

Key Skills in the Seventh Grade

Grade Seven students are adept at manipulating numbers and equations and understand general math principles. They know the Pythagorean Theorem and use it in solving problems. They compute surface area and volume as well as factoring large numbers. In English/language arts, students read and understand a wide variety of text, connecting essential ideas, arguments, and perspectives using their knowledge of text structure, organization, and purpose. They understand the differences in structure and purpose between various categories of informational materials such as texts, newspapers, instruction manuals, and signs. In addition to their regular school reading, students in grade seven make significant progress toward the 8th grade goal of reading one million words annually on their own.

By the end of the year, students in grade seven should be able to independently read:

Old Yeller by Fred Gipson; *The Pigman* by Paul Zindel; *The Adventures of Tom Sawyer* by Mark Twain; *The Outsiders* by S.E. Hinton; *A Series of Unfortunate Events* (series) by Lemony Snicket; *The Chronicles of Narnia* (series) by C.S. Lewis.

Math

Students:

- read, write, compare rational numbers in scientific notation and use negative exponents
- convert fractions to decimals and percents and differentiate between rational and irrational numbers
- multiply, divide, and simplify rational numbers by using factoring to find common denominators
- use algebraic terminology (variable, equation, term, coefficient, inequality, expression, constant)
- use the correct order of operations to evaluate algebraic expressions such as $3(2x + 5)$
- graph functions of the form $y = nx^2$ and use in solving problems
- solve two-step linear equations and inequalities over the rational numbers
- solve multi-step problems involving rate, average speed, distance, and time
- know and understand the Pythagorean Theorem and its converse and use it to find the missing Δ side
- use stem-and-leaf plots or box-and-whisker plots to represent data and compute the minimum, the lower and upper quartile, the median, and the maximum of a data set

English/Language Arts

Students:

- identify idioms, analogies, metaphors, and similes in prose and poetry
- identify and trace the author's argument, point of view, or perspective in text
- assess the adequacy, accuracy, and appropriateness of the author's evidence to support assertions
- articulate the purpose and characteristics of different types of prose (e.g., short story, novel, essay)
- identify and analyze recurring themes across works (e.g., bravery, loyalty, friendship, loneliness)
- identify events that advance the plot and determine how each event explains past or future actions or foreshadows future actions
- write narrative, expository, persuasive, and descriptive texts of at least 500-700 words in each genre
- write clear, coherent, focused essays and research papers that exhibit awareness of audience & purpose
- create an organizational structure that balances all aspects of the composition and uses effective transitions between sentences and paragraphs as well as demonstrating the mechanics of writing
- use strategies of note taking, outlining, and summarizing to impose structure on composition drafts
- give credit for quoted and paraphrased information in a bibliography using MLA citation standards
- develop a standard narrative plot line (having a beginning, conflict, rising action, climax, and denouement) and point of view
- justify interpretations of literature through sustained use of examples and textual evidence
- place modifiers properly and use the active voice
- use infinitives and participles and make clear reference between pronouns and antecedents
- identify all parts of speech and types and structure of sentences
- identify and use hyphens, dashes, brackets, and semicolons correctly
- deliver well organized oral presentations in all genres

