Southern York County School District Instructional Plan

Name: Ryan Leiphart	**Dates: September**
Course/Subject: PSAT/SAT Prep	**Unit Plan 1: Pre-Test/Essays**

Stage 1 – Desired Results

PA Core Standard(s)/Assessment Anchors Addressed:

CC.1.5.11.A, CC.1.5.11.B, CC.1.5.11.C, CC.1.5.11.D, CC.1.5.11.E, CC.1.5.11.F
L.F.1.1.1-3, L.F.1.2.1-4, L.F.1.3.1-2, L.F.2.1.1-2, L.F.2.3.1-6, C.A.1.1.1-5, C.A.2.1.1-7, C.A.3.1.1-5

Understanding(s):	**Essential Question(s):**
Students will understand . . . 1. The format and scoring of the SAT. 2. How to prepare for taking the SAT. 3. That in some circumstances it is better to leave a question unanswered. 4. The application of test-taking strategies. 5. The application of the writing process. (CC.1.5.11.A-F) 6. The difference between an essay that scores a 4 and one that scores a 6. (CC.1.5.11.A-F)	▪ What does a SAT look like? ▪ How is an SAT scored? ▪ How is the SAT organized? ▪ How do you prepare for the SAT? ▪ How do you approach each type of problem? ▪ What can I do to help myself feel less anxious about taking the SAT? ▪ How can I effectively use the writing process to score a 6 on the essay? (CC.1.5.11.A-F)
Learning Objectives: ***Students will know . . .*** ▪ SAT format ▪ SAT scoring ▪ Pacing and timing ▪ Test taking strategies ▪ When it is appropriate to skip a problem ▪ SAT essay scoring rubric ▪ The writing process	***Students will be able to:*** ▪ Practice effective test taking skills and learn methods to reduce test anxiety. ▪ Apply the problem-solving process specific to a variety of situations. ▪ Explain test strategy in general and the SAT strategy in particular. ▪ Strategize methods to avoid test anxiety. ▪ Explain how to reach into experiences for insights and answers. ▪ Provide certain organizing principles that will help handle SAT questions.

Name: Ryan Leiphart	**Dates: September**
Course/Subject: PSAT/SAT Prep	**Unit Plan 2: Numbers and Operations**

Stage 1 – Desired Results

PA Core Standard(s)/Assessment Anchors Addressed:

CC.2.1.HS.F.5, CC.2.2.HS.D.1, CC.2.2.HS.D.2, CC.2.2.HS.D.3, CC.2.2.HS.D.9, CC.2.2.HS.D.10
A1.1.1.1.1-2, A1.1.1.2.1, A1.1.1.3.1, A1.1.1.4.1, A1.1.2.1.3, A1.1.2.2.1, G.1.3.1.1-2, G.2.2.1.1-2, G.2.2.2.1-5

