategies to develop fluency with multi-digit addition and subtraction.</b>						
✓	0206.2.6	Use various models such as number lines, pictures, and base-ten blocks to illustrate addition and subtraction.	A2.301	Hundreds, Tens, & Ones 1-8	P	
			A2.272	Counting 1-3		
			L3.097	Concepts: Addition 1-3	3F	
			L3.244	Concepts: Subtraction 1-4		
A3.121	Concepts: Place Value 1-14					
✓	0206.2.7	Develop fluency at recalling basic addition facts and related subtraction facts.	A2.000	Practice with the Number Eleven 1-3	F	
			A2.019	Practice with the Number Twelve 1-3		
			A2.029	Practice with the Number Thirteen 1-2		
			A2.063	Practice with the Number Fourteen 1-3		
			A2.078	Practice with the Number Fifteen 1-3		
			A2.131	Practice with the Number Sixteen 1-4		
			A2.150	Practice with the Number Seventeen 1-4		
			A2.170	Practice with the Number Eighteen 1-3		
			A2.189	Practice with the Number Nineteen 1-4		
			A2.039	Addition & Subtraction 1-12		
			A2.087	Addition & Subtraction Equations 1-4		
			A2.107	Subtraction Facts 1-4		
A2.325	Addition with Tens					

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Grade 2- Standard 2: Number and Operations						
Check/ SPI	Reference	Description	Concept ID	Concept Title	Coverage Code	Notes
✓	0206.2.7	Develop fluency at recalling basic addition facts and related subtraction facts.	A2.330	Subtraction with Tens	F	
			A2.242	Addition Facts 1-2		
✓	0206.2.8	Use efficient procedures, and understand why they work, to solve problems involving the addition and subtraction of two- and three-digit whole numbers (including those that require regrouping for addition only).	A2.286	Column Addition 1-4	P	
			A2.747	Carrying in Addition 1-22		
			A3.180	Addition with Carrying 1-20	3F	
			A3.141	Concepts: Addition with Carrying 1-6		
			A3.462	Subtraction 1-2		
			A3.344	Applications: Subtraction 1-2		
			A3.475	Applications: Addition & Subtraction 1-5	4F	
			A4.000	Regrouping for Subtraction		
			A4.043	Addition and Subtraction 1-6		
			A4.557	Addition 1-3		
A4.058	Regrouping for Addition 1-2					
✓	0206.2.9	Apply appropriate methods to estimate and mentally calculate sums or differences with ones, tens, and hundreds.	A2.907	Applications: Commutative Law 1-11	P	
✓	0206.2.10	Add three two-digit numbers.	A2.286	Column Addition 1-4	P	
			A3.134	Column Addition 1-4	3P	
✓	0206.2.11	Solve addition and subtraction problems in context using various representations.	A2.611	Applications: Equations 1-5	F	
			A2.655	Applications With Money 1-2		
			A2.000	Practice with the Number Eleven 1-3		
			A2.019	Practice with the Number Twelve 1-3		
			A2.029	Practice with the Number Thirteen 1-2		
			A2.063	Practice with the Number Fourteen 1-3		
			A2.078	Practice with the Number Fifteen 1-3		
			A2.131	Practice with the Number Sixteen 1-4		
			A2.150	Practice with the Number Seventeen 1-4		
			A2.170	Practice with the Number Eighteen 1-3		
			A2.189	Practice with the Number Nineteen 1-4		
			A2.592	Applications: Addition & Subtraction 1-3		
			A2.713	Applications: Sums & Differences 1-2		
			A3.557	Using Information on a Map	3P	
M4.701	Applications: Temperature 1-2	4P				
<b>GLE 0206.2.4 Develop an initial understanding of multiplication.</b>						
✓	0206.2.12	Demonstrate skip counting on the number line and relate to repeated addition and multiplication.	N/A	Not Covered	NC	

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Grade 2- Standard 2: Number and Operations						
Check/ SPI	Reference	Description	Concept ID	Concept Title	Coverage Code	Notes
✓	0206.2.13	Relate patterns in skip counting to multiplication.	A2.466	Concepts: Multiplication 1-3	P	

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Grade 2 - Standard 3: Algebra						
Check/ SPI	Reference	Description	Concept ID	Concept Title	Coverage Code	Notes
<b>GLE 0206.3.1 Develop pattern recognition.</b>						
✓	0206.3.1	Given rules, complete tables to reveal both arithmetic and geometric patterns.	S2.222	Tally Charts and Bar Graphs 1-2	P	
			S2.333	Interpreting Bar Graphs 1-6		
✓	0206.3.2	Given a description, extend or find a missing term in a pattern or sequence.	S2.666	Patterns 1-7	P	
✓	0206.3.3	Record and study patterns in lists of numbers created by repeated addition or subtraction.	S2.666	Patterns 1-7	P	
✓	0206.3.4	Generalize the patterns resulting from the addition, subtraction and multiplication of combinations of odd and even numbers.	L3.365	Even and Odd Numbers 2-6	3P	
<b>GLE 0206.3.2 Extend knowledge of the properties of numbers and operations to multiplication.</b>						
✓	0206.3.5	Understand and use the commutative and associative properties of addition and multiplication.	A2.907	Applications: Commutative Law 1-9	P	Addition only
			A3.611	Commutative Law for Multiplication 1-10	3P	
			A3.683	Concepts: Associative Law 1-19		
✓	0206.3.6	Relate repeated addition to multiplication.	A2.519	Multiplication and Addition 1-3	P	
<b>GLE 0206.3.3 Solve simple arithmetic problems using various methods.</b>						
✓	0206.3.7	Find unknowns in number sentences and problems involving addition, subtraction and multiplication.	A2.276	Choose the Correct Operation 1-11	F	
			A2.315	Addition Equations 1-2		
			A2.335	Subtraction Equations 1-2		
			A2.480	Applications with Multiplication 1-3		
			A2.548	Multiplication Equations 1-3		
			A2.563	Equations with Variables 1-5		
			A2.572	Applications with Variables		
			A2.592	Applications: Addition & Subtraction 1-3		
			A2.606	Solving Equations 1-5		
			A2.664	Subtraction 1-2		
			A2.689	Sums and Differences 1-5		
			A2.723	Add, Subtract, & Multiply 1-4		
			A2.868	Multiplication 1-4		
			L3.171	Concepts: Missing Addends 1-3	3P	
A4.005	Subtraction 1-9	4P				
<b>GLE 0206.3.4 Describe quantitative change.</b>						
✓	0206.3.8	Describe change in measures according to quantitative criteria such as growing 2 inches in one year.	M2.000	Feet and Inches	P	

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Grade 2 - Standard 4: Geometry and Measurement						
Check/ SPI	Reference	Description	Concept ID	Concept Title	Coverage Code	Notes
<b>GLE 0206.4.1 Recognize, classify, and transform 2- and 3-dimensional geometric figures.</b>						
✓	0206.4.1	Describe common geometric attributes of familiar plane and solid objects.	GK.500	Plane Figures	KF	
			GK.536	Identifying Plane Figures 1-6		
			GK.714	Identifying Solid Figures 1-3		
			G1.272	Geometric Figures 1-2	1P	
			G2.384	Convex and Concave	P	
			G2.307	Finding Segments Inside or Outside	3P	
			G3.250	Properties of Plane Figures 1-3		
G4.000	Plane and Space Figures	4P				
✓	0206.4.2	Reflect, rotate, and translate shapes to explore the effects of transformations.	N/A	Not Covered	NC	See Grade 5.
<b>GLE 0206.4.2 Understand the meaning and process of linear measurement.</b>						
✓	0206.4.4	Estimate, measure, and calculate length to the nearest unit: meter, centimeter, yard, foot, and inch.	G2.615	Paths 1	F	
			M2.000	Feet and Inches		
			M2.472	Linear Measure 1-2		
			M2.860	Measuring Distance 1-2		
✓	0206.4.5	Use rulers to measure the lengths of sides and diagonals of common 2-dimensional figures and polygons.	M2.888	Estimating Distance 1-4	1P	Rulers are used
			G1.272	Geometric Figures 1-2		
			M1.900	Using a Ruler 1-2		
			G2.768	Properties of Polygons and Ways	2F	
			G2.845	Properties of Polygons 1-2		
			M2.860	Measuring Distance 1-2		
M2.888	Estimating Distance 1-4					
<b>GLE 0206.4.3 Add, subtract, compare, compute and estimate linear measurements.</b>						
✓	0206.4.3	Understand the property of transitivity as it relates to linear measurement (for example: If A is longer than B, and B is longer than C, then A is longer than C).	M2.250	Concepts: Linear Measure 1-8	P	
✓	0206.4.6	Understand the inverse relationship between the size of a unit and the number of units used in a particular measurement (the smaller the unit, the more iterations needed to cover the length).	M2.194	Length and Width	P	
			M2.222	Finding Area		
<b>GLE 0206.4.4 Compose and decompose polygons to make other polygons.</b>						
✓	0206.4.7	Investigate and describe composition, decomposition, and transformations of polygons.	G2.768	Properties of Polygons and Ways	P	
			G2.845	Properties of Polygons 1-2		

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**Grade 2 - Standard 4: Geometry and Measurement**

<b>Check/ SPI</b>	<b>Reference</b>	<b>Description</b>	<b>Concept ID</b>	<b>Concept Title</b>	<b>Coverage Code</b>	<b>Notes</b>
✓	0206.4.8	Combine polygons to form other polygons and subdivide a polygon into other polygons.	G4.881	Polygons	4P	
✓	0206.4.9	Recognize the composition and decomposition of polygons.	G2.768	Properties of Polygons and Ways	P	
			G2.845	Properties of Polygons 1-2		
			G4.881	Polygons	4P	

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<b>Grade 2 - Standard 5: Data/Probability/Statistics</b>						
<b>Check/SPI</b>	<b>Reference</b>	<b>Description</b>	<b>Concept ID</b>	<b>Concept Title</b>	<b>Coverage Code</b>	<b>Notes</b>
<b>GLE 0206.5.1 Use and understand various representations to depict and analyze data measurements.</b>						
✓	0206.5.1	Read, interpret, and analyze data shown in tables, bar graphs and picture graphs.	S2.333	Interpreting Bar Graphs 1-6	P	
✓	0206.5.2	Read, interpret, and create tables using tally marks.	S2.000	Tally Charts 1-4	P	Read & interpret only
<b>GLE 0206.5.2 Determine whether an event is likely or unlikely.</b>						
✓	0206.5.3	Explain whether a real world event is likely or unlikely.	S3.599	Predicting Events 1-2	3P	
✓	0206.5.4	Predict outcomes of events based on data gathered and displayed.	S3.849	Predicting Events 3-4	3P	Data already displayed

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Grade 3 - Standard 1: Mathematical Processes						
Check/ SPI	Reference	Description	Concept ID	Concept Title	Coverage Code	Notes
<b>GLE 0306.1.1 Use mathematical language, symbols, and definitions while developing mathematical reasoning.</b>						
SPI	0306.1.6	Identify and use vocabulary to describe attributes of two- and three-dimensional shapes.	G3.150	Convex and Concave	F	
			G3.000	Inside, Outside, or On a Figure, 1-2		
			G3.100	Convex and Concave Figures, 1		
			G3.200	Intersections of Plane Figures, 1-2		
			G3.250	Properties of Plane Figures, 1-3		
			G3.300	Concepts: Perimeter and Area		
			G3.350	Perimeter and Area		
			G3.400	Shapes, Sizes, and Positions, 1-2		
			G3.549	Lines of Symmetry, 1-2		
			G3.699	Naming and Comparing Angles, 1-2		
			G3.749	Comparing Angles		
			G3.899	Doubling & Tripling Line Segments		
			G3.949	Bisecting Line Segments		
G3.999	Properties of Triangles					
<b>GLE 0306.1.2 Apply and adapt a variety of appropriate strategies to problem solving, including estimation, and reasonableness of the solution.</b>						
✓	0306.1.4	Analyze problems by identifying relationships, distinguishing relevant from irrelevant information, and observing patterns.	A3.039	Concepts: Multiplication & Addition 1-6	F	
			A3.041	Applications: Multiplication 1-4		
			A3.354	Concepts: Multiplication & Division 1-2		
			A3.360	Multiplying to Check Division 1-3		
			A3.385	Multiplication Facts 22-24		
			L3.365	Even and Odd Numbers 1-6		
			L3.487	Concepts: Inequalities 1-3		
			L3.536	Inequalities 1-8		
			L3.707	Choosing the Correct Relation 1-6		
			L3.780	Using Inequalities 1-5		
S3.599	Predicting Events 1-4					
✓	0306.1.5	Determine when and how to break a problem into simpler parts.	A3.121	Concepts: Place Value 1-14	F	
			A3.031	Concepts: Multiplication 1-3		
			A3.039	Concepts: Multiplication & Addition 1-6		
			A3.139	Concepts: Addition with Carrying 1-16		
			A3.180	Addition with Carrying 1-32		
			A3.208	Place Value 1-2		
			A3.354	Concepts: Multiplication & Division 1-2		
			M3.000	Representing Amounts of Money 1-4		

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**Correlation of the EPGY K-7 Mathematics Course and the Tennessee Mathematics Standards - DRAFT VERSION August, 2009**

Grade 3 - Standard 1: Mathematical Processes						
Check/SPI	Reference	Description	Concept ID	Concept Title	Coverage Code	Notes
✓	0306.1.5	Determine when and how to break a problem into simpler parts.	A3.139	Concepts: Addition with Carrying 1-16	P	
✓	0306.1.6	Use estimation to check answers for reasonableness, and calculators to check for accuracy.	N/A	Not Covered	NC	
✓	0306.1.11	Develop strategies for solving problems involving addition and subtraction of measurements.	M2.000	Feet and Inches	2P	
			M3.721	Converting Linear Measures 1-5		
			M3.770	Linear Measure	F	
			M3.786	Applications with Linear Measures		
			M3.901	Converting Units of Time 1-3		
M3.999	Applications with Time					
<b>GLE 0306.1.3 Develop independent reasoning to communicate mathematical ideas and derive algorithms and/or formulas.</b>						
✓	0306.1.7	Make and investigate mathematical conjectures.	A3.039	Concepts: Multiplication & Addition 1	F	
			A3.360	Multiplying to Check Division 1-3		
			A3.367	Concepts: Multiplication & Area		
			A3.583	Concepts: Commutative Law 1-25		
			A3.611	Commutative Law for Multiplication 1-10		
			A3.683	Concepts: Associative Law 1-19		
			A3.722	Associative Law 1-5		
			A3.781	Multiplying Multiples of 10		
			A3.783	Multiplying Multiples of Ten 1-17		
			A3.819	Working with Multiples of Ten 1		
			A3.847	Concepts: Distributive Law 1-2		
A3.894	Distributive Law & Multiplication					
✓	0306.1.8	Explain and justify answers on the basis of mathematical properties, structures, and relationships.	A3.031	Concepts: Multiplication 1-3	F	
			A3.039	Concepts: Multiplication & Addition 1-6		
			A3.121	Concepts: Place Value 1-14		
			A3.139	Concepts: Addition with Carrying 1-6		
			A3.208	Place Value 1-2		
			A3.349	Concepts: Division		
			A3.354	Concepts: Multiplication & Division 1-2		
			A3.360	Multiplying to Check Division 1-3		
			A3.367	Concepts: Multiplication & Area		
			A3.809	Concepts: Adding Fractions 1-3		
			A3.819	Working with Multiples of Ten 1-3		
			A3.894	Distributive Law & Multiplication		

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Grade 3 - Standard 1: Mathematical Processes						
Check/ SPI	Reference	Description	Concept ID	Concept Title	Coverage Code	Notes
✓	0306.1.12	Analyze and evaluate the mathematical thinking and strategies of others.	N/A	Not Covered	NC	
<b>GLE 0306.1.4 Move flexibly between concrete and abstract representations of mathematical ideas in order to solve problems, model mathematical ideas, and communicate solution strategies.</b>						
SPI	0306.1.4	Match the spoken, written, concrete, and pictorial representations of fractions with denominators up to ten.	F3.000	Concepts: Fractions 1-12	F	
			F3.021	Figures and Fractions 1-11		
			F3.064	Halves and Wholes		
			F3.128	Concepts: Thirds		
			F3.149	Thirds		
			F3.191	Fractions		
			F3.425	Fractions as Parts of Sets		
			F3.446	Halves and Thirds		
			F3.531	Fractional Part 2/3		
			F3.574	Fractional Part 3/4		
			F3.680	Definition of 1/4		
			F3.786	Writing Fractions 1-3		
			F3.850	More Writing Fractions 4		
			F4.999	Fractional Parts of a Set of Objects	4P	
SPI	0306.1.5	Represent problems mathematically using diagrams, numbers, and symbolic expressions.	M3.164	Mathematical Sentences 1-12	F	
			M3.213	Applications with Equations 1-5		
			A3.344	Applications: Subtraction 1-2		
<b>GLE 0306.1.5 Use mathematical ideas and processes in different settings to formulate patterns, analyze graphs, set up and solve problems and interpret solutions.</b>						
SPI	0306.1.7	Select appropriate units and tools to solve problems involving measures.	M3.721	Converting Linear Measures 1	P	
			M3.786	Applications with Linear Measures		
SPI	0306.1.8	Express answers clearly in verbal, numerical, or graphical (bar and picture) form, using units when appropriate.	S3.150	Representing Data 1-8	F	
			S3.250	Recording & Representing Data		
			S3.699	Recording & Representing Data 2		
✓	0306.1.13	Create and use representations to organize, record, and communicate mathematical ideas.	S3.050	Coin Toss Sequence 1-2	F	
			S3.150	Representing Data 1-8		
			S3.250	Recording & Representing Data		
			S3.699	Recording & Representing Data 2		

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<b>Grade 3 - Standard 1: Mathematical Processes</b>						
<b>Check/ SPI</b>	<b>Reference</b>	<b>Description</b>	<b>Concept ID</b>	<b>Concept Title</b>	<b>Coverage Code</b>	<b>Notes</b>
<b>GLE 0306.1.6 Read and interpret the language of mathematics and use written/oral communication to express mathematical ideas precisely.</b>						
✓	0306.1.10	Use correct, clearly written and oral mathematical language to pose questions and communicate ideas.	N/A	Teacher Directed	TD	
<b>GLE 0306.1.7 Recognize the historical development of mathematics, mathematics in context, and the connections between mathematics and the real world.</b>						
SPI	0306.1.1	Solve problems using a calendar.	M3.950	Days, Weeks, and Months 1-3	P	
SPI	0306.1.2	Solve problems involving elapsed time.	M3.884	Computing Future Times	P	
			M3.999	Applications with Time		
SPI	0306.1.3	Determine the correct change from a transaction less than a dollar.	A3.547	Computing Amounts of Money 1-3	P	
✓	0306.1.1	Read and write time to the nearest minute.	M3.835	Telling Time 1-3	P	
✓	0306.1.2	Compare and order decimal amounts in the context of money.	M4.319	Meaning of the Dollar Sign	4P	
			F5.774	Ordering Decimals 1-4	5P	Comparing decimals without dollar signs
			F5.778	Comparing Decimals 1-13		Ordering decimals without dollar signs
✓	0306.1.3	Count the value of combinations of coins and bills up to five dollars.	M2.805	Counting Bills and Coins 1-2	2P	
✓	0306.1.14	Use age-appropriate books, stories, and videos to convey ideas of mathematics.	S3.599	Predicting Events 1-4	P	
<b>GLE 0306.1.8 Use technologies/manipulatives appropriately to develop understanding of mathematical algorithms, to facilitate problem solving, and to create accurate and reliable models of mathematical concepts.</b>						
✓	0306.1.9	Use manipulatives to demonstrate that the commutative property holds for addition but not for subtraction.	A4.951	Testing Commutative Laws	4P	

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**Correlation of the EPGY K-7 Mathematics Course and the Tennessee Mathematics Standards - DRAFT VERSION August, 2009**

