

Math Year at a Glance (YAG)

Grade 7 Instructional Plan

Fall Semester				
Unit Title	Unit 1 Solving Problems with Rational Numbers	Unit 2 Equations & Inequalities	Unit 3 Using Proportions to Solve Problems	Unit 4 Linear Relationships
Time	3 weeks (Aug. 17 - Sept. 4) 15 days	4 weeks (Sept. 8 - Oct. 2) 19 days <i>[This includes MAP BOY]</i>	5 weeks (Oct. 5 - Nov. 6) 22 days	5 weeks (Nov. 9 - Dec. 18) 25 days <i>[This includes MAP MOY]</i>
Understandings	A problem solver will utilize a variety of problem solving strategies when dealing with real world scenarios. In order to solve real world problems, a problem solver will apply multiple operations with rational numbers.	Solution(s) make an equation or inequality true when the comparison between both sides is true. Using the inverse operations in their correct order affects the validity of a solution. The math symbols used to write equations and inequalities are dependent on the real world scenario.	Proportional relationships express how quantities change in relation to each other. Rates given in the real world can be used to determine growth patterns and unit rates in order to make informative decisions. Similarity is a geometric relationship that helps you determine reasonable measurements. Percents are proportional relationships involving everyday ratios compared to 100.	Proportional and non-proportional situations produce multiple representations of linear relationships that show a constant growth of two quantities changing in relation to each other. When x is 0, the value of y is the b and can be represented with the ordered pair (0, b) where b is a number other than zero. The m is the rate in which the pattern grows in a linear relationship.
TEKS	7.2A 7.3A, 7.3B 7.13C	7.10A , 7.10B, 7.10C 7.11A , B, C	7.4B , 7.4D , 7.4E 7.5A, 7.5C 7.13A, 7.13B, 7.13E, 7.13F	7.4A , 7.4C 7.7A 7.13D
Legend: Bold Purple = NEISD Power Standards				

Spring Semester

Unit Title	Unit 5 2D & 3D Geometric Concepts	Unit 6 Probability	Unit 7 Statistics & Sampling	Unit 8 STAAR Review & Test	Unit 9 8th grade Acceleration: Equations & Inequalities
Time	5 weeks (Jan. 5 - Feb. 5) 22 days	4 weeks (Feb. 8 - Mar. 5) 19 days	3 weeks (Mar. 15 - Apr. 2) 14 days	2 weeks (Apr. 5 - Apr. 19) 11 days	5 weeks (Apr. 21 - May 27) 26 days
Understandings	Calculating the area of the base, which is represented by B, is necessary for finding the volume of a prism or a pyramid. Surface area is the sum of the areas shown on the net of a three-dimensional figure. Circumference is the distance around a circle and area is the measurement inside a circle.	Predictions based on data of a simple or compound event is a proportional relationship. The probability of simple events is one ratio while compound events have a probability that is a product of two or more ratios. Describing the likelihood of an event happening can be determined by comparing the ratio of favorable outcomes to unfavorable outcomes.	Representations of data should be analyzed to make comparisons and factual conclusions. A data's shape, center, and spread are used to formulate comparative statements between two groups.	Efficient problem solving includes analyzing the problem, organizing the given information, and determining a solution with or without a calculator. Using proportions is an efficient problem solving strategy.	Solutions are values that make the equation true. There are various ways to represent linear relationships. Mathematical symbols are used to show the relationship between two expressions Inequality symbols are used between two expressions to represent situations where one side is greater than the other.
TEKS	7.5B 7.8A, 7.8B, 7.8C 7.9A, 7.9B , 7.9C, 7.9D	7.6A, 7.6B, 7.6C, 7.6D, 7.6E, 7.6H, 7.6I	7.6F, 7.6G 7.12A , 7.12B, 7.12C	All 7th Grade TEKS	7.11A 8.8A , 8.8B, 8.8C 8.9A
Instructional Resources	7th grade Math Courses - enVision+ Texas Grade 7 by Savvas Learning • enVision+ student digital licenses are available through NEISD's Launchpad. Each Math teacher will assign the resource to classes. • A consumable textbook is available for every Math student				

Legend: Bold Purple = NEISD Power Standards

Grade 7 TEKS

Texas Essential Knowledge and Skills (TEKS)

(a) Introduction.

