

### Traits Exhibited by Many Fifteen to Eighteen-Year Olds

All children develop differently, but you may notice the following traits as your child attends Tenth, Eleventh, or Twelfth Grades.

- Want to earn money for independence and freedom
- Desire increased responsibility
- Need to be treated as young adults
- Occasionally revert to childish behavior
- Are very critical of self
- Seek prestige and belonging to the power group
- Are able to concentrate and specialize in selected skills and interests
- Have expansive and changing ambitions
- Are encountering a conflict between idealism and materialism
- Develop crushes with depth of feeling
- Tend to cover own weaknesses with similar weaknesses of the group

### This year your child will learn to:

#### Self-Directed Learning

- Follow school and classroom rules
- Use self-control
- Show respect for others
- Work to solve own problems
- Work cooperatively with others
- Work independently to a greater degree as the school year progresses
- Use time productively
- Make plans and organize before working
- Work quietly when directed
- Complete work in a timely manner
- Evaluate own work

#### All English Language Arts Courses

- Use language to convey appropriate messages
- Listen when others are speaking
- Contribute ideas to discussions
- Analyze literature in terms of character, plot, setting, conflict, theme
- Make predictions about a variety of texts
- Read books for information and enjoyment
- Compare and contrast authors, genre, or like literature selections
- Support opinions with factual information
- Recognize the use of slanted language used to present a particular view
- Read a variety of genre: short stories, plays, novels, poetry
- Write well developed and organized paragraphs and essays
- Orally summarize fiction and non-fiction after reading
- Know and apply the uses of punctuation
- Apply knowledge of parts of speech, subject-verb agreement, and verb tense
- Recognize that words may have different contextual meanings
- Present oral reports and speeches
- Understand the importance of word choice in conveying a message and relating to an audience
- Develop note-taking skills
- Spell most words correctly
- Self-assess writing according to the 6-Traits model
- Use writing process to plan and create written work
- Increase written and spoken vocabulary
- Use computers to organize and communicate information

#### English 11

- Read and discuss literature in American Literature text (1500 to present)
- Read at least one American novel as a class project
- Study a Shakespearean play and attend a live performance
- Prepare a research project
- Develop skills in expository and creative writing
- Apply the study of word roots/families to vocabulary enrichment

#### English Skills 11

- Read and discuss literature in American Literature text (1500 to present)
- Read at least one American novel as a class project
- Study a Shakespearean play and attend a live performance
- Understand plagiarism and need to properly document sources in research projects
- Develop skills in practical and technical writing

### Speech

- Investigate the etymology of words and phrases
- Read and interpret informational texts
- Study importance of nonverbal communication
- Prepare and deliver a persuasive speech
- Prepare and deliver a demonstration speech
- Develop listening skills
- Develop cooperation and accountability skills
- Provide constructive feedback to speakers
- Understand the use of formal and informal English
- Study and apply conflict/resolution strategies
- Prepare a resume
- Participate in an interview

### Readers' Theater

- Read contemporary plays and relate them to personal experiences (Arthur Miller, Neil Simon, Agatha Christie, Larry Shue)
- Write a character analysis
- Write and perform a creative piece
- Participate in role-playing and theatrical scenes
- Analyze plays and performances
- Produce a video program using digital and computer equipment
- Contribute to building the set for the spring production
- Work cooperatively to produce a public service announcement or documentary
- Read independently from a selected list and write an in-depth evaluation
- Develop confidence, creativity and concentration

### Contemporary Literature

- Relate reading to personal experiences, career choices, and decision making
- Produce a newspaper based on reading selections
- Present a biography-based oral report
- Develop critical thinking skills

### English Literature

- Participate in discussions
- Produce a research paper
- Write personal reflections of literature studied
- Read works from Anglo-Saxon period through the Victorian Age including Beowulf and parts of The Canterbury Tales, as well as works from Shakespeare, Spenser, Donne, Milton, Swift, Pope, Blake, Wordsworth, Shelley, Keats, Dickens, Hopkins, Hardy, etc.