Understanding(s):	**Essential Question(s):**

Students will understand . . . 1. Math problems can be solved multiple ways and one way is by using the multiple choices provided by the test. (CC.2.2.HS.D.9) 2. The relationships among the operations and their properties promote computational fluency. (CC.2.2.HS.D.1) 3. In certain situations, an estimate is as useful as an exact answer. (CC.2.1.HS.F.5) 4. Proportional relationships express how quantities change in relationship to each other. (CC.2.2.HS.D.2) 5. A problem solver understands what has been done, knows why the process was appropriate, and can support it with reasons and evidence. (CC.2.2.HS.D.9) 6. There can be different strategies to solve a problem, but some are more effective and efficient than others are. (CC.2.2.HS.D.9) 7. The context of a problem determines the reasonableness of a solution. (CC.2.2.HS.D.9)	▪ How are relationships among numbers and number systems the foundation of mathematics? (CC.2.2.HS.D.3) ▪ What information and strategies would you use to solve a multi-step word problem? (CC.2.2.HS.D.9) ▪ How does finding the common characteristics among similar problems help me to be a more efficient problem solver? (CC.2.2.HS.D.9) ▪ How do mathematical operations relate to each other? (CC.2.2.HS.D.3) ▪ When is it appropriate to use estimation and/or approximation? (CC.2.1.HS.F.5) ▪ How do I decide what strategy will work best in a given problem situation? (CC.2.2.HS.D.9) ▪ How does comparing quantities describe the relationship between them? (CC.2.2.HS.D.2)
Learning Objectives: ***Students will know . . .*** ▪ Simplifying square roots ▪ Scientific and standard notation. ▪ Number lines ▪ GCF and LCM ▪ Comparison and Order of Real Numbers ▪ Rate, work, and percent word problems. ▪ Proportional relationships ▪ Simplify and Evaluate Expressions ▪ Order of Operations ▪ Estimation ▪ Measuring angles ▪ Perimeter, area, volume, and surface area. ▪ Change in dimensions	***Students will be able to:*** ▪ Apply the properties and concepts of numbers and their operations to solve SAT problems. ▪ Apply the relationship between numbers on a number line. ▪ Identify squares and square roots of numbers. ▪ Understand and apply the relationship between a number, its square, and its cube ▪ Recognize fraction and decimal equivalents. ▪ Understand place value of the digits in a number. ▪ Determine the factors of a number, and a common or the greatest common factor of several numbers. ▪ Determine the multiples of a number, and a common or the least common multiple of several numbers. ▪ Identify prime numbers. ▪ Solve problems involving ratios, proportions, and percent's. ▪ Apply logical reasoning for problem solving.
Name: Ryan Leiphart	**Dates: September**
Course/Subject: PSAT/SAT Prep	**Unit Plan 3: Identifying Sentence Errors**
Stage 1 – Desired Results	
PA Core Standard(s)/Assessment Anchors Addressed: **CC.1.1.11.B, CC.1.1.11.C, CC.1.5.11.E** **L.F.1.2.1-4, C.IE.1.1.4-5, C.IE.2.1.3-7, C.IE.3.1.3-5**	
Understanding(s):	**Essential Question(s):**

Students will understand . . . 1. The format of SAT identifying sentence errors questions. (CC.1.5.11.E) 2. Looking for common mistakes in grammar is a good starting point for finding sentence errors. (CC.1.5.11.E) 3. In order to write effectively one must know grammar, usage, word choice, and idioms. (CC.1.5.11.E) 4. Comprehensive vocabulary development requires the identification and appropriate use of words in reading, writing, and speaking. (CC.1.1.11.B,C) 5. Vocabulary is not mastered until it can be explained in one's own words and used naturally. (CC.1.1.11.B,C) 6. Expanding one's vocabulary has an impact in reading comprehension and written and oral communication. (CC.1.1.11.B,C)	▪ How does one recognize and correct errors in grammar, usage and sentence structure? (CC.1.5.11.E) ▪ How should sentences be structured so they are grammatically correct? (CC.1.5.11.E) ▪ What are the most common sources of error on the SAT Writing Section? (CC.1.5.11.E) ▪ How can the knowledge of many words make us better readers, writers, and speakers? (CC.1.1.11.B,C)
Learning Objectives: ***Students will know . . .*** ▪ Subject verb agreement ▪ Verb tense ▪ Idiomatic use of language ▪ Commonly misused words ▪ Noun/pronoun agreement ▪ Adverbs/adjectives ▪ Errors in sentence construction ▪ The meaning of new vocabulary words	***Students will be able to:*** ▪ Recognize and correct errors in subject verb agreement. ▪ Recognize and correct errors in verb tense. ▪ Recognize and correct errors in idiomatic use of language. ▪ Recognize and correct errors with commonly misused words. ▪ Recognize and correct errors with noun/pronoun agreement. ▪ Recognize and correct errors using adverbs/adjectives. ▪ Recognize and correct errors in sentence construction. ▪ Demonstrate competence in identifying and correcting errors in grammar and usage. ▪ Demonstrate the use of a word in context.
Name: Ryan Leiphart	**Dates: October**
Course/Subject: PSAT/SAT Prep	**Unit Plan 4: Sentence Completion**
Stage 1 – Desired Results	
PA Core Standard(s)/Assessment Anchors Addressed: **CC.1.1.11.B, CC.1.1.11.C, CC.1.5.11.E** **L.F.1.2.1-4**	
Understanding(s):	**Essential Question(s):**