(1) The desire to achieve educational excellence is the driving force behind the Texas essential knowledge and skills for mathematics, guided by the college and career readiness standards. By embedding statistics, probability, and finance, while focusing on computational thinking, mathematical fluency, and solid understanding, Texas will lead the way in mathematics education and prepare all Texas students for the challenges they will face in the 21st century.

(2) The process standards describe ways in which students are expected to engage in the content. The placement of the process standards at the beginning of the knowledge and skills listed for each grade and course is intentional. The process standards weave the other knowledge and skills together so that students may be successful problem solvers and use mathematics efficiently and effectively in daily life. The process standards are integrated at every grade level and course. When possible, students will apply mathematics to problems arising in everyday life, society, and the workplace. Students will use a problem-solving model that incorporates analyzing given information, formulating a plan or strategy, determining a solution, justifying the solution, and evaluating the problem-solving process and the reasonableness of the solution. Students will select appropriate tools such as real objects, manipulatives, algorithms, paper and pencil, and technology and techniques such as mental math, estimation, number sense, and generalization and abstraction to solve problems. Students will effectively communicate mathematical ideas, reasoning, and their implications using multiple representations such as symbols, diagrams, graphs, computer programs, and language. Students will use mathematical relationships to generate solutions and make connections and predictions. Students will analyze mathematical relationships to connect and communicate mathematical ideas. Students will display, explain, or justify mathematical ideas and arguments using precise mathematical language in written or oral communication.

(3) The primary focal areas in Grade 7 are number and operations; proportionality; expressions, equations, and relationships; and measurement and data. Students use concepts, algorithms, and properties of rational numbers to explore mathematical relationships and to describe increasingly complex situations. Students use concepts of proportionality to explore, develop, and communicate mathematical relationships, including number, geometry and measurement, and statistics and probability. Students use algebraic thinking to describe how a change in one quantity in a relationship results in a change in the other. Students connect verbal, numeric, graphic, and symbolic representations of relationships, including equations and inequalities. Students use geometric properties and relationships, as well as spatial reasoning, to model and analyze situations and solve problems. Students communicate information about geometric figures or situations by quantifying attributes, generalize procedures from measurement experiences, and use the procedures to solve problems. Students use appropriate statistics, representations of data, and reasoning to draw conclusions, evaluate arguments, and make recommendations. While the use of all types of technology is important, the emphasis on algebra readiness skills necessitates the implementation of graphing technology.

(4) Statements that contain the word "including" reference content that must be mastered, while those containing the phrase "such as" are intended as possible illustrative examples.

(b) Knowledge and skills.

(1) Mathematical process standards. The student uses mathematical processes to acquire and demonstrate mathematical understanding. The student is expected to:

(A) apply mathematics to problems arising in everyday life, society, and the workplace;

(B) use a problem-solving model that incorporates analyzing given information, formulating a plan or strategy, determining a solution, justifying the solution, and evaluating the problem-solving process and the reasonableness of the solution;

- (C) select tools, including real objects, manipulatives, paper and pencil, and technology as appropriate, and techniques, including mental math, estimation, and number sense as appropriate, to solve problems;
- (D) communicate mathematical ideas, reasoning, and their implications using multiple representations, including symbols, diagrams, graphs, and language as appropriate;
- (E) create and use representations to organize, record, and communicate mathematical ideas;
- (F) analyze mathematical relationships to connect and communicate mathematical ideas; and
- (G) display, explain, and justify mathematical ideas and arguments using precise mathematical language in written or oral communication.

(2) 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.