Grade 3 - Standard 2: Number and Operations						
Check/ SPI	Reference	Description	Concept ID	Concept Title	Coverage Code	Notes
<b>GLE 0306.2.1 Understand the place value of whole numbers to ten-thousands place including expanded notation for all arithmetic operations.</b>						
SPI	0306.2.1	Read and write numbers up to 10,000 in numerals and up to 1,000 in words.	A3.434	Number Words 1-2	P	
			A3.439	Concepts: Place Value 13-14		
SPI	0306.2.2	Identify the place value of numbers in the ten-thousands, thousands, hundreds, tens, and ones positions.	A3.121	Concepts: Place Value 1-12	P	
			A3.444	Place Value and Addition 1-5		
			A4.533	Place Value 1-5		
SPI	0306.2.3	Convert between expanded and standard form with whole numbers to 10,000.	A3.208	Place Value 1-2	P	
			A3.121	Concepts: Place Value 1-14		
SPI	0306.2.4	Compare and order numbers up to 10,000 using the words less than, greater than, and equal to, and the symbols $<$ , $>$ , $=$ .	A2.412	Number Relations 1-11	2P	
			A3.632	Choose Equal or Not Equal 1-3	P	
✓	0306.2.1	Represent whole numbers up to 10,000 using various models (such as base-ten blocks, number lines, place-value charts) and in standard form, written form, and expanded form.	A3.128	Concepts: Place Value 1-14	P	
			A4.533	Place Value 1-5	4P	
✓	0306.2.2	Understand and use the symbols $=$ , $<$ and $>$ to signify order and comparison.	A3.632	Choose Equal or Not Equal 1-3	P	
✓	0306.2.5	Use highest order value (such as tens or hundreds digit) to make simple estimates.	A3.467	Place Value in Addition & Subtraction	P	
SPI	0306.2.9	Solve contextual problems involving the addition and subtraction (both with and without regrouping) of two- and three-digit whole numbers.	A3.475	Applications: Addition & Subtraction 1-5	P	
			A3.344	Applications: Subtraction 1-2		
			A4.014	Applications: Subtraction 1-3	4P	
			A4.067	Applications: Addition 1		
✓	0306.2.6	Solve a variety of addition and subtraction story problems including those with irrelevant information.	A3.475	Applications: Addition & Subtraction 1-5	P	
			A3.547	Computing Amounts of Money 1-3		
✓	0306.2.4	Use a variety of methods to perform mental computations and compare the efficiency of those methods.	A5.471	Multiplication and Division Table 1-2	5P	
<b>GLE 0306.2.2 Develop understanding of multiplication and related division facts through multiple strategies and representations.</b>						
SPI	0306.2.5	Identify various representations of multiplication and division.	A2.490	Multiplication Facts 1-9	2P	
			A3.031	Concepts: Multiplication 1-3	F	
			A3.354	Concepts: Multiplication & Division 1-2		
			A3.745	Multiplication 1		
SPI	0306.2.7	Compute multiplication problems that involve multiples of ten using basic number facts.	A3.783	Multiplying with Multiples of Ten 1-17	P	
			A3.819	Working With Multiples of Ten 1-3		

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**Correlation of the EPGY K-7 Mathematics Course and the Tennessee Mathematics Standards - DRAFT VERSION August, 2009**

Grade 3 - Standard 2: Number and Operations						
Check/SPI	Reference	Description	Concept ID	Concept Title	Coverage Code	Notes
✓	0306.2.7	Represent multiplication using various representations such as equal-size groups, arrays, area models, and equal jumps on number lines.	A3.354	Concepts: Multiplication & Division 1-2	P	
			A3.367	Concepts: Multiplication & Area		
<b>GLE 0306.2.3 Relate multiplication and division as inverse operations.</b>						
SPI	0306.2.6	Recall basic multiplication facts through 10 times 10 and the related division facts.	A3.046	Multiplication Facts 1-25	P	
			A4.125	Division Facts 1-17	4P	
SPI	0306.2.8	Solve problems that involve the inverse relationship between multiplication and division.	A3.395	Multiplication & Division Equations 1-3	P	
			A3.360	Multiplying to Check Division 1-3		
<b>GLE 0306.2.4 Solve multiplication and division problems using various representations.</b>						
✓	0306.2.3	Use parentheses to indicate grouping.	A3.847	Concepts: Distributive Law 1-2	P	
			A3.837	Distributive Law 1-9		
			A4.202	Using Parentheses 1-3	4P	
			A4.231	Sums of Products		
			A5.140	Multiple Binary Operations 1-5	5P	
✓	0306.2.4	Use a variety of methods to perform mental computations and compare the efficiency of those methods.	N/A	Not Covered	NC	
✓	0306.2.8	Represent division using various representations such as successive subtraction, the number of equal jumps, partitioning, and sharing.	A3.349	Concepts: Division	P	
			A3.354	Concepts: Multiplication & Division 1-2		
✓	0306.2.9	Describe contexts for multiplication and division facts.	A3.398	Choose The Correct Operation 1-14	P	
<b>GLE 0306.2.5 Understand the meaning and uses of fractions.</b>						
SPI	0306.2.10	Identify equivalent fractions given by various representations.	F3.000	Concepts: Fractions:1-13	P	
			F3.021	Figures & Fractions 1-11		
SPI	0306.2.11	Recognize and use different interpretations of fractions.	F3.000	Concepts: Fractions:1-13	P	
			F3.021	Figures & Fractions 1-11		
✓	0306.2.11	Identify fractions as parts of whole units, as parts of sets, as locations on number lines, and as division of two whole numbers.	F3.000	Concepts: Fractions:1-13	P	
			F4.000	Concepts: Parts of a Whole 1-3		
			F4.999	Fractional Parts of a Set of Objects	4P	
✓	0306.2.13	Understand that when a whole is divided into equal parts to create unit fractions, the sum of all the parts adds up to one.	F3.064	Halves & Wholes	F	
			F3.298	Concepts: Equal Parts		
			F3.319	Equal Parts		
			F3.701	Numerator & Denominator 1-2		

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**Correlation of the EPGY K-7 Mathematics Course and the Tennessee Mathematics Standards - DRAFT VERSION August, 2009**

Grade 3 - Standard 2: Number and Operations						
Check/ SPI	Reference	Description	Concept ID	Concept Title	Coverage Code	Notes
<b>GLE 0306.2.6 Use various strategies and models to compare and order fractions and identify equivalent fractions.</b>						
SPI	0306.2.12	Name fractions in various contexts that are less than, equal to, or greater than one.	F3.000	Concepts: Fractions:1-13	F	
			F3.128	Concepts: Thirds		
			F3.298	Concepts: Equivalent Parts		
			F4.227	Fractions That Equal 1, 1-2	4P	
SPI	0306.2.13	Recognize, compare, and order fractions (benchmark fractions, common numerators, or common denominators)	F4.114	Ordering Fractions	4P	
			F4.136	Comparing Fractions		
✓	0306.2.2	Understand and use the symbols =, < and > to signify order and comparison.	F4.114	Ordering Fractions	4P	
			F4.136	Comparing Fractions		
✓	0306.2.10	Understand that symbols such as $\frac{1}{2}$ , $\frac{1}{3}$ , and $\frac{1}{4}$ represent numbers called unit fractions.	F3.128	Concepts: Thirds	F	
			F3.446	Halves & Wholes		
			F3.686	Definition of $\frac{1}{4}$		
✓	0306.2.12	Compare fractions using drawings, concrete objects, and benchmark fractions.	F4.114	Ordering Fractions	4P	
			F4.136	Comparing Fractions		
<b>GLE 0306.2.7 Add and subtract fractions with like denominators using various models.</b>						
SPI	0306.2.14	Add and subtract fractions with like denominators.	F3.616	Concepts: Adding Fractions 1-3	F	
			F3.914	Adding Fractions 1-3		
			F3.978	Concepts: Subtracting Fractions		
			F3.999	Subtracting Fractions		
✓	0306.2.4	Use a variety of methods to perform mental computations and compare the efficiency of those methods.	N/A	Not Covered	NC	

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**Correlation of the EPGY K-7 Mathematics Course and the Tennessee Mathematics Standards - DRAFT VERSION August, 2009**

Grade 3 - Standard 3: Algebra						
Check/ SPI	Reference	Description	Concept ID	Concept Title	Coverage Code	Notes
<b>GLE 0306.3.1 Develop meaning for and apply the commutative, associative, and distributive properties using various representations.</b>						
SPI	0306.3.1	Verify a conclusion using algebraic properties.	A3.095	Multiplication Equations 1-4	F	
			A3.113	Addition & Subtraction Equations 1-3		
			A3.395	Multiplication & Division Equations 1-3		
✓	0306.3.1	Show that addition and multiplication are commutative operations.	A3.583	Concepts: Commutative Law 1-10,14,18,22	P	Addition Multiplication
			A3.611	Commutative Law for Multiplication 1-10,24		
✓	0306.3.2	Show that subtraction and division are not commutative operations.	A3.655	Concepts: Commutative Law 15-17,19,20	P	Subtraction Division
			A3.645	Concepts: Commutative Law 11-13,21,23		
✓	0306.3.3	Use commutative, associative, and distributive properties to multiply whole numbers.	A3.711	Concepts: Associative Law 12-15	P	
			A3.722	Associative Law 1		
✓	0306.3.4	Solve problems using the commutative, associative, and distributive properties.	A3.683	Concepts: Associative Law 1-12	F	
			A3.583	Concepts: Commutative Law 1-25		
			A3.609	Applications: Commutative Law		
			A3.847	Concepts: Distributive Law 1-2		
<b>GLE 0306.3.2 Develop understanding that a letter or a symbol can represent an unknown quantity in a simple mathematical expression/equation.</b>						
SPI	0306.3.2	Express mathematical relationships using number sentences/equations.	A3.026	Addition Equations 1-2	F	
			A3.031	Concepts: Multiplication 1-3		
			A3.113	Addition & Subtraction Equations 1-3		
			A3.277	Subtraction Equations 1-3		
			A3.293	Concepts: Borrowing to Subtract 1-6		
			G6.319	Applications: Subtraction 1-2		
			A3.349	Concepts: Division		
			A3.352	Applications: Division		
SPI	0306.3.3	Find the missing values in simple multiplication and division equations.	A3.095	Multiplication Equations 1-4	P	
			A4.072	Multiplication Facts 1-22	4F	
			A4.322	Multiplication Equations 1-4		
			A4.082	Multiplication & Division Facts 1-3		
✓	0306.3.5	Find unknowns in number sentences and problems involving addition, subtraction, multiplication, or division.	A3.000	Addition Facts, 1-10	F	
			A3.046	Multiplication Facts 1-34		
			A3.180	Addition with Carrying 1-20		
			A3.236	Subtraction with Borrowing 1-24		
			A3.247	Addition & Subtraction 1-8		
			A3.360	Multiplying to Check Division 1-3		
L3.171	Concepts: Missing Addends 1-3					

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<b>Grade 3 - Standard 3: Algebra</b>						
<b>Check/ SPI</b>	<b>Reference</b>	<b>Description</b>	<b>Concept ID</b>	<b>Concept Title</b>	<b>Coverage Code</b>	<b>Notes</b>
<b>GLE 0306.3.3 Describe and analyze patterns and relationships in contexts.</b>						
✓	0306.3.6	Analyze patterns in words, tables, and graphs to draw conclusions.	A3.121 A3.208	Concepts: Place Value 1-14 Place Value 1-2	P	
✓	0306.3.8	Analyze patterns in quantitative change resulting from computation.	N/A	Not Covered	NC	
<b>GLE 0306.3.4 Create and represent patterns using words, tables, graphs, and symbols</b>						
SPI	0306.3.4	Describe or extend (including finding missing terms) geometric and numeric patterns.	N/A	Not Covered	NC	
✓	0306.3.7	Create different representations of a pattern given a verbal description.	N/A	Not Covered	NC	

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Grade 3 - Standard 4: Geometry and Measurement						
Check/ SPI	Reference	Description	Concept ID	Concept Title	Coverage Code	Notes
<b>GLE 0306.4.1 Describe, compare, and analyze properties of polygons.</b>						
SPI	0306.4.1	Recognize polygons and be able to identify examples based on geometric definitions.	G2.768	Properties of Polygons and Ways	2P	
			G2.845	Properties of Polygons 1-2		
			G4.881	Polygons	4P	
✓	0306.4.1	Describe properties of plane figures (such as circles, triangles, squares and rectangles) and solid shapes (such as spheres, cubes and cylinders).	G3.250	Properties of Plane Figures 1-3	F	
			G3.400	Shapes, Sizes, and Positions 1-2		
			G3.999	Properties of Triangles		
			G4.000	Plane and Space Figures	4P	
			G4.705	Constructing Squares, 1		
✓	0306.4.2	Classify polygons according to the number of their sides and angles.	G2.768	Properties of Polygons and Ways	2P	
			G2.845	Properties of Polygons 1-2		
			G4.881	Polygons	4P	
✓	0306.4.3	Classify lines and segments as parallel, perpendicular, or intersecting.	G2.461	Points of Intersection	2P	
			G3.200	Intersections of Plane Figures 1-2	P	
			G4.626	Recognizing Parallel Lines	4P	
			G5.020	Points of Intersection	5F	
			G5.061	Intersections of Lines and Planes		
			G5.272	Intersections of Planes and Solids 1-5		
<b>GLE 0306.4.2 Understand and apply the concepts of congruence and symmetry.</b>						
SPI	0306.4.2	Determine if two figures are congruent based on size and shape.	G3.400	Shapes, Sizes, and Positions 1-2	P	
			G4.000	Plane and Space Figures	4P	
			G5.383	Congruent Angles	5P	
SPI	0306.4.3	Identify the line of symmetry in a two-dimensional design or shape.	G3.549	Lines of Symmetry 1-2	P	
			G5.232	Names of 2-D Figures	5F	
			G5.242	Lines of Symmetry 1-4		
			G5.262	Planes of Symmetry		
			G5.303	Point of Symmetry		
			G5.313	Axis of Symmetry 1-2		
✓	0306.4.4	Identify, create, and describe figures with line symmetry.	G3.549	Lines of Symmetry 1-2	P	
			G5.242	Lines of Symmetry 1-4	5F	
			G5.262	Planes of Symmetry		
			G5.303	Point of Symmetry		
			G5.313	Axis of Symmetry 1-2		
<b>GLE 0306.4.3 Understand and use attributes of 2- and 3-dimensional figures to solve problems.</b>						
<b>No SPIs or Checks Associated with this Grade Level Expectation.</b>						

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Grade 3 - Standard 4: Geometry and Measurement						
Check/ SPI	Reference	Description	Concept ID	Concept Title	Coverage Code	Notes
<b>GLE 0306.4.4 Use appropriate units, strategies and tools to solve problems involving perimeter.</b>						
SPI	0306.4.4	Calculate the perimeter of shapes made from polygons.	G3.300	Concepts: Perimeter and Area	P	
			G3.350	Perimeter and Area		
<b>GLE 0306.4.5 Solve measurement problems involving fractional parts of linear units and capacity units.</b>						
SPI	0306.4.5	Choose reasonable units of measure, estimate common measurements using benchmarks, and use appropriate tools to make measurements.	M2.472	Linear Measure 1-2	2P	
✓	0306.4.5	Understand that all measurements require units.	M2.028	Dozens	2P	
			M2.056	Counting Money 1-2		
			M3.262	Concepts: Money	P	
			M3.901	Converting Units of Time 1-3		
✓	0306.4.6	Recognize the use of fractions in liquid measures.	M4.000	Liquid Measure 1-8	4P	
			M4.234	Applications: Measure 1-2		
✓	0306.4.7	Recognize the relationships among cups, pints, quarts, and gallons.	M2.167	Pints and Quarts	2P	
			M4.000	Liquid Measure 1-8	4P	
			M4.234	Applications: Measure 1-2		
✓	0306.4.8	Estimate and/or measure the capacity of a container.	M4.000	Liquid Measure 1-8	4P	
			M4.234	Applications: Measure 1-2		
✓	0306.4.9	Measure weight to the nearest ounce or gram.	M4.170	Weight Measure 1-3	4P	
✓	0306.4.10	Use reasonable units of length (i.e. kilometer, meter, centimeter; mile, yard, foot, inch) in estimates and measures.	M2.000	Feet and Inches	2P	
			M2.860	Measuring Distance 1-4		
			M3.770	Linear Measure	P	
			M3.786	Applications with Linear Measures		
			M4.765	Converting Measures 1-2	4P	
✓	0306.4.11	Know common equivalences for length (1 meter = 100 centimeters, 1 yard = 3 feet, 1 foot = 12 inches).	M2.000	Feet and Inches	2P	
			M2.860	Measuring Distance 1-4		
			M3.721	Converting Linear Measures 1-5	F	
			M3.770	Linear Measure		
			M3.786	Applications with Linear Measures	4P	
			M4.765	Converting Measures 1-2		
✓	0306.4.12	Make and record measurements that use mixed units within the same system of measurement (such as feet and inches, meters and	M3.786	Applications with Linear Measures	P	
			M4.765	Converting Measures 1-2	4P	
			M5.607	Converting Metric Measures 1-8	5P	
✓	0306.4.13	Use common abbreviations: km, m, cm, in, ft, yd, mi.	M2.000	Feet and Inches	2P	
			M2.860	Measuring Distance 1-4		
			M3.721	Converting Linear Measures 1-5	F	

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**Correlation of the EPGY K-7 Mathematics Course and the Tennessee Mathematics Standards - DRAFT VERSION August, 2009**

**Grade 3 - Standard 4: Geometry and Measurement**

<b>Check/ SPI</b>	<b>Reference</b>	<b>Description</b>	<b>Concept ID</b>	<b>Concept Title</b>	<b>Coverage Code</b>	<b>Notes</b>
✓	0306.4.14	Use common abbreviations: km, m, cm, in, ft, yd, mi.	M3.770	Linear Measure	F	
			M3.786	Applications with Linear Measures		
			M4.765	Converting Measures 1-2	4P	
SPI	0306.4.6	Measure length to the nearest centimeter or half inch.	M2.472	Linear Measure 1-2	2P	
SPI	0306.4.7	Solve problems requiring the addition and subtraction of lengths.	N/A	Not Covered	NC	

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**Correlation of the EPGY K-7 Mathematics Course and the Tennessee Mathematics Standards - DRAFT VERSION August, 2009**

Grade 3 - Standard 5: Data/Probability/Statistics						
Check/ SPI	Reference	Description	Concept ID	Concept Title	Coverage Code	Notes
<b>GLE 0306.5.1 Organize, display, and analyze data using various representations to solve problems.</b>						
✓	0306.5.1	Collect and organize data using observations, surveys, and experiments.	S3.050	Coin Toss Sequence 1	F	Experiments only
			S3.100	Coin Toss Sequence 2		
			S3.350	Recording & Representing Data 1 & 2		
			S4.000	Comparing Survey Questions 1- 4	4P	Surveys only
✓	0306.5.2	Construct a frequency table, bar graph, pictograph, or line plot of collected data.	S3.150	Representing Data 1 - 2	P	
SPI	0306.5.1	Interpret a frequency table, bar graph, pictograph, or line plot.	N/A	Teacher Directed	TD	
✓	0306.5.3	Compare and interpret different representations of the same data.	S3.400	Representing Data 3 - 8	P	
✓	0306.5.4	Solve problems using data from frequency tables, bar graphs, pictographs, or line plots.	S4.631	Bar Graphs 1	4P	Bar graphs only
			S4.657	Bar Graphs 2		
			S5.812	Applications: Line Graphs	5P	Line graphs only
			S5.718	Applications: Picture Graphs		Picture graphs only
SPI	0306.5.2	Solve problems in which data is represented in tables or graph.	S3.150	Representing Data 1-8	P	
✓	0306.5.4	Solve problems using data from frequency tables, bar graphs, pictographs, or line plots.	S4.631	Bar Graphs 1-2	4P	Bar graphs only
			S5.812	Applications: Line Graphs	5P	
SPI	0306.5.3	Make predictions based on various representations of data.	S3.599	Predicting Events 1-4	P	

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**Correlation of the EPGY K-7 Mathematics Course and the Tennessee Mathematics Standards - DRAFT VERSION August, 2009**

Grade 4 - Standard 1: Mathematical Processes						
Check/ SPI	Reference	Description	Concept ID	Concept Title	Coverage Code	Notes
<b>GLE 0406.1.1 Use mathematical language, symbols, and definitions while developing mathematical reasoning.</b>						
<i>No SPIs or Checks Associated with this Grade Level Expectation.</i>						
<b>GLE 0406.1.2 Apply and adapt a variety of appropriate strategies to problem solving, including estimation, and reasonableness of the solution.</b>						
SPI	0406.1.4	Compare objects with respect to a given geometric or physical attribute and select appropriate measurement instrument.	M3.721	Converting Linear Measures 1-3	3P	
✓	0406.1.1	Understand the relationship between use of answers and the accuracy of the number.	N/A	Not Covered	NC	
✓	0406.1.2	Identify the range of appropriate estimates, including over-estimate and under-estimate.	M2.888	Estimating Distance 1-4	2P	
			M4.404	Rounding Measurements 1-6	P	
✓	0406.1.5	Measure using ruler, meter stick, clock, thermometer, or other scaled instruments.	M2.472	Linear Measure 1-2	2P	
			M2.860	Measuring Distance 1-2		
			M3.835	Telling Time 1-3	3P	
			M4.744	Celsius and Fahrenheit	P	
✓	0406.1.6	Identify geometric or physical attributes that are appropriate to measure in a given situation.	M2.194	Length and Width	2P	
			G4.823	Volume		
			M4.000	Liquid Measure 1-8	F	
			M4.170	Weight Measure 1-3		
			M4.531	Length, Width, and Area 1-2		
			M4.574	Inside, Outside, or On a Figure, 1-2		
<b>GLE 0406.1.3 Develop independent reasoning to communicate mathematical ideas and derive algorithms and/or formulas.</b>						
SPI	0406.1.1	Verify a conclusion using the commutative, associative and distributive properties.	A4.216	Distributive Law 1-5	F	
			A4.312	Using the Distributive Law 1-4		
			A4.499	Distributive Law for Division 1-5		
			A4.908	Commutative & Associative Law Tests		
			A4.913	Commutative Law for Addition 1-2		
			A4.922	Applications: Commutative Law		
			A4.927	Using Commutative Laws 1-2		
			A4.937	Associative Law for Addition		
			A4.951	Testing Commutative Laws		
			A4.965	Testing Associative Laws		
			A4.989	Commutative & Associative Laws		
			F5.569	Commutative Law for Multiplication	5P	

