

Alignment of Texas Pre-Admission Content Test PACT CORE: Grades 4–8 (790) Framework with Texas Essential Knowledge and Skills

This alignment study identifies the Texas Essential Knowledge and Skills that are addressed in whole or in part by each competency of the exam framework. An indication of alignment does not necessarily imply complete congruence of the content of an exam competency with the relevant standard. The information in this document is subject to change if revisions are made to the exam framework. Any changes will fully supersede the information contained in this document.

Competencies		Texas Essential Knowledge and Skills
Field 790: TX PACT: CORE: Grades 4–8		Texas Essential Knowledge and Skills for English Language Arts and Reading
<u>Content Domain I</u>		
READING PROCESS AND COMPREHENSION AND READING IN MULTIPLE SUBJECT AREAS		
001	Understand the foundations of reading development.	<p>Grades 4–5:</p> <p>110.6; 110.7 b 1 Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking—oral language.</p> <p>110.6; 110.7 b 5 Developing and sustaining foundational language skills: listening, speaking, reading, writing, and thinking—self-sustained reading</p> <p>110.6; 110.7 b 6 Comprehension skills: listening, speaking, reading, writing, and thinking using multiple texts.</p> <hr/> <p>Grades 6–8:</p> <p>110.22; 110.23; 110.24 b 1 Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking—oral language.</p> <p>110.22; 110.23; 110.24 b 4 Developing and sustaining foundational language skills: listening, speaking, reading, writing, and thinking—self-sustained reading.</p> <p>110.22; 110.23; 110.24 b 5 Comprehension skills: listening, speaking, reading, writing, and thinking using multiple texts.</p>

Competencies		Texas Essential Knowledge and Skills
Field 790: TX PACT: CORE: Grades 4–8		Texas Essential Knowledge and Skills for English Language Arts and Reading
002	Understand strategies for developing vocabulary knowledge and reading comprehension.	<p>Grades 4–5:</p> <p>110.6; 110.7 b 1 Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking—oral language.</p> <p>110.6; 110.7 b 2 Developing and sustaining foundational language skills: listening, speaking, reading, writing, and thinking—beginning reading and writing.</p> <p>110.6; 110.7 b 3 Developing and sustaining foundational language skills: listening, speaking, reading, writing, and thinking—vocabulary.</p> <p>110.6; 110.7 b 4 Developing and sustaining foundational language skills: listening, speaking, reading, writing, and thinking—fluency.</p> <p>110.6; 110.7 b 6 Comprehension skills: listening, speaking, reading, writing, and thinking using multiple texts.</p> <hr/> <p>Grades 6–8:</p> <p>110.22; 110.23; 110.24 b 1 Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking—oral language.</p> <p>110.22; 110.23; 110.24 b 2 Developing and sustaining foundational language skills: listening, speaking, reading, writing, and thinking—vocabulary.</p> <p>110.22; 110.23; 110.24 b 3 Developing and sustaining foundational language skills: listening, speaking, reading, writing, and thinking—fluency.</p> <p>110.22; 110.23; 110.24 b 5 Comprehension skills: listening, speaking, reading, writing, and thinking using multiple texts.</p>

Competencies		Texas Essential Knowledge and Skills
Field 790: TX PACT: CORE: Grades 4–8		Texas Essential Knowledge and Skills for English Language Arts and Reading
003	Understand strategies for reading in multiple subject areas.	<p>Grades 4–5:</p> <p>110.6; 110.7 b 2 Developing and sustaining foundational language skills: listening, speaking, reading, writing, and thinking—beginning reading and writing.</p> <p>110.6; 110.7 b 3 Developing and sustaining foundational language skills: listening, speaking, reading, writing, and thinking—vocabulary.</p> <p>110.6; 110.7 b 4 Developing and sustaining foundational language skills: listening, speaking, reading, writing, and thinking—fluency.</p> <p>110.6; 110.7 b 6 Comprehension skills: listening, speaking, reading, writing, and thinking using multiple texts.</p> <p>Grades 6–8:</p> <p>110.22; 110.23; 110.24 b 2 Developing and sustaining foundational language skills: listening, speaking, reading, writing, and thinking—vocabulary.</p> <p>110.22; 110.23; 110.24 b 3 Developing and sustaining foundational language skills: listening, speaking, reading, writing, and thinking—fluency.</p> <p>110.22; 110.23; 110.24 b 5 Comprehension skills: listening, speaking, reading, writing, and thinking using multiple texts.</p>
<u>Content Domain II</u>		
READING VARIOUS TEXT FORMS AND ANALYZING AND INTERPRETING LITERATURE		
004	Understand strategies for reading informational texts.	<p>Grades 4–5:</p> <p>110.6; 110.7 b 3 Developing and sustaining foundational language skills: listening, speaking, reading, writing, and thinking—vocabulary.</p> <p>110.6; 110.7 b 4 Developing and sustaining foundational language skills: listening, speaking, reading, writing, and thinking—fluency.</p> <p>110.6; 110.7 b 5 Developing and sustaining foundational language skills: listening, speaking, reading, writing, and thinking—self-sustained reading.</p> <p>110.6; 110.7 b 6 Comprehension skills: listening, speaking, reading, writing, and thinking using multiple texts.</p>

Competencies		Texas Essential Knowledge and Skills
Field 790: TX PACT: CORE: Grades 4–8		Texas Essential Knowledge and Skills for English Language Arts and Reading
		<p>Grades 6–8:</p> <p>110.22; 110.23; 110.24 b 2 Developing and sustaining foundational language skills: listening, speaking, reading, writing, and thinking—vocabulary.</p> <p>110.22; 110.23; 110.24 b 3 Developing and sustaining foundational language skills: listening, speaking, reading, writing, and thinking—fluency.</p> <p>110.22; 110.23; 110.24 b 4 Developing and sustaining foundational language skills: listening, speaking, reading, writing, and thinking—self-sustained reading.</p> <p>110.22; 110.23; 110.24 b 5 Comprehension skills: listening, speaking, reading, writing, and thinking using multiple texts.</p>
005	Understand strategies for reading persuasive texts.	<p>Grades 4–5:</p> <p>110.6; 110.7 b 1 Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking—oral language.</p> <p>110.6; 110.7 b 3 Developing and sustaining foundational language skills: listening, speaking, reading, writing, and thinking—vocabulary.</p> <p>110.6; 110.7 b 4 Developing and sustaining foundational language skills: listening, speaking, reading, writing, and thinking—fluency.</p> <p>110.6; 110.7 b 5 Developing and sustaining foundational language skills: listening, speaking, reading, writing, and thinking—self-sustained reading.</p> <p>110.6; 110.7 b 6 Comprehension skills: listening, speaking, reading, writing, and thinking using multiple texts.</p> <p>110.6; 110.7 b 7 Response skills: listening, speaking, reading, writing, and thinking using multiple texts.</p>

Competencies		Texas Essential Knowledge and Skills
Field 790: TX PACT: CORE: Grades 4–8		Texas Essential Knowledge and Skills for English Language Arts and Reading
		<p>Grades 6–8:</p> <p>110.22; 110.23; 110.24 b 1 Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking—oral language.</p> <p>110.22; 110.23; 110.24 b 2 Developing and sustaining foundational language skills: listening, speaking, reading, writing, and thinking—vocabulary.</p> <p>110.22; 110.23; 110.24 b 3 Developing and sustaining foundational language skills: listening, speaking, reading, writing, and thinking—fluency.</p> <p>110.22; 110.23; 110.24 b 4 Developing and sustaining foundational language skills: listening, speaking, reading, writing, and thinking—self-sustained reading.</p> <p>110.22; 110.23; 110.24 b 5 Comprehension skills: listening, speaking, reading, writing, and thinking using multiple texts.</p> <p>110.22; 110.23; 110.24 b 6 Response skills: listening, speaking, reading, writing, and thinking using multiple texts.</p>
006	Understand strategies for analyzing and interpreting literary texts.	<p>Grades 4–5:</p> <p>110.6; 110.7 b 6 Comprehension skills: listening, speaking, reading, writing, and thinking using multiple texts.</p> <p>110.6; 110.7 b 7 Response skills: listening, speaking, reading, writing, and thinking using multiple texts.</p> <p>110.6; 110.7 b 8 Multiple genres: listening, speaking, reading, writing, and thinking using multiple texts—literary elements.</p> <p>110.6; 110.7 b 9 Multiple genres: listening, speaking, reading, writing, and thinking using multiple texts—genres.</p> <p>110.6; 110.7 b 10 Author's purpose and craft: listening, speaking, reading, writing, and thinking using multiple texts.</p>