(3) Number and operations. The student applies mathematical process standards to add, subtract, multiply, and divide while solving problems and justifying solutions. The student is expected to:

- (A) add, subtract, multiply, and divide rational numbers fluently; and
- (B) apply and extend previous understandings of operations to solve problems using addition, subtraction, multiplication, and division of rational numbers.

(4) Proportionality. The student applies mathematical process standards to represent and solve problems involving proportional relationships. The student is expected to:

- (A) represent constant rates of change in mathematical and real-world problems given pictorial, tabular, verbal, numeric, graphical, and algebraic representations, including $d = rt$;
- (B) calculate unit rates from rates in mathematical and real-world problems;
- (C) determine the constant of proportionality ($k = y/x$) within mathematical and real-world problems;
- (D) solve problems involving ratios, rates, and percents, including multi-step problems involving percent increase and percent decrease, and financial literacy problems; and
- (E) convert between measurement systems, including the use of proportions and the use of unit rates.

(5) Proportionality. The student applies mathematical process standards to use geometry to describe or solve problems involving proportional relationships. The student is expected to:

- (A) generalize the critical attributes of similarity, including ratios within and between similar shapes;
- (B) describe π as the ratio of the circumference of a circle to its diameter; and
- (C) solve mathematical and real-world problems involving similar shape and scale drawings.

(6) Proportionality. The student applies mathematical process standards to use probability and statistics to describe or solve problems involving proportional relationships. The student is expected to:

- (A) represent sample spaces for simple and compound events using lists and tree diagrams;
- (B) select and use different simulations to represent simple and compound events with and without technology;
- (C) make predictions and determine solutions using experimental data for simple and compound events;
- (D) make predictions and determine solutions using theoretical probability for simple and compound events;
- (E) find the probabilities of a simple event and its complement and describe the relationship between the two;
- (F) use data from a random sample to make inferences about a population;
- (G) solve problems using data represented in bar graphs, dot plots, and circle graphs, including part-to-whole and part-to-part

comparisons and equivalents;

(H) solve problems using qualitative and quantitative predictions and comparisons from simple experiments; and

(I) determine experimental and theoretical probabilities related to simple and compound events using data and sample spaces.

(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 $y = mx + b$.

(8) Expressions, equations, and relationships. The student applies mathematical process standards to develop geometric relationships with volume. The student is expected to:

(A) model the relationship between the volume of a rectangular prism and a rectangular pyramid having both congruent bases and heights and connect that relationship to the formulas;

(B) explain verbally and symbolically the relationship between the volume of a triangular prism and a triangular pyramid having both congruent bases and heights and connect that relationship to the formulas; and

(C) use models to determine the approximate formulas for the circumference and area of a circle and connect the models to the actual formulas.

(9) Expressions, equations, and relationships. The student applies mathematical process standards to solve geometric problems. The student is expected to:

(A) solve problems involving the volume of rectangular prisms, triangular prisms, rectangular pyramids, and triangular pyramids;

(B) determine the circumference and area of circles;

(C) determine the area of composite figures containing combinations of rectangles, squares, parallelograms, trapezoids, triangles, semicircles, and quarter circles; and

(D) solve problems involving the lateral and total surface area of a rectangular prism, rectangular pyramid, triangular prism, and triangular pyramid by determining the area of the shape's net.

(10) Expressions, equations, and relationships. The student applies mathematical process standards to use one-variable equations and inequalities to represent situations. The student is expected to:

(A) write one-variable, two-step equations and inequalities to represent constraints or conditions within problems;

(B) represent solutions for one-variable, two-step equations and inequalities on number lines; and

(C) write a corresponding real-world problem given a one-variable, two-step equation or inequality.

(11) Expressions, equations, and relationships. The student applies mathematical process standards to solve one-variable equations and inequalities. The student is expected to:

(A) model and solve one-variable, two-step equations and inequalities;

(B) determine if the given value(s) make(s) one-variable, two-step equations and inequalities true; and

(C) write and solve equations using geometry concepts, including the sum of the angles in a triangle, and angle relationships.

