

Skills to Learn Grades 6-8



Look inside
to find out!



This is a list of skills students should learn in each grade
to be ready for the next grade.

Due to developmental differences and/or physical capabilities,
every child is not expected to master every skill. If you have
concerns about your child's development, please contact the
special education department in your local school district.

Sixth Grade Reading Standards

- Connect answers with proof from the text
- Determine the main idea or theme of a text using supporting details
- Analyze how and why individuals, events, and ideas develop throughout a text
- Determine how the author's word choice affects the meaning of specific words
- Analyze how particular parts of a text relate to the theme, setting, or plot
- Explain how an author develops the point of view or purpose in a text
- Compare and contrast the experience of reading a text to watching a movie
- Distinguish between fact and opinion
- Find similarities and differences between two or more texts
- Read and comprehend grade-level texts independently



Sixth Grade Math Standards

I. Ratios and Proportional Relationships:

- Use ratio reasoning to solve problems:
 - A. Example: For every vote Candidate A received, Candidate B received three votes, so the ratio is 1:3
 - B. Example: We paid \$75 for 15 hamburgers, which is a rate of \$5 per hamburger
 - C. Example: If it took seven hours to mow four lawns, how many lawns could be mowed in 35 hours?

II. The Number System:

- Multiplication and division of fractions by fractions
 - A. Example: How much chocolate will each person get if three people share a $\frac{1}{2}$ pound of chocolate equally?
- Compute multi-digit numbers fluently, using addition, subtraction, multiplication, and division
- Find common factors and multiples to express the distributive property
 - A. Example: $36 + 8 = 4(9 + 2)$
- Apply understanding of number lines and coordinate planes
 - A. Example: -3 is greater than -7
 - B. Example: Graph (-3,4) on the coordinate plane

III. Expressions and Equations:

- Apply arithmetic to algebraic expressions
 - A. Example: The expressions $y + y + y$ and $3y$ are equivalent because they name the same number regardless of which number y represents
- Solve one variable equations and inequalities
 - A. Example: $X + 7 = 9$
- Use graphs and tables to compute variables
 - A. Example: Distance equals rate times time ($d = rt$)

IV. Geometry:

- Solve real-world math problems involving area, surface area, and volume

V. Statistics and Probability:

- Develop an understanding of statistical variability
- Summarize and describe distribution
 - A. Plot numbers on a number line, dot plot, histogram, and box plot

Seventh Grade Reading Standards

- ❑ Connect answers with multiple proofs from the text
- ❑ Determine how the main idea or theme of a text is developed through supporting details
- ❑ Analyze how and why specific individuals, events, and ideas develop and interact throughout a text
- ❑ Determine how the author's word choice affects the meaning and tone of specific words
- ❑ Analyze how the author uses particular parts of a text to relate to the theme, setting, or plot
- ❑ Explain how an author develops and contrasts different points of view or purposes in a text
- ❑ Compare and contrast the experience of reading a text to watching a movie, analyzing the techniques used in each medium
- ❑ Distinguish between fact and opinion, determining if evidence supports the claim
- ❑ Analyze the similarities and differences in how two or more texts address similar themes or topics
- ❑ Read and comprehend grade-level texts independently



Seventh Grade Math Standards

I. Ratios and Proportional Relationships:

- Use ratio reasoning to solve real -world problems
 - A. Example: Calculating sales tax, tip, markdowns, and interest, as well as interpreting data using tables and graphs

II. The Number System:

- Fractions to add, subtract, multiply, and divide

III. Expressions and Equations:

- Use properties of operations to generate equivalent expressions
 - A. Example: “Increase by 5%” is the same as “multiply by 1.05”
- Solve real-life and mathematical problems using numerical and algebraic expressions and equations
 - A. Example: If a woman making \$25 an hour gets a 10% raise, she will make an additional one-tenth of her salary an hour, or \$2.50?
 - B. The perimeter of a rectangle is 54 cm. Its length is 6 cm. What is its width?

IV. Geometry:

- Draw, construct, and describe geometrical figures, and describe the relationships between them
- Solve real-life and mathematical problems involving angle measure, area, surface area, and volume

V. Statistic and Probability:

- Use random sampling to generate data and draw inferences
- Draw comparisons between two data sets

Eighth Grade Reading Standards

- Connect answers with the best proof from the text
- Determine how the main idea or theme of a text is developed through the use of character, setting, and plot
- Analyze how and why specific individuals, events, and ideas are connected throughout a text
- Determine how the author's word choice affects the meaning and tone of specific words
- Compare and contrast how two authors use particular parts of the texts to relate to the theme, setting, or plot
Identify aspects of a text that reveal an author's point of view or purpose
- Analyze the extent to which a movie or play stays faithful to or departs from the text
- Distinguish between fact and opinion, determining if sound reasoning supports the claim
- Analyze how two or more texts disagree on similar themes or topics
- Read and comprehend grade-level texts independently



Eighth Grade Math Standards

I. The Number System:

- Understand that rational numbers can be expressed as a decimal that eventually repeats

II. Expression and Equations:

- Work with radicals and exponents
 - A. Example: $4 = 2$
 - B. Example: $32 = 9$
- Understand the connections among proportional relationships, lines, and linear equations
 - A. Example: graph proportional relationships, interpreting the slope of the graph ($y = mx + b$)
- Analyze and solve linear equations

III. Functions:

- Understand that functions describe situations where one quantity determines another
- Use functions to model relationships between quantities

IV. Geometry:

- Understand congruence and similarity using physical models, transparencies, or geometry software
- Students perform translations, rotations, reflections, and dilations on a variety of figures
- Understand and apply the Pythagorean Theorem to find distances between points on the coordinate plane, to find lengths, and to analyze polygons
- Solve real-world and mathematical problems involving volume of cylinders, cones, and spheres

V. Statistics and Probability:

- Investigate patterns of association in data for two variables to include slope and intercept
 - A. Collect data from students in your class on whether or not they have a curfew on school nights, and whether or not they have assigned chores at home. Is there evidence that those who have a curfew also tend to have chores?



A Community Initiative of the Following Partners:

Community Action Partnership of North Alabama

Decatur City Schools

Decatur City Schools Foundation

Decatur-Morgan County Chamber of Commerce

Decatur Public Library

Hartselle City Schools

Morgan County Schools

Morgan County Schools Foundation

Quality Education Committee

For more information contact:

**DECATUR-MORGAN COUNTY
CHAMBER OF COMMERCE**

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