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<b>Grade 4 - Standard 1: Mathematical Processes</b>						
<b>Check/SPI</b>	<b>Reference</b>	<b>Description</b>	<b>Concept ID</b>	<b>Concept Title</b>	<b>Coverage Code</b>	<b>Notes</b>
✓	0406.1.4	Use commutative, associative, and distributive properties of numbers including oral descriptions of mathematical reasoning.	N/A	See above <b>SPI 0406.1.1</b>	N/A	
<b>GLE 0406.1.4 Move flexibly between concrete and abstract representations of mathematical ideas in order to solve problems, model mathematical ideas, and communicate solution strategies.</b>						
SPI	0406.1.2	Compare decimals using concrete and pictorial representations.	F5.774	Ordering Decimals 1-3	5P	
✓	0406.1.7	Translate the details of a contextual problem into diagrams and/or numerical expressions, and express answers using appropriate units.	A4.192	Applications: Equations 1-2	P	
			A4.509	Applications: Mixed Operations 1-2		
✓	0406.1.8	Match the spoken, written, concrete (including base ten blocks), and pictorial representations of decimals.	F5.807	Place Value in Decimals 1-11	5P	Spoken, written representations only
✓	0406.1.9	Develop a story problem that illustrates a given multiplication or division number sentence.	N/A	Not Covered	NC	
<b>GLE 0406.1.5 Use mathematical ideas and processes in different settings to formulate patterns, analyze graphs, set up and solve problems and interpret solutions.</b>						
<i>No SPIs or Checks Associated with this Grade Level Expectation.</i>						
<b>GLE 0406.1.6 Read and interpret the language of mathematics and use written/oral communication to express mathematical ideas precisely.</b>						
<i>No SPIs or Checks Associated with this Grade Level Expectation.</i>						
<b>GLE 0406.1.7 Recognize the historical development of mathematics, mathematics in context, and the connections between mathematics and the real world.</b>						
SPI	0406.1.3	Determine the correct change from a transaction.	M4.383	Applications: Money	P	
			M3.147	Applications with Money 1	3P	
✓	0406.1.3	Connect operations with decimals to money and make estimates.	M4.276	Using the Dollar Sign 1-2	P	
			M4.489	Rounding Measurements 5-6		
✓	0406.1.10	Use age-appropriate books, stories, and videos to convey ideas of mathematics.	S4.000	Comparing Survey Questions 1-4	F	
			S4.684	Interpreting Line Graphs 1-2		
			S4.578	Circle Graphs 1-2		
			S4.631	Bar Graphs 1-2		
			S4.105	Collecting and Representing Data 1-7		
<b>GLE 0406.1.8 Use technologies/manipulatives appropriately to develop understanding of mathematical algorithms, to facilitate problem solving, and to create accurate and reliable models of mathematical concepts.</b>						
<i>No SPIs or Checks Associated with this Grade Level Expectation.</i>						

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**Correlation of the EPGY K-7 Mathematics Course and the Tennessee Mathematics Standards - DRAFT VERSION August, 2009**

Grade 4 - Standard 2: Number and Operations						
Check/ SPI	Reference	Description	Concept ID	Concept Title	Coverage Code	Notes
<b>GLE 0406.2.1 Understand place value of numbers from hundredths to the hundred-thousands place.</b>						
SPI	0406.2.1	Read and write numbers from hundredths to hundred-thousands in numerals and in numbers.	A4.533	Place Value 1-5	P	
			A6.070	Decimal System of Numeration 1-3	6P	
SPI	0406.2.3	Identify the place value of a specified digit in a number and the quantity it represents.	A4.533	Place Value 1-5	P	
			A6.113	Powers of Ten 1-3	6P	
✓	0406.2.1	Compose and decompose quantities according to place value.	A4.677	Expressing Hundreds as Tens 1-5	P	
			A4.716	Tens & Hundreds 1-2		
✓	0406.2.2	Understand decimal notation as an extension of the base-ten number system.	F5.807	Place Value in Decimals 1-7	5P	
<b>GLE 0406.2.2 Develop fluency with multiplication and single-digit division.</b>						
SPI	0406.2.11	Solve problems using whole number multi-digit multiplication.	A4.351	One Digit Times Two Digit 1-11	F	
			A4.403	One Digit Times Three Digits 1-10		
			A4.980	Multiplication & Division 1-2		
SPI	0406.2.12	Solve problems using whole number division with one- or two-digit divisors.	A4.586	Division 1-9	F	
			A4.125	Division Facts 1-17		
			A4.144	Subtraction and Division Facts 1-3		
			A4.980	Multiplication & Division 1-2		
✓	0406.2.3	Multiply two- and three-digit whole numbers.	A4.701	Dividing Tens 1-10	P	
			A4.403	One Digit Times Three Digits 1-10		
			A4.351	One Digit Times Two Digit 1-11		
✓	0406.2.4	Understand and use a reliable algorithm for multiplying multi-digit numbers and dividing numbers by a single-digit divisor accurately and efficiently.	A5.284	Multiplication 1-32	5P	
			A4.600	Estimating for Division 1-10	P	
			A5.459	Estimating for Division 1-34	5P	
✓	0406.2.5	Understand that division by zero is undefined.	A5.034	Dividing By & Into 1	5P	
			A5.219	Multiplication & Division with Zero		
✓	0406.2.6	Divide three-digit whole numbers by one-digit divisors fluently with pencil and paper.	A4.701	Dividing Tens 1-10	P	
			A4.596	Division 3-43 (even #s)		
✓	0406.2.10	Use models to understand division as the inverse of multiplication, partitioning, and repeated subtraction.	A3.349	Concepts: Division	3P	
			A3.354	Concepts: Multiplication & Division 1-2		
✓	0406.2.14	Understand the role of the remainder in division.	A4.586	Division 1-9	P	
			A4.600	Estimating for Division 1-10		

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**Correlation of the EPGY K-7 Mathematics Course and the Tennessee Mathematics Standards - DRAFT VERSION August, 2009**

Grade 4 - Standard 2: Number and Operations						
Check/ SPI	Reference	Description	Concept ID	Concept Title	Coverage Code	Notes
<b>GLE 0406.2.3 Identify prime and composite numbers.</b>						
SPI	0406.2.4	Find factors, common factors, multiples, and common multiples of two numbers.	A5.571	Multiples 1-16	5P	
			A6.531	Factors 1-6	6P	
			A6.624	Multiples 1-18		
✓	0406.2.7	Identify factors of whole numbers and model factors and products beyond basic multiplication facts using arrays and area models.	A5.621	Recognizing Factors 1-2	5P	
			A6.559	Common Factors 1-4	6P	
<b>GLE 0406.2.4 Understand and use the connections between fractions and decimals.</b>						
SPI	0406.2.2	Locate and place mixed numbers on the number line.	F4.114	Ordering Fractions	P	
			A4.736	Integers On The Number Line 1-2		
SPI	0406.2.5	Generate equivalent forms of common fractions and decimals and use them to compare size.	F5.752	Converting Fractions To Decimals 1-20	5P	
			F5.756	Converting Decimals to Fractions 1-8		
SPI	0406.2.6	Use the symbols $<$ , $>$ and $=$ to compare common fractions and decimals in both increasing and decreasing order.	F4.114	Ordering Fractions	P	
			F4.136	Comparing Fractions		
			F5.117	Comparing Fractions 1-19	5F	
			F5.774	Ordering Decimals 1-3		
			F5.778	Comparing Decimals 1-13		
SPI	0406.2.7	Convert improper fractions into mixed numbers and/or decimals.	F4.159	Rewriting Improper Fractions 1-9	P	
			F4.272	Concepts: Mixed Numbers		
			F5.009	Concepts: Improper Fractions 1-2	5P	
			F5.020	Improper Fractions 1-9		
			F6.073	Improper Mixed Numbers 1-2	6P	
			F6.060	Improper Fractions 1-2		
✓	0406.2.8	Generate equivalent forms of whole numbers, decimals, and common fractions (e.g., $1/10$ , $1/4$ , $1/2$ , $3/4$ ).	F4.386	Finding Mixed & Whole Numbers	P	
			F5.057	Finding Equivalent Fractions 1-32		
✓	0406.2.9	Compare equivalent forms whole numbers, fractions, and decimals to each other and to benchmark numbers.	F4.159	Rewriting Improper Fractions 1-9	P	
			F4.295	Whole Numbers & Fractions		
✓	0406.2.11	Use models, benchmarks, and equivalent forms to compare fractions/decimals and locate them on the number line.	F5.752	Converting Fractions To Decimals 1-20	5P	
			F5.774	Ordering Decimals 1-3		
✓	0406.2.12	Understand and use decimal numbers up to hundredths and write them as fractions.	F5.752	Converting Decimals to Fractions 1-8	5P	
			F5.807	Place Value in Decimals 1-14		

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**Correlation of the EPGY K-7 Mathematics Course and the Tennessee Mathematics Standards - DRAFT VERSION August, 2009**

Grade 4 - Standard 2: Number and Operations						
Check/ SPI	Reference	Description	Concept ID	Concept Title	Coverage Code	Notes
<b>GLE 0406.2.5 Add and subtract fractions with like and unlike denominators.</b>						
SPI	0406.2.8	Add and subtract proper fractions with like and unlike denominators and simplify the answer.	F4.318	Adding Fractions 1-6	F	
			F4.522	Concepts: Subtracting Fractions		
			F4.545	Subtracting Fractions		
			F4.568	Adding & Subtracting Fractions 1-4		
			F4.795	Subtracting Fractions		
			F4.931	Adding & Subtracting, Column Form 1-3		
<b>GLE 0406.2.6 Solve problems involving whole numbers, fractions, and/or decimals using all four arithmetic operations.</b>						
SPI	0406.2.9	Add and subtract through hundredths.	M3.066	Adding Money 1-14	3P	
			M3.115	Subtracting Money 1-7		
			F5.798	Operations with Fractions & Decimals 1-10	5F	
			F5.834	Adding Decimals 1-6		
			F5.838	Adding & Subtracting Decimals 1-12		
			F5.842	Adding Fractions & Decimals 1-8		
			F5.873	Subtracting Decimals 1-6		
SPI	0406.2.10	Solve contextual problems using whole numbers, fractions, and decimals.	F5.216	Applications with Fractions 1-18	5P	
			F5.900	Applications: Fractions & Decimals		

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**Correlation of the EPGY K-7 Mathematics Course and the Tennessee Mathematics Standards - DRAFT VERSION August, 2009**

Grade 4 - Standard 3: Algebra						
Check/ SPI	Reference	Description	Concept ID	Concept Title	Coverage Code	Notes
<b>GLE 0406.3.1 Extend understanding of a variable to equations involving whole numbers, fractions, decimals, and/or mixed numbers.</b>						
SPI	0406.3.1	Use letters and symbols to represent an unknown quantity and write a simple mathematical expression.	A4.192	Applications: Equations 1-2	F	
			A4.677	Expressing Hundreds as Tens 1-5		
			A4.778	Using the Number Line for Addition		
			A4.792	Writing Addition Equations 1-2		
			M5.000	Mathematical Sentences 1-19	5P	
✓	0406.3.1	Find an unknown quantity in simple equations using whole numbers, fractions, decimals, and mixed numbers.	F4.681	Adding Mixed Numbers	F	
			F4.704	Adding Mixed Numbers, Column Form		
			F4.500	Adding Fractions 2		
			A4.509	Applications: Mixed Operations 1-3		
			A4.850	Mixed Operations 1-6		
			F4.658	Mixed Numbers Expressed as Sums		
✓	0406.3.2	Translate between symbols and words to represent quantities in expressions or equations.	A4.187	Solving Equations by Division (?)	F	
			A4.879	Equations: Mixed Operations 1-6		
			A4.014	Applications: Subtraction 1-3		
			A4.192	Applications: Equations 1-2		
			A4.509	Applications: Mixed Operations 1-3		
			A4.922	Applications: Commutative Law		
<b>GLE 0406.3.2 Use mathematical language and modeling to develop descriptions, rules and extensions of patterns.</b>						
SPI	0406.3.2	Make generalizations about geometric and numeric patterns.	A6.859	Patterns and Rules 1-2	6P	
SPI	0406.3.3	Represent and analyze patterns using words, function tables, and graphs.	A4.730	Integers on the Number Line 1-2	P	
✓	0406.3.3	Create, explain and use a rule to generate terms of a pattern or sequence.	A4.812	Choosing the Correct Operation 1-4	P	
			A4.831	Operations & Operation Names 1-4		
<b>GLE 0406.3.3 Translate between different forms of representations of whole number relationships.</b>						
✓	0406.3.4	Translate between symbolic, numerical, verbal, or pictorial representations of a whole number pattern or relationship.	F4.000	Concepts: Parts of a Whole 1-3	P	
			F5.040	Concepts: Equivalent Fractions 1,3,5,7	5P	

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**Correlation of the EPGY K-7 Mathematics Course and the Tennessee Mathematics Standards - DRAFT VERSION August, 2009**

Grade 4 - Standard 4: Geometry and Measurement						
Check/ SPI	Reference	Description	Concept ID	Concept Title	Coverage Code	Notes
<b>GLE 0406.4.1 Understand and use the properties of lines, segments, angles, polygons, and circles.</b>						
SPI	0406.4.1	Classify lines and line segments as parallel, perpendicular, or intersecting.	G3.200	Intersections of Plane Figures 1-2	3F	
			G3.899	Doubling and Tripling Line Segments		
			G3.949	Bisecting Line Segments		
			G4.646	Recognizing Parallel Lines	P	
			G5.020	Points as Intersections	5F	
			G5.061	Intersections of Lines and Planes		
			G5.272	Intersections of Planes and Solids 1-5		
			G6.219	Properties of Perpendicular Lines 1-2	6F	
			G6.233	Perpendicular Bisector		
G6.260	Recognizing Parallel Lines					
SPI	0406.4.4	Identify acute, obtuse, and right angles in 2-dimensional shapes.	G3.749	Comparing Angles	3P	
			G4.294	Right Angles	P	
			G5.232	Names 2-D Figures	5P	
			G6.315	Names of 2-Dimensional Figures, 1-4	6P	
SPI	0406.4.5	Identify attributes of simple and compound figures composed of 2- and 3- dimensional shapes.	G3.400	Shapes, Sizes, and Positions	3P	
			G4.000	Plane and Space Figures	P	
			G4.764	Space Figures 1		
			G5.232	Names 2- D Figures	5P	
			G6.315	Names of 2-Dimensional Figures, 1-4	6P	
✓	0406.4.1	Identify the basic parts of circles.	G4.940	Chords of a Circle 1-2	P	
			G5.172	Concepts: Area of a Circle 1-2	5P	
✓	0406.4.2	Understand the definition of degree as it relates to the circle.	G4.940	Chords of a Circle 1-2	P	
			G5.172	Concepts: Area of a Circle 1-2	5P	
✓	0406.4.3	Classify angles and triangles as obtuse, acute, or right.	G3.699	Naming and Comparing Angles	3P	
			G3.999	Properties of Triangles		
			G4.353	Constructing Triangles	P	
			G5.071	Base and Altitude of a Triangle	5P	
			G5.353	Naming Angles 1-2		
✓	0406.4.4	Measure and draw angles.	G5.373	Comparing Angles	5P	
			G5.394	Measuring Angles 1-8		
✓	0406.4.5	Determine if a figure is a polygon.	G4.881	Polygons	P	
✓	0406.4.2	Recognize two-dimensional faces of three-dimensional shapes.	G4.000	Plane and Space Figures	F	
			G4.118	Triangular Prisms		
			G4.411	Triangular Pyramids		
			G4.470	Rectangular Pyramids		

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Grade 4 - Standard 4: Geometry and Measurement						
Check/ SPI	Reference	Description	Concept ID	Concept Title	Coverage Code	Notes
✓	0406.4.2	Recognize two-dimensional faces of three-dimensional shapes.	G4.529	Pentagonal Pyramids	F	
			G4.588	Hexagonal Pyramids		
<b>GLE 0406.4.2 Understand and use measures of length, area, capacity, and weight.</b>						
SPI	0406.4.6	Determine situations in which a highly accurate measurement is important.	M4.000	Liquid Measure 1-8	F	
SPI	0406.4.7	Determine appropriate size of unit of measurement in problem situations involving length, capacity or weight.	M4.170	Weight Measure 1-3	P	
			M4.531	Length, Width, and Area 1-2		
✓	0406.4.6	Recognize the use of decimals in metric measures.	M4.404	Rounding Measurements 1-6	F	
✓	0406.4.7	Measure liquids using both standard units and metric units.	M4.000	Liquid Measure 1-8	F	
			M4.234	Applications: Measure 1-2		
✓	0406.4.8	Recognize that a measure of area represents the total number of same-sized units /that cover the shape without gaps or overlaps.	M4.531	Length, Width, and Area 1-2	P	
✓	0406.4.9	Recognize that area does not change when 2-dimensional figures are cut apart and rearranged.	G5.232	Names 2- D Figures	5F	
			G6.315	Names of 2-Dimensional Figures, 1-4	6F	
✓	0406.4.10	Connect area measure to multiplication using a rectangular area model.	M4.531	Length, Width, and Area 1-2	P	
			M4.616	Computing Area 1-2		
✓	0406.4.13	Compare objects with respect to a given attribute such as length, area, and capacity.	M4.531	Length, Width, and Area 1-2	P	
<b>GLE 0406.4.3 Solve problems that involve estimating and measuring length, area, capacity and weight.</b>						
SPI	0406.4.8	Convert measurements within a single system that are common in daily life (e.g., hours and minutes, inches and feet, centimeters and meters, quarts and gallons, liters and milliliters).	M4.000	Liquid Measure 1-8	F	
			M4.170	Weight Measure 1-3		
			M4.234	Applications: Measure 1-2		
			M4.404	Rounding Measurements 1-4		
			M4.765	Converting Measures 1-2		
SPI	0406.4.9	Solve problems involving area and/or perimeter of rectangular figures.	M6.106	Computing Area 1-2	6F	
			G6.411	Applications: Area of Rectangles		
			G6.548	Compound Areas		
✓	0406.4.11	Estimate areas of rectangles in square inches and square centimeters.	M6.150	Applications: Using Measures 2	6F	
			M6.106	Computing Area 1, 3		
			M6.327	Computing Area 1-3		
			G6.603	Approximating Areas 2		

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**Correlation of the EPGY K-7 Mathematics Course and the Tennessee Mathematics Standards - DRAFT VERSION August, 2009**

Grade 4 - Standard 4: Geometry and Measurement						
Check/SPI	Reference	Description	Concept ID	Concept Title	Coverage Code	Notes
✓	0406.4.12	Estimate the size of an object with respect to a given measurement attribute (length, perimeter, area, or capacity).	M6.159	Applications: Area	6F	
			M6.363	Applications: Using Measures 3		
			G6.479	Area of Triangles 1-5		
			G6.562	Approximating Areas 1		
<b>GLE 0406.4.4 Understand the representation of location and movement within the first quadrant of a coordinate system.</b>						
SPI	0406.4.2	Graph and interpret points with whole number or letter coordinates on grids or in the first quadrant of the coordinate plane.	M4.808	Coordinates 1-8	P	
			M6.044	Graphs of Rules 1, 2	6F	
SPI	0406.4.3	Construct geometric figures with vertices at points on a coordinate grid.	M6.885	Giving Coordinates 1-4	6P	
SPI	0406.4.10	Identify images resulting from reflections, translations, or rotations.	G5.565	Positions 1-3	5F	
			G5.595	Mirror Reflections 1-6		
			G5.777	Rotational Symmetry 1-2		
			G5.797	Rotations 1-7		
			G5.838	Identifying Missing Rotations 1-2		
G5.858	Rotations and Mirror Reflections 1-11					
✓	0406.4.14	Explain how the components of a coordinate system are used to determine location.	M4.808	Coordinates 1-8	P	
			M4.978	Plotting Points 1-2	5P	
			M5.872	Functions and Graphs 1-2		
✓	0406.4.15	Explore properties of paths between points.	M4.808	Coordinates 1-8	P	
			M4.978	Plotting Points 1-2	5P	
			M5.872	Functions and Graphs 1-2		
✓	0406.4.16	Examine transformations in the coordinate plane.	M4.808	Coordinates 1-8	P	
			M4.978	Plotting Points 1-2	5P	
			M5.872	Functions and Graphs 1-2		
✓	0406.4.17	Predict the results of a transformation of a geometric shape.	G5.565	Positions 1-3	5P	
✓	0406.4.18	Determine whether a geometric shape has line and/or rotational symmetry.	G5.242	Lines of Symmetry 1-4	5F	
			G5.777	Rotational Symmetry 1-2		
			G5.656	Mirror Symmetry Lines 1-8		
			G5.908	Rotations 1-7		
✓	0406.4.19	Design and analyze simple tilings and tessellations.	N/A	Not Covered	NC	
✓	0406.4.20	Draw lines of symmetry in 2-dimensional figures.	G5.232	Names of 2- D Figures	5F	
			G5.242	Lines of Symmetry 1-4		
			G5.262	Planes of Symmetry		