(12) Measurement and data. The student applies mathematical process standards to use statistical representations to analyze data. The student is expected to:

(A) compare two groups of numeric data using comparative dot plots or box plots by comparing their shapes, centers, and spreads;

(B) use data from a random sample to make inferences about a population; and

(C) compare two populations based on data in random samples from these populations, including informal comparative inferences about differences between the two populations.

(13) 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. The student is expected to: (A) calculate the sales tax for a given purchase and calculate income tax for earned wages; (B) identify the components of a personal budget, including income; planned savings for college, retirement, and emergencies; taxes; and fixed and variable expenses, and calculate what percentage each category comprises of the total budget; (C) create and organize a financial assets and liabilities record and construct a net worth statement; (D) use a family budget estimator to determine the minimum household budget and average hourly wage needed for a family to meet its basic needs in the student's city or another large city nearby; (E) calculate and compare simple interest and compound interest earnings; and (F) analyze and compare monetary incentives, including sales, rebates, and coupons. Source Note: The provisions of this §111.27 adopted to be effective September 10, 2012, 37 TexReg 7109.
ELPS Introduction	
English Language Proficiency Standards (ELPS)	TAC Rule §120.21 English Language Proficiency Standards, Grades 4-12, Adopted 2024 (a) Implementation. The provisions of this section shall be implemented by school districts beginning with the 2026-2027 school year. (b) General requirements. In fulfilling the requirements of this section, school districts and charter schools shall: (1) identify the student's English language proficiency levels in the domains of listening, speaking, reading, and writing in accordance with the proficiency level descriptors for the pre-production, beginning, intermediate, high intermediate, and advanced levels delineated in subsection (e) of this section; (2) provide instruction in the knowledge and skills of the foundation and enrichment curriculum in a manner that is linguistically accommodated (communicated, sequenced, and scaffolded) commensurate with the student's levels of English language proficiency to ensure that the student learns the knowledge and skills in the required curriculum; (3) provide content-based instruction, including the cross-curricular second language acquisition essential knowledge and skills in subsection (d) of this section, in a manner that is linguistically accommodated to help the student acquire English language proficiency; and (4) provide intensive and ongoing foundational second language acquisition instruction to emergent bilingual (EB) students in Kindergarten-Grade 12 who are at the pre-production, beginning, or intermediate level of English language proficiency in listening, speaking, reading, or writing as determined by the state's English language proficiency assessment system. These EB students require focused, targeted, and systematic second language acquisition instruction to provide them with the foundation of English language necessary to support content-based instruction and accelerated learning of English. (c) Introduction. (1) The English language proficiency standards (ELPS) outline student expectations and proficiency level descriptors for EB students in English. The ELPS are organized across four language domains: listening, speaking, reading, and writing. (2) Language acquisition is a complex process that consists of several interrelated components, including phonetics, phonology, semantics, syntax, morphology, and pragmatics. As students develop proficiency in these language structures, they are able to make connections between their primary language and English. (3) Classroom contexts foster social and academic registers, which are types of language appropriate for a situation or setting, to support language proficiency. Informal (social) language consists of English needed for students to effectively interact, exchange ideas, and engage in various settings and contexts. Formal (academic) language consists of oral and written language used to build knowledge, participate in content-specific discourse, and process complex academic material found in formal school settings and interactions. (4) The progression of skills in the four language domains are developed simultaneously and can be divided into two categories: receptive

skills and expressive skills. Listening and reading are the receptive (input) skills. Students' development in receptive skills is necessary for comprehension and attainment of the English language and content. Speaking and writing are the expressive (output) skills. Students' ability to express and share their personal ideas and content knowledge allow teachers the opportunity to check for understanding and adjust instruction. Effective content-based language instruction involves engaging EB students in scaffolded opportunities to listen, speak, read, and write at their current levels of proficiency while gradually increasing linguistic complexity.