### Creative Writing

- Read to stimulate creative writing projects
- Produce a personal magazine by writing various articles and advertisements
- Use computer software to create magazine covers and graphics
- Share writing with various audiences (elementary, peers, parents, other adults)
- Write personal memoirs
- Produce public service announcements
- Produce vocabulary skits
- Write persuasive essays
- Produce word art

### Drama

- Read informative texts and produce a research project using computer technology (ie. PowerPoint, Webpage)
- Read classical literature (Oedipus, Othello, Moliere)

- Perform monologues
- Write character analyses
- Write a persuasive paper
- Study theatre history
- Create videotaped scenes
- Relate reading to personal life experiences and problem solving
- Develop creativity and concentration

### **Communications**

- Conduct research and write a report on the First Amendment's provisions and limitations
- Prepare quarterly book reports
- Analyze and discuss the use of propaganda in media (television, music, journalism, film)
- Read Fahrenheit 451 and relate to societal trends and media's role
- Develop skills in practical/ technical reading & writing

### **Introduction to Acting**

- Create and present a character
- Write play analyses, production reviews, evaluations of performances, and creative fiction
- Prepare improvisations, monologues, scenes, and role-plays
- Analyze a playwright's point of view
- Produce a video production based on memorized scenes
- Develop concentration, creativity, cooperation, and confidence through performance

### **AP English**

- Read and analyze a variety of classic works of literature with depth of study emphasized
- Develop persuasive writing skills, specifically effective rhetorical strategies, clear and effective use of citations/support, insightfulness, mature style, variety in syntax and a strong working vocabulary
- Develop skill of writing well under pressure of time constraints
- Develop confidence in interpretive skills as they are applied to unfamiliar texts
- Use reference materials and conduct research
- Create a website highlighting a poem, its author, and cultural context
- Develop strategies to confidently answer multiple choice questions on literature
- Creatively interpret literature in a different medium of choice, eg. Film, art, music, or dance

### **All Math Courses**

- Apply common sense and probability of result to all work
- Understand how math is essential in real life including career choices
- Compare real numbers
- Understand and use ratios, proportions, percents, rates of change
- Manipulate numbers and compute using appropriate operations
- Explain orally and in writing numerical operations and procedures
- Use technology to carry out computations
- Use geometric models to describe relationships and solve problems
- Use appropriate measurement tools
- Measure using estimation and reasoning
- Know and use geometric formulas
- Read and use data in graphs and tables

### **Algebra B**

- Understand and use inequalities
- Understand and use systems of equations
- Multiply monomials and polynomials
- Factor expressions
- Graph quadratic functions
- Solve quadratic and exponential equations
- Simplify rational expressions
- Use the Pythagorean Theorem
- Simplify and solve radical expressions
- Find the distance between two points

### **Algebra 1**

- Simplify expressions using number properties and combining like terms
- Know and use the definition of an exponent  $n$ , either positive or negative
- Know that a non-zero number to the zero power is one
- Understand and use negative and positive numbers and even and odd powers
- Be able to multiply exponents
- Convert decimal numbers to and from scientific notation
- Use a scientific calculator
- Maintain equivalence of an equation throughout number operations
- Expand binomials
- Factor expressions
- Interpret geometrical problems and put in equation form
- Know the concept of slope
- Understand and use a function
- Use proportion to calculate for an unknown quantity
- Calculate frequencies
- Solve quadratic equations
- Solve linear equations
- Solve equations with more than one variable
- Understand sine, cosine, and tangent ratios
- Understand the properties of triangles

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## Geometry

- Classify angles
- Use and understand perpendicular lines and planes
- Construct indirect and direct proofs
- Understand congruent angles
- Classify triangles
- Classify polygons
- Understand similarity of proportion
- Use square roots
- Use the Pythagorean Theorem
- Understand and use circles, segments, and arcs
- Figure surface area of prisms, cylinders, cones, spheres
- Calculate and graph slope of lines