Students will understand . . . 1. Comprehensive vocabulary development requires the identification and appropriate use of words in reading, writing, and speaking. (CC.1.1.11.B,C) 2. Vocabulary is not mastered until it can be explained in one's own words and used naturally. (CC.1.1.11.B,C) 3. Expanding one's vocabulary has an impact in reading comprehension and written and oral communication. (CC.1.1.11.B,C) 4. The format of the SAT sentence completion problems. (CC.1.5.11.E)	▪ How can the knowledge of many words make us better readers, writers, and speakers? (CC.1.1.11.B,C) ▪ How can reading vocabulary be applied to different content areas? (CC.1.1.11.B,C) ▪ How can the knowledge of root words help to understand new words? (CC.1.1.11.B,C) ▪ How can the knowledge of work origins and relationships, as well as historical and literary clues help determine the meanings of specialized vocabulary? (CC.1.1.11.B,C)
Learning Objectives: ***Students will know . . .*** ▪ The meaning of new vocabulary words. ▪ The use of vocabulary words in context. ▪ The two types of sentence completion problems on the SAT are vocabulary in context and logic based. ▪ Many different strategies for sentence completion questions.	***Students will be able to:*** ▪ Demonstrate the use of new words in the context of a sentence. ▪ Apply reading vocabulary in different content areas ▪ Use knowledge of root words and prefixes to understand new words. ▪ Use knowledge of word origins and word relationships, as well as historical and literary context clues, to determine the meanings of specialized vocabulary
Name: Ryan Leiphart	**Dates: October**
Course/Subject: PSAT/SAT Prep	**Unit Plan 5: Algebraic Concepts**
Stage 1 – Desired Results	
PA Core Standard(s)/Assessment Anchors Addressed: **CC.2.2.HS.D.1, CC.2.2.HS.D.2, CC.2.2.HS.D.3, CC.2.2.HS.D.7, CC.2.2.HS.D.9, CC.2.2.HS.D.10, CC.2.2.HS.C.1, CC.2.2.HS.C.2, CC.2.2.HS.C.3, CC.2.2.HS.C.6** **A1.1.1.3.1-3, A1.1.1.5.2, A1.1.2.1.1-3, A1.1.2.2.1, A1.1.3.2.1-2, A1.2.2.1.1**	
Understanding(s): ***Students will understand . . .*** 1. Patterns and relationships can be represented numerically, graphically, symbolically, and verbally. (CC.2.2.HS.D.7,10), (CC.2.2.HS.C.1-3) 2. Real world situations can be represented symbolically and graphically. (CC.2.2.HS.D.7), (CC.2.2.HS.C.2,6) 3. Algebraic expressions and equations generalize relationships from specific cases. (CC.2.2.HS.D.10), (CC.2.2.HS.C.3) 4. A problem solver understands what has been done, knows why the process was appropriate, and can support it with reasons and evidence. (CC.2.2.HS.D.9) 5. There can be different strategies to solve a problem, but some are more effective and efficient than others are.(CC.2.2.HS.D.9)	**Essential Question(s):** ▪ How do algebraic properties help to solve SAT problems? (CC.2.2.HS.D.1) ▪ How can patterns and relationships be represented in different ways? (CC.2.2.HS.D.7,10), (CC.2.2.HS.C.1-3) ▪ How is thinking algebraically different from thinking arithmetically? (CC.2.2.HS.D.3) ▪ How do I use algebraic expressions to analyze or solve problems? (CC.2.2.HS.D.2) ▪ What are the tools needed to solve linear equations and inequalities? (CC.2.2.HS.D.10) ▪ When are algebraic and numeric expressions used? (CC.2.2.HS.D.10) ▪ What strategies can be used to solve for unknowns in algebraic equations? (CC.2.2.HS.D.2)