(5) In order for EB students to be successful, educators must create an environment that welcomes and encourages students to leverage their unique cultural and linguistic experiences as they develop English language skills and learn academic content. Educators must cultivate an approach that integrates students' and their families' funds of knowledge into the classroom instructional practices. Culturally and linguistically sustaining practices leverage and celebrate students' cultural heritage and backgrounds while elevating their cultural and linguistic identities. Teaching and learning cognates that connect both (or multiple) languages can also construct bridges between languages and increase confidence as English language acquisition progresses.

(6) The ELPS student expectations are the knowledge and skills students must demonstrate. They indicate what students should know and be able to do in order to meet academic content standards. Proficiency level descriptors describe behaviors EB students exhibit across five proficiency levels as they acquire English. EB students may exhibit different proficiency levels within and across the domains of listening, speaking, reading, and writing.

(7) The ELPS demonstrate an asset-based approach to address the affective, linguistic, and cognitive needs of EB students in accordance with §89.1210(b) of this title (relating to Program Content and Design) as follows:

(A) acknowledge and leverage the existing funds of knowledge students possess, including linguistic repertoire, cultural heritage, and background knowledge;

(B) demonstrate targeted and intentional academic language skills to ensure content-area teachers are able to accurately evaluate the abilities of EB students and scaffold toward the increasingly complex English that students hear, speak, and are expected to read and write; and

(C) provide an exact and incremental measure of the stages of English language acquisition with attention to the fact that EB students at all levels of proficiency can engage in cognitively demanding tasks and master the required essential knowledge and skills with appropriate language support.

(8) The proficiency level descriptors are organized into general proficiency level descriptors and content-area proficiency level descriptors. General proficiency level descriptors are descriptions of a broad scope of student behaviors that can be observed in a variety of educational settings and across content areas. Content-area proficiency level descriptors describe student behaviors and language associated with discipline-specific learning in English language arts and reading, mathematics, science, and social studies.

(d) Cross-curricular English language acquisition student expectations.

(1) Student expectations--listening. The EB student listens to a variety of speakers, including teachers, peers, and multimedia, to gain an increasing level of comprehension in all content areas. The EB student may be at the pre-production, beginning, intermediate, high intermediate, or advanced proficiency levels in listening. The student is expected to:

(A) distinguish sounds and intonation patterns by responding with gestures or images, orally, or in writing;

(B) use contextual factors or word analysis such as cognates, Greek and Latin prefixes, suffixes, and roots to comprehend content-specific vocabulary when heard during formal and informal classroom interactions by responding with gestures or images, orally, or in writing;

(C) respond with accuracy to oral directions, instructions, and requests;

(D) use context to construct the meaning of descriptive language, words with multiple meanings, register, and figurative language such

as idiomatic expressions heard during formal and informal classroom interactions;

(E) demonstrate listening comprehension from information presented orally during formal and informal classroom interactions by restating, responding, paraphrasing, summarizing, or asking for clarification or additional details; and

(F) derive meaning from a variety of auditory multimedia sources to build and reinforce concepts and language acquisition.

(2) Student expectations--speaking. The EB student speaks using a variety of language structures for a variety of purposes with an awareness of different language registers (formal/informal) using vocabulary with increasing accuracy and fluency in all content areas. The EB student may be at the pre-production, beginning, intermediate, high intermediate, or advanced proficiency level of English language acquisition in speaking. The student is expected to:

(A) pronounce words, including high-frequency words, cognates, and increasingly complex syllable types, with accuracy;

(B) speak using content-area vocabulary during formal and informal classroom interactions to demonstrate acquisition of new words and high-frequency words;

(C) speak using a variety of language and grammatical structures, sentence lengths and types, and transition words;

(D) speak using appropriate register to convey a message during formal and informal classroom interactions with accuracy and fluency;

(E) narrate, describe, explain, justify, discuss, elaborate, or evaluate orally with increasing specificity and detail in academic context or discourse; and

(F) restate, ask questions about, or respond to information during formal and informal classroom interactions.