Competencies		Texas Essential Knowledge and Skills
Field 790: TX PACT: CORE: Grades 4–8		Texas Essential Knowledge and Skills for English Language Arts and Reading
		<p>Grades 6–8:</p> <p>110.22; 110.23; 110.24 b 5 Comprehension skills: listening, speaking, reading, writing, and thinking using multiple texts.</p> <p>110.22; 110.23; 110.24 b 6 Response skills: listening, speaking, reading, writing, and thinking using multiple texts.</p> <p>110.22; 110.23; 110.24 b 7 Multiple genres: listening, speaking, reading, writing, and thinking using multiple texts—literary elements.</p> <p>110.22; 110.23; 110.24 b 8 Multiple genres: listening, speaking, reading, writing, and thinking using multiple texts—genres.</p> <p>110.22; 110.23; 110.24 b 9 Author's purpose and craft: listening, speaking, reading, writing, and thinking using multiple texts.</p>
007	Understand the major historical, social, cultural, and political aspects of literatures from around the world.	<p>Grades 4–5:</p> <p>110.6; 110.7 b 9 Multiple genres: listening, speaking, reading, writing, and thinking using multiple texts—genres.</p> <p>110.6; 110.7 b 10 Author's purpose and craft: listening, speaking, reading, writing, and thinking using multiple texts.</p> <p>Grades 6–8:</p> <p>110.22; 110.23; 110.24 b 8 Multiple genres: listening, speaking, reading, writing, and thinking using multiple texts—genres.</p> <p>110.22; 110.23; 110.24 b 9 Author's purpose and craft: listening, speaking, reading, writing, and thinking using multiple texts.</p>
<p><u>Content Domain III</u></p> <p>ENGLISH LANGUAGE CONVENTIONS, COMPOSITION, WRITING PROCESS, AND RESEARCH</p>		

Competencies		Texas Essential Knowledge and Skills
Field 790: TX PACT: CORE: Grades 4–8		Texas Essential Knowledge and Skills for English Language Arts and Reading
008	Understand the conventions of Standard American English and the elements of effective composition.	Grades 4–5: 110.6; 110.7 b 11 Composition: listening, speaking, reading, writing, and thinking using multiple texts—writing process. 110.6; 110.7 b 12 Composition: listening, speaking, reading, writing, and thinking using multiple texts—genres.
		Grades 6–8: 110.22; 110.23; 110.24 b 10 Composition: listening, speaking, reading, writing, and thinking using multiple texts—writing process. 110.22; 110.23; 110.24 b 11 Composition: listening, speaking, reading, writing, and thinking using multiple texts—genres.
009	Understand the writing process and the elements of effective and appropriate research.	Grades 4–5: 110.6; 110.7 b 13 Inquiry and research: listening, speaking, reading, writing, and thinking using multiple texts.
		Grades 6–8: 110.22; 110.23; 110.24 b 12 Inquiry and research: listening, speaking, reading, writing, and thinking using multiple texts.
<u>Content Domain IV</u> MODES OF WRITING		
010	Understand strategies for descriptive writing.	Grades 4–5: 110.6; 110.7 b 7 Response skills: listening, speaking, reading, writing, and thinking using multiple texts. 110.6; 110.7 b 10 Author's purpose and craft: listening, speaking, reading, writing, and thinking using multiple texts.

Competencies		Texas Essential Knowledge and Skills
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		<p>Grades 6–8:</p> <p>110.22; 110.23; 110.24 b 6 Response skills: listening, speaking, reading, writing, and thinking using multiple texts.</p> <p>110.22; 110.23; 110.24 b 9 Author's purpose and craft: listening, speaking, reading, writing, and thinking using multiple texts.</p>
011	Understand strategies for expository writing.	<p>Grades 4–5:</p> <p>110.6; 110.7 b 11 Composition: listening, speaking, reading, writing, and thinking using multiple texts—writing process.</p> <p>110.6; 110.7 b 12 Composition: listening, speaking, reading, writing, and thinking using multiple texts—genres.</p>
		<p>Grades 6–8:</p> <p>110.22; 110.23; 110.24 b 10 Composition: listening, speaking, reading, writing, and thinking using multiple texts—writing process.</p> <p>110.22; 110.23; 110.24 b 11 Composition: listening, speaking, reading, writing, and thinking using multiple texts—genres.</p>
012	Understand strategies for persuasive writing.	<p>Grades 4–5:</p> <p>110.6; 110.7 b 11 Composition: listening, speaking, reading, writing, and thinking using multiple texts—writing process.</p> <p>110.6; 110.7 b 12 Composition: listening, speaking, reading, writing, and thinking using multiple texts—genres.</p>
		<p>Grades 6–8:</p> <p>110.22; 110.23; 110.24 b 10 Composition: listening, speaking, reading, writing, and thinking using multiple texts—writing process.</p> <p>110.22; 110.23; 110.24 b 11 Composition: listening, speaking, reading, writing, and thinking using multiple texts—genres.</p>

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Field 790: TX PACT: CORE: Grades 4–8		Texas Essential Knowledge and Skills for English Language Arts and Reading
<u>Content Domain V</u>		
ORAL AND VISUAL COMMUNICATION		
013	Understand strategies for effective listening and speaking and for participating in group discussions.	Grades 4–5: 110.6; 110.7 b 1 Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking—oral language. 110.6; 110.7 b 6 Comprehension skills: listening, speaking, reading, writing, and thinking using multiple texts. 110.6; 110.7 b 7 Response skills: listening, speaking, reading, writing, and thinking using multiple texts.
		Grades 6–8: 110.22; 110.23; 110.24 b 1 Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking—oral language. 110.22; 110.23; 110.24 b 5 Comprehension skills: listening, speaking, reading, writing, and thinking using multiple texts. 110.22; 110.23; 110.24 b 6 Response skills: listening, speaking, reading, writing, and thinking using multiple texts.
014	Understand strategies for effective viewing and presenting and for analyzing various media.	Grades 4–5: 110.6; 110.7 b 13 Inquiry and research: listening, speaking, reading, writing, and thinking using multiple texts.
		Grades 6–8: 110.22; 110.23; 110.24 b 12 Inquiry and research: listening, speaking, reading, writing, and thinking using multiple texts.
<u>Content Domain VI</u>		
NUMBER SENSE AND OPERATIONS		

Competencies		Texas Essential Knowledge and Skills
Field 790: TX PACT: CORE: Grades 4–8		Texas Essential Knowledge and Skills for English Language Arts and Reading
015	Understand numbers.	<p>Grades 4–5:</p> <p>111.6 b 2 Number and operations. The student applies mathematical process standards to represent, compare, and order whole numbers and decimals and understand relationships related to place value.</p> <p>111.6 b 3 Number and operations. The student applies mathematical process standards to represent and generate fractions to solve problems.</p> <p>111.7 b 2 Number and operations. The student applies mathematical process standards to represent, compare, and order positive rational numbers and understand relationships as related to place value.</p> <p>Grades 6–8:</p> <p>111.26 b 2 Number and operations. The student applies mathematical process standards to represent and use rational numbers in a variety of forms.</p> <p>111.27 b 3 Number and operations. The student applies mathematical process standards to represent and use rational numbers in a variety of forms. The student is expected to extend previous knowledge of sets and subsets using a visual representation to describe relationships between sets of rational numbers.</p> <p>111.28 b 2 Number and operations. The student applies mathematical process standards to represent and use real numbers in a variety of forms.</p>