6. The context of a problem determines the reasonableness of a solution. (CC.2.2.HS.D.9)	
Learning Objectives: ***Students will know . . .*** ▪ Number patterns ▪ Relations and functions ▪ Graphing functions, equations, and inequalities ▪ Linear equation word problems ▪ Systems of equations ▪ Quadratic equations ▪ Factoring and simplifying polynomials ▪ Rate of change problems ▪ Linear equations and slope	***Students will be able to:*** ▪ Apply algebraic relationships to solve SAT problems. ▪ Apply the properties of exponents. ▪ Solve equations with exponents ▪ Identify and factor the difference of two squares. ▪ Square a binomial and factor a perfect square trinomial. ▪ Identify and factor out the greatest common factor of a polynomial. ▪ Factor a quadratic expression ▪ Solve an equation for one variable in terms of another. ▪ Translate words into a mathematical expression or equation. ▪ Solve systems of linear equations and inequalities. ▪ Solve quadratic equations by factoring. ▪ Solve word problems algebraically. ▪ Solve word problems involving rate, time, and distance. ▪ Understand and apply function notation. ▪ Determine the domain and range of a function. ▪ Understand linear equations and their graphs. ▪ Apply the Zero Product Property. ▪ Understand quadratic equations and their graphs.
Name: Ryan Leiphart	**Dates: November**
Course/Subject: PSAT/SAT Prep	**Unit Plan 6: Improving Sentences and Paragraphs**
Stage 1 – Desired Results	
PA Core Standard(s)/Assessment Anchors Addressed: **CC.1.1.11.B, CC.1.1.11.C, CC.1.5.11.D, CC.1.5.11.E, CC.1.5.11.F** **L.F.1.2.1-4, C.IE.1.1.4-5, C.IE.2.1.3-7, C.IE.3.1.3-5**	
Understanding(s): ***Students will understand . . .*** 1. Comprehensive vocabulary development requires the identification and appropriate use of words in reading, writing, and speaking. (CC.1.1.11.B,C) 2. Vocabulary is not mastered until it can be explained in one's own words and used naturally. (CC.1.1.11.B,C) 3. Improving written English is a pivotal part of successful writing. (CC.1.5.11.D,E,F) 4. The best strategies for revising a sentence or paragraph. (CC.1.5.11.E)	**Essential Question(s):** ▪ How can the knowledge of many words make us better readers, writers, and speakers? (CC.1.1.11.B,C) ▪ How can the writing process be used to revise sentences and paragraphs? (CC.1.5.11.D,E,F) ▪ How can I improve a sentence in a way that will make the sentence most effective? (CC.1.5.11.D,E,F) ▪ How can I find the best answer on the SAT if multiple answers seem correct?

5. Appropriate conventions of language when writing and editing. (CC.1.5.11.F)	(CC.1.5.11.D,E,F)
Learning Objectives: ***Students will know . . .*** ▪ The meaning of new vocabulary words. ▪ The use of vocabulary words in context. ▪ Alter sentence structure. ▪ Approaches to improve sentences and paragraphs.	***Students will be able to:*** ▪ Demonstrate the use of new words in the context of a sentence. ▪ Recognize and write clear, effective, and accurate sentences. ▪ Use the writing process to edit and revise sentences and paragraphs. ▪ Demonstrate competence in improving sentences and paragraphs.