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**Correlation of the EPGY K-7 Mathematics Course and the Tennessee Mathematics Standards - DRAFT VERSION August, 2009**

<b>Grade 4 - Standard 5: Data/Probability/Statistics</b>						
<b>Check/SPI</b>	<b>Reference</b>	<b>Description</b>	<b>Concept ID</b>	<b>Concept Title</b>	<b>Coverage Code</b>	<b>Notes</b>
<b>GLE 0406.5.1 Collect, record, arrange, present, and interpret data using tables and various representations.</b>						
SPI	0406.5.1	Depict data using various representations (e.g., tables, pictographs, line graphs, bar graphs).	S4.105	Collect and Represent Data 1-6	P	
SPI	0406.5.2	Solve problems using estimation and comparison within a single set of data.	S4.000	Comparing Survey Questions 1-4	P	Comparison only
			A2.960	Concepts: Estimation	2P	Estimation only
SPI	0406.5.3	Given a set of data or a graph, describe the distribution of the data using median, range, or mode.	S4.263	Identifying Modes 1-6	F	
			S4.526	Identifying Modes and Outliers 1-2		
			S4.368	Identifying the Median 1-2		
			S6.458	Identifying the Median 1-2	6P	
			S6.492	Identifying the Range 1-2		
✓	0406.5.1	Create and label appropriate scales for graphs.	N/A	Teacher Directed	TD	
✓	0406.5.2	Evaluate how well various representations show the collected data.	N/A	Teacher Directed	TD	
✓	0406.5.3	Interpret and prepare pie charts using appropriate measurements of angles.	S5.734	Applications: Pie Graphs 1-3	5P	Interpret only
✓	0406.5.4	Develop and use stem-and-leaf plots.	N/A	Teacher Directed	TD	
✓	0406.5.5	Use measures of central tendency to compare two sets of related data.	S6.795	Measures of Central Tendency 1-3	6P	
<b>GLE 0406.5.2 Use probability to describe chance events.</b>						
SPI	0406.5.4	List all possible outcomes of a given situation or event.	S4.736	Probability Trees 1-7	P	
✓	0406.5.6	Determine a simple probability.	S4.736	Probability Trees 1-7	P	
✓	0406.5.7	Express a probability pictorially.	S4.736	Probability Trees 1-7	P	

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**Correlation of the EPGY K-7 Mathematics Course and the Tennessee Mathematics Standards - DRAFT VERSION August, 2009**

Grade 5 - Standard 1: Mathematical Processes						
Check/ SPI	Reference	Description	Concept ID	Concept Title	Coverage Code	Notes
<b>GLE 0506.1.1 Use mathematical language, symbols, and definitions while developing mathematical reasoning.</b>						
✓	0506.1.6	Communicate answers in correct verbal and numerical form; including use of mixed numbers or fractions and use of units.	A5.056	Applications: Division Facts 1-2	F	Numerical Only
			A5.372	Applications: Multiplication 1-4		
			A5.415	Division 1-43		
			F5.009	Concepts: Improper Fractions 1		
			F5.020	Improper Fractions 1-8		
			F5.146	Concepts: Add & Subtract Fractions 1		
			F5.172	Subtracting Fractions 1-12		
			F5.174	Adding Fractions 1-28		
			F5.216	Applications with Fractions 1-17		
			F5.221	Fractions in lowest terms 1		
			F5.225	Reducing to Lowest Terms 1-9		
			F5.386	Adding Mixed Numbers 1-5		
			F5.187	Adding & Subtracting Fractions 13-39		
			F5.485	Adding & Subtracting Mixed Numbers 1-7		
			F5.507	Subtracting Mixed Numbers 1-5		
			F5.525	Concepts: Multiplying Fractions 1-7		
			F5.543	Multiplying Fractions 1-17		
			F5.584	Multiplying with Mixed Numbers 1-7		
			F5.734	Operations with Mixed Numbers 1, 3		
			F5.602	Using Fractions & Mixed Numbers 1		
F5.606	Fractions and Area 1-7					
F5.684	Division with Fractions 1-7					
F5.703	Division with Mixed Numbers 1-3					
F5.712	Division Equations 1-3					
F5.734	Operations with Mixed Numbers 1					
<b>GLE 0506.1.2 Apply and adapt a variety of appropriate strategies to problem solving, including estimation, and reasonableness of the solution.</b>						
SPI	0506.1.2	Estimate fraction and decimal sums or differences.	N/A	Not Covered	NC	
SPI	0506.1.4	Identify missing information and/or too much information in contextual problems.	N/A	Not Covered	NC	
✓	0506.1.2	Make reasonable estimates of fraction and decimal sums or differences using models.	F5.146	Concepts: Add & Subtract Fractions 1	P	
			F5.179	Subtracting Fractions 2		
✓	0506.1.3	Explore different methods of estimation including rounding and truncating.	A6.174	Estimation 1-6	6F	
			A6.915	Rounding 1-4		
			F6.735	Round to the Nearest Tenth		

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**Correlation of the EPGY K-7 Mathematics Course and the Tennessee Mathematics Standards - DRAFT VERSION August, 2009**

<b>Grade 5 - Standard 1: Mathematical Processes</b>						
<b>Check/ SPI</b>	<b>Reference</b>	<b>Description</b>	<b>Concept ID</b>	<b>Concept Title</b>	<b>Coverage Code</b>	<b>Notes</b>
✓	0506.1.3	Explore different methods of estimation including rounding and truncating.	F6.742	Round to the Nearest Hundredth	6F	
			F6.748	Round to the Nearest Thousandth		
			F6.755	Round to the Nearest Ten-Thousandth		
			F6.861	Positive and Negative Numbers		
✓	0506.1.5	Solve problems in more than one way and explain why one process may be more effective than another.	N/A	Not Covered	NC	
<b>GLE 0506.1.3 Develop independent reasoning to communicate mathematical ideas and derive algorithms and/or formulas.</b>						
SPI	0506.1.1	Given a series of geometric statements, draw a conclusion about the figure described.	G5.050	Geometric Figures as Sets of Points	P	
			G5.061	Intersections of Lines & Planes		
✓	0506.1.1	Make and test conjectures about geometric properties and develop logical arguments to justify conclusions.	G5.616	Constructing Mirror Symmetry Lines 1-4	P	
<b>GLE 0506.1.4 Move flexibly between concrete and abstract representations of mathematical ideas in order to solve problems, model mathematical ideas, and communicate solution strategies.</b>						
✓	0506.1.7	Organize and consolidate verbal statements involving fractions and mixed numbers into diagrams, symbols, and numerical expressions.	F5.900	Applications: Fractions & Decimals 1	P	
✓	0506.1.8	Use patterns, models, and relationships as contexts for writing inequalities and simple equations.	M5.000	Mathematical Sentences 1-29	P	
<b>GLE 0506.1.5 Use mathematical ideas and processes in different settings to formulate patterns, analyze graphs, set up and solve problems and interpret solutions.</b>						
<b><i>No SPIs or Checks Associated with this Grade Level Expectation.</i></b>						
<b>GLE 0506.1.6 Read and interpret the language of mathematics and use written/oral communication to express mathematical ideas precisely.</b>						
SPI	0506.1.3	Recognize the unit associated with the remainder in a division problem or the meaning of the fractional part of a whole given in either decimal or fraction form.	A5.056	Applications: Division Facts 1-2	F	
			F5.216	Applications with Fractions 1-17		
			F5.602	Using Fractions & Mixed Numbers 1		
			F5.900	Applications: Fractions & Decimals 1		
✓	0506.1.4	Explore problems in different contexts to interpret the meaning of remainders as discrete values or not.	A5.037	Division Facts 1-8	F	
			A5.056	Applications: Division Facts 1-2		
			A5.390	Using Multiplication & Division 1-11		
			A5.415	Division 1-43		
			A5.905	Applications: Division		
			F5.679	Concepts: Dividing One by a Number		

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**Correlation of the EPGY K-7 Mathematics Course and the Tennessee Mathematics Standards - DRAFT VERSION August, 2009**

Grade 5 - Standard 1: Mathematical Processes						
Check/SPI	Reference	Description	Concept ID	Concept Title	Coverage Code	Notes
✓	0506.1.6	Communicate answers in correct verbal and numerical form; including use of mixed numbers or fractions and use of units.	N/A	See <b>GLE 0506.1.1</b>	See above.	
<b>GLE 0506.1.7 Recognize the historical development of mathematics, mathematics in context, and the connections between mathematics and the real world.</b>						
✓	0506.1.9	Use age-appropriate books, stories, and videos to convey ideas of mathematics.	S5.297	Circle Graphs 1-12	F	
			S5.328	Outcomes 1-2		
			S5.843	Applications: Bar Graphs		
<b>GLE 0506.1.8 Use technologies/manipulatives appropriately to develop understanding of mathematical algorithms, to facilitate problem solving, and to create accurate and reliable models of mathematical concepts.</b>						
<i>No SPIs or Checks Associated with this Grade Level Expectation.</i>						

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**Correlation of the EPGY K-7 Mathematics Course and the Tennessee Mathematics Standards - DRAFT VERSION August, 2009**

Grade 5 - Standard 2: Number and Operations						
Check/ SPI	Reference	Description	Concept ID	Concept Title	Coverage Code	Notes
<b>GLE 0506.2.1 Extend the understanding of place value through millions and millionths in various contexts and representations.</b>						
SPI	0506.2.1	Read and write numbers from millions to millionths in various contexts.	F5.807	Place Value in Decimals 1-14	P	
			A6.070	Decimal System of Numeration 1-6	6P	
<b>GLE 0506.2.2 Write natural numbers (to 50) as a product of prime factors and understand that this is unique (apart from order).</b>						
SPI	0506.2.2	Write the prime factorization of numbers through 50 using both exponential and standard notation.	A5.621	Recognizing Factors 1-2	P	
			A5.634	Recognizing Prime Numbers 1-7 (odd #s)		
			A6.761	Finding Prime Factors 1-4	6P	
			A6.587	Prime Numbers 1-14		
✓	0506.2.1	Identify prime numbers up to 50.	A5.634	Recognizing Prime Numbers 1-7 (odd #s)	P	
			A5.652	Finding Prime Numbers 1-2		
✓	0506.2.2	Use the prime factorization of two whole numbers to determine the greatest common factor and the least common multiple.	A5.571	Multiples 1-17 (odd #s only)	F	
			F5.251	Common Multiples 1-6		
			F5.256	Least Common Multiple 1-7		
✓	0506.2.4	Use divisibility rules to factor numbers.	F6.086	Greatest Common Factor 1-2	6P	
			A5.571	Multiples 1-17 (odd #s only)	P	
A5.621	Recognizing Factors 1-2					
<b>GLE 0506.2.3 Develop fluency with division of whole numbers. Understand the relationship of divisor, dividend, and quotient in terms of multiplication and division.</b>						
SPI	0605.2.3	Select a reasonable solution to a real-world division problem in which the remainder must be considered.	A5.896	Using Multiplication and Division 5-11(odd #s)	P	
			A6.892	Applications: Division 1-3	6P	
SPI	0506.2.4	Solve problems involving the division of two- and three-digit whole numbers by one- and two-digit whole numbers.	A5.724	Division 1-27 (odd #s) and 28-40 (all)	P	
			A5.428	Dividing by Multiples of Ten (odd #s and 6, 8, 10)		
✓	0506.2.7	Understand the placement of the decimal point in calculations of multiplication and long division, including the placement in the estimation of the answer.	A6.038	Estimating for Division 1-5	6F	
			A6.009	Division 3-5		
			F6.563	Decimals in Quotients 1-4		
✓	0506.2.8	Understand that division by zero is undefined.	F7.129	Decimal Places in Products 1-5	7P	
			A5.034	Dividing by and into 1	P	
<b>GLE 0506.2.4 Develop fluency with addition and subtraction of proper and improper fractions and mixed numbers; explain and model the algorithm.</b>						
SPI	0506.2.5	Develop fluency with addition and subtraction of proper and improper fractions and mixed numbers; explain and model the algorithm.	F5.150	Adding Fractions 1-29	F	
			F5.172	Subtracting Fractions 1-13		
			F5.386	Adding Mixed Numbers 1-6		
SPI	0506.2.6	Add and subtract proper and improper fractions as well as mixed numbers.	F5.187	Adding & Subtracting Fractions 13-40	P	
			F5.485	Adding & Subtracting Mixed Numbers 1-8		

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**Correlation of the EPGY K-7 Mathematics Course and the Tennessee Mathematics Standards - DRAFT VERSION August, 2009**

Grade 5 - Standard 2: Number and Operations						
Check/ SPI	Reference	Description	Concept ID	Concept Title	Coverage Code	Notes
SPI	0506.2.6	Add and subtract proper and improper fractions as well as mixed numbers.	F4.840	Subtracting Mixed Numbers 1-3	4P	
			F4.908	Subtracting, Column Form		
			F6.046	Adding Fractions	6P	
			F6.053	Subtracting Fractions		
			F7.000	Adding Fractions 1-5	7P	
F7.025	Subtracting Fractions 1-4					
✓	0506.2.3	Use visual models, benchmarks, and equivalent forms to add and subtract commonly used fractions and decimals.	F5.009	Concepts: Improper Fractions 1-2	P	
			F5.146	Concepts: Adding & Subtracting		
✓	0506.2.5	Make reasonable estimates of fraction and decimal sums and differences.	F6.370	Estimating Products of Fractions	6P	
			F6.384	Estimating Quotients of Fractions		
✓	0506.2.6	Add and subtract mixed numbers.	F5.146	Concepts: Addition & Subtraction Fractions 1-2	F	
			F5.386	Adding Mixed Numbers 1-6		
			F5.507	Subtracting Mixed Numbers 1-6		
			F5.593	Operations With Mixed Numbers 1-4		
<b>GLE 0506.2.5 Develop fluency in solving multi-step problems using whole numbers, fractions, mixed numbers, and decimals.</b>						
SPI	0506.2.7	Recognize equivalent representations for the same number.	F5.040	Concepts: Equivalent Fractions 1-8	P	
			F5.057	Finding Equivalent Fractions 1-26		
			F6.033	Equivalent Fractions 1-2	6P	
SPI	0605.2.8	Write terminating decimals in the form of fractions or mixed numbers.	F7.748	Terminating & Other Decimals 1-4	7P	
			F7.809	Terminating & Repeating Decimals 1-4		
SPI	0506.2.9	Compare whole numbers, decimals and fractions using the symbols <, >, and =.	F5.117	Comparing Fractions 1-9	F	
			F5.137	Comparing Fractions & Whole Numbers 1-2		
			F5.128	Comparing Fractions with One 1-3		
			F6.000	Comparing Fractions 1-4	6F	
			F6.589	Comparing Decimals 1-2		
			F6.854	Compare Positive & Negative Fractions		
		F7.018	Comparing Fractions 1-2	7P		
✓	0506.2.9	Explore numbers less than 0 by extending the number line through familiar applications (e.g., temperatures below zero, owing money, measuring elevation below sea level).	A6.446	Using Positive & Negative Integers 1-3	6P	

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**Correlation of the EPGY K-7 Mathematics Course and the Tennessee Mathematics Standards - DRAFT VERSION August, 2009**

Grade 5 - Standard 3: Algebra						
Check/ SPI	Reference	Description	Concept ID	Concept Title	Coverage Code	Notes
<b>GLE 0506.3.1 Understand and use order of operations.</b>						
SPI	0506.3.1	Evaluate algebraic expressions involving decimals and fractions using order of operations.	A5.156	Grouping with Parentheses	P	
			A5.162	Distributive Law 13-18		
SPI	0506.3.2	Evaluate multi-step numerical expressions involving fractions using order of operations.	A5.621	Recognizing Factors 1	P	
<b>GLE 0506.3.2 Develop and apply the concept of variable.</b>						
✓	0506.3.2	Use variables appropriately to represent numbers whose values are not yet known.	A4.485	Division Equations 1-3	4P	
			A4.499	Distributive Law for Division 1-2		
			F5.712	Division Equations 1-3	P	
			M5.000	Mathematical Sentences 1-29		
✓	0506.3.6	Recognize there are many numbers between any two whole numbers on the number line.	F5.774	Ordering Decimals 1,3	P	
<b>GLE 0506.3.3 Understand and apply the substitution property.</b>						
✓	0506.3.1	Evaluate an expression by substituting non-negative rational number values for letter variables in the expression.	F6.238	Concepts: Equivalent Equations 1-3	6P	
<b>GLE 0506.3.4 Solve single-step linear equations and inequalities.</b>						
SPI	0506.3.3	Find the unknown in single-step equations involving fractions and mixed numbers.	F5.152	Adding Fractions 2,4,6,8,10-11,14,16	F	
			F5.172	Subtracting Fractions 1-2,4,6,9-10,12		
			F5.187	Adding & Subtracting Fractions 13,15,17, 19, 21, 23, 25, 27, 29, 31, 33, 35, 37, 39		
			F5.346	Adding Fractions 18-19,26,28		
			F5.386	Adding Mixed Numbers 1,3,5		
			F5.485	Adding & Subtracting Mixed Numbers 1, 3, 5, 7, 9		
			F5.507	Subtracting Mixed Numbers 1,3,5		
			F5.543	Multiplying Fractions 1,3,5,7,9,11,13,15,17		
			F5.584	Multiplying with Mixed Numbers 1,3,5		
			F5.684	Division with Fractions 1-2,5,7		
F5.703	Division with Mixed Numbers 1,3					
SPI	0506.3.4	Given a set of values, identify those that make an inequality a true statement.	M6.434	Satisfying Inequalities 1-5	6P	
			M6.460	Rules & Solutions for Inequalities 1-2		
✓	0506.3.3	Solve single-step linear equations using inverse operations.	F5.664	Concepts: Multiplicative Inverse	P	
			M6.664	Solving Equations of Form $ay=b$ 1-6	6P	

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**Correlation of the EPGY K-7 Mathematics Course and the Tennessee Mathematics Standards - DRAFT VERSION August, 2009**

**Grade 5 - Standard 3: Algebra**

<b>Check/ SPI</b>	<b>Reference</b>	<b>Description</b>	<b>Concept ID</b>	<b>Concept Title</b>	<b>Coverage Code</b>	<b>Notes</b>
✓	0506.3.4	Solve single-step linear inequalities and graph solutions on a number line.	M6.416	Graphing Inequalities 1-2	6P	
✓	0506.3.5	Determine if a given value is a solution to a linear equation/inequality.	M5.245	Comparing Expressions 1-6	P	

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**Correlation of the EPGY K-7 Mathematics Course and the Tennessee Mathematics Standards - DRAFT VERSION August, 2009**

Grade 5 - Standard 4: Geometry and Measurement						
Check/ SPI	Reference	Description	Concept ID	Concept Title	Coverage Code	Notes
<b>GLE 0506.4.1 Use basic formulas and visualization to find the area of geometric figures.</b>						
SPI	0406.4.1	Solve contextual problems that require calculating the area of triangles and parallelograms.	G5.091	Area of Triangles and Rectangles	P	
			G5.101	Area of a Triangle 1-5		
			G6.274	Parallelograms	6F	
			G6.370	Properties of Parallelograms 1-3		
			G6.479	Area of Triangles 1-3		
SPI	0506.4.2	Decompose irregular shapes to find perimeter and area.	G3.300	Concepts: Perimeter and Area	3P	
			G3.350	Perimeter and Area		
			G5.131	Area of Compound Figures 1-4	P	
✓	0506.4.1	Develop the formula for the area of a triangle as it relates to the area of a parallelogram/rectangle.	G5.081	Area of a Rectangle	F	
			G5.091	Area of Triangles and Rectangles		
			G5.131	Area of Compound Figures 1-4		
			G6.411	Applications: Area of Rectangles	6P	
			G6.425	Area of Parallelograms 1-4		
✓	0506.4.2	Find the area of a convex polygon by decomposing it into triangles/rectangles.	G3.100	Convex and Concave Figures, 1	3P	
			G3.150	Convex and Concave		
			G4.881	Polygons	4P	
<b>GLE 0506.4.2 Describe polyhedral solids and analyze their properties, including volume and surface area.</b>						
SPI	0506.4.3	Identify a three-dimensional object from two-dimensional representations of that object and vice versa.	G5.232	Names of 2-D Figures	P	
			G6.315	Names of 2-Dimensional Figures 1-4	6P	
			G7.062	Similar 2-D Figures 1-7	7F	
			G7.078	Similar 3-D Figures		
			G7.094	Names of 3-D Figures 1-2		
SPI	0506.4.4	Solve problems involving surface area and volume of rectangular prisms and polyhedral solids.	G4.059	Rectangular Prisms	4P	
			G4.823	Volume		
			G5.081	Area of Rectangle	P	
			G6.616	Volume of Rectangular Prisms 1-4	6P	
✓	0506.4.3	Build, draw, and work with prisms by means of orthogonal views, projective views, and nets.	G4.059	Rectangular Prisms	4F	
			G4.118	Triangular Prisms		
			G4.176	Pentagonal Prisms		
			G4.235	Hexagonal Prisms		
			G6.616	Volume of Rectangular Prisms 1-4	6F	
			G6.644	Volume of Cylinders and Prisms 1-2		
			G6.767	Surface Area of Prisms 1-6		
			G6.849	Surface Area of Compound Prisms 1-2		