Competencies		Texas Essential Knowledge and Skills
Field 790: TX PACT: CORE: Grades 4–8		Texas Essential Knowledge and Skills for English Language Arts and Reading
016	Understand operations.	<p>Grades 4–5:</p> <p>111.6 b 1; 111.7 b 1 Mathematical process standards. The student uses mathematical processes to acquire and demonstrate mathematical understanding.</p> <p>111.6 b 4 Number and operations. The student applies mathematical process standards to develop and use strategies and methods for whole number computations and decimal sums and differences in order to solve problems with efficiency and accuracy.</p> <p>111.7 b 3 Number and operations. The student applies mathematical process standards to develop and use strategies and methods for positive rational number computations in order to solve problems with efficiency and accuracy.</p> <p>111.6 b 10; 111.7 b 10 Personal financial literacy. The student applies mathematical process standards to manage one's financial resources effectively for lifetime financial security.</p>

Competencies	Texas Essential Knowledge and Skills
<p align="center">Field 790: TX PACT: CORE: Grades 4–8</p>	<p align="center">Texas Essential Knowledge and Skills for English Language Arts and Reading</p>
	<p>Grades 6–8:</p> <p>111.26 b 1; 111.27 b 1; 111.28 b 1 Mathematical process standards. The student uses mathematical processes to acquire and demonstrate mathematical understanding.</p> <p>111.26 b 3 Number and operations. The student applies mathematical process standards to represent addition, subtraction, multiplication, and division while solving problems and justifying solutions.</p> <p>111.26 b 4 Proportionality. The student applies mathematical process standards to develop an understanding of proportional relationships in problem situations.</p> <p>111.26 b 5 Proportionality. The student applies mathematical process standards to solve problems involving proportional relationships.</p> <p>111.27 b 3 Number and operations. The student applies mathematical process standards to add, subtract, multiply, and divide while solving problems and justifying solutions.</p> <p>111.27 b 4 Proportionality. The student applies mathematical process standards to represent and solve problems involving proportional relationships.</p> <p>111.28 b 2 Number and operations. The student applies mathematical process standards to represent and use real numbers in a variety of forms.</p> <p>111.26 b 14; 111.27 b 13; 111.28 b 12 Personal financial literacy. The student applies mathematical process standards to develop an economic way of thinking and problem solving useful in one's life as a knowledgeable consumer and investor.</p>
<p><u>Content Domain VII</u> ALGEBRA AND FUNCTIONS</p>	

Competencies		Texas Essential Knowledge and Skills
Field 790: TX PACT: CORE: Grades 4–8		Texas Essential Knowledge and Skills for English Language Arts and Reading
017	Understand patterns, relations, and functions.	<p>Grades 4–5:</p> <p>111.6 b 1; 111.7 b 1 Mathematical process standards. The student uses mathematical processes to acquire and demonstrate mathematical understanding.</p> <p>111.6 b 5; 111.7 b 4 Algebraic reasoning. The student applies mathematical process standards to develop concepts of expressions and equations.</p> <p>Grades 6–8:</p> <p>111.26 b 1; 111.27 b 1; 111.28 b 1 Mathematical process standards. The student uses mathematical processes to acquire and demonstrate mathematical understanding.</p> <p>111.26 b 4 Proportionality. The student applies mathematical process standards to develop an understanding of proportional relationships in problem situations.</p> <p>111.26 b 7 Expressions, equations, and relationships. The student applies mathematical process standards to develop concepts of expressions and equations.</p> <p>111.27 b 4 Proportionality. The student applies mathematical process standards to represent and solve problems involving proportional relationships.</p> <p>111.27 b 7 Expressions, equations, and relationships. The student applies mathematical process standards to represent linear relationships using multiple representations. The student is expected to represent linear relationships using verbal descriptions, tables, graphs, and equations that simplify to the form $y = mx + b$.</p> <p>111.28 b 5 Proportionality. The student applies mathematical process standards to use proportional and non-proportional relationships to develop foundational concepts of functions.</p>

Competencies		Texas Essential Knowledge and Skills
Field 790: TX PACT: CORE: Grades 4–8		Texas Essential Knowledge and Skills for English Language Arts and Reading
018	Understand algebraic techniques and applications.	<p>Grades 4–5:</p> <p>111.6 b 1; 111.7 b 1 Mathematical process standards. The student uses mathematical processes to acquire and demonstrate mathematical understanding.</p> <p>111.6 b 5; 111.7 b 4 Algebraic reasoning. The student applies mathematical process standards to develop concepts of expressions and equations.</p> <p>Grades 6–8:</p> <p>111.26 b 5 Expressions, equations, and relationships. The student applies mathematical process standards to use multiple representations to describe algebraic relationships.</p> <p>111.26 b 9 Expressions, equations, and relationships. The student applies mathematical process standards to use equations and inequalities to represent situations.</p> <p>111.27 b 10 Expressions, equations, and relationships. The student applies mathematical process standards to use one–variable equations and inequalities to represent situations.</p> <p>111.28 b 8 Expressions, equations, and relationships. The student applies mathematical process standards to use one-variable equations or inequalities in problem situations.</p> <p>111.27 b 9; 111.28 b 9 Expressions, equations, and relationships. The student applies mathematical process standards to use multiple representations to develop foundational concepts of simultaneous linear equations. The student is expected to identify and verify the values of x and y that simultaneously satisfy two linear equations in the form $y = mx + b$ from the intersections of the graphed equations.</p>
019	Understand linear relations and applications.	<p>Grades 4–5:</p> <p>111.6 b 1; 111.7 b 1 Mathematical process standards. The student uses mathematical processes to acquire and demonstrate mathematical understanding.</p> <p>111.6 b 5; 111.7 b 4 Algebraic reasoning. The student applies mathematical process standards to develop concepts of expressions and equations.</p>

Competencies		Texas Essential Knowledge and Skills
Field 790: TX PACT: CORE: Grades 4–8		Texas Essential Knowledge and Skills for English Language Arts and Reading
		<p>Grades 6–8:</p> <p>111.26 b 9 Expressions, equations, and relationships. The student applies mathematical process standards to use equations and inequalities to represent situations.</p> <p>111.26 b 10 Expressions, equations, and relationships. The student applies mathematical process standards to use equations and inequalities to solve problems.</p> <p>111.27 b 7 Expressions, equations, and relationships. The student applies mathematical process standards to represent linear relationships using multiple representations. The student is expected to represent linear relationships using verbal descriptions, tables, graphs, and equations that simplify to the form $y = mx + b$.</p> <p>111.27 b 10 Expressions, equations, and relationships. The student applies mathematical process standards to use one–variable equations and inequalities to represent situations.</p> <p>111.27 b 11 Expressions, equations, and relationships. The student applies mathematical process standards to solve one–variable equations and inequalities.</p> <p>111.28 b 4 Proportionality. The student applies mathematical process standards to explain proportional and non–proportional relationships involving slope.</p> <p>111.28 b 8 Expressions, equations, and relationships. The student applies mathematical process standards to use one-variable equations or inequalities in problem situations.</p>
020	Understand nonlinear relations and concepts of calculus.	Grades 4–5: n/a

Competencies		Texas Essential Knowledge and Skills
Field 790: TX PACT: CORE: Grades 4–8		Texas Essential Knowledge and Skills for English Language Arts and Reading
		<p>Grades 6–8:</p> <p>111.27 b 10 Expressions, equations, and relationships. The student applies mathematical process standards to use one–variable equations and inequalities to represent situations.</p> <p>111.27 b 11 Expressions, equations, and relationships. The student applies mathematical process standards to solve one–variable equations and inequalities.</p> <p>111.28 b 5 Proportionality. The student applies mathematical process standards to use proportional and non–proportional relationships to develop foundational concepts of functions.</p>
<p><u>Content Domain VIII</u></p> <p>MEASUREMENT AND GEOMETRY</p>		
021	Understand measurement principles, procedures, and applications.	<p>Grades 4–5:</p> <p>111.6 b 8 Geometry and measurement. The student applies mathematical process standards to select appropriate customary and metric units, strategies, and tools to solve problems involving measurement.</p> <p>111.7 b 7 Geometry and measurement. The student applies mathematical process standards to select appropriate units, strategies, and tools to solve problems involving measurement. The student is expected to solve problems by calculating conversions within a measurement system, customary or metric.</p> <p>111.6 b 10; 111.7 b 10 Personal financial literacy. The student applies mathematical process standards to manage one's financial resources effectively for lifetime financial security.</p>

