

# School District of Springfield Township

## Springfield Township High School Course Overview

### **Course Name: SAT Preparation**

#### **Course Description**

SAT Preparation helps students become comfortable with the testing process by learning how to prepare mentally for the PSAT and SAT I tests. Test-taking strategies and specific strategies for correctly answering different types of questions are taught and practiced. Students have nightly homework in vocabulary building, reading comprehension, and mathematical problem solving. Required: TI-83+/84 graphing calculator

#### **Course Prerequisites**

A minimum final grade of “C” in Algebra I and a minimum final grade of “C” in Geometry

#### **Unit Titles**

Unit One: Navigating the Grammar and Writing Sections

Unit Two: Strategies for the Reading Section: Identifying and Responding to Lower Order and Higher Order Thinking Questions

Unit Three: SAT Math: Maximizing one’s Math Skills and Background Knowledge to Answer Questions Effectively and Efficiently.

#### **Essential Questions**

1. How and when should a student employ testing strategies (including, but not limited to eliminating questions, process of elimination, back solving, and time management) in order to be successful on the test?
2. What does the SAT seek to assess in each subsection of the test?
3. What key skills and processes are necessary to be successful on the test?

#### **Big Ideas/Enduring Understandings**

Unit One: Navigating the Grammar and Writing Sections

- Despite the time constraint, students should spend two – five minutes planning their written responses.
- A highly developed thesis will respond directly to the prompt and develop insight around the topic.
- A highly developed essay presents a unified thesis thread, as well as strong stylistic elements related to word choice, sentence structure, in depth content, and clear organization.
- The SAT assesses a select amount of grammar content. Understanding and applying these specific grammar rules contributes to improved test performance.

- Grammar impacts the clarity and conciseness of the sentence (i.e. using pronouns accurately, using commas correctly, and not using misplaced modifiers)
- The “Improved Paragraph” section requires students to think critically about text organizational structures.
- Evaluating organizational choices requires consideration for editing and revising.

Unit Two: Strategies for the Reading Section: Identifying and Responding to Lower Order and Higher Order Thinking Questions

- Studying Greek and Latin roots provides strong clues to increase vocabulary comprehension.
- Actively reading the text by assessing for who, what, when, where, and why it was written is important to processing the reading passages.
- Reading the questions before the passages and skimming can be helpful strategies, but it is reliant upon the type of passage and questions being asked.
- The SAT utilizes three types of questions: vocabulary in context, literal comprehension, and extended reasoning. To respond most effectively to extended reasoning questions, the student must be able to understand how the individual paragraphs synthesize into a meaningful whole.

Unit Three: SAT Math: Maximizing one’s Math Skills and Background Knowledge to Answer Questions Effectively and Efficiently.

- The math questions on the SAT increase in difficulty as the test progresses. Understanding which questions are within a particular student’s range will allow the student to move through the test efficiently while avoiding penalties.
- The ability to answer multiple choice questions in a statistically advantageous manner allows students to maximize their potential score on the math portion of the SAT.
- Performance on the math portion of the SAT is not completely tied to previous math knowledge. Strong reasoning and problem solving skills can make the questions much more manageable.

**Key Competencies/Skills/Procedures**

Unit One: Navigating the Grammar and Writing Sections

- Analyze grammar questions to determine the best response.
- Develop thesis statements with insight
- Develop effective content. Integrate anecdotal or cultural literacy examples as appropriate.
- Use transitional words and precise clear topic sentences to add focus to writing.
- Use concluding sentences that bring final insight to the topic and connect to the thesis.
- Elaborate with clear reasons and examples.

Unit Two: Strategies for the Reading Section: Identifying and Responding to Lower Order and Higher Order Thinking Questions

- Take brief marginal notes to keep the reading process active.
- Read the questions before reading the passage can be helpful; however, trying to remember ten questions and actively understand the passage can be overwhelming. One way to address this is by chunking the questions – reading the first three – five and then reading the passage.