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## Algebra 2

- Creating graphical solutions of simultaneous equations
- Understand and use scientific notation
- Understand and use radicals
- Understand and use roots of quadratic equations including complex roots
- Understand properties of real numbers
- Understand and use advanced factoring
- Understand inequalities and systems of inequalities
- Understand and use logarithms and antilogarithms
- Understand and calculate conic sections
- Calculate using exponential equations
- Understand and use basic trigonometric functions
- Understand and apply the algebra of polynomials
- Understand vectors in polar and rectangular form
- Understand and interpret algebraic word problems
- Understand matrices and use matrices to solve problems

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## Pre-Calculus

- Understand the trig functions based on the unit circle
- Relate the unit circle to the graphs of the six trig functions
- Understand right triangle trigonometry
- Understand the difference between radians and degrees, and convert from one to another
- Use various trig formulas and identities
- Use calculators to evaluate trig functions
- Graph the six trig functions and their inverses
- Solve equations involving trig functions, including the laws of sines and cosines
- Understand the use of vectors
- Find the area of circular sectors and segments
- Understand arithmetic and geometric sequences and series
- Understand sigma notation
- Use the binomial theorem

- Use the binomial theorem
- Understand exponents, logarithms, and functions involving them
- Understand the properties and accurately graph the conic sections
- Solve problems involving probability
- Understand what a matrix is, what a matrix can be used for, and what operations can be performed on a matrix

### **Introduction to Calculus**

- Discuss limits and relate them to the calculus concept
- Take basic derivatives
- Find definite and indefinite integrals
- Use derivatives and integrals to solve problems

### **Advanced Placement Calculus**

- Understand all concepts covered in Pre-Calculus
- Understand and use polar coordinates
- Understand and apply the concepts of limits
- Take derivatives using several different methods
- Apply the properties of functions
- Find definite and indefinite integrals
- Apply the use of derivatives to real-world problems
- Review for the AP Calculus examination

### **Consumer Math**

- Understand different ways to earn money and ways to get paid
- Understand buying food
- Understand managing a household
- Understand buying and maintaining a car
- Understand working with food
- Understand improving your home
- Know the different ways to travel
- Understand budgeting your money
- Understand different banking and investment practices
- Learn how to pay taxes
- Understand preparing for careers

### **All Science Courses**

- Understand that the themes of science affect everyday life and decisions
- Understand how scientific themes and theories can apply to future conditions and situations
- Understand that conflicting assumptions can lead to different conclusions and decisions
- Understand that science investigations have increased human knowledge
- Know how cultures and individuals have contributed to scientific knowledge
- Know how basic research and applied research have contributed to new discoveries
- Understand the scientific method of observation, investigation, data collection, and hypothesis
- Read and evaluate scientific articles of timely import
- Present results of investigations to groups/individuals concerned with the issues

### **Chemistry 1**

- Describe atomic structure and the properties of atoms
- Explain how substances interact with one another to produce new substances
- Use patterns in physical and chemical properties to predict likely chemical changes
- Understand intermolecular forces
- Explain exchanges of energy in chemical reactions and exchange of mass and energy in nuclear reactions
- Describe how science and technology affect decisions made in our government policies

### **Physics**

- Analyze motion of objects and the forces that produce this motion
- Investigate gravitational forces and how these forces impact on the universal system

- Apply knowledge learned to understand past and future space flight through the use of computer simulations
- Investigate models of heat energy and the behavior of this energy form
- Investigate mechanical wave models and the transfer of energy by these forms
- Investigate models of light energy and describe the behavior of energy form
- Describe models of electromagnetic forces and the behavior of these forces
- Evaluate articles and reports presented in popular and scientific journals

## AP Environmental Science

- Understand why and how the rapidly increasing population is the underlying reason for all the current environmental problems
- Explain sustainability and relate how this concept could solve many environmental problems
- Understand Earth System Science and relate how local actions can lead to global problems
- Understand urban ecology and how the growth of cities has led to pollution problems
- Understand how values affect our decisions on how environmental problems are addressed