Competencies	Texas Essential Knowledge and Skills
Field 790: TX PACT: CORE: Grades 4–8	Texas Essential Knowledge and Skills for English Language Arts and Reading
	<p>Grades 6–8:</p> <p>111.26 b 4 Proportionality. The student applies mathematical process standards to develop an understanding of proportional relationships in problem situations.</p> <p>111.26 b 5 Proportionality. The student applies mathematical process standards to solve problems involving proportional relationships.</p> <p>111.26 b 8 Expressions, equations, and relationships. The student applies mathematical process standards to use geometry to represent relationships and solve problems.</p> <p>111.27 b 5 Proportionality. The student applies mathematical process standards to use geometry to describe or solve problems involving proportional relationships.</p> <p>111.27 b 8 Expressions, equations, and relationships. The student applies mathematical process standards to develop geometric relationships with volume.</p> <p>111.27 b 9 Expressions, equations, and relationships. The student applies mathematical process standards to solve geometric problems.</p> <p>111.28 b 6 Expressions, equations, and relationships. The student applies mathematical process standards to develop mathematical relationships and make connections to geometric formulas.</p> <p>111.28 b 7 Expressions, equations, and relationships. The student applies mathematical process standards to use geometry to solve problems.</p>

Competencies		Texas Essential Knowledge and Skills
Field 790: TX PACT: CORE: Grades 4–8		Texas Essential Knowledge and Skills for English Language Arts and Reading
022	Understand Euclidean geometry in two and three dimensions.	<p>Grades 4–5:</p> <p>111.6 b 6 Geometry and measurement. The student applies mathematical process standards to analyze geometric attributes in order to develop generalizations about their properties.</p> <p>111.6 b 7 Geometry and measurement. The student applies mathematical process standards to solve problems involving angles less than or equal to 180 degrees.</p> <p>111.7 b 5 Geometry and measurement. The student applies mathematical process standards to classify two-dimensional figures by attributes and properties. The student is expected to classify two-dimensional figures in a hierarchy of sets and subsets using graphic organizers based on their attributes and properties.</p> <p>111.7 b 6 Geometry and measurement. The student applies mathematical process standards to understand, recognize, and quantify volume.</p> <p>Grades 6–8:</p> <p>111.26 b 8 Expressions, equations, and relationships. The student applies mathematical process standards to use geometry to represent relationships and solve problems.</p> <p>111.27 b 9 Expressions, equations, and relationships. The student applies mathematical process standards to solve geometric problems.</p> <p>111.27 b 11 Expressions, equations, and relationships. The student applies mathematical process standards to solve one–variable equations and inequalities.</p> <p>111.28 b 3 Proportionality. The student applies mathematical process standards to use proportional relationships to describe dilations.</p> <p>111.28 b 6 Expressions, equations, and relationships. The student applies mathematical process standards to develop mathematical relationships and make connections to geometric formulas.</p> <p>111.28 b 7 Expressions, equations, and relationships. The student applies mathematical process standards to use geometry to solve problems.</p>

Competencies		Texas Essential Knowledge and Skills
Field 790: TX PACT: CORE: Grades 4–8		Texas Essential Knowledge and Skills for English Language Arts and Reading
023	Understand coordinate and transformational geometry.	Grades 4–5: 111.7 b 8 Geometry and measurement. The student applies mathematical process standards to identify locations on a coordinate plane.
		Grades 6–8: 111.27 b 5 Proportionality. The student applies mathematical process standards to use geometry to describe or solve problems involving proportional relationships. 111.28 b 3 Proportionality. The student applies mathematical process standards to use proportional relationships to describe dilations. 111.28 b 4 Proportionality. The student applies mathematical process standards to explain proportional and non–proportional relationships involving slope. 111.28 b 10 Two–dimensional shapes. The student applies mathematical process standards to develop transformational geometry concepts.
<u>Content Domain IX</u> STATISTICS, PROBABILITY, AND DISCRETE MATHEMATICS		
024	Understand principles and techniques of statistics.	Grades 4–5: 111.6 b 9; 111.7 b 9 Data analysis. The student applies mathematical process standards to solve problems by collecting, organizing, displaying, and interpreting data. 111.6 b 10; 111.7 b 10 Personal financial literacy. The student applies mathematical process standards to manage one's financial resources effectively for lifetime financial security.

Competencies		Texas Essential Knowledge and Skills
Field 790: TX PACT: CORE: Grades 4–8		Texas Essential Knowledge and Skills for English Language Arts and Reading
		<p>Grades 6–8:</p> <p>111.26 b 12 Measurement and data. The student applies mathematical process standards to use numerical or graphical representations to analyze problems.</p> <p>111.26 b 13 Measurement and data. The student applies mathematical process standards to use numerical or graphical representations to solve problems.</p> <p>111.27 b 6 Proportionality. The student applies mathematical process standards to use probability and statistics to describe or solve problems involving proportional relationships.</p> <p>111.27 b 12 Measurement and data. The student applies mathematical process standards to use statistical representations to analyze data.</p> <p>111.28 b 5 Proportionality. The student applies mathematical process standards to use proportional and non-proportional relationships to develop foundational concepts of functions.</p> <p>111.28 b 11 Measurement and data. The student applies mathematical process standards to use statistical procedures to describe data.</p>
025	Understand principles of probability and techniques for determining probability.	<p>Grades 4–5: n/a</p> <p>Grades 6–8:</p> <p>111.27 b 6 Proportionality. The student applies mathematical process standards to use probability and statistics to describe or solve problems involving proportional relationships.</p>
026	Understand principles of discrete mathematics.	Grades 4–5: n/a

Competencies		Texas Essential Knowledge and Skills
Field 790: TX PACT: CORE: Grades 4–8		Texas Essential Knowledge and Skills for English Language Arts and Reading
		<p>Grades 6–8: n/a</p> <p><i>NOTE: Discrete mathematics topics are aligned to the TEKS at Grades 9-12. See the alignment table for TX PACT: Mathematics: Grades 7-12 for more information.</i></p>
<u>Content Domain X</u>		
HISTORY		
027	Understand historical concepts, terms, sources, perspectives, and research skills.	<p>Grades 4–5:</p> <p>113.15 b 21 Social studies skills. The student applies critical-thinking skills to organize and use information from a variety of valid sources, including electronic technology.</p> <p>113.15 b 22 Social studies skills. The student communicates in written, oral, and visual forms.</p> <p>113.16 b 24 Social studies skills. The student applies critical-thinking skills to organize and use information from a wide variety of valid sources, including electronic technology.</p> <p>113.16 b 25 Social studies skills. The student communicates in written, oral, and visual forms.</p> <p>Grades 6–8:</p> <p>113.18 b 21; 113.19 b 21; 113.20 b 29 Social studies skills. The student applies critical-thinking skills to organize and use information acquired through established research methodologies from a variety of valid sources including electronic technology.</p> <p>113.18 b 22; 113.19 b 22; 113.20 b 30 Social studies skills. The student communicates in written, oral, and visual forms.</p>
028		Grades 4–5: n/a