Name: Ryan Leiphart	**Dates: November**
Course/Subject: PSAT/SAT Prep	**Unit Plan 7: Geometry**

Stage 1 – Desired Results

PA Core Standard(s)/Assessment Anchors Addressed:

CC.2.3.HS.A.3, CC.2.3.HS.A.5, CC.2.3.HS.A.6, CC.2.3.HS.A.7, CC.2.3.HS.A.8, CC.2.3.HS.A.9, CC.2.3.HS.A.12, CC.2.3.HS.A.13, CC.2.3.HS.A.14, CC.2.2.HS.C.9

G.1.1.1.1-4, G.1.2.1.1-3, G.1.3.1.1-2, G.2.1.1.1-2, G.2.1.2.1-2, G.2.2.1.1-2

Understanding(s): ***Students will understand . . .*** 1. Area and circumference of a circle are computed using the radius or the diameter. (CC.2.3.HS.A.3,8,9) 2. The relationship between angles formed by intersecting lines. (CC.2.3.HS.A.3) 3. The use of proportions to find missing information about 2 similar figures (CC.2.3.HS.A.6). 4. The measure of the interior and exterior angles of a regular polygon are related to the number of sides of the polygon. (CC.2.3.HS.A.3) 5. The measures of the area of similar figures are related by ratios of corresponding sides. (CC.2.3.HS.A.6) 6. Volume and surface area of 3-dimensional solids are computed by the measures of their sides. (CC.2.3.HS.A.12) 7. The Pythagorean Theorem can be used to find the missing side of a right triangle. (CC.2.2.HS.C.9)	**Essential Question(s):** ▪ How do geometric relationships help to solve SAT math problems? (CC.2.3.HS.A.3) ▪ How do you find different measurements related to a figure? (CC.2.3.HS.A.3,12,13) ▪ Are there multiple ways to solve the same problem? (CC.2.3.HS.A.3) ▪ How are the triangles related? (CC.2.3.HS.A.5,6,7) ▪ How is visualization essential to the study of geometry? (CC.2.3.HS.A.3) ▪ How does geometry explain or describe the structure of our world? (CC.2.3.HS.A.14) ▪ How do you prove that two lines are parallel or perpendicular? (CC.2.3.HS.A.3)
Learning Objectives:	

Students will know . . .	***Students will be able to:***
▪ Circles ▪ Triangles and quadrilaterals ▪ Supplementary, complementary, and vertical angles ▪ Similar and congruent figures ▪ Pythagorean theorem ▪ Distance and Midpoint ▪ Slope, Parallelism, and perpendicularity	▪ Apply geometric relationships to solve SAT problems. ▪ Apply coordinate geometry relationships to solve SAT problems. ▪ Identify and apply the relationship between the diameter and radius of a circle. ▪ Apply the relationship between a tangent to a circle and a radius at the point of tangency. ▪ Apply the formula for the circumference and arc length of a circle. ▪ Apply the formula for the area of a circle and a sector of the circle. ▪ Apply the properties of angles and parallel lines. ▪ Apply the properties of interior and exterior angles of a triangle. ▪ Apply the properties of equilateral and isosceles triangles. ▪ Apply the Pythagorean Theorem when determining the lengths of sides in a right triangle. ▪ Apply the properties of similar triangles. ▪ Apply the relationships between the angles and sides in parallelograms, rectangles, rhombi, and squares. ▪ Determine the sum of the interior angles of a polygon. . ▪ Determine the perimeter and area of squares, rectangles, parallelograms, and triangles. ▪ Determine the surface area and volume of a prism and a cylinder. ▪ Apply the Midpoint Formula. ▪ Apply the Distance Formula.

Name: Ryan Leiphart	**Dates: December**
Course/Subject: PSAT/SAT Prep	**Unit Plan 8: Passage-Based Reading**

Stage 1 – Desired Results

PA Core Standard(s)/Assessment Anchors Addressed:
CC.1.1.11.A, CC.1.1.11.B, CC.1.1.11.C, CC.1.1.11.D
L.F.1.1.1-3, L.F.1.2.1-4, L.F.1.3.1-2, L.F.2.1.1-2, L.F.2.3.1-6