- Use process of elimination. Sometimes the best answer is the most correct response – which means that both may seem right, but one will be more right.
- Use process of elimination to answer multiple choice questions. Multiple choice questions usually involve some combination of the following:
  - a distracter – something almost ridiculous
  - a response that is reliant upon you making a common mistake by misreading the passage or ignoring a key word that shifts the meaning (i.e. only, except).
  - a response that is almost correct
  - a response that is most correct
- When responding to questions about two passages, briefly review summary notes to help guide your response.
- When responding to an inferential question, study the specific clues within the passage to develop a reasonable conclusion.

Unit Three: SAT Math: Maximizing one’s Math Skills and Background Knowledge to Answer Questions Effectively and Efficiently.

- Utilize basic arithmetic skills and number sense to perform operations with and without a calculator.
- Understand and apply vocabulary relating to number theory, geometry, algebra, and statistics.
- Recognize what each question is asking for and develop a plan to attain the solution.
- Understand and apply algebraic and/or geometric skills and concepts to solve a multitude of problems.
- Recognize and apply a given rule to solve a problem.
- Utilize properties of combinations and permutations to solve counting problems.

**Core Vocabulary**

Unit One: Navigating the Grammar and Writing Sections

*redundancy, conciseness, thesis, transitions, methods of development, idiom, subject-verb agreement, comma splice, misplaced modifier, diction, pronoun reference, parallelism, independent clause, passive voice*

Unit Two: Strategies for the Reading Section: Identifying and Responding to Lower Order and Higher Order Thinking Questions

*fact, assumption, inference, vocabulary in context, literal comprehension, extended reasoning*

Unit Three: SAT Math: Maximizing one’s Math Skills and Background Knowledge to Answer Questions Effectively and Efficiently

*average, mean, median, mode, parallel, perpendicular, angle, combination, permutation, supplementary, complementary, 30-60-90, 45-45-90, congruent, right*

**Core Resources**

*The Official SAT Study Guide for the New SAT*

www.Number2.com (free website)

## *Pennsylvania State Standards*

### Unit One: Navigating the Grammar and Writing Sections

#### 1.4.11.B: Write complex informational pieces

- Create an organizing structure appropriate to purpose, audience, and context.
- Use precise language and specific detail.
- Include accurate information and exclude extraneous information.

#### 1.5: Quality of Writing

##### Focus

- 1.5.11.A: Write with a clear focus, identifying topic, task, and audience.

##### Content

- 1.5.11.B: Develop content appropriate for the topic.
- Write fully developed paragraphs that have details and information specific to the topic and relevant to the focus.

##### Organization

- 1.5.11.C: Write with controlled and/or subtle organization.
- Establish coherence within and among paragraphs through effective transitions, parallel structures, and similar writing techniques.

##### Style

- 1.5.11.D: Write with an understanding of style using a variety of sentence structures and descriptive word choices. Create tone and voice through the use of precise language.

##### Editing

- 1.5.11.E: Revise writing to improve style, word choice, sentence variety, and subtlety of meaning after rethinking how questions of purpose, audience, and genre have been addressed

##### Conventions

- 1.5.11.F: Use grade appropriate conventions of language when writing and editing. Spell all words correctly. Use capital letters correctly. Punctuate correctly. Use correct grammar and sentence formation.

### Unit Two: Strategies for the Reading Section: Identifying and Responding to Lower Order and Higher Order Thinking Questions:

#### 1.1: Reading Independently

##### Purposes for Reading

- 1.1.11.A: Apply appropriate strategies to analyze, interpret, and evaluate author's use of techniques and elements of fiction and nonfiction for rhetorical and aesthetic purposes.

##### Word Recognition Skills

- 1.1.11.B: Use context clues, knowledge of root words, and word origins as well as reference sources to decode and understand new words.

##### Vocabulary Development

- 1.1.11.C: Analyze textual context to determine or clarify the meaning of unfamiliar or ambiguous words and to draw conclusions about nuances or connotations of words.

#### 1.2: Reading, Analyzing, and Interpreting Text

##### Text Organization

- 1.2.11.A: Evaluate and critique text organization and content to determine the author's purpose and effectiveness according to the author's theses, accuracy, thoroughness, logic, and reasoning.