Competencies		Texas Essential Knowledge and Skills
Field 790: TX PACT: CORE: Grades 4–8		Texas Essential Knowledge and Skills for English Language Arts and Reading
	Understand major developments in world history from the beginnings of human society to 1350 CE.	<p>Grades 6–8: n/a</p> <p><i>NOTE: World history topics are aligned to the TEKS at Grades 9-12. See the alignment table for TX PACT: Social Studies: Grades 7-12 for more information.</i></p>
029	Understand major developments in world history from 1350 to 1850.	<p>Grades 4–5: n/a</p>
		<p>Grades 6–8: n/a</p> <p><i>NOTE: World history topics are aligned to the TEKS at Grades 9-12. See the alignment table for TX PACT: Social Studies: Grades 7-12 for more information.</i></p>
030	Understand major developments in world history from 1850 to the present.	<p>Grades 4–5: n/a</p>
		<p>Grades 6–8: n/a</p> <p><i>NOTE: World history topics are aligned to the TEKS at Grades 9-12. See the alignment table for TX PACT: Social Studies: Grades 7-12 for more information.</i></p>
031	Understand major developments in early U.S. history from the precontact period to 1789.	<p>Grades 4–5:</p> <p>113.15 b 1 History. The student understands the origins, similarities, and differences of American Indian groups in Texas and North America before European exploration.</p> <p>113.15 b 2 History. The student understands the causes and effects of European exploration and colonization of Texas and North America.</p> <p>113.16 b 1 History. The student understands the causes and effects of European colonization in the United States beginning in 1565, the founding of St. Augustine.</p> <p>113.16 b 2 History. The student understands how conflict between the American colonies and Great Britain led to American independence.</p> <p>113.16 b 3 History. The student understands the events that led from the Articles of Confederation to the creation of the U.S. Constitution and the government it established.</p>

Competencies		Texas Essential Knowledge and Skills
Field 790: TX PACT: CORE: Grades 4–8		Texas Essential Knowledge and Skills for English Language Arts and Reading
		<p>Grades 6–8:</p> <p>113.19 b 1 History. The student understands traditional historical points of reference in Texas history.</p> <p>113.19 b 2 History. The student understands how individuals, events, and issues through the Mexican National Era shaped Texas.</p> <p>113.20 b 1 History. The student understands traditional historical points of reference in U.S. history through 1877.</p> <p>113.20 b 2 History. The student understands the causes of exploration and the colonial eras.</p> <p>113.20 b 3 History. The student understands the foundations of representative government and institutions during the colonial period.</p> <p>113.20 b 4 History. The student understands significant political and economic issue of the revolutionary era.</p>
032	Understand major developments in U.S. history from 1789 to 1877.	<p>Grades 4–5:</p> <p>113.15 b 2 History. The student understands the causes and effects of European exploration and colonization of Texas and North America.</p> <p>113.15 b 3 History. The student understands the importance of the Texas Revolution, the Republic of Texas, and the annexation of Texas to the United States.</p> <p>113.15 b 4 History. The student understands the political, economic, and social changes in Texas during the last half of the 19th Century.</p> <p>113.16 b 4 History. The student understands the political, economic, and social changes that occurred in the United States during the 19th Century</p>

Competencies		Texas Essential Knowledge and Skills
Field 790: TX PACT: CORE: Grades 4–8		Texas Essential Knowledge and Skills for English Language Arts and Reading
		<p>Grades 6–8:</p> <p>113.19 b 1 History. The student understands traditional points of reference in Texas history.</p> <p>113.19 b 3 History. The student understands how individuals, events, and issues related to the Texas Revolution shaped the history of Texas.</p> <p>113.19 b 4 History. The student understands how individuals, events, and issues shaped the history of the Republic of Texas and early Texas statehood.</p> <p>113.19 b 5 History. The student understands how events and issues shaped the history of Texas during the Civil War and Reconstruction.</p> <p>113.19 b 6 History. The student understands how individuals, events, and issues shaped the history of Texas from Reconstruction through the beginning of the 20th Century.</p> <p>113.20 b 5 History. The student understands the challenges confronted by the government and its leaders in the early years of the republic and the Age of Jackson.</p> <p>113.20 b 6 History. The student understands westward expansion and its effects on the political, economic, and social development of the nation.</p> <p>113.20 b 7 History. The student understands how political, economic, and social factors led to the growth of sectionalism and the Civil War.</p> <p>113.20 b 8 History. The student understands individuals, issues, and events of the Civil War.</p>
033	Understand major developments in U.S. history from 1877 to 1929.	<p>Grades 4–5:</p> <p>113.15 b 5 History. The student understands important issues, events, and individuals of the 20th century in Texas.</p> <p>113.16 b 5 History. The student understands important issues, events, and individuals in the United States during the 20th and 21st centuries.</p>

Competencies		Texas Essential Knowledge and Skills
Field 790: TX PACT: CORE: Grades 4–8		Texas Essential Knowledge and Skills for English Language Arts and Reading
		<p>Grades 6–8:</p> <p>113.19 b 6 History. The student understand how individuals, events, and issues shaped the history of Texas from Reconstruction through the beginning of the 20th century.</p> <p>113.19 b 7 History. The student understands how individuals, events, and issues shaped the history of Texas during the 20th and early 21st centuries.</p> <p>113.20 b 9 History. The students understands the effects of Reconstruction on the political, economic, and social life of the nation.</p>
034	Understand major developments in U.S. history from 1929 to the present.	<p>Grades 4–5:</p> <p>113.15 b 5 History. The student understands important issues, events, and individuals of the 20th century in Texas.</p> <p>113.16 b 5 History. The student understands important issues, events, and individuals in the United States during the 20th and 21st centuries.</p> <hr/> <p>Grades 6–8:</p> <p>113.18 b 1 History. The student understands that historical events influence contemporary events.</p> <p>113.19 b 7 History. The student understands how individuals, events, and issues shaped the history of Texas during the 20th and 21st centuries.</p>
<u>Content Domain XI</u>		
GEOGRAPHY AND CULTURE		
035	Understand geographic terms, concepts, sources, and research skills.	<p>Grades 4–5:</p> <p>113.15 b 6; 113.16 b 6 Geography. The student uses geographic tools to collect, analyze, and interpret data.</p> <hr/> <p>Grades 6–8:</p> <p>113.18 b 3; 113.19 b 8 Geography. The student uses geographic tools to collect, analyze, and interpret data.</p>

Competencies		Texas Essential Knowledge and Skills
Field 790: TX PACT: CORE: Grades 4–8		Texas Essential Knowledge and Skills for English Language Arts and Reading
036	Understand physical features, physical systems, and the interaction between the environment and human societies.	<p>Grades 4–5:</p> <p>113.15 b 7 Geography. The student understands the concepts of regions.</p> <p>113.15 b 8 Geography. The student understands the location and patterns of settlement and the geographic factors that influence where people live.</p> <p>113.15 b 9 Geography. The student understands how people adapt to and modify their environment.</p> <p>113.16 b 7 Geography. The student understands the concept of regions in the United States.</p> <p>113.16 b 8 Geography. The student understands the location and patterns of settlement and the geographic factors that influence where people live.</p> <hr/> <p>Grades 6–8:</p> <p>113.18 b 4 Geography. The student understands the factors that influence the locations and characteristics of locations of various contemporary societies on maps and globes and use longitude and latitude to determine absolute locations.</p> <p>113.18 b 5 Geography. The student understands how geographic factors influence the economic development, political relationships, and policies of societies.</p> <p>113.18 b 6 Geography. The student understands that geographical patterns result from physical environmental processes.</p> <p>113.19 b 10 Geography. The student understands the effects of the interaction between humans and the environment in Texas during the 19th, 20th, and 21st centuries.</p> <p>113.20 b 11 Geography. The student understands the physical characteristics of North America and how humans adapted to and modified the environment through the mid–19th century.</p>