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**Correlation of the EPGY K-7 Mathematics Course and the Tennessee Mathematics Standards - DRAFT VERSION August, 2009**

Grade 5 - Standard 4: Geometry and Measurement						
Check/SPI	Reference	Description	Concept ID	Concept Title	Coverage Code	Notes
✓	0506.4.3	Build, draw, and work with prisms by means of orthogonal views, projective views, and nets.	G6.877	Volumes of Prisms	6F	
			G7.750	Volumes of Prisms and Pyramids	7P	
✓	0506.4.4	Describe and identify the five regular (Platonic) solids and their properties with respect to faces, shapes of faces, edges, and vertices.	G4.059	Rectangular Prisms	4F	
			G4.118	Triangular Prisms		
			G4.176	Pentagonal Prisms		
			G4.235	Hexagonal Prisms		
			G4.823	Volume	4P	
✓	0506.4.5	Quantify total volume as filling space with same-sized units of volume without gaps or overlap.	G6.616	Volume of Rectangular Prisms 1-4	6F	
			G6.644	Volume of Cylinders and Prisms 1-2		
			G6.680	Volume of a Cylinder 1-3		
			G6.877	Volumes of Prisms	7F	
			G7.656	Volume of a Right Circular Cylinder		
			G7.672	Volume of a Right Circular Cone 1		
			G7.688	Volume of a Sphere 1-2		
			G7.719	Comparing Volumes 1-2		
			G7.750	Volumes of Prisms and Pyramids		
✓	0506.4.6	Decompose prisms to calculate surface area and volume.	G4.059	Rectangular Prisms	4F	
			G4.118	Triangular Prisms		
			G4.176	Pentagonal Prisms		
			G4.235	Hexagonal Prisms		
			G4.823	Volume	6F	
			G6.616	Volume of Rectangular Prisms 1-4		
			G6.767	Surface Area of Prisms 1-6		
			G6.877	Volumes of Prisms		
<b>GLE 0506.4.3 Describe length/distance relationships using the first quadrant of the coordinate system.</b>						
SPI	0506.4.5	Find the length of vertical or horizontal line segments in the first quadrant of the coordinate system, including problems that require the use of fractions and decimals.	M5.872	Functions and Graphs 1-2	P	
			M6.018	Points and Graphs of Rules 1-4	6F	
			M6.044	Graphs of Rules 1-4		
			M6.823	Graphing Points 1-7		
			M6.885	Giving Coordinates 1-4		
			M6.920	Plotting Points 1-2		
			M6.938	Recognizing Functions 4-7		
✓	0506.4.8	Identify characteristics of the set of points that define vertical and horizontal line segments.	M5.872	Functions and Graphs 1-2	P	
			M5.891	Functions 1-4		

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**Correlation of the EPGY K-7 Mathematics Course and the Tennessee Mathematics Standards - DRAFT VERSION August, 2009**

Grade 5 - Standard 4: Geometry and Measurement						
Check/ SPI	Reference	Description	Concept ID	Concept Title	Coverage Code	Notes
<b>GLE 0506.4.4 Solve problems that require attention to both approximation and precision of measurement.</b>						
SPI	0506.4.6	Record measurements in context to reasonable degree of accuracy using decimals and/or fractions.	M7.244	Rounding Decimals 1-6	7P	
			M7.415	Estimating Averages 1-2		
✓	0506.4.7	Understand, select and use units of appropriate size and type to measure angles, lengths/distances, area, surface area and volume.	M6.106	Computing Area 1-2	6F	
			M6.124	Converting Square Measures 1-2		
			M6.159	Applications: Area		
			M6.168	Concepts: Volume 1-6		
			M7.122	Kinds of Angles 1-4	7P	
			M7.309	Measurement Conversions: Length 1-6		
✓	0506.4.9	Correctly interpret significant digits in the accuracy of measurements and associated calculations.	M5.686	Comparing Metric Measures 1-3	P	
✓	0506.4.10	Recognize that measurements are never exact.	M7.358	Comparing Systems of Measurement 1-2	7P	
✓	0506.4.11	Understand the usefulness of approximations.	M5.715	Applications : Metric Measures 1-3	P	
✓	0506.4.12	Develop strategies for choosing correct tools of measurement.	M5.607	Converting Metric Measures 1-8	P	
			M6.265	Converting Dry Measures	6F	
			M6.274	Converting Liquid Measures 1-2		
			M6.381	Converting Grams to Kilograms		
✓	0506.4.13	Recognize and use measures of weight and temperature.	M6.398	Converting Temperatures 1-2	6P	
			M7.374	Measurement Conversions: Weight 1-4	7P	
			M7.407	Applications: Weight Conversion		

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**Correlation of the EPGY K-7 Mathematics Course and the Tennessee Mathematics Standards - DRAFT VERSION August, 2009**

<b>Grade 5 - Standard 5: Data/Probability/Statistics</b>						
<b>Check/ SPI</b>	<b>Reference</b>	<b>Description</b>	<b>Concept ID</b>	<b>Concept Title</b>	<b>Coverage Code</b>	<b>Notes</b>
<b>GLE 0506.5.1 Make, record, display and interpret data and graphs that include whole numbers, decimals, and fractions.</b>						
SPI	0506.5.1	Estimate fraction and decimal sums or differences.	S5.375	Circle Graphs 4-6	P	Fractions only
SPI	0506.5.2	Identify missing information and/or too much information in contextual problems.	N/A	Not Covered	NC	
✓	0506.5.1	Construct and analyze double bar and line graphs.	S5.812	Applications: Line Graphs	P	Analyze only
✓	0506.5.2	Represent data using ordered pairs in the first quadrant of the coordinate system.	M4.808	Coordinates 1-8	4P	Name only
✓	0506.5.3	Design investigations to address a question and consider how data collection methods affect the nature of the data set.	N/A	Not Covered	NC	
✓	0506.5.4	Recognize the differences in representing categorical and numerical data.	N/A	Not Covered	NC	
<b>GLE 0506.5.2 Describe the shape and important features of a set of data using the measures of central tendency.</b>						
SPI	0506.5.3	Calculate measures of central tendency to analyze data.	S5.000	Computing the Mean 1-2	F	
			S5.031	Identifying Modes 1-4		
			S5.125	Identifying the Median 1-2		
			S5.187	Computing the Mean and Median 1-2	6P	
			S6.339	Computing the Mean 1-2		
			S6.525	Computing Mean, Median, and Mode 1-3	7P	
			S7.000	Computing Means 1-4		
✓	0506.5.5	Evaluate how different measures of central tendency describe data.	S7.148	Mean, Median, and Mode 1-6	7P	
			S7.741	Medians & Upper and Lower Quartiles		
✓	0506.5.6	Identify outliers and determine their effect on mean, median, mode and range.	S7.778	Measures of Spread 1-2	4P	
			S4.473	Identifying Outliers 1-2		
			S5.219	Effect of Outliers		
			S6.678	Effects of Outliers	6P	

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**Correlation of the EPGY K-7 Mathematics Course and the Tennessee Mathematics Standards - DRAFT VERSION August, 2009**

Grade 6 - Standard 1: Mathematical Processes						
Check/ SPI	Reference	Description	Concept ID	Concept Title	Coverage Code	Notes
<b>GLE 0606.1.1 Use mathematical language, symbols, and definitions while developing mathematical reasoning.</b>						
<i>No SPIs or Checks Associated with this Grade Level Expectation.</i>						
<b>GLE 0606.1.2 Apply and adapt a variety of appropriate strategies to problem solving, including estimation, and reasonableness of the solution.</b>						
SPI	0606.1.2	Judge the reasonableness of the results of rational number estimates and/or computations.	F6.377	Estimating Products of Fractions	P	
			F6.384	Estimating Quotients of Fractions		
✓	0606.1.2	Recognize when an estimate is more appropriate than an exact answer in a variety of problem situations.	N/A	Not Covered	NC	
✓	0606.1.3	Recognize errors generated by rounding.	N/A	Not Covered	NC	
<b>GLE 0606.1.3 Develop independent reasoning to communicate mathematical ideas and derive algorithms and/or formulas.</b>						
SPI	0606.1.4	Select the representation that models one of the arithmetic properties (commutative, associative, or distributive).	A5.234	Giving Reasons 1-6	5P	
<b>GLE 0606.1.4 Move flexibly between concrete and abstract representations of mathematical ideas in order to solve problems, model mathematical ideas, and communicate solution strategies.</b>						
SPI	0606.1.3	Use concrete, pictorial, and symbolic representation for integers.	A6.300	Positive Integers on a Number Line 1-3	F	
			A6.324	Compare Positive & Negative Integers 1-4		
			A6.347	The Number Line 1-2		
			A6.366	Using a Number Line to Add		
			A6.371	Adding Negative Integers		
			A6.380	Add Positive & Negative Integers 2-3, 6-8		
			A6.427	Subtract Positive & Negative Integers 1		
✓	0606.1.5	Illustrate properties of operations by showing that two expressions are equivalent in a given context (e.g., using an area model for distributive property, and grouping/set models for commutative and associative properties).	A5.019	Associative Property, Multiplication	5F	
			A5.062	Commutative Law 1-4		
			A5.075	Associative Law 1-6		
			A5.094	Commutative and Associative Laws		
			A5.097	Distributive Law 1-18		
			A5.234	Giving Reasons 1-6		
<b>GLE 0606.1.5 Use mathematical ideas and processes in different settings to formulate patterns, analyze graphs, set up and solve problems and interpret solutions.</b>						
SPI	0606.1.1	Make conjectures and predictions based on data.	S6.034	Unions, Intersections, & Probabilities 1-4	F	
			S6.102	Intersections & Probabilities 1-2		
			S6.136	Unions & Probabilities 1-4		
			S6.729	Measures of Central Tendency 1-3		

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**Correlation of the EPGY K-7 Mathematics Course and the Tennessee Mathematics Standards - DRAFT VERSION August, 2009**

Grade 6 - Standard 1: Mathematical Processes						
Check/ SPI	Reference	Description	Concept ID	Concept Title	Coverage Code	Notes
SPI	0606.1.1	Make conjectures and predictions based on data.	S5.484	Probability of Outcomes 1-2	5P	
			S5.578	Probability of Events 1-11		
✓	0606.1.4	Describe how changes in one quantity or variable result in changes in another.	G6.000	Circumference of a Circle 1-11	P	
✓	0606.1.6	Model situations by devising and carrying out experiments and simulations.	S6.610	Collecting and Representing Data 1-4	P	
✓	0606.1.7	Formulate questions, design studies, and collect real world data.	N/A	Not Covered	NC	
✓	0606.1.8	Determine an appropriate sample to test an hypothesis.	S6.814	When to Use a Sample 1-2	F	
			S6.847	Representative Samples 1-6		
			S6.949	Interviews that Bias Results 1-2		
			S6.983	Graphs that Bias Conclusions		
			M7.260	Finding Unbiased Samples	7P	
<b>GLE 0606.1.6 Read and interpret the language of mathematics and use written/oral communication to express mathematical ideas precisely.</b>						
<b><i>No SPIs or Checks Associated with this Grade Level Expectation.</i></b>						
<b>GLE 0606.1.7 Recognize the historical development of mathematics, mathematics in context, and the connections between mathematics and the real world.</b>						
✓	0606.1.9	Use age-appropriate books, stories, and videos to convey ideas of mathematics.	L6.409	Science Lab 1A	F	
			L6.455	Science Lab 1B		
			L6.682	Science Lab 2A		
			L6.727	Science Lab 2B		
			L6.684	Science Lab 3A		
			L6.909	Science Lab 3B		
<b>GLE 0606.1.8 Use technologies/manipulatives appropriately to develop understanding of mathematical algorithms, to facilitate problem solving, and to create accurate and reliable models of mathematical concepts.</b>						
SPI	0606.1.5	Model algebraic expressions using algebra tiles.	N/A	Teacher Directed	TD	
✓	0606.1.1	Recognize different conventions used in calculator and computer spreadsheets (e.g., * for multiplication, ^ for exponent), but use mathematical notation in written work.	A6.202	Exponents 1-10	P	
			A6.934	Scientific Notation 1-5		
✓	0606.1.10	Use various methods (such as dynamic geometry software) to explore properties of triangles and quadrilaterals.	G6.205	Congruent Triangles	F	
			G6.288	Types of Quadrilaterals 1-2		
			G6.479	Area of Triangles 1-5		
			G6.973	Properties of Equilateral Triangles		
			G6.986	Properties of Isosceles Triangles		

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Grade 6 - Standard 1: Mathematical Processes						
Check/ SPI	Reference	Description	Concept ID	Concept Title	Coverage Code	Notes
✓	0606.1.11	Model algebraic expressions with manipulatives, technology, and pencil and paper.	M6.619	Simplifying Expressions 1-9	P	Uses technology

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**Correlation of the EPGY K-7 Mathematics Course and the Tennessee Mathematics Standards - DRAFT VERSION August, 2009**

Grade 6 - Standard 2: Number and Operations						
Check/ SPI	Reference	Description	Concept ID	Concept Title	Coverage Code	Notes
<b>GLE 0606.2.1 Understand and explain the procedures for multiplication and division of fractions, mixed numbers, and decimals.</b>						
SPI	0606.2.1	Solve problems involving the multiplication and division of fractions.	F6.266	Equations With Fractions 1-5	F	
			F6.313	Dividing Fractions 1-4		
			F6.340	Multiplying Mixed Numbers 1-4		
			F6.366	Dividing with Mixed Numbers 1-2		
			F6.413	Multiplying & Dividing Fractions 1-2	5P	
			F5.743	Operations with Fractions 1-4	7P	
			F7.040	Multiplying Fractions 1-2		
			F7.061	Dividing Fractions 1-3		
✓	0606.2.2	Use area models to represent multiplication of fractions.	F5.606	Fractions & Area 1-8	5P	
✓	0606.2.3	Create and solve contextual problems that lead naturally to division of fractions.	F5.708	Applications with Fractions 17-18	5P	
			F6.391	Applications: Fractions 1-2	P	
SPI	0606.2.2	Solve problems involving the addition, subtraction, multiplication, and division of mixed numbers.	F5.584	Multiplying with Mixed Numbers 1-4	5P	
			F5.593	Operations with Mixed Numbers 1-4		
			F6.404	Adding & Subtracting Fractions	P	
SPI	0606.2.3	Solve problems involving the addition, subtraction, multiplication, and division of decimals.	F6.424	Multiplying with Decimals 1-14	F	
			F6.550	Dividing with Decimals 1-22		
			F6.629	Multiplying and Dividing Decimals 1-2		
			F6.510	Applications: Multiplying Decimals 1-2		
			F6.695	Equations with Decimals 1-6		
			F6.646	Concepts: Dividing by Decimals 1-4		
			F6.483	Solving Decimal Equations 1-2		
			F6.258	Solving Equations	7F	
			F7.122	Adding & Subtracting Decimals 1-2		
			F7.101	Adding Decimals, Column Form 1-2		
			F7.108	Subtracting Decimals, Column Form 1-2		
			F7.151	Multiplying Decimals 1-2		
			F7.158	Applications: Decimals 1-2		
			F7.173	Dividing Decimals 1-6		
<b>GLE 0606.2.2 Solve multi-step mathematical, contextual and verbal problems using fractions, mixed numbers, and decimals.</b>						
SPI	0606.2.4	Solve multi-step arithmetic problems using fractions, mixed numbers, and decimals.	F6.026	Applications: Perimeter & Distance	F	
			F6.391	Applications: Fractions 1-2		
			F6.510	Applications: Multiplying Decimals 1-2		
			F6.841	Applications: Decimals 1-2		

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**Grade 6 - Standard 2: Number and Operations**

Check/ SPI	Reference	Description	Concept ID	Concept Title	Coverage Code	Notes	
<b>GLE 0606.2.3 Understand and use ratios, rates and percents.</b>							
SPI	0606.2.6	Solve problems involving ratios, rates and percents.	F6.921	Finding a Percent of a Number 1	P		
			F7.363	Rates & Ratios 1-2	7F		
			F7.381	Percents as Ratios 1-6			
			F7.432	Ratios as Percents 1-2			
			F7.446	Ratio to Percent: Standard Form 1-6			
✓	0606.2.4	Understand ratio as a fraction used to compare two quantities by division.	F7.313	Ratios in Lowest Terms 1-2	7P		
			F7.320	Equivalent Ratios 1-6			
✓	0606.2.5	Recognize a:b, a/b, and “a to b” as notations for ratios.	G5.192	Ratios 1-4	5P		
			F7.306	Ratios 1-4	7P		
			F7.320	Equivalent Ratios 1-6			
✓	0606.2.6	Recognize common percentages as ratios based on fractions whose denominators are 2, 3, 4, 5, or 10.	F7.381	Percents as Ratios 1-6	7F		
			F7.410	Percents as Ratios & Decimals 1-2			
			F7.424	Equal Decimals, Fractions, Percents 1-2			
			F7.432	Ratios as Percents 1-2			
✓	0606.2.7	Connect ratio and rate to multiplication and division.	F7.363	Rates & Ratios 1-2	7F		
			F7.371	Applications: Ratios 1-2			
			F7.417	Ratios to Percents: Two Methods			
<b>GLE 0606.2.4 Understand and convert between fraction, decimal, and percent forms of rational numbers.</b>							
SPI	0606.2.5	Transform numbers from one form to another (fractions, decimals, percents, and mixed numbers).	F6.126	Decimals as Percents 1-4	F		
			F6.139	Fractions as Percents 1-2			
			F6.152	Fractions, Decimals, & Percents 1-6			
			F6.166	Percent as a Decimal 1-2			
			F6.199	Comparing Fractions & Percents 1-2			
			F7.072	Equivalent Decimals & Fractions 1-4			7F
			F7.439	Equivalent Fractions & Percents 1-2			
			F7.378	Percents as Decimals 1-5			
✓	0606.2.8	Recognize that a terminating decimal equals a fraction with a denominator that is a power of ten.	F7.763	Fractions from Terminating Decimals 1-2	7P		
			F7.748	Terminating & Other Decimals 1-4			
✓	0606.2.9	Recognize that the decimal form of a rational number either terminates or repeats.	F7.770	Fractions & Repeating Decimals 1-11	7P		
			F7.809	Terminating & Repeating Decimals 1-4			
<b>GLE 0606.2.5 Develop meaning for integers; represent and compare quantities with integers.</b>							
SPI	0606.2.7	Locate positive rational numbers on the number line.	A6.300	Positive Integers on a Number Line 1-3	P		
			A6.347	The Number Line 1-2			
SPI	0606.2.8	Locate integers on the number line.	A6.300	Positive Integers on a Number Line 1-3	P		
			A6.324	Compare Positive & Negative Integers 1-4			

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Grade 6 - Standard 2: Number and Operations						
Check/ SPI	Reference	Description	Concept ID	Concept Title	Coverage Code	Notes
✓	0606.2.1	Efficiently compare and order fractions, decimals and percents; determine their approximate locations on a number line.	F6.152	Fractions, Decimals, & Percents 1-7	F	
			F6.000	Comparing Fractions 1-4		
			F6.589	Comparing Decimals 1-2		
			F6.854	Compare Positive & Negative Fractions		
			F6.199	Comparing Fractions & Percents 1-2		
✓	0606.2.10	Explore contexts that can be described with negative numbers (such as money, elevation, and temperature).	A6.446	Using Positive & Negative Integers 1-3	P	

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**Correlation of the EPGY K-7 Mathematics Course and the Tennessee Mathematics Standards - DRAFT VERSION August, 2009**