(3) Student expectations--reading. The EB student reads a variety of texts for different purposes with an increasing level of comprehension in all content areas. The EB student may be at the pre-production, beginning, intermediate, high intermediate, or advanced proficiency levels of English language acquisition in reading. The student is expected to:

(A) demonstrate awareness of print concepts and directionality of reading as left to right and top to bottom;

(B) decode words using the relationships between sounds and letters and identify syllable patterns, cognates, affixes, roots, or base words;

(C) use high-frequency words, contextual factors, and word analysis such as Greek and Latin prefixes, suffixes, and roots and cognates to comprehend content-area vocabulary in text;

(D) use context to construct the meaning of figurative language such as idiomatic expressions, descriptive language, and words with multiple meanings to comprehend a variety of text;

(E) use pre-reading strategies, including previewing the text features, connecting to prior knowledge, organizing ideas, and making predictions, to develop comprehension;

(F) derive meaning from and demonstrate comprehension of content-area texts using visual, contextual, and linguistic supports;

(G) demonstrate reading comprehension of content-area texts by retelling, paraphrasing, summarizing, and responding to questions; and

(H) read with fluency and prosody and demonstrate comprehension of content-area text.

(4) Student expectations--writing. The EB student writes using a variety of language structures with increasing accuracy to effectively address a variety of purposes (formal and informal) and audiences in all content areas. The EB student may be at the pre-production, beginning, intermediate, high intermediate, or advanced proficiency levels of English language acquisition in writing. The student is expected to:

(A) apply relationships between sounds and letters of the English language to represent sounds when writing;

(B) write text following conventional spelling patterns and rules;

(C) write using a combination of high-frequency words and content-area vocabulary;

- (D) write content-area texts using a variety of sentence lengths and types and transition words;
- (E) write content-area specific text using conventions such as capitalization, punctuation, and abbreviations and grammatical structures such as subject-verb agreement, verb tense, possessive case, and contractions; and
- (F) write to narrate, describe, explain, respond, or justify with supporting details and evidence using appropriate content, style, register, and conventions for specific purpose and audience.

(e) Proficiency level descriptors.

(1) The following five proficiency levels describe students' progress in English language acquisition.

(A) Pre-production. The pre-production level, also known as the silent period, is the early stage of English language acquisition when receptive language is developing. Students develop comprehension when highly scaffolded instruction and linguistic support are provided. Student responses are mostly non-verbal.

(B) Beginning. The beginning level is characterized by speech emergence (expressive language) using one word or two-to-three-word phrases. Students at this level require highly scaffolded instruction and linguistic support. Students at this level begin to consistently use present tense verbs and repeat keywords and familiar phrases when engaging in formal and informal interactions.

(C) Intermediate. The intermediate level is characterized by the ability to use receptive and expressive language with demonstrated literal comprehension. Students at this level need moderately scaffolded instruction and linguistic support. Additional visual and linguistic support is needed to understand unfamiliar or abstract concepts such as figurative language, humor, and cultural or societal references. Students at this level begin to consistently use short phrases and simple sentences or ask short questions to demonstrate comprehension during formal and informal interactions.

(D) High intermediate. Students at the high intermediate level begin to consistently use a variety of sentence types, express opinions, share thoughts, and ask for clarification. Students at this level have an increased level of literal and abstract comprehension. Students may need minimal scaffolded instruction and linguistic support to engage in formal and informal classroom interactions.

(E) Advanced. The advanced level is characterized by the ability of students to engage in formal and informal classroom interactions with little to no linguistic support. Students at this level engage in discourse using content-area vocabulary and a variety of grammatical structures with increasing accuracy.

(2) The Grades 4-12 proficiency level descriptors are described in the figure provided in this paragraph.

[Attached Graphic](#) **Source Note:** The provisions of this §120.21 adopted to be effective February 2, 2025, 50 TexReg 539.