Competencies		Texas Essential Knowledge and Skills
Field 790: TX PACT: CORE: Grades 4–8		Texas Essential Knowledge and Skills for English Language Arts and Reading
037	Understand human systems.	<p>Grades 4–5:</p> <p>113.15 b 8 Geography. The student understands the location and patterns of settlement and the geographic factors that influence where people live.</p> <p>113.15 b 9 Geography. The student understands how people adapt to and modify their environment.</p> <p>113.16 b 8 Geography. The student understands the location and patterns of settlement and the geographic factors that influence where people live.</p> <p>113.16 b 9 Geography. The student understands how people adapt to and modify their environment.</p> <hr/> <p>Grades 6–8:</p> <p>113.18 b 5 Geography. The student understands how geographic factors influence the economic development, political relationships, and policies of societies.</p> <p>113.18 b 7 Geography. The student understands the impact of interactions between people and the physical environment on the development and conditions of places and regions.</p> <p>113.19 b 11 Geography. The student understands the characteristics, distribution, and migration of population in Texas in the 19th, 20th, and 21st centuries.</p> <p>113.20 b 10 Geography. The student understands the location and characteristics of places and regions of the United States, past and present.</p>
<p><u>Content Domain XII</u></p> <p>GOVERNMENT</p>		

Competencies		Texas Essential Knowledge and Skills
Field 790: TX PACT: CORE: Grades 4–8		Texas Essential Knowledge and Skills for English Language Arts and Reading
038	Understand political science concepts, terms, perspectives, and research skills.	<p>Grades 4–5:</p> <p>113.15 b 21 Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including electronic technology.</p> <p>113.16 b 24 Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including electronic technology.</p> <hr/> <p>Grades 6–8:</p> <p>113.18 b 21; 113.19 b 21; 113.20 b 29 Social studies skills. The student applies critical-thinking skills to organize and use information acquired through established research methodologies from a variety of valid sources, including electronic technology.</p> <p>113.19 b 17; 113.20 b 21 Citizenship. The student understands the importance of the expression of different points of view in a democratic society.</p>

Competencies		Texas Essential Knowledge and Skills
Field 790: TX PACT: CORE: Grades 4–8		Texas Essential Knowledge and Skills for English Language Arts and Reading
039	Understand the foundations of U.S. government, the U.S. political process, and the rights and responsibilities of U.S. citizenship.	<p>Grades 4–5:</p> <p>113.15 b 15 Government. The student understands important ideas in historical documents of Texas and the United States.</p> <p>113.15 b 17 Citizenship. The student understands the importance of active individual participation in the democratic process.</p> <p>113.16 b 14 Government. The student understands the organization of government in colonial America.</p> <p>113.16 b 15 Government. The student understands important ideas in the Declaration of Independence, the U.S. Constitution, and the Bill of Rights.</p> <p>113.16 b 16 Government. The student understands the framework of government created by the U.S. Constitution of 1787.</p> <p>113.16 b 18 Citizenship. The student understands the importance of individual participation in the democratic process at the local, state, and national levels.</p> <p>113.16 b 19 Citizenship. The student understands the importance of effective leadership in a constitutional republic.</p> <p>113.16 b 20 Citizenship. The student understands the fundamental rights of American citizens guaranteed in the Bill of Rights and other amendments to the U.S. Constitution.</p>

Competencies	Texas Essential Knowledge and Skills
<p align="center">Field 790: TX PACT: CORE: Grades 4–8</p>	<p align="center">Texas Essential Knowledge and Skills for English Language Arts and Reading</p>
	<p>Grades 6–8:</p> <p>113.18 b 11 Government. The student understands the concepts of limited and unlimited governments.</p> <p>113.18 b 12 Government. The student understands various ways in which people organize governments.</p> <p>113.18 b 13 Government. The student understands that the nature of citizenship varies among societies.</p> <p>113.18 b 14 Government. The student understands the relationship among individual rights, responsibilities, duties, and freedoms in societies with representative governments.</p> <p>113.19 b 14 Government. The student understands the basic principles reflected in the Texas Constitution.</p> <p>113.19 b 15 Government. The student understands the structure and functions of government created by the Texas Constitution.</p> <p>113.19 b 16 Government. The student understands the rights and responsibilities of Texas citizens in a democratic society.</p> <p>113.20 b 15 Government. The student understands the American beliefs and principles reflected in the Declaration of Independence, the U.S. Constitution, and other important historic documents.</p> <p>113.20 b 16 Government. The student understands the process of changing the U.S. Constitution and the impact of amendments on American society.</p> <p>113.20 b 19 Citizenship. The student understands the rights and responsibilities of citizens in the United States.</p> <p>113.20 b 20 Citizenship. The student understands the importance of voluntary individual participation in the democratic process.</p> <p>113.20 b 21 Citizenship. The student understands the importance of the expression of different points of view in a constitutional republic.</p>

Competencies		Texas Essential Knowledge and Skills
Field 790: TX PACT: CORE: Grades 4–8		Texas Essential Knowledge and Skills for English Language Arts and Reading
040	Understand the structure, organization, and operation of different levels of government in the United States.	<p>Grades 4–5:</p> <p>113.15 b 15 Government. The student understands important ideas in historical documents of Texas and the United States.</p> <p>113.16 b 16 Government. The student understands the framework of government created by the U.S. Constitution of 1787.</p> <hr/> <p>Grades 6–8:</p> <p>113.18 b 11 Government. The student understands the concepts of limited and unlimited governments.</p> <p>113.18 b 13 Government. The student understands that the nature of citizenship varies among societies.</p> <p>113.19 b 15 Government. The student understands the structure and function of government created by the Texas Constitution.</p> <p>113.20 b 17 Government. The student understands the dynamic nature of the powers of the national government and state governments in a federal system.</p> <p>113.20 b 18 Government. The student understands the impact of landmark Supreme Court cases.</p>
<p><u>Content Domain XIII</u></p> <p>ECONOMICS</p>		

Competencies		Texas Essential Knowledge and Skills
Field 790: TX PACT: CORE: Grades 4–8		Texas Essential Knowledge and Skills for English Language Arts and Reading
041	Understand basic economic concepts, microeconomics, and consumer economics and personal finance.	<p>Grades 4–5:</p> <p>113.15 b 11 Economics. The student understands the characteristics and benefits of the free enterprise system in Texas.</p> <p>113.15 b 12 Economics. The student understands patterns of work and economic activities in Texas.</p> <p>113.15 b 13 Economics. The student understands how Texas, the United States, and other parts of the world are economically interdependent.</p> <p>113.16 b 11 Economics. The student understands the development, characteristics, and benefits of the free enterprise system in the United States.</p> <p>113.16 b 12 Economics. The student understands the impact of supply and demand on consumers and producers in a free enterprise system.</p> <p>113.16 b 13 Economics. The student understands patterns of work and economic activities in the United States.</p> <hr/> <p>Grades 6–8:</p> <p>113.18 b 8 Economics. The student understands the factors of production in a society's economy.</p> <p>113.18 b 9 Economics. The student understands the various ways in which people organize economic systems.</p> <p>113.18 b 10 Economics. The student understands categories of economic activities and the data used to measure a society's economic level.</p> <p>113.19 b 12 Economics. The student understands the factors that caused Texas to change from an agrarian to an urban society.</p> <p>113.20 b 14 Economics. The student understands the origins and developments of the free enterprise system in the United States.</p>

Competencies		Texas Essential Knowledge and Skills
Field 790: TX PACT: CORE: Grades 4–8		Texas Essential Knowledge and Skills for English Language Arts and Reading
042	Understand macroeconomics and international economics.	<p>Grades 4–5:</p> <p>113.15 b 11 Economics. The student understands characteristics and benefits of the free enterprise system in Texas.</p> <p>113.15 b 12 Economics. The student understands patterns of work and economic activities in Texas.</p> <p>113.15 b 13 Economics. The student understands how Texas, the United States, and other parts of the world are economically interdependent.</p> <p>113.16 b 11 Economics. The student understands the development, characteristics, and benefits of the free enterprise system in the United States.</p> <p>113.16 b 12 Economics. The student understands the impact of supply and demand on consumers and producers in a free enterprise system.</p> <p>113.16 b 13 Economics. The students understand patterns of work and economic activity in the United States.</p> <hr/> <p>Grades 6–8:</p> <p>113.18 b 9 Economics. The student understands the various ways in which people organize economic systems.</p> <p>113.19 b 13 Economics. The student understands the interdependence of the Texas economy with the United States and the world.</p> <p>113.20 b 12 Economics. The student understands why various sections of the United States developed different patterns of economic activity.</p>
<p><u>Content Domain XIV</u></p> <p>NATURE OF SCIENCE</p>		