#### Fact/Opinion

- 1.2.11.B: Distinguish among facts and opinions, evidence, and inference across a variety of texts by using complete and accurate information, coherent arguments and points of view.

#### Essential/Non-Essential Information

- 1.2.11.C: Examine the author's explicit and implicit bias and assumptions, beliefs about a subject, use of fact and/or opinion, and/or the author's argument or defense of a claim as related to essential and non-essential information.

#### Inferences

- 1.2.11.D: Analyze inferences and draw conclusions based on and related to an author's implicit and explicit assumptions and beliefs about a subject.

#### Text Analysis and Evaluation

- 1.2.11.E: Examine and respond to essential content of text and documents in all academic areas.

### Unit Three: SAT Math: Maximizing one's Math Skills and Background Knowledge to Answer Questions Effectively and Efficiently.

#### 2.1: Numbers, Number Systems and Number Relationships

- 2.1.11.A: Model and compare values of irrational and complex numbers.
- 2.1.11.B: Use factoring to create equivalent forms of polynomials.
- 2.1.11.D: Use scientific, exponential, or calculator notation to represent any rational number.
- 2.1.11.E: Apply the concepts of prime and composite polynomials to determine GCFs (Greatest Common Factor) and LCMs (Least Common Multiple) of polynomials.
- 2.1.11.F: Understand the concepts of exponential and logarithmic forms and use the inverse relationships between exponential and logarithmic expression to determine unknown quantities in equations.

#### 2.2: Computation and Estimation

- 2.2.11.C: Evaluate numerical expressions that include the four basic operations and operations of powers and roots, reciprocals, opposites, and absolute values.

#### 2.3: Measurement and Estimation

- 2.3.11.C: Use properties of geometric figures and measurement formulas to solve for a missing quantity (e.g., the measure of a specific angle created by parallel lines and a transversal).
- 2.3.11.E: Describe how a change in the value of one variable in a formula affects the value of the measurement.

#### 2.5: Mathematical Problem Solving and Communication

- 2.5.11.A: Develop a plan to analyze a problem, identify the information needed to solve the problem, carry out the plan, check whether an answer makes sense, and explain how the problem was solved in grade appropriate contexts.
- 2.5.11.B: Use symbols, mathematical terminology, standard notation, mathematical rules, graphing and other types of mathematical representations to communicate observations, predictions, concepts, procedures, generalizations, ideas, and results.

## 2.6: Statistics and Data Analysis

- 2.6.11.C: Select or calculate the appropriate measure of central tendency, calculate and apply the interquartile range for one-variable data, and construct a line of best fit and calculate its equation for two variable data.

## 2.7: Probability and Predictions

- 2.7.11.A: Use probability to predict the likelihood of an outcome in an experiment.
- 2.7.11.C: Compare odds and probability.
- 2.7.11.E: Use probability to make judgments about the likelihood of various outcomes.

## 2.8: Algebra and Functions

- 2.8.11.B: Evaluate and simplify algebraic expressions and solve and graph linear, quadratic, exponential, and logarithmic equations and inequalities, and solve and graph systems of equations and inequalities.
- 2.8.11.C: Recognize, describe and generalize patterns using sequences and series to predict long term outcomes.
- 2.8.11.D: Demonstrate an understanding and apply properties of functions (domain, range, inverses) and characteristics of families of functions (linear, polynomial, rational, trigonometric, exponential, logarithmic).
- 2.8.11.E: Use combinations of symbols and numbers to create expressions, equations, and inequalities in two or more variables, systems of equations and inequalities, and functional relationships that model problem situations.
- 2.8.11.F: Interpret the results of solving equations, inequalities, systems of equations, and inequalities in the context of the situation that motivated the model.

## 2.9: Geometry

- 2.9.11.B: Use arguments based on transformations to establish congruence or similarity of 2-dimensional shapes.
- 2.9.11.C: Use techniques from coordinate geometry to establish properties of lines, shapes, and solids.

## 2.10: Trigonometry

- 2.10.11.A: Identify, create, and solve practical problems involving right triangles using the trigonometric functions and the Pythagorean Theorem.

Prepared October 2010—JM, CM

Approved--chr