Grade 6 - Standard 3: Algebra						
Check/ SPI	Reference	Description	Concept ID	Concept Title	Coverage Code	Notes
<b>GLE 0606.3.1 Write and solve two-step equations and inequalities.</b>						
SPI	0606.3.1	Represent on a number line the solution of a linear inequality.	A6.300	Positive Integers on a Number Line 1-3	F	
			A6.347	The Number Line 1-2		
			M6.460	Rules and Solutions for Inequalities 1-2		
			M6.434	Satisfying Inequalities 1-5		
✓	0606.3.2	Write and solve one-step inequalities corresponding to given situations (non-negative numbers only).	A6.315	Comparing Positive Integers 1-2	F	
			A6.502	Comparing Integers & Fractions 1-2		
			M6.460	Rules and Solutions for Inequalities 1-2		
			M6.434	Satisfying Inequalities 1-5		
✓	0606.3.6	Solve two-step linear equations using number sense, properties, and inverse operations.	A6.451	Additive Inverse 1-6	F	
			A6.474	Missing Addends 1-2		
			A6.484	Missing Sums or Addends 1-2		
			M6.088	Solving Equations 1-7		
			M6.752	Solving Equations of Form $ay+b=c$ 1-6		
✓	0606.3.1	Write and solve two-step linear equations corresponding to given situations (non-negative numbers only).	A5.372	Applications: Multiplication 1-3	5P	
			M5.715	Applications: Metric Measures 1-3	F	
			A6.028	Applications: Mixed Operations 1-2		
			A6.892	Applications: Division 1-3		
			M6.088	Solving Equations 1-7		
			M6.752	Solving Equations of Form $ay+b=c$ 1-6		
			M7.033	Applications: Functions 1-6	7P	
<b>GLE 0606.3.2 Interpret and represent algebraic relationships with variables in expressions, simple equations and inequalities.</b>						
✓	0606.3.3	Recognize the use of juxtaposition (such as $3x$ , $ab$ ) to stand for multiplication, and the convention in these cases of writing numbers before letters.	A6.061	Multiplication 1-2	P	
✓	0606.3.5	Use the commutative, associative and distributive properties to show that two expressions are equivalent.	A6.094	Multiplication with Large Numbers	F	
			A6.061	Multiplication 1-2		
			A6.066	Addition		
			A6.085	Addition with Large Numbers		
			A6.094	Multiplication with Large Numbers		
			A6.371	Adding Negative Integers		
			A6.376	Add Positive & Negative Integers 1-13		
			A6.451	Additive Inverse 1-6		
			A6.789	Multiplying with Negative Integers 1-11		
F6.238	Concepts: Equivalent Equations 1-3					

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<b>Grade 6 - Standard 3: Algebra</b>						
<b>Check/SPI</b>	<b>Reference</b>	<b>Description</b>	<b>Concept ID</b>	<b>Concept Title</b>	<b>Coverage Code</b>	<b>Notes</b>
✓	0606.3.7	Move fluently between different representations (such as verbal, tabular, numerical, algebraic, and graphical) of equations and expressions.	A6.526	Writing Arabic Numerals	P	
			M6.563	Mathematical & English Sentences 1-3		
✓	0606.3.8	Represent patterns using words, graphs, and simple symbolic notation.	A6.859	Patterns and Rules 1-2	P	
			M6.920	Plotting Points 1-2		
<b>GLE 0606.3.3 Extend order of operations to include grouping symbols and exponents.</b>						
SPI	0606.3.2	Use order of operations and parentheses to simplify expressions and solve problems.	A5.140	Multiple Binary Operations 1-5	5P	
<b>GLE 0606.3.4 Use expressions, equations and formulas to solve problems.</b>						
<b><i>No SPIs or Checks Associated with this Grade Level Expectation.</i></b>						
<b>GLE 0606.3.5 Use multiple representations including symbolic algebra to model and/or solve contextual problems that involve linear relationships.</b>						
SPI	0606.3.3	Write equations that correspond to given situations or represent a given mathematical relationship.	A6.028	Applications: Mixed Operations 1-2	F	
			A6.099	Applications: Large Numbers 1-3		
			A6.291	Applications: Exponents 1-2		
			A6.892	Applications: Division 1-3		
			F6.026	Applications: Perimeter & Distance		
			F6.391	Applications: Fractions 1-2		
			F6.510	Applications: Multiplying Decimals 1-2		
			F6.841	Applications: Decimals 1-2		
			F6.934	Applications: Percents 1-6		
			M6.142	Applications: Using Measures 1-2		
			M6.239	Applications: Computing Volume		
			M6.363	Applications: Using Measures 3		
S6.373	Applications: Averages 1-3					
SPI	0606.3.4	Rewrite expressions to represent quantities in different ways.	A6.526	Writing Arabic Numerals	P	
SPI	0606.3.5	Translate between verbal expressions/sentences and algebraic expressions/equations.	M6.558	Mathematical & English Sentences 1-3	P	
SPI	0606.3.8	Select the qualitative graph that models a contextual situation (e.g., water filling then draining from a bathtub).	N/A	Not Covered	NC	
✓	0606.3.6	Use equations to describe simple relationships shown in a table or graph.	N/A	Not Covered	NC	
✓	0606.3.9	Write a contextual story modeled by a given graph.	N/A	Not Covered	NC	

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**Correlation of the EPGY K-7 Mathematics Course and the Tennessee Mathematics Standards - DRAFT VERSION August, 2009**

Grade 6 - Standard 3: Algebra						
Check/ SPI	Reference	Description	Concept ID	Concept Title	Coverage Code	Notes
<b>GLE 0606.3.6 Understand and use the Cartesian coordinate system.</b>						
SPI	0606.3.7	Use algebraic expressions and properties to analyze numeric and geometric patterns.	A6.859	Patterns and Rules 1-2	P	
SPI	0606.3.9	Graph ordered pairs of integers in all four quadrants of the Cartesian coordinate system.	M6.823	Graphing Points 1-7	P	
			M6.920	Plotting Points 1-2		
✓	0606.3.4	Generate data and graph relationships concerning measurement of length, area, volume, weight, time, temperature, money, and information.	S6.587	Collecting and Representing Data 1-4	P	
✓	0606.3.10	Understand that in an ordered pair (x, y), the x represents horizontal location and y represents vertical location.	M6.823	Graphing Points 1-7	P	
			M6.920	Plotting Points 1-2		
			M7.699	Graphing on a Coordinate Plane 1	7P	
✓	0606..3.11	Identify the quadrant of the coordinate system in which a point lies.	M6.823	Graphing Points 1-7	P	

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**Correlation of the EPGY K-7 Mathematics Course and the Tennessee Mathematics Standards - DRAFT VERSION August, 2009**

Grade 6 - Standard 4: Geometry and Measurement						
Check/ SPI	Reference	Description	Concept ID	Concept Title	Coverage Code	Notes
<b>GLE 0606.4.1 Understand and use basic properties of triangles, quadrilaterals, and other polygons.</b>						
SPI	0606.4.1	Identify, define or describe geometric shapes given a visual representation or a written description of its properties.	G6.315	Names of 2-Dimensional Figures 1-4	F	
			G5.232	Names of 2-D Figures	5P	
			G7.062	Similar 2-D Figures 1-7	7F	
			G7.078	Similar 3-D Figures		
			G7.094	Names of 3-D Figures 1-2		
✓	0606.4.3	Verify the basic properties of triangles and quadrilaterals using a protractor and ruler.	G6.288	Types of Quadrilaterals 1-2	P	Introduces protractor
			G6.205	Congruent Triangles	5P	
			G5.394	Measuring Angles 1-12		
			G5.474	Measuring and Naming Angles 1-2		
✓	0606.4.4	Classify triangles by side lengths (scalene, isosceles, and equilateral) and angle measure (acute, right, obtuse, isosceles and equiangular).	G6.973	Properties of Equilateral Triangles	P	
			G6.986	Properties of Isosceles Triangles		
SPI	0606.4.2	Find a missing angle measure in problems involving interior/exterior angles and/or their sums.	G5.394	Measuring Angles 1-12	5F	
			G5.474	Measuring and Naming Angles 1-2		
✓	0606.4.1	Investigate the sum of the angles in a triangle and a quadrilateral using various methods.	G6.288	Types of Quadrilaterals 1-2	P	
			G5.394	Measuring Angles 1-12	5F	
			G5.474	Measuring and Naming Angles 1-2		
✓	0606.4.2	Relate the sum of the angles in a triangle to the sum of the angles in polygons.	G5.394	Measuring Angles 1-12	5F	
			G5.474	Measuring and Naming Angles 1-2		
✓	0606.4.7	Use the properties of interior and exterior angles of polygons to solve problems.	G5.394	Measuring Angles 1-12	5P	
SPI	0606.4.3	Solve problems using the Triangle Inequality Theorem.	N/A	Not Covered	NC	
✓	0606.4.5	Model and use the Triangle Inequality Theorem.	N/A	Not Covered	NC	
<b>GLE 0606.4.2 Use the concepts of translation, rotation, reflection, and symmetry to understand congruence in the plane.</b>						
✓	0606.4.7	Work with transformations in a plane and explore their meanings through drawings and manipulatives.	G5.313	Axis of Symmetry 1-2	5F	
			G5.565	Positions 1-3		
			G5.616	Constructing Mirror Symmetry Lines 1-4		
			G5.595	Mirror Reflections 1-6		
			G5.848	Identifying Missing Rotations 2		
			G5.858	Rotations and Mirror Reflections 1-11		
✓	0606.4.8	Understand scaling, dilation and their relation to similarity.	G5.242	Lines of Symmetry 1-4	5F	
			G5.262	Planes of Symmetry		

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**Correlation of the EPGY K-7 Mathematics Course and the Tennessee Mathematics Standards - DRAFT VERSION August, 2009**

**Grade 6 - Standard 4: Geometry and Measurement**

Check/ SPI	Reference	Description	Concept ID	Concept Title	Coverage Code	Notes
✓	0606.4.8	Understand scaling, dilation and their relation to similarity.	G5.303	Point of Symmetry	5F	
✓	0606.4.9	Analyze the differences between congruence and similarity.	G6.192	Congruence 1	P	
			G6.205	Congruent Triangles		
✓	0606.4.10	Describe the effect of a transformation on a 2-dimensional figure and the resulting symmetry.	G5.272	Intersections of Planes and Solids 1-5	5F	
			G5.595	Mirror Reflections 1-6		
			G5.777	Rotational Symmetry 1-2		
			G5.908	Rotations 1-7		
<b>GLE 0606.4.3 Develop and use formulas to determine the circumference and area of circles, and the area of trapezoids, and develop strategies to find the area of composite shapes.</b>						
SPI	0606.4.4	Calculate with circumferences and areas of circles.	G6.000	Circumference of a Circle 1-11	F	
			G6.151	Approximating the Area of a Circle		
			G6.164	Area of a Circle 1-6		
			G6.583	Area of Sectors of a Circle 1-2		
			G6.603	Approximating Area 2		
✓	0606.4.11	Relate the circumference of a circle with the perimeter of a polygonal figure.	G6.000	Circumference of a Circle 1-11	P	
✓	0606.4.12	Derive the meaning of Pi using concrete models and/or appropriate technology.	G6.166	Area of a Circle 1-6	F	
			G6.000	Circumference of a Circle 1-11		
			G6.153	Approximating the Area of a Circle		
✓	0606.4.13	Understand the relationships among the radius, diameter, circumference and area of a circle, and	G6.166	Area of a Circle 1-6	P	
			G6.575	Area of Sectors of a Circle 1-2		
✓	0606.4.14	Relate the area of a trapezoid to the area of a parallelogram.	G6.425	Area of Parallelograms 1-4	F	
<b>GLE 0606.4.4 Develop and use formulas for surface area and volume of 3-dimensional figures.</b>						
SPI	0606.4.5	Determine the surface area and volume of prisms, pyramids and cylinders.	G6.616	Volume of Rectangular Prism 1-4	F	
			G6.767	Surface Area of Prisms 1-6		
			G6.849	Surface Area of Compound Prisms 1-2		
			G6.932	Concepts: Surface Area of Cylinders		
			G6.945	Surface Area of Cylinders		
			G7.781	Surface Area	7P	
G7.797	Surface Area of a Right Cylinder 1-2					
SPI	0606.4.6	Given the volume of a cone/pyramid, find the volume of the related cylinder/prism or vice versa.	G6.616	Volume of Rectangular Prism 1-4	F	
			G6.644	Volume of Cylinders and Prisms 1-2		
			G6.680	Volume of a Cylinder 1-3		
			G6.877	Volumes of Prisms		

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**Correlation of the EPGY K-7 Mathematics Course and the Tennessee Mathematics Standards - DRAFT VERSION August, 2009**

Grade 6 - Standard 4: Geometry and Measurement						
Check/ SPI	Reference	Description	Concept ID	Concept Title	Coverage Code	Notes
SPI	0606.4.6	Given the volume of a cone/pyramid, find the volume of the related cylinder/prism or vice versa.	G7.656	Volume of a Right Circular Cylinder	7F	
			G7.672	Volume of a Right Circular Cone 1		
			G7.750	Volumes of Prisms and Pyramids		
✓	0606.4.15	Find lengths given areas or volumes, and vice versa.	M6.168	Concepts: Volume 1-6	F	
			M6.221	Computing Volume 1-2		
			M6.239	Applications: Computing Volume		
			M6.106	Computing Area 1-3		
✓	0606.4.16	Solve contextual problems involving area and circumference of circles, surface areas and volumes of prisms, pyramids, cones, and cylinders.	G6.000	Circumference of a Circle 1-11	F	
			G6.644	Volume of Cylinders and Prisms 1-2		
			G6.671	Volume of a Cylinder 1-3		
			G6.767	Surface Area of Prisms 1-6		
			G6.849	Surface Area of Compound Prisms 1-2		
			G6.877	Volumes of Prisms		
			G6.890	Compound Volumes		
			G6.904	Volume of Rectangular Prisms 3-4		
			G6.932	Concepts: Surface Area of Cylinders		
			G6.945	Surface Area of Cylinders		
G7.766	Computing Volumes	7P				
✓	0606.4.17	Use manipulatives to discover the volume of a pyramid is one-third the volume of the related prism (the heights and base areas are equal).	G7.750	Volumes of Prisms and Pyramids	7P	
✓	0606.4.18	Use manipulatives to discover the volume of a cone is one-third the volume of the related cylinder (the heights and base areas are equal).	G6.644	Volume of Cylinders and Prisms 1-2	P	
			G6.671	Volume of a Cylinder 1-3		
			G7.656	Volume of a Right Circular Cylinder	7P	
			G7.672	Volume of a Right Circular Cone 1		

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**Correlation of the EPGY K-7 Mathematics Course and the Tennessee Mathematics Standards - DRAFT VERSION August, 2009**

**Grade 6 - Standard 5: Data/Probability/Statistics**

Check/ SPI	Reference	Description	Concept ID	Concept Title	Coverage Code	Notes
<b>GLE 0606.5.1 Understand the meaning of probability and how it is expressed.</b>						
SPI	0606.5.1	Determine the theoretical probability of simple and compound events in familiar contexts.	S5.578	Probability of Events 1-11	5P	
✓	0606.5.1	Understand that the probability of an event is a number between zero and one that expresses the likelihood of its occurrence.	S5.062	Spinner Probabilities 1-2	5P	
✓	0606.5.2	Identify the probability of an event as the ratio of the number of its actual occurrences to the total number of its possible occurrences.	S5.578	Probability of Events 4-11	5P	
✓	0606.5.3	Express probabilities in different ways.	S6.034	Unions, Intersections, & Probabilities 1-4	F	
			S6.102	Intersections & Probabilities 1-2		
			S6.127	Unions & Probabilities 1-4		
✓	0606.5.4	Understand the difference between probability and odds.	N/A	Not Covered	NC	
✓	0606.5.5	Analyze a situation that involves probability of an independent event.	S6.254	Independent vs. Dependent Events 1-4	P	
✓	0606.5.6	Estimate the probability of simple and compound events through experimentation or simulation.	S5.578	Probability of Events 1-11	5P	
✓	0606.5.7	Apply procedures to calculate the probability of complimentary events.	S5.578	Probability of Events 6-11	5P	
<b>GLE 0606.5.2 Interpret representations of data from surveys and polls, and describe sample bias and how data representations can be misleading.</b>						
SPI	0606.5.2	Identify features of graphs that may be misleading.	S6.983	Graphs that Bias Conclusions	P	
SPI	0606.5.3	Determine whether or not a sample is biased.	S7.370	Finding Unbiased Samples	7P	
			S6.864	Representative Samples 1-2	P	
			S6.949	Interviews that Bias Results 1-2		
✓	0606.5.8	Connect data sets and their graphical representations (such as bar graphs, circle, graphs, and stem and leaf plots.	S6.983	Graphs that Bias Conclusions	P	
✓	0606.5.9	Determine the sample space for a given situation.	S6.814	When to Use a Sample 1-2	P	
✓	0606.5.10	Distinguish between a random and nonrandom sample.	S6.864	Representative Samples 1-9	P	
✓	0606.5.11	Select the appropriate measure of center to describe a data set.	S6.729	Measures of Central Tendency 3	P	
✓	0606.5.12	Predict the characteristics of a population based on the analysis of sample data.	S6.881	Representative Samples 3-9	P	

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**Correlation of the EPGY K-7 Mathematics Course and the Tennessee Mathematics Standards - DRAFT VERSION August, 2009**

Grade 7 - Standard 1: Mathematical Processes						
Check/ SPI	Reference	Description	Concept ID	Concept Title	Coverage Code	Notes
<b>GLE 0706.1.1 Use mathematical language, symbols, and definitions while developing mathematical reasoning.</b>						
✓	0706.1.1	Recognize common abbreviations (such as gcd/gcf and lcm).	F5.320	Least Common Denominator 1-5	5P	
			A6.577	Greatest Common Factor 1-2	6P	
			A6.779	Least Common Multiple 1-2		
			A7.040	Greatest Common Factor (GCF) 1-4	P	
			A7.280	Computing Least Common Multiple 1		
<b>GLE 0706.1.2 Apply and adapt a variety of appropriate strategies to problem solving, including estimation, and reasonableness of the solution.</b>						
✓	0706.1.2	Recognize round-off error and the inaccuracies it introduces.	N/A	Not Covered	NC	
✓	0706.1.3	Check answers both by estimation and by appropriate independent calculations, using calculators or computers judiciously.	A5.946	Checking Division 1-2	5P	
			M7.228	Estimating Products 1	P	
			M7.293	Estimating Quotients 1		
<b>GLE 0706.1.3 Develop independent reasoning to communicate mathematical ideas and derive algorithms and/or formulas.</b>						
<i>No SPIs or Checks Associated with this Grade Level Expectation.</i>						
<b>GLE 0706.1.4 Move flexibly between concrete and abstract representations of mathematical ideas in order to solve problems, model mathematical ideas, and communicate solution strategies.</b>						
SPI	0706.1.2	Generalize a variety of patterns to a symbolic rule from tables, graphs, or words.	M7.789	Functions 1-4	P	
<b>GLE 0706.1.5 Use mathematical ideas and processes in different settings to formulate patterns, analyze graphs, set up and solve problems and interpret solutions.</b>						
SPI	0706.1.1	Use proportional reasoning to solve mixture/concentration problems.	N/A	Not Covered	NC	
SPI	0706.1.3	Recognize whether information given in a table, graph, or formula suggests a directly proportional, linear, inversely proportional, or other nonlinear relationship.	M7.789	Functions 1-4	P	
			M7.821	Kinds of Functions 1-8		
SPI	0706.1.4	Use scales to read maps.	F7.939	Applications: Equivalent Ratios 1	P	
✓	0706.1.4	Recognize quantities that are inversely proportional (such as the relationship between the lengths of the base and the side of a rectangle with fixed area).	M6.664	Solving Equations of Form $ay = b$ 1-6	6P	
			F7.371	Applications: Ratios 1	F	
			F7.968	Direct Variation 1-6		
			F7.986	Direct & Inverse Variation 1-3		
✓	0706.1.5	Understand that a linear function in which $f(0) = 0$ is called a directly proportional relationship.	M6.540	Recognizing Linear Functions	6P	
			M7.748	Graphing Solutions of Equations 1	F	
			F7.953	Constant Ratios 1		
			F7.986	Direct & Inverse Variation 1-3		

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**Correlation of the EPGY K-7 Mathematics Course and the Tennessee Mathematics Standards - DRAFT VERSION August, 2009**

<b>Grade 7 - Standard 1: Mathematical Processes</b>						
<b>Check/SPI</b>	<b>Reference</b>	<b>Description</b>	<b>Concept ID</b>	<b>Concept Title</b>	<b>Coverage Code</b>	<b>Notes</b>
✓	0706.1.6	Develop meaning of intercept and rate of change in contextual problems.	M7.886	Finding Coordinates of Functions 1-5	P	
✓	0706.1.7	Explain and demonstrate how scale in maps and drawings shows relative size and distance.	G7.000 F7.968	Scale Drawings 1-4 Direct Variation 1-6	P	
✓	0706.1.8	Recognize the applications of scale factor by exploring blueprints, shadow measuring, and scale models.	M7.179	Estimating Height with Shadows 1	P	
<b>GLE 0706.1.6 Read and interpret the language of mathematics and use written/oral communication to express mathematical ideas precisely.</b>						
<b><i>No SPIs or Checks Associated with this Grade Level Expectation.</i></b>						
<b>GLE 0706.1.7 Recognize the historical development of mathematics, mathematics in context, and the connections between mathematics and the real world.</b>						
✓	0706.1.9	Use age-appropriate books, stories, and videos to convey ideas of mathematics.	L7.111 L7.167 L7.389 L7.444 L7.611 L7.667 L7.889	Science Lab 1A Science Lab 1B Science Lab 2A Science Lab 2B Science Lab 3A Science Lab 3B Science Lab 4	F	Stories only
<b>GLE 0706.1.8 Use technologies/manipulatives appropriately to develop understanding of mathematical algorithms, to facilitate problem solving, and to create accurate and reliable models of mathematical concepts.</b>						
✓	0706.1.10	Model algebraic equations with manipulatives, technology, and pencil and paper.	M7.455 M7.634	Equations & English Sentences 1-6 Writing and Solving Equations 1-2	P	Technology only
✓	0706.1.11	Translate from calculator notation to scientific/standard notation.	A6.934 A7.600	Scientific Notation 1-3 Scientific Notation 1-9	6P P	
✓	0706.1.12	Use dynamic geometry software to explore scale factor and similarity.	G7.438 G7.594	Corresponding Parts & Similarity 1-6 Measures of Similar Triangles 1	P	