Competencies		Texas Essential Knowledge and Skills
Field 790: TX PACT: CORE: Grades 4–8		Texas Essential Knowledge and Skills for English Language Arts and Reading
043	Understand principles and procedures of scientific inquiry.	<p>Grades 4–5:</p> <p>112.15 b 1; 112.16 b 1 Scientific investigation and reasoning. The student conducts classroom and outdoor investigations, following home and school safety procedures and environmentally appropriate and ethical practices.</p> <p>112.15 b 2; 112.16 b 2 Scientific investigation and reasoning. The student uses scientific practices during laboratory and outdoor investigations.</p> <p>112.15 b 3; 112.16 b 3 Scientific investigation and reasoning. The student uses critical thinking and scientific problem solving to make informed decisions.</p> <p>112.15 b 4 Scientific investigation and reasoning. The student knows how to use a variety of tools, materials, equipment, and models to conduct science inquiry.</p> <p>112.16 b 4 Scientific investigation and reasoning. The student knows how to use a variety of tools and methods to conduct science inquiry.</p> <p>Grades 6–8:</p> <p>112.18 b 1; 112.19 b 1; 112.20 b 1 Scientific investigation and reasoning. The student, for at least 40% of instructional time, conducts laboratory and field investigations following safety procedures and environmentally appropriate and ethical practices.</p> <p>112.18 b 2; 112.19 b 2; 112.20 b 2 Scientific investigation and reasoning. The student uses scientific practices during laboratory and field investigations.</p> <p>112.18 b 3; 112.19 b 3; 112.20 b 3 Scientific investigation and reasoning. The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions and knows the contributions of relevant scientists.</p> <p>112.18 b 4; 112.19 b 4; 112.20 b 4 Scientific investigation and reasoning. The student knows how to use a variety of tools and safety equipment to conduct science inquiry.</p>

Competencies		Texas Essential Knowledge and Skills
Field 790: TX PACT: CORE: Grades 4–8		Texas Essential Knowledge and Skills for English Language Arts and Reading
044	Understand the history and nature of science.	<p>Grades 4–5:</p> <p>112.15 b 2; 112.16 b 2 Scientific investigation and reasoning. The student uses scientific practices during laboratory and outdoor investigations.</p> <p>112.15 b 3; 112.16 b 3 Scientific investigation and reasoning. The student uses critical thinking and scientific problem solving to make informed decisions.</p> <p>Grades 6–8:</p> <p>112.18 b 2; 112.19 b 2; 112.20 b 2 Scientific investigation and reasoning. The student uses scientific practices during laboratory and field investigations.</p> <p>112.18 b 3; 112.19 b 3; 112.20 b 3 Scientific investigation and reasoning. The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions and knows the contributions of relevant scientists.</p>
045	Understand the relationships between science, technology, engineering, mathematics, and society.	<p>Grades 4–5:</p> <p>112.15 b 3; 112.16 b 3 Scientific investigation and reasoning. The student uses critical thinking and scientific problem solving to make informed decisions.</p> <p>Grades 6–8:</p> <p>112.18 b 3; 112.19 b 3; 112.20 b 3 Scientific investigation and reasoning. The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions and knows the contributions of relevant scientists.</p>
<p><u>Content Domain XV</u></p> <p>PHYSICAL SCIENCE</p>		
046	Understand the properties and characteristics of matter.	<p>Grades 4–5:</p> <p>112.15 b 5; 112.16 b 5 Matter and energy. The student knows that matter has measurable physical properties and those properties determine how matter is classified, changed, and used.</p>

Competencies		Texas Essential Knowledge and Skills
Field 790: TX PACT: CORE: Grades 4–8		Texas Essential Knowledge and Skills for English Language Arts and Reading
		<p>Grades 6–8:</p> <p>112.18 b 5 Matter and energy. The student knows the differences between elements and compounds.</p> <p>112.18 b 6 Matter and energy. The student knows matter has physical properties that can be used for classification.</p> <p>112.18 b 7 Matter and energy. The student knows that some of Earth's energy resources are available on a nearly perpetual basis, while others can be renewed over a relatively short period of time. Some energy resources, once depleted, are essentially nonrenewable.</p> <p>112.19 b 5 Matter and energy. The student knows that interactions occur between matter and energy.</p> <p>112.20 b 5 Matter and energy. The student knows that matter is composed of atoms and has chemical and physical properties.</p>
047	Understand physical and chemical changes in matter.	<p>Grades 4–5:</p> <p>112.15 b 5; 112.16 b 5 Matter and energy. The student knows that matter has measurable physical properties and those properties determine how matter is classified, changed, and used.</p> <p>Grades 6–8:</p> <p>112.18 b 5 Matter and energy. The student knows the differences between elements and compounds.</p> <p>112.18 b 7 Matter and energy. The student knows that some of Earth's energy resources are available on a nearly perpetual basis, while others can be renewed over a relatively short period of time. Some energy resources, once depleted, are essentially nonrenewable.</p> <p>112.19 b 6 Matter and energy. The student knows that matter has physical and chemical properties and can undergo physical and chemical changes.</p> <p>112.20 b 5 Matter and energy. The student knows that matter is composed of atoms and has chemical and physical properties.</p>

Competencies		Texas Essential Knowledge and Skills
Field 790: TX PACT: CORE: Grades 4–8		Texas Essential Knowledge and Skills for English Language Arts and Reading
048	Understand the characteristics and transformations of different forms of energy.	<p>Grades 4–5:</p> <p>112.15 b 6; 112.16 b 6 Force, motion, and energy. The student knows that energy exists in many forms and can be observed in cycles, patterns, and systems.</p> <p>112.16 b 5 Matter and energy. The student knows that matter has measurable physical properties and those properties determine how matter is classified, changed, and used.</p> <p>Grades 6–8:</p> <p>112.18 b 7 Matter and energy. The student knows that some of Earth's energy resources are available on a nearly perpetual basis, while others can be renewed over a relatively short period of time. Some energy resources, once depleted, are essentially nonrenewable.</p> <p>112.18 b 8 Force, motion, and energy. The student knows force and motion are related to potential and kinetic energy.</p> <p>112.18 b 9 Force, motion, and energy. The student knows that the Law of Conservation of Energy states that energy can neither be created nor destroyed, it just changes form.</p> <p>112.19 b 5 Matter and energy. The student knows that matter has physical and chemical properties and can undergo physical and chemical changes.</p> <p>112.19 b 7; 112.20 b 6 Force, motion, and energy. The student knows that there is a relationship among force, motion, and energy.</p>
049	Understand relationships between force, mass, and motion.	<p>Grades 4–5:</p> <p>112.15 b 6; 112.16 b 6 Force, motion, and energy. The student knows that energy exists in many forms and can be observed in cycles, patterns, and systems.</p>

Competencies		Texas Essential Knowledge and Skills
Field 790: TX PACT: CORE: Grades 4–8		Texas Essential Knowledge and Skills for English Language Arts and Reading
		<p>Grades 6–8:</p> <p>112.18 b 8 Force, motion, and energy. The student knows force and motion are related to potential and kinetic energy.</p> <p>112.19 b 7; 112.20 b 6 Force, motion, and energy. The student knows that there is a relationship among force, motion, and energy.</p>
050	Understand characteristics and properties of mechanical and electromagnetic waves.	Grades 4–5: n/a
		<p>Grades 6–8:</p> <p>112.20 b 8 Earth and space. The student knows characteristics of the universe.</p>
<u>Content Domain XVI</u>		
LIFE SCIENCE		
051	Understand the characteristics, organization, and processes of cells.	<p>Grades 4–5:</p> <p>112.15 b 10 Organisms and environments. The student knows that organisms undergo similar life processes and have structures and behaviors that help them survive within their environment.</p> <p>112.16 b 10 Organisms and environments. The student knows that organisms have structures and behaviors that help them survive in their environments.</p>
		<p>Grades 6–8:</p> <p>112.18 b 12 Organisms and environments. The student knows all organisms are classified into domains and kingdoms. Organisms within these taxonomic groups share similar characteristics that allow them to interact with the living and nonliving parts of their ecosystem.</p> <p>112.19 b 12 Organisms and environments. The student knows that living systems at all levels of organization demonstrate the complementary nature of structure and function.</p> <p>112.19 b 14 Organisms and environments. The student knows that reproduction is a characteristic of living organisms and that the instructions for traits are governed in the genetic material.</p>