## Chemistry 2

- Study and understand the chemistry of solutions
- Understand how a change in solute affects a solutions properties
- Use group problem-based learning to gain understanding of acid and base chemistry
- Use a titration to test the strength of an acid or base
- Gain a basic understanding of organic chemistry, including the alkanes, alkenes, and alkynes
- Investigate/learn laboratory techniques unique to organic chemistry
- Know and understand the structure and nomenclature of organic compounds
- Investigate reactions of organic compounds
- Discuss and describe how organic compounds affect our lives and environment

## All Social Studies Classes

- Understand that social studies involves the study of history, geography, political science, economics, peoples, cultures, and social sciences such as anthropology, sociology, and psychology
- Use atlases, maps, and globes to locate regions and collect data
- Construct mental maps, recalling major physical features
- Understand that environment affects people and culture
- Understand that history affects the present and future conditions of cultures, people and countries
- Learn about important people and their contributions to history and/or the present
- Understand different cultures or eras and the corresponding political systems
- Research a topic and present relevant data and conclusions to the class or teacher
- Participate in group projects
- Present information orally and in writing
- Contribute to discussions with relevant information and opinions

## American Government

- Be introduced to the foundations of government (liberty, equality, justice, power) as identified in the Constitution, the Bill of Rights, and the Constitutional Amendments
  - Understand the three branches of American government, the separation of powers and duties of each in a multi-purpose democracy
  - Know and evaluate the implications of certain rights and responsibilities of citizens that are both used and abused historically and in modern times
  - Understand the basics of state and local government, including ways people participate in community affairs and the American electoral process
  - Evaluate the means through which advocates influence public policy, public opinion, and political party politics
  - Discuss American foreign policy and the US relations with other countries and its role in international organizations
  - Explore how different political and economic systems compare in human rights for all (people with disabilities, ethnic and racial groups, minorities, and women)
- Economic Principles
- Compare, contrast, and analyze different types of economies and economic systems, exploring how they have been affected by specific social and political systems and historical events
  - Explain basic economic terms and concepts that comprise microeconomics (supply, demand, prices, production, distribution, and consumption) and how these are part of market structures
  - Explore the sources of capital in economic systems and business organizations, both historically and in the present

- Understand the elements of macroeconomics, the analysis of economic performance, and the federal budgetary and monetary policies
- Explain the operations of common financial instruments (such as stocks and bonds) and financial institutions (credit companies, banks, and insurance companies)
- Analyze and evaluate the role of Wisconsin and the United States in the world economy in the age of global interdependence and competition

### **Current Issues**

- Identify and analyze cultural factors such as human needs, values, folkways, mores, norms, ideals, and public policies
- Evaluate the short term and long term effects of major changes in population, ecosystems, distribution of products, and cultural systems
- Explore contemporary and/or historical issues where people are required to take an ethical position, including when personal, national, and global interests are all in question
- Locate, organize, analyze, and use information from various sources to understand an issue of public concern, take a position, and communicate the position
- Understand the legal interpretations of liberty, equality, justice, and power and which groups and organizations try to influence public opinion in order to change public policy
- Explain the current and past efforts of groups and institutions to eliminate the effects of prejudice and discrimination against a variety of groups

### **20th Century Civilization**

- Understand that history affects the present and future conditions of cultures, peoples and countries
- Learn about important people and their contributions to history and the present
- Understand different cultures and eras, and the contemporary political systems
- Contribute to discussions with relevant information and opinions
- Research a topic of 20th century civilization and present relative data and conclusions to the class or teacher
- Understand the events leading up to and the ramifications of WWI and WWII
- Understand how the present day conflicts of Europe and the Middle East developed
- Participate in group projects

### **Information and Technology**

- Use software to organize thoughts for written work
- Keyboard accurately at 30-45 wpm
- Use scanner, digital camera, and other digital equipment
- Produce work processing documents, spreadsheets, databases, PowerPoint, and drawing products
- Use various web browsers to modify and focus web searches
- Transfer graphics, pictures, and video clips into student-made documents
- Choose appropriate library materials
- Care properly for library materials and equipment
- Use a variety of library resource materials
- Demonstrate note-taking skills
- Demonstrate proper citation of resource materials used
- Learn to assess one's own progress and quality of work