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**Correlation of the EPGY K-7 Mathematics Course and the Tennessee Mathematics Standards - DRAFT VERSION August, 2009**

Grade 7 - Standard 2: Number and Operations						
Check/ SPI	Reference	Description	Concept ID	Concept Title	Coverage Code	Notes
<b>GLE 0706.2.1 Extend understandings of addition, subtraction, multiplication and division to integers.</b>						
SPI	0706.2.5	Solve contextual problems that involve operations with integers.	A6.028	Applications: Mixed Operations	6F	
			A6.099	Applications: Large Numbers 1-3		
			A6.291	Applications: Exponents 1-2		
✓	0706.2.2	Develop and analyze algorithms and compute efficiently with integers and rational numbers.	A7.320	Multiplying with Exponents 1-3	P	
			A7.420	Dividing with Exponents 1-2		
✓	0706.2.4	Understand that a and $-a$ are additive inverses and are located the same distance from zero on the number line; relate distance from zero to absolute value.	A6.451	Additive Inverse 1-6	6P	
			F7.299	Additive Inverse 1-2	P	
			A7.920	Operations With Absolute Value 1-2		
✓	0706.2.5	Understand that $-(-a) = a$ for any number a.	A6.427	Subtract Positive & Negative Integers 1-3	6P	
			A6.441	Subtract Positive & Negative Numbers		
			F7.245	Absolute Value 1-2	P	
✓	0706.2.6	Use the number line to demonstrate addition and subtraction with integers.	A6.366	Using a Number Line to Add	6F	
			A6.371	Adding Negative Integers		
			A6.427	Subtracting Positive & Negative Integers 1		
<b>GLE 0706.2.2 Understand and work with the properties of and operations on the system of rational numbers.</b>						
SPI	0706.2.1	Simplify numerical expressions involving rational numbers.	F7.223	Rational Numbers 1-6	P	
SPI	0706.2.2	Compare rational numbers using appropriate inequality symbols.	F7.259	Ordering The Rational Numbers 1-5	P	
✓	0706.2.1	Understand that the set of rational numbers includes any number that can be written as a ratio of two integers in which the denominator is not zero.	F7.223	Rational Numbers 1-6	P	
			F7.838	The Real Number System 1-8		
✓	0706.2.2	Develop and analyze algorithms and compute efficiently with integers and rational numbers.	F7.446	Ratio & Percent: Standard Form 1-18	P	
			F7.478	Ratio & Percent, Set Up Steps 1-7		
✓	0706.2.3	Recognize that rational numbers satisfy the commutative and associative laws of addition and multiplication and the distributive law.	F7.291	Laws of Real Numbers 1-2	P	
			F7.838	The Real Number System 1-8		
<b>GLE 0706.2.3 Develop an understanding of and apply proportionality.</b>						
<b><i>No SPIs or Checks Associated with this Grade Level Expectation.</i></b>						
<b>GLE 0706.2.4 Use ratios, rates and percents to solve single- and multi-step problems in various contexts.</b>						
SPI	0706.2.4	Express the ratio between two quantities as a percent, and a percent as a ratio or fraction.	F7.381	Percents as Ratios 1-6	F	
			F7.403	Percents & Ratios In Lowest Terms 1-2		

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Grade 7 - Standard 2: Number and Operations						
Check/SPI	Reference	Description	Concept ID	Concept Title	Coverage Code	Notes
SPI	0706.2.4	Express the ratio between two quantities as a percent, and a percent as a ratio or fraction.	F7.410	Percents as Ratios & Decimals 1-2	F	
			F7.417	Ratio to Percents: Two Methods 1-2		
			F7.493	Solving Equivalent Ratios 1-6		
			F7.446	Ratio & Percent: Standard Form 1-18		
SPI	0706.2.7	Use ratios and proportions to solve problems.	F7.371	Applications: Ratios 1-2	F	
			F7.637	Applications: Ratios & Percents 1-12		
			F7.939	Applications: Equivalent Ratios 1-4		
			F7.342	Proportions 1-6		
			F7.953	Constant Ratios 1-4		
✓	0706.2.7	Write number sentences to solve contextual problems involving ratio and percent.	F7.446	Ratio & Percent: Standard Form 1-6	P	
			F7.500	Setting Up Ratios and Percent 1-4		
✓	0706.2.8	Apply ratios, rates, proportions and percents (such as discounts, interest, taxes, tips, distance/rate/time, and percent increase or decrease).	F7.687	Applications: Discounts 1-2	F	
			F7.719	Applications: Commissions		
			F7.701	Applications: Interest, Partial Year		
			F7.723	Applications: Payment Plans 1-3		
			F7.712	Applications: Interest 1-2		
<b>GLE 0706.2.5 Understand and work with squares, cubes, square roots and cube roots.</b>						
SPI	0706.2.3	Use rational numbers and roots of perfect squares/cubes to solve contextual problems.	F7.216	Perfect Squares & Square Roots 1-2	P	
			F7.881	Area & Square Roots 1-2		
SPI	0706.2.4	Determine the approximate location of square/cube roots on a number line.	F7.201	Square Roots 1-4	P	Some Teacher Direction
			F7.888	Approximating Square Roots 1-4		
✓	0706.2.9	Efficiently compare and order rational numbers and roots of perfect squares/cubes; determine their approximate locations on a number line.	F7.259	Ordering The Rational Numbers 1-5	P	
			F7.888	Approximating Square Roots 1-4		
✓	0706.2.10	Recognize that when a whole number is not a perfect square, then its square root is not rational and cannot be written as the ratio of two integers.	F7.216	Perfect Squares & Square Roots 1-2	P	
✓	0706.2.11	Estimate square/cube roots and use calculators to find approximations.	F7.888	Approximating Square Roots 1-4	P	
✓	0706.2.12	Recognize $\sqrt{mn} = \sqrt{m} \cdot \sqrt{n}$ and $(\sqrt{m})^2 = m$ .	F7.194	Square of a Number 1-2	P	
			F7.201	Square Roots 1-4		
<b>GLE 0706.2.6 Introduce the concept of negative exponents.</b>						
✓	0706.2.13	Use the meaning of negative exponents to represent small numbers; translate between scientific and standard notation.	A7.440	Integral & Zero Exponents 1-2	F	
			A7.520	Expanded Notation 1-4		
			A7.600	Scientific Notation 1-10		

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Grade 7 - Standard 2: Number and Operations						
Check/ SPI	Reference	Description	Concept ID	Concept Title	Coverage Code	Notes
<b>GLE 0706.2.7 Understand and use scientific notation.</b>						
✓	0706.2.14	Express numbers in scientific notation and recognize its importance in representing the magnitude of a number.	A7.600	Scientific Notation 1-10	F	
			A7.800	Multiplication & Scientific Notation 1-4		
			A7.880	Division & Scientific Notation 1-2		
✓	0706.2.15	Report results of calculations appropriately in a given context (i.e. using rules of rounding, degree of accuracy, and/or significant digits).	M7.244	Rounding Decimals 1-6	P	
			F7.165	Rounding 1-2		

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**Correlation of the EPGY K-7 Mathematics Course and the Tennessee Mathematics Standards - DRAFT VERSION August, 2009**

**Grade 7 - Standard 3: Algebra**

Check/ SPI	Reference	Description	Concept ID	Concept Title	Coverage Code	Notes
<b>GLE 0706.3.1 Recognize and generate equivalent forms for simple algebraic expressions.</b>						
SPI	0706.3.1	Evaluate algebraic expressions involving rational values for coefficients and/or variables.	F7.223	Rational Numbers 1-6	F	
			F7.259	Ordering the Rational Numbers 1-5		
			M7.602	Solving Equations 3-5		
✓	0706.3.1	Perform basic operations on linear expressions (including grouping, order of operations, exponents, simplifying and expanding).	M5.186	Simplifying Expressions 1-15	5P	
			A6.141	Expanded Notation 1-5	6P	
			A6.249	Computations with Exponents 1-7	F	
			A7.320	Multiplying with Exponents 1-4		
			A7.360	Multiply & Divide with Exponents 1		
			A7.520	Expanded Notation 1,3		
			M7.569	Simplifying Expressions 1-2		
			M7.602	Solving Equations 1-6		
<b>GLE 0706.3.2 Understand and compare various representations of relations and functions.</b>						
✓	0706.3.7	Translate between verbal and symbolic representations of real-world phenomena involving linear equations.	F7.529	Applications: Find the Percent 3, 5, 7	F	
			F7.579	Applications: Percent of a Number 3, 5		
			F7.608	Applications: What Matches 100%? 1, 3, 7		
			F7.651	Applications: Ratio & Percent 5, 7, 9		
			F7.694	Applications: Interest, 1 Year 1		
			M7.407	Applications: Weight Conversion		
✓	0706.3.2	Represent and analyze mathematical situations using algebraic symbols.	F7.529	Applications: Find the Percent 3, 5, 7	F	
			F7.579	Applications: Percent of a Number 3, 5		
			F7.608	Applications: What Matches 100%? 1, 3, 7		
			F7.651	Applications: Ratio & Percent 5, 7, 9		
			F7.694	Applications: Interest, 1 Year 1		
			M7.407	Applications: Weight Conversion		
<b>GLE 0706.3.3 Understand the concept of function as a rule that assigns to a given input one and only one number (the output).</b>						
SPI	0706.3.2	Determine whether a relation (represented in various ways) is a function.	M7.033	Applications: Functions 1-6	P	
			M7.789	Functions 1-4		
SPI	0706.3.3	Given a table of inputs x and outputs f(x), identify the function rule and continue the pattern.	M7.431	Solution Sets 1-3	P	
			M7.821	Kinds of Functions 1-8		
✓	0706.3.3	Identify a function from a written description, table, graph, rule, set of ordered pairs, and/or mapping.	M5.842	Recognizing Functions 1-3	5P	
			M5.744	Concepts: Functions 1-10		
			M7.715	Points on a Coordinate Plane 1	F	
			M7.805	Functions 3		
			M7.821	Kinds of Functions 1, 3, 5, 7		

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**Correlation of the EPGY K-7 Mathematics Course and the Tennessee Mathematics Standards - DRAFT VERSION August, 2009**

Grade 7 - Standard 3: Algebra						
Check/ SPI	Reference	Description	Concept ID	Concept Title	Coverage Code	Notes
✓	0706.3.4	Make tables of inputs $x$ and outputs $f(x)$ for a variety of rules that include rational numbers (including negative numbers) as inputs.	M7.821	Kinds of Functions 1	P	
<b>GLE 0706.3.4 Use function notation where <math>f(x)</math> represents the output that the function <math>f</math> assigns to the input <math>x</math>.</b>						
✓	0706.3.5	Plot points to represent tables of linear function values.	M7.748	Graphing Solutions of Equations 1	P	
			M7.976	Graphing to Solve Equations 1		
✓	0706.3.6	Understand that the graph of a linear function $f$ is the set of points on a line representing the ordered pairs $(x, f(x))$ .	M7.748	Graphing Solutions of Equations 1	P	
			M7.976	Graphing to Solve Equations 1		
<b>GLE 0706.3.5 Understand and graph proportional relationships.</b>						
SPI	0706.3.5	Represent proportional relationships with equations, tables and graphs.	F7.968	Direct Variation 1-6	P	
✓	0706.3.7	Distinguish proportional relationships ( $y/x = k$ , or $y = kx$ ) from other relationships, including inverse proportionality ( $xy = k$ , or $y = k/x$ ).	F7.986	Direct & Inverse Variation 1-4	P	
<b>GLE 0706.3.6 Conceptualize the meanings of slope using various interpretations, representations, and contexts.</b>						
SPI	0706.3.4	Interpret the slope of a line as a unit rate given the graph of a proportional relationship.	N/A	Not Covered	NC	
✓	0706.3.8	Understand slope as the ratio of vertical change to horizontal change.	N/A	Not Covered	NC	
✓	0706.3.9	Identify a function exhibiting a constant rate of change as a linear function and identify the slope as a unit rate.	M6.540	Recognizing Constant Functions	6P	
✓	0706.3.10	Solve problems involving unit rates (e.g., miles per hour, words per minute).	F7.971	Direct Variation 2	P	
✓	0706.3.12	Use linear equations to solve problems and interpret the meaning of slope, $m$ , and the $y$ -intercept, $b$ , in $f(x) = mx + b$ in terms of the context.	N/A	Not Covered	NC	
✓	0706.3.13	Given a graph that exhibits the intersection of a line and the $y$ -axis, write a linear function in slope-intercept form: $y = mx + b$ .	N/A	Not Covered	NC	
<b>GLE 0706.3.7 Use mathematical models involving linear equations to analyze real-world phenomena.</b>						
SPI	0706.3.7	Translate between verbal and symbolic representations of real-world phenomena	F7.529	Applications: Find the Percent 3, 5, 7	F	
			F7.579	Applications: Percent of a Number 3, 5		

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Grade 7 - Standard 3: Algebra						
Check/ SPI	Reference	Description	Concept ID	Concept Title	Coverage Code	Notes
		involving linear equations.	F7.608	Applications: What Matches 100%? 1,3,7		
SPI	0706.3.7	Translate between verbal and symbolic representations of real-world phenomena involving linear equations.	F7.651	Applications: Ratio & Percent 5,7,9	F	
			F7.694	Applications: Interest, 1 Year 1		
			M7.407	Applications: Weight Conversion		
✓	0706.3.11	Relate the features of a linear equation to a table and/or graph of the equation.	M7.049	Graphic Properties of Equations 1,3,5	F	
			M7.748	Graphing Solutions of Equations 1		
			M7.976	Graphing to Solve Equations 1-3		
<b>GLE 0706.3.8 Use a variety of strategies to efficiently solve linear equations and inequalities.</b>						
SPI	0706.3.6	Solve linear equations with rational coefficients symbolically or graphically.	M7.748	Graphing Solutions of Equations 1	P	
			M7.976	Graphing to Solve Equations 1		
SPI	0706.3.8	Solve contextual problems involving two-step	M7.033	Applications: Functions 1, 3, 5	P	
SPI	0706.3.9	Solve linear inequalities in one variable with rational coefficients symbolically or graphically.	M7.098	Satisfying Inequalities 4	P	
✓	0706.3.14	Understand that when solving linear inequalities, multiplication or division by a negative reverses the inequality symbol.	M7.114	Satisfying Inequalities 3	P	

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**Correlation of the EPGY K-7 Mathematics Course and the Tennessee Mathematics Standards - DRAFT VERSION August, 2009**

Grade 7 - Standard 4: Geometry and Measurement						
Check/ SPI	Reference	Description	Concept ID	Concept Title	Coverage Code	Notes
<b>GLE 0706.4.1 Understand the application of proportionality with similar triangles.</b>						
SPI	0706.4.1	Solve contextual problems involving similar triangles.	G7.500	Angle Test for Similar Triangles 1	P	
SPI	0706.4.2	Use SSS, SAS, and AA to determine if two triangles are similar.	G7.562	Side Test for Similar Triangles	P	
			G7.578	Testing for Similarity		
✓	0706.4.2	Use similar triangles and proportionality to find the lengths of unknown line segments in a triangle.	G7.281	Pythagorean Theorem 1	F	
			G7.375	Using Similarity to Compute		
			G7.391	Applications: Pythagorean Theorem 5-6		
			G7.438	Corresponding Parts and Similarity 1-3		
✓	0706.4.4	Compare angles, side lengths, perimeters and areas of similar shapes.	G7.297	Pythagorean Theorem 2	F	
			G7.312	Applications: Pythagorean Theorem 1-4		
			G7.375	Using Similarity to Compute		
<b>GLE 0706.4.2 Apply proportionality to converting among different units of measurements to solve problems involving rates such as motion at a constant speed.</b>						
✓	0706.4.5	Solve problems using ratio quantities: velocity (measured in units such as miles per hour), density (measured in units such as kilograms per liter), pressure (measured in units such as pounds per square foot), and population density (measured in units such as persons per square mile).	M7.033	Applications: Functions 1-2	F	
			M7.374	Measurement Conversions: Weight 1-4		
			M7.407	Applications: Weight Conversions		
			M6.124	Converting Square Measures 1-2	6F	
			M6.265	Converting Dry Measures		
			M6.274	Converting Liquid Measures 1-2		
			M6.381	Converting Grams to Kilograms		
M6.398	Converting Temperatures 1-2					
<b>GLE 0706.4.3 Understand and use scale factor to describe the relationships between length, area, and volume.</b>						
SPI	0706.4.3	Apply scale factor to solve problems involving area and volume.	G7.000	Scale Drawings 1-4	P	Introduction to scale drawings
✓	0706.4.3	Understand that if a scale factor describes how corresponding lengths in two similar objects are related, then the square of the scale factor describes how corresponding areas are related, and the cube of the scale factor describes how corresponding volumes are related.	G7.000	Scale Drawing 1-4	F	
			G7.219	Proportion in Similar Figures		
			G7.234	Proportion in Similar Rectangles 1-3		

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**Grade 7 - Standard 4: Geometry and Measurement**

<b>Check/ SPI</b>	<b>Reference</b>	<b>Description</b>	<b>Concept ID</b>	<b>Concept Title</b>	<b>Coverage Code</b>	<b>Notes</b>
<b>GLE 0706.4.4 Understand and use ratios, derived quantities, and indirect measurements.</b>						
✓	0706.4.1	Solve problems involving indirect measurement such as finding the height of a building by comparing its shadow with the height and shadow of a known object.	M7.154	Estimation with Falling Objects 1-2	F	
			M7.171	Comparing Times for Objects to Fall		
			M7.179	Estimating Height with Shadows 1-3		
			G7.625	Measures of Similar Triangles 3		

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**Correlation of the EPGY K-7 Mathematics Course and the Tennessee Mathematics Standards - DRAFT VERSION August, 2009**

Grade 7 - Standard 5: Data/Probability/Statistics						
Check/ SPI	Reference	Description	Concept ID	Concept Title	Coverage Code	Notes
<b>GLE 0706.5.1 Collect, organize, and analyze both single- and two-variable data.</b>						
<i>No SPIs or Checks Associated with this Grade Level Expectation.</i>						
<b>GLE 0706.5.2 Select, create, and use appropriate graphical representations of data.</b>						
SPI	0706.5.1	Interpret and employ various graphs and charts to represent data.	N/A	Not Covered	NC	See Grade 4.
SPI	0706.5.2	Select suitable graph types (such as bar graphs, histograms, line graphs, circle graphs, box-and-whisker plots, and stem and leaf plots) and use them to create accurate representations of given data.	S5.453	Constructing Histograms 1-2	5P	Histograms only
✓	0706.5.1	Create and interpret box-and-whisker plots and stem-and-leaf plots.	N/A	Teacher Directed	TD	
✓	0706.5.2	Interpret and solve problems using information presented in various visual forms.	S5.297	Circle Graphs 1-12	5P	
			S5.515	Interpreting Histograms 1-7		
			S6.576	Interpreting Histograms 1-2	6P	
			S6.746	Circle Graphs 1-4		
			S7.556	Data Set Displays 1-2	F	
			S7.630	Comparing Data Sets 1-2		
S7.704	Scatter Plots					
✓	0706.5.5	Apply percentages to make and interpret histograms and circle graphs.	S5.375	Circle Graphs 4-8	5P	Circle graphs only
<b>GLE 0706.5.3 Formulate questions and design studies to collect data about a characteristic shared by two populations, or different characteristics within one population.</b>						
✓	0706.5.3	Predict and compare the characteristics of two populations based on the analysis of sample data.	S7.630	Comparing Data Sets 1-2	P	
✓	0706.5.4	Use proportional reasoning to make predictions about results of experiments and simulations.	S6.203	Impossible Events 1-4	6F	
			S6.271	Independent vs. Dependent Events 1-4		
			S6.610	Collecting and Representing Data 1-4		
✓	0706.5.5	Evaluate the design of an experiment.	N/A	Teacher Directed	TD	
<b>GLE 0706.5.4 Use descriptive statistics to summarize and compare data.</b>						
SPI	0706.5.3	Calculate and interpret the mean, median, upper-quartile, lower-quartile, and interquartile range of a set of data.	S7.741	Medians & Upper and Lower Quartiles	P	

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**Correlation of the EPGY K-7 Mathematics Course and the Tennessee Mathematics Standards - DRAFT VERSION August, 2009**