Competencies		Texas Essential Knowledge and Skills
Field 790: TX PACT: CORE: Grades 4–8		Texas Essential Knowledge and Skills for English Language Arts and Reading
		<p>112.20 b 11 Organisms and environments. The student knows that interdependence occurs among living systems and the environment and that human activities can affect these systems.</p>
052	Understand characteristics and life processes of living organisms.	<p>Grades 4–5:</p> <p>112.15 b 9 Organisms and environments. The student knows and understands that living organisms within an ecosystem interact with one another and with their environment.</p> <p>112.16 b 9 Organisms and environments. The student knows that there are relationships, systems, and cycles within environments.</p> <hr/> <p>Grades 6–8:</p> <p>112.18 b 12 Organisms and environments. The student knows all organisms are classified into domains and kingdoms. Organisms within these taxonomic groups share similar characteristics that allow them to interact with the living and nonliving parts of their ecosystem.</p> <p>112.19 b 11 Organisms and environments. The student knows that populations and species demonstrate variation and inherit many of their unique traits through gradual processes over many generations.</p> <p>112.19 b 12 Organisms and environments. The student knows that living systems at all levels of organization demonstrate the complementary nature of structure and function.</p> <p>112.19 b 13 Organisms and environments. The student knows that a living organism must be able to maintain balance in stable internal conditions in response to external and internal stimuli.</p> <p>112.20 b 11 Organisms and environments. The student knows that interdependence occurs among living systems and the environment and that human activities can affect these systems.</p>

Competencies		Texas Essential Knowledge and Skills
Field 790: TX PACT: CORE: Grades 4–8		Texas Essential Knowledge and Skills for English Language Arts and Reading
053	Understand the concepts and principles related to genetics, the theory of evolution, and the classification of organisms.	<p>Grades 4–5:</p> <p>112.15 b 10 Organisms and environments. The student knows that organisms undergo similar life processes and have structures and behaviors that help them survive within their environment.</p> <p>112.16 b 9 Organisms and environments. The student knows that there are relationships, systems, and cycles within environments.</p> <p>Grades 6–8:</p> <p>112.18 b 12 Organisms and environments. The student knows all organisms are classified into domains and kingdoms. Organisms within these taxonomic groups share similar characteristics that allow them to interact with the living and nonliving parts of their ecosystem.</p> <p>112.19 b 11 Organisms and environments. The student knows that populations and species demonstrate variation and inherit many of their unique traits through gradual processes over many generations.</p> <p>112.19 b 14 Organisms and environments. The student knows that reproduction is a characteristic of living organisms and that the instructions for traits are governed in the genetic material.</p> <p>112.20 b 11 Organisms and environments. The student knows that interdependence occurs among living systems and the environment and that human activities can affect these systems.</p>
054	Understand characteristics of different biomes, relationships between organisms, population dynamics, and the flow of matter and energy through ecosystems.	<p>Grades 4–5:</p> <p>112.15 b 9 Organisms and environments. The student knows and understands that living organisms within an ecosystem interact with one another and with their environment.</p> <p>112.15 b 10 Organisms and environments. The student knows that organisms undergo similar life processes and have structures and behaviors that help them survive within their environment.</p> <p>112.16 b 9 Organisms and environments. The student knows that there are relationships, systems, and cycles within environments.</p>

Competencies		Texas Essential Knowledge and Skills
Field 790: TX PACT: CORE: Grades 4–8		Texas Essential Knowledge and Skills for English Language Arts and Reading
		<p>112.16 b 10 Organisms and environments. The student knows that organisms have structures and behaviors that help them survive in their environments.</p> <p>Grades 6–8:</p> <p>112.18 b 12 Organisms and environments. The student knows all organisms are classified into domains and kingdoms. Organisms within these taxonomic groups share similar characteristics that allow them to interact with the living and nonliving parts of their ecosystem.</p> <p>112.19 b 10 Organisms and environments. The student knows that there is a relationship between organisms and the environment.</p> <p>112.19 b 13 Organisms and environments. The student knows that a living organism must be able to maintain balance in stable internal conditions in response to external and internal stimuli.</p> <p>112.20 b 11 Organisms and environments. The student knows that interdependence occurs among living systems and the environment and that human activities can affect these systems.</p>
<p><u>Content Domain XVII</u></p> <p>EARTH AND SPACE SCIENCE</p>		
055	Understand the history of Earth, characteristics of Earth materials and resources, and the geologic processes that shape Earth.	<p>Grades 4–5:</p> <p>112.15 b 7; 112.16 b 7 Earth and space. The students know that Earth consists of useful resources and its surface is constantly changing.</p> <p>Grades 6–8:</p> <p>112.18 b 10 Earth and space. The student understands the structure of Earth, the rock cycle, and plate tectonics.</p> <p>112.19 b 8; 112.20 b 9 Earth and space. The student knows that natural events and human activity can impact Earth systems.</p>

Competencies		Texas Essential Knowledge and Skills
Field 790: TX PACT: CORE: Grades 4–8		Texas Essential Knowledge and Skills for English Language Arts and Reading
056	Understand characteristics and properties of the hydrosphere.	<p>Grades 4–5:</p> <p>112.15 b 7; 112.16 b 7 Earth and space. The students know that Earth consists of useful resources and its surface is constantly changing.</p> <p>112.15 b 8; 112.16 b 8 Earth and space. The student knows that there are recognizable patterns in the natural world and among the Sun, Earth, and Moon system.</p> <p>Grades 6–8:</p> <p>112.19 b 8 Earth and space. The student knows that natural events and human activity can impact Earth systems.</p> <p>112.20 b 10 Earth and space. The student knows that climatic interactions exist among Earth, ocean, and weather systems.</p>
057	Understand Earth's atmosphere, weather, and climate.	<p>Grades 4–5:</p> <p>112.15 b 7; 112.16 b 7 Earth and space. The students know that Earth consists of useful resources and its surface is constantly changing.</p> <p>112.15 b 8; 112.16 b 8 Earth and space. The student knows that there are recognizable patterns in the natural world and among the Sun, Earth, and Moon system.</p> <p>Grades 6–8:</p> <p>112.19 b 8 Earth and space. The student knows that natural events and human activity can impact Earth systems.</p> <p>112.20 b 10 Earth and space. The student knows that climatic interactions exist among Earth, ocean, and weather systems.</p>
058	Understand characteristics of the solar system and the universe.	<p>Grades 4–5:</p> <p>112.15 b 8; 112.16 b 8 Earth and space. The student knows that there are recognizable patterns in the natural world and among the Sun, Earth, and Moon system.</p>

Competencies		Texas Essential Knowledge and Skills
Field 790: TX PACT: CORE: Grades 4–8		Texas Essential Knowledge and Skills for English Language Arts and Reading
		<p>Grades 6–8:</p> <p>112.18 b 11 Earth and space. The student understands the organization of our solar system and the relationships among the various bodies that comprise it.</p> <p>112.19 b 9 Earth and space. The student knows components of our solar system.</p> <p>112.20 b 7 Earth and space. The student knows the effects resulting from cyclical movements of the Sun, Earth, and Moon.</p> <p>112.20 b 8 Earth and space. The student knows characteristics of the universe.</p>