Understanding(s): ***Students will understand . . .***	**Essential Question(s):**
1. Comprehensive vocabulary development requires the identification and appropriate use of words in reading, writing, and speaking. (CC.1.1.11.B,C) 2. Vocabulary is not mastered until it can be explained in one's own words and used naturally. (CC.1.1.11.B,C) 3. The best strategies to answer passage-based	▪ How can the knowledge of many words make us better readers, writers, and speakers? (CC.1.1.11.B,C) ▪ How does an author use words to create tone and mood? (CC.1.1.11.A,D) ▪ How can information gained from a passage be helpful to foster an argument, draw a conclusion, or advance a position?

reading questions. (CC.1.1.11.A,D) 4. Author's use of mood, tone, and style can be used to draw conclusions to a passage. (CC.1.1.11.A,D)	(CC.1.1.11.A,D)
Learning Objectives: ***Students will know . . .*** ▪ The meaning of new vocabulary words. ▪ The use of vocabulary words in context. ▪ How to draw conclusions from a passage. ▪ Reading to inquire knowledge. ▪ Tone, style, and attitude of passages. ▪ Inference ▪ Approaches to passage-based reading questions.	***Students will be able to:*** ▪ Demonstrate the use of new words in the context of a sentence. ▪ Read passages, independently, with accuracy and speed. ▪ Read and critically analyze a variety of genres and types of passages with fluency and comprehension. ▪ Identify, describe, evaluate, and synthesize the central ideas in a passage. ▪ Distinguish between essential and nonessential information. ▪ Analyze how an author's use of words creates tone and mood, and how choice of words advances the theme or purpose of the work. ▪ Apply information gained from a passage to foster an argument, draw conclusions, or advance a position.
Name: Ryan Leiphart	**Dates: January**
Course/Subject: PSAT/SAT Prep	**Unit Plan 9: Data Analysis and Probability/Post-Test**
Stage 1 – Desired Results	
PA Standard(s)/Assessment Anchors Addressed: **CC.2.4.HS.B.1, CC.2.4.HS.B.2, CC.2.4.HS.B.3, CC.2.4.HS.B.4, CC.2.4.HS.B.6, CC.2.4.HS.B.7** **A1.2.2.2.1, A1.2.3.1.1, A1.2.3.2.1-3, A1.2.3.3.1**	
Understanding(s): ***Students will understand . . .*** 1. Charts, tables, and graphs help you interpret data. (CC.2.4.HS.B.1-3) 2. A set of data can be represented by using pie charts, bar graphs for categorical and dot plots, stem plots, and histograms for quantitative variables. (CC.2.4.HS.B.1-3) 3. A scatterplot shows the relationship between two quantitative variables. (CC.2.4.HS.B.1-4) 4. Mean, median, mode, and range are measures of central tendencies. (CC.2.4.HS.B.1) 5. Probability describes the pattern of chance of outcomes and provides the basis for inference. (CC.2.4.HS.B.6,7)	**Essential Question(s):** ▪ How can the collection, organization, interpretation, and display of data be used to answer SAT questions? (CC.2.4.HS.B.1-3) ▪ What data display is appropriate for a given set of data? (CC.2.4.HS.B.1-4) ▪ How can you collect, organize, and display data? (CC.2.4.HS.B.1-4) ▪ How can the mean, median, mode, and range be used to describe the shape of the data? (CC.2.4.HS.B.1) ▪ What counting strategy works best? (CC.2.4.HS.B.6,7) ▪ How can theoretical probabilities be used to make predictions or draw conclusions? (CC.2.4.HS.B.6,7)
Learning Objectives:	

Students will know . . .	***Students will be able to:***
▪ Plots ▪ Diagrams ▪ Measures of central tendency ▪ Probability ▪ Fundamental counting principle ▪ Permutations ▪ Graphs	▪ Solve SAT problems involving data analysis, and probability. ▪ Interpret information in graphs, tables, and charts. ▪ Determine and apply the arithmetic mean, median, mode, and range of a set of data. ▪ Determine and apply the interquartile range to a set of data. ▪ Determine the probability of independent and dependent events. ▪ Apply the fundamental counting principle. ▪ Identify and solve problems involving permutations and combinations. ▪ Apply and determine the probability of simple and compound events?