Grade 7 - Standard 5: Data/Probability/Statistics						
Check/ SPI	Reference	Description	Concept ID	Concept Title	Coverage Code	Notes
<b>GLE 0706.5.5 Understand and apply basic concepts of probability.</b>						
SPI	0706.5.4	Use theoretical probability to make predictions.	S5.578	Probability of Events 1-11	5P	
✓	0706.5.6	Use a tree diagram or organized list to determine all possible outcomes of a simple probability experiment.	S7.407	Probability Review 1-4	P	

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**Correlation of the EPGY K-7 Mathematics Course and the Tennessee Mathematics Standards - DRAFT VERSION August, 2009**

Grade 8 - Standard 1: Mathematical Processes						
Check/ SPI	Reference	Description	Concept ID	Concept Title	Coverage Code	Notes
<b>GLE 0806.1.1 Use mathematical language, symbols, and definitions while developing mathematical reasoning.</b>						
<i>No SPIs or Checks Associated with this Grade Level Expectation.</i>						
<b>GLE 0806.1.2 Apply and adapt a variety of appropriate strategies to problem solving, including estimation, and reasonableness of the solution.</b>						
✓	0806.1.8	Use a variety of methods to solve real-world problems involving multi-step linear equations (e.g., manipulatives, technology, pencil and paper).	M7.154	Estimation with Falling Objects 1-2	7F	Technology Only
			M7.179	Estimating Height with Shadows 1-3		
			M7.203	Estimating Distances to the Stars 1-2		
			M7.634	Writing and Solving Equations 1		
			M7.976	Graphing to Solve Equations 3		
<b>GLE 0806.1.3 Develop independent reasoning to communicate mathematical ideas and derive algorithms and/or formulas.</b>						
<i>No SPIs or Checks Associated with this Grade Level Expectation.</i>						
<b>GLE 0806.1.4 Move flexibly between concrete and abstract representations of mathematical ideas in order to solve problems, model mathematical ideas, and communicate solution strategies.</b>						
<i>No SPIs or Checks Associated with this Grade Level Expectation.</i>						
<b>GLE 0806.1.5 Use mathematical ideas and processes in different settings to formulate patterns, analyze graphs, set up and solve problems and interpret solutions.</b>						
SPI	0806.1.2	Interpret a qualitative graph representing a contextual situation.	N/A	Not Covered	NC	
✓	0806.1.1	Relate nonlinear functions to geometric contexts of length, area, and volume.	M5.872	Functions and Graphs 1-2	5P	6F
			G6.164	Area of a Circle 1-6		
			G6.616	Volume of Rectangular Prisms 1-4		
			G6.644	Volume of Cylinders & Prisms 1-2		
			G6.671	Volume of a Cylinder 1-3		
			G6.877	Volumes of Prisms		
			M6.106	Computing Area 1-2		
			M6.221	Computing Volume 1-6		
			M6.531	Recognizing Linear Functions		
			M6.664	Solving Equations of Form $ay = b$ 1-6		
M6.752	Solving Equations of Form $ay+b=c$ 1-6					
✓	0806.1.2	Draw qualitative graphs (trend graphs) of functions and describe their general shape/trend.	N/A	Teacher Directed	TD	
<b>GLE 0806.1.6 Read and interpret the language of mathematics and use written/oral communication to express mathematical ideas precisely.</b>						
<i>No SPIs or Checks Associated with this Grade Level Expectation.</i>						

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Grade 8 - Standard 1: Mathematical Processes						
Check/SPI	Reference	Description	Concept ID	Concept Title	Coverage Code	Notes
<b>GLE 0806.1.7 Recognize the historical development of mathematics, mathematics in context, and them connections between mathematics and the real world.</b>						
✓	0806.1.3	Research the contributions of Pythagoras to mathematics.	G7.281	Pythagorean Theorem 1-2	7P	
			G7.312	Applications: Pythagorean Theorem 1-7		
✓	0806.1.4	Relate data concepts to relevant concepts in the earth and space, life, and physical sciences.	G7.312	Applications: Pythagorean Theorem 1-7	7F	
			M7.179	Estimating Height with Shadows 1-3		
			M7.154	Estimation with Falling Objects 1-2		
			M7.033	Applications: Functions 1-6		
			M7.203	Estimating Distances to the Stars 1-2		
✓	0806.1.5	Use age-appropriate books, stories, and videos to convey ideas of mathematics.	L7.111	Science Lab 1A	7F	Stories only
			L7.167	Science Lab 1B		
			L7.389	Science Lab 2A		
			L7.444	Science Lab 2B		
			L7.611	Science Lab 3A		
			L7.667	Science Lab 3B		
			L7.889	Science Lab 4		
<b>GLE 0806.1.8 Use technologies/manipulatives appropriately to develop understanding of mathematical algorithms, to facilitate problem solving, and to create accurate and reliable models of mathematical concepts.</b>						
SPI	0806.1.1	Solve problems involving rate/time/distance (i.e., $d = rt$ ).	M7.033	Applications: Functions 1-2	7F	
			F7.371	Applications: Ratios 1-2		
			F7.939	Applications: Equivalent Ratios 1		
			F7.968	Direct Variation 1-6		
			F7.986	Direct & Inverse Variation 1-3		
SPI	0806.1.3	Calculates rates involving cost per unit to determine the best buy	F7.363	Rates & Ratios 1-2	7F	
			F7.371	Applications: Ratios 1-2		
			F7.968	Direct Variation 1		
✓	0806.1.6	Use models (such as dynamic geometry software, patty paper and geo boards) to explore relationships among angles (complementary, supplementary, interior, exterior, vertical, and corresponding).	G6.959	Bisecting Angles	6P	
			M7.122	Kinds of Angles 1-4	7F	
			G7.438	Corresponding Parts & Similarity 1-5		
			G7.500	Angle Test for Similar Triangles 1		
✓	0806.1.7	Use a graphing calculator or spreadsheet to create scatterplots of data and approximate lines of best fit.	N/A	Teacher Directed	TD	

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Grade 8 - Standard 1: Mathematical Processes						
Check/ SPI	Reference	Description	Concept ID	Concept Title	Coverage Code	Notes
✓	0806.1.8	Use a variety of methods to solve real-world problems involving multi-step linear equations (e.g., manipulatives, technology, pencil and paper).	N/A	See above <b>GLE 0806.1.8.</b>	See above.	

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**Correlation of the EPGY K-7 Mathematics Course and the Tennessee Mathematics Standards - DRAFT VERSION August, 2009**

Grade 8 - Standard 2: Number and Operations						
Check/ SPI	Reference	Description	Concept ID	Concept Title	Coverage Code	Notes
<b>GLE 0806.2.1 Extend understanding of the real number system to include irrational numbers.</b>						
SPI	0806.2.1	Order and compare rational and irrational numbers and locate on the number line.	F7.824	Irrational Numbers 1-4	7P	
			F7.259	Ordering The Rational Numbers 1-5		
SPI	0806.2.2	Identify numbers and square roots as rational or irrational.	F7.824	Irrational Numbers 1-4	7P	
			F7.871	The Real Number System 6		
✓	0806.2.2	Square numbers and simplify square roots.	F7.194	Square a Number 1-2	7P	
			F7.201	Square Roots 1-4		
✓	0806.2.4	Use a Venn diagram to represent the subsets of the real number system.	N/A	Not Covered	NC	
✓	0806.2.5	Identify the subset(s) of the real number system to which a number belongs.	F7.838	The Real Number System 1-8	7P	
<b>GLE 0806.2.2 Solve problems involving exponents and scientific notation using technology appropriately.</b>						
SPI	0806.2.3	Use scientific notation to compute products and quotients.	A7.800	Multiplication & Scientific Notation 1-4	7P	
			A7.880	Division & Scientific Notation 1-2		
SPI	0806.2.4	Solve real-world problems requiring scientific notation.	N/A	Not Covered	NC	
✓	0806.2.1	Recognize and use exponential, scientific, and calculator notation.	A7.520	Expanded Notation 1-4	7P	
			A7.600	Scientific Notation 1-10		
✓	0806.2.7	Add, subtract, multiply, and divide numbers expressed scientific notation.	A7.600	Scientific Notation 1-10	7F	
			A7.800	Multiplication & Scientific Notation 1-4		
			A7.880	Division & Scientific Notation 1-2		
<b>GLE 0806.2.3 Solve real-world problems using rational and irrational numbers.</b>						
✓	0806.2.3	Solve contextual problems involving powers and roots.	F7.216	Perfect Squares & Square Roots 1-2	7P	
			F7.881	Area & Square Roots 1-2		
<b>GLE 0806.2.4 Understand and use the laws of exponents.</b>						
✓	0806.2.6	Simplify expressions using the laws of exponents.	A7.320	Multiplying With Exponents 1-4	7F	
			A7.360	Multiply & Divide With Exponents 1-2		
			A7.420	Dividing With Exponents 1-2		
			A7.440	Integral & Zero Exponents 1-2		

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**Correlation of the EPGY K-7 Mathematics Course and the Tennessee Mathematics Standards - DRAFT VERSION August, 2009**

Grade 8 - Standard 3: Algebra						
Check/ SPI	Reference	Description	Concept ID	Concept Title	Coverage Code	Notes
<b>GLE 0806.3.1 Recognize and generate equivalent forms for algebraic expressions.</b>						
✓	0806.3.1	Perform basic operations on algebraic expressions (including grouping, order of operations, exponents, square/cube roots, simplifying and expanding).	A7.320	Multiplying with Exponents 1, 3-4	7F	
			A7.360	Multiply & Divide with Exponents 1		
			A7.520	Expanded Notation 1-4		
			F7.201	Square Roots 1-3		
			F7.888	Approximating Square Roots 1, 3		
M7.569	Simplifying Expressions 1					
<b>GLE 0806.3.2 Represent, analyze, and solve problems involving linear equations and inequalities in one and two variables.</b>						
✓	0806.3.2	Solve the linear equation $f(x) = g(x)$ .	N/A	Not Covered	NC	
✓	0806.3.3	Solve and graph linear inequalities in two variables.	M6.416	Graphing Inequalities 1-2	6P	
✓	0806.3.2	Represent algebraic relationships with equations and inequalities.	F7.079	Decimal Inequalities 1	7F	
			F7.853	Equations & Natural Numbers 1		
			F7.860	Equations & Integers		
			F7.863	Equations and Real Numbers		
			M7.504	Equivalent Equations 1, 3, 5, 7		
M7.650	Inequalities and English Sentences 1					
✓	0806.3.4	Understand the relationship between the graph of a linear inequality and its solutions.	M6.416	Graphing Inequalities 1-2	6F	
			M6.434	Satisfying Inequalities 1-5		
			M6.460	Rules and Solutions for Inequalities 1-2		
✓	0806.3.5	Solve linear inequalities in two variables (including those whose solutions require multiplication or division by a negative number).	M6.460	Rules and Solutions for Inequalities 1-2	6P	
			M6.434	Satisfying Inequalities 1-5		
✓	0806.3.13	Represent situations and solve real-world problems using symbolic algebra.	M7.407	Applications: Weight Conversion	7F	
			G7.922	Applications: Surface Area & Volume		
			F7.694	Applications: Interest, 1 Year 1		
			F7.637	Applications: Ratio & Percent 1, 3, 5, 7,9		
<b>GLE 0806.3.3 Solve systems of linear equations in two variables.</b>						
✓	0806.3.1	Find solutions to systems of two linear equations in two variables.	N/A	Not Covered	NC	
✓	0806.3.3	Solve systems of linear equations in two variables and relate the systems to pairs of lines that intersect, are parallel, or are the same line.	M7.976	Graphing to Solve Equations 1-3	7P	

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**Correlation of the EPGY K-7 Mathematics Course and the Tennessee Mathematics Standards - DRAFT VERSION August, 2009**

Grade 8 - Standard 3: Algebra						
Check/ SPI	Reference	Description	Concept ID	Concept Title	Coverage Code	Notes
<b>GLE 0806.3.4 Translate among verbal, tabular, graphical and algebraic representations of linear functions.</b>						
SPI	0806.3.4	Translate between various representations of a linear function.	M7.927	Applications: Functions 3, 5	7P	
SPI	0806.3.6	Analyze the graph of a linear function to find solutions and intercepts.	M7.748	Graphing Solutions of Equations 1	7P	
			M7.976	Graphing to Solve Equations 1-3		
✓	0806.3.6	Identify x- and y-intercepts and slope of linear equations from an equation, graph or table.	M7.049	Graphic Properties of Equations 1-6	7P	
✓	0806.3.9	Given a function rule, create tables of values for x and y, and plot graphs of nonlinear functions.	M7.748	Graphing Solutions of Equations 1-2	7P	
<b>GLE 0806.3.5 Use slope to analyze situations and solve problems.</b>						
SPI	0806.3.5	Determine the slope of a line from an equation, two given points, a table or a graph.	N/A	Not Covered	NC	
✓	0806.3.7	Analyze situations and solve problems involving constant rate of change.	N/A	Not Covered	NC	
✓	0806.3.8	Recognize a proportion as a special case of a linear equation and understand that the constant of proportionality is the slope, and the resulting graph is a line through the origin.	N/A	Not Covered	NC	
<b>GLE 0806.3.6 Compare and contrast linear and nonlinear functions.</b>						
SPI	0806.3.7	Identify, compare and contrast functions as linear or nonlinear.	M6.531	Recognizing Linear Functions	6P	Identify Only
			M6.973	Kinds of Linear Functions 1		
✓	0806.3.10	Distinguish quadratic and exponential functions as nonlinear using a graph and/or a table of values.	N/A	Not Covered	NC	
✓	0806.3.11	Distinguish between the equations of linear, quadratic, and exponential functions (e.g. function families such as $y=x^2$ , $y=2x$ , and $y=2x$ ).	M7.886	Finding Coordinates of Functions 1-5	P	No distinctions
✓	0806.3.12	Understand how rates of change of nonlinear functions contrast with constant rates of change of linear functions.	N/A	Not Covered	NC	

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**Correlation of the EPGY K-7 Mathematics Course and the Tennessee Mathematics Standards - DRAFT VERSION August, 2009**

**Grade 8 - Standard 4: Geometry and Measurement**

Check/ SPI	Reference	Description	Concept ID	Concept Title	Coverage Code	Notes
<b>GLE 0806.4.1 Derive the Pythagorean theorem and understand its applications.</b>						
SPI	0806.4.1	Use the Pythagorean Theorem to solve contextual problems.	G7.281	Pythagorean Theorem 1-2	7P	
			G7.312	Applications: Pythagorean Theorem 1-7		
SPI	0806.4.2	Apply the Pythagorean theorem to find distances between points in the coordinate plane to measure lengths and analyze polygons and polyhedra.	G7.281	Pythagorean Theorem 1-2	7P	
			G7.312	Applications: Pythagorean Theorem 1-7		
✓	0806.4.1	Model the Pythagorean Theorem.	G7.281	Pythagorean Theorem 1-2	7P	
			G7.312	Applications: Pythagorean Theorem 1-7		
✓	0806.4.2	Use the converse of the Pythagorean Theorem to determine if a triangle is a right triangle.	G7.281	Pythagorean Theorem 1-2	7P	
			G7.312	Applications: Pythagorean Theorem 1-7		
<b>GLE 0806.4.2 Understand the relationships among the angles formed by parallel lines cut by transversals.</b>						
SPI	0806.4.3	Find measures of the angles formed by parallel lines cut by a transversal.	G6.260	Recognizing: Parallel Lines	6P	
			G6.274	Parallelograms		
✓	0806.4.5	Analyze the congruent and supplementary relationships of angles formed by parallel lines and transversals (such as alternate interior, alternate exterior, corresponding, and adjacent).	G6.192	Congruence 1	6F	
			G6.205	Congruent Triangles		
			G6.370	Properties of Parallelograms 1-3		
<b>GLE 0806.4.3 Understand the necessary levels of accuracy and precision in measurement.</b>						
✓	0806.4.3	Select or use the appropriate measurement instrument to determine or create a given length, area, volume, angle, weight, or mass.	M6.106	Computing Area 1-2	6F	
			M6.159	Applications: Area		
			M6.168	Concepts: Volume 1-6		
			M6.221	Computing Volume 1-2		
			M6.239	Applications: Computing Volume	7F	
			M6.327	Computing Area 1-3		
			M7.309	Measurement Conversions: Length 1-6		
			M7.374	Measurement Conversions: Weight 1-4		
M7.407	Applications: Weight Conversions					
✓	0806.4.4	Understand how the precision of measurement influences accuracy of quantities derived from the measurements.	M6.142	Applications: Using Measures 1-3	6F	
			M6.327	Computing Area 1-3		
			M6.354	Comparing Measures 1-2		
			M7.358	Comparing Systems of Measurement 1-2	7P	
			M7.927	Applications: Functions 3-4		

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Grade 8 - Standard 4: Geometry and Measurement						
Check/ SPI	Reference	Description	Concept ID	Concept Title	Coverage Code	Notes
<b>GLE 0806.4.4 Understand both metric and customary units of measurement.</b>						
SPI	0806.4.4	Convert between and within the U.S. Customary System and the metric system.	M6.124	Converting Square Measures 1-2	6F	
			M6.248	Converting Cubic Measures 1-2		
			M6.265	Converting Dry Measures		
			M6.274	Converting Liquid Measures 1-2		
			M6.381	Converting Grams to Kilograms		
			M6.389	Converting Kilograms to Pounds		
			M7.309	Measurement Conversions: Length 1-6	7F	
			M7.374	Measurement Conversions: Weight 1-4		
M7.407	Applications: Weight Conversions					
✓	0806.4.6	Make within-system and between-system conversions of derived quantities including distance, temperature, and money.	M6.389	Converting Temperatures 1-2	6P	Graphs cover distance
			M7.033	Applications: Functions 1-2	7P	
<b>GLE 0806.4.5 Use visualization to describe or identify intersections, cross-sections, and various views of geometric figures.</b>						
SPI	0806.4.5	Identify the intersection of two or more geometric figures in the plane.	N/A	Not Covered	NC	See Grade 5.
✓	0806.4.7	Visualize or describe the cross-section resulting from the intersection of a plane with a 3-dimensional figure.	G7.078	Similar 3-D Figures	7P	
			G7.094	Names of 3-Dimensional Figures 1-2		
✓	0806.4.8	Build, draw, and work with 2- and 3-dimensional figures by means of orthogonal views, projective views, and/or nets.	G6.315	Names of 2-Dimensional Figures 1-4	6P	
			G7.062	Similar 2-D Figures 1-3	7P	

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**Correlation of the EPGY K-7 Mathematics Course and the Tennessee Mathematics Standards - DRAFT VERSION August, 2009**

<b>Grade 8 - Standard 5: Data/Probability/Statistics</b>						
<b>Check/ SPI</b>	<b>Reference</b>	<b>Description</b>	<b>Concept ID</b>	<b>Concept Title</b>	<b>Coverage Code</b>	<b>Notes</b>
<b>GLE 0806.5.1 Explore probabilities for compound, independent and/or dependent events.</b>						
SPI	0806.5.1	Calculate probabilities of events for simple experiments with equally probable outcomes.	N/A	Not Covered	NC	See Grade 5.
SPI	0806.5.2	Use a variety of methods to compute probabilities for compound events (e.g., multiplication, organized lists, tree diagrams, area models).	S6.034	Unions, Intersections, & Probabilities 1-4	6F	
			S6.102	Intersections & Probabilities 1-2		
			S6.136	Unions & Probabilities 1-4		
✓	0806.5.1	Solve simple problems involving probability and relative frequency.	N/A	Not Covered	NC	See Grade 5.
✓	0806.5.2	Compare probabilities of two or more events and recognize when certain events are equally likely.	N/A	Not Covered	NC	See Grade 5.
<b>GLE 0806.5.2 Select, create, and use appropriate graphical representations of data (including scatterplots with lines of best fit) to make and test conjectures.</b>						
SPI	0806.5.3	Generalize the relationship between two sets of data using scatterplots and lines of best fit.	S7.704	Scatter Plots	7P	
✓	0806.5.4	Explain the benefits and the limitations of various representations (i.e., bar graphs, line graphs, circle graphs, histograms, stem-and-leaf plots, box plots, scatterplots) of data.	N/A	Not Covered	NC	
✓	0806.5.5	Create and interpret box-and-whisker plots and scatterplots.	S7.704	Scatter Plots	7P	Scatterplots only
✓	0806.5.6	Use observations about differences between two or more samples to make conjectures about the populations from which the samples were taken.	N/A	Not Covered	NC	
✓	0806.5.7	Estimate lines of best fit to make and test conjectures.	N/A	Not Covered	NC	
<b>GLE 0806.5.3 Evaluate the use of statistics in media reports.</b>						
SPI	0806.5.4	Recognize misrepresentations of published data in the media.	N/A	Not Covered	NC	
✓	0806.5.3	Recognize common misconceptions associated with dependent and independent events.	S6.271	Independent vs. Dependent Events 1-4	6P	Differentiate an independent from dependent event
✓	0806.5.8	Consider the source, design, analysis, and display of data to evaluate statistics reported in the media.	N/A	Not Covered	NC	

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