

# 11<sup>th</sup> Grade

## Social Studies

- \* Age of exploration and discovery
- \* Colonization of America
- \* A new nation is born
- \* Constitution of the United States
- \* Development of a new nation
- \* Period of nationalism
- \* Sectionalism
- \* American Civil War and Reconstruction
- \* United States as a world power
- \* Struggle for women's rights
- \* World War I
- \* The Great Depression
- \* World War II
- \* The Cold War
- \* The nuclear era
- \* Civil rights
- \* Delinquency and crime
- \* Psychology
- \* Problems of mental health
- \* Urbanization
- \* Public education
- \* Role of women in today's society

## Mathematics

### Algebra II

- \* Relations and functions
- \* Square roots, surds, radicals
- \* Rational roots
- \* Linear equations and analytic geometry
- \* Quadratic equations
- \* Binomial theorem
- \* Imaginary numbers
- \* Exponents and radicals
- \* Logarithms
- \* Progressions
- \* Higher-degree equations
- \* Vectors
- \* Determinants
- \* Permutations, combinations, and simple probability
- \* Estimation and approximation

### Trigonometry

- \* Solutions of right triangles
- \* Use of table and interpolation
- \* Measurement of angles
- \* Properties of trigonometric functions
- \* Complex numbers and vectors
- \* Concept of a limit
- \* Graphs of functions
- \* Solutions of oblique triangles
- \* Logarithms
- \* Identities and equations
- \* General triangle solutions

## Science

- \* Matter and its behavior
- \* Carbon and its compounds
- \* Formulas and chemical equations
- \* Acids, bases, salts
- \* Atomic theory
- \* Periodic law
- \* Water and solutions
- \* Chemical bonding
- \* Molecular theory
- \* Equilibrium and kinetics
- \* Spontaneous reactions
- \* Titrations
- \* Ionization and ionic solutions
- \* Colloids, suspensions, and emulsions
- \* Oxidation-reduction
- \* Nonmetals
- \* Metals and alloys
- \* Electrochemistry
- \* Energy: forms, chemical changes, and measurement
- \* Nuclear reactions and radioactivity

## Language Arts

- \* American literature
- \* Cross-cultural literature
- \* Analysis of plays
- \* Vocabulary of poetry
- \* Critical and evaluative reading
- \* Propaganda techniques
- \* Mass communication
- \* Advertising
- \* Music and painting
- \* Architecture and sculpture
- \* Listening skills
- \* Vocabulary development
- \* Grammar
- \* Story writing
- \* Editorial writing
- \* Journalistic writing
- \* Writing term papers
- \* Proofreading symbols
- \* Use of Reader's Guide and other reference aids, both print and electronic