

Mosinee Schools
Parents' Guide to Ninth Grade: Core Subjects
This year your child will learn to:

**Traits Exhibited by Many
Twelve- to Fifteen-Year Olds**

All children develop differently, but you may notice the following traits as your child attends Ninth Grade.

- Have a strong drive for conformity with own age group
- Have intense feelings and emotions
- Are influenced greatly by popular adults and teenage idols
- Have rapidly changing interests and ambitions
- Have a longer interest span and increasing capacity for self-discipline
- Prefer competition with outside groups over competition with friends
- Have an idealism about the world at large
- Have concern with their personal appearance, self-consciousness and inhibition
- May mature physically
- Boys and girls can work together on projects better than they can socialize

Grade 9 Teachers:

Robert Bach, Deidre Bradford: English 9
Hannah Bohrtz: Geometry
Dan Stratton, Leslie Felch: Algebra 1
Tom Fitzgerald, Margo Smith: Integrated Science
Bethany Schaefer: US History 9
Amanda Bieri: Social Studies Survey
Erin Koziczkowski, Kathy Klingenberg,
Angie Lloyd, Tammy Koskey, Sue Brandt,
Joe Kell, Natalie Kell, Mary Savage, Chris Ruchti, Melissa Jirgl: Special Education
Sandra Wurdeman: Library/Media

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
- Use time productively
- Make plans and organize before working
- Work quietly when directed
- Complete work in a timely manner
- Evaluate own work
- Assess own progress

English 9

- 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
- Support opinions with factual information
- Read a variety of genre: short stories, plays, novels, poetry
- Summarize fiction and non-fiction text
- Understand and describe an author's craft: organizational structure, point of view, character development, argument development
- Analyze and compare different pieces of text
- Know and apply the rules of punctuation
- Write well-developed and organized paragraphs and essays
- Apply knowledge of parts of speech, subject-verb agreement, phrases and clauses, parallel structure, and commonly confused words
- Recognize that words may have different contextual meanings
- Understand and use figurative language to create a setting or tone
- Present oral reports and speeches
- Understand the importance of word choice in conveying a message and relating to an audience
- Understand dialect as used in literature selections
- Spell words correctly
- Write a variety of essays focusing on the Six Traits of Writing
- Self-assess writing according to the 6-Traits model
- Increase written and spoken vocabulary
- Use computers to organize and communicate information
- Read classic literature (Romeo and Juliet)
- Read self-selected materials
- Self-select research topics and conduct library and Internet research
- Read non-fiction (magazine articles, Internet sources, reference books)
- Participate in group projects and presentations

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
- Understand commutative, associative, distributive, and transitive mathematical properties
- 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 1A

- Simplify expressions using order of operations, number properties, and combining like terms
- Organize data using stem-and-leaf plots, line plots, and scatter plots
- Recognize patterns and sequences
- Use exponents effectively
- Interpret and make different types of graphs
- Identify and graph the different sets of numbers. (rational, whole, etc.)
- Perform operations on the different sets of numbers
- Write and solve linear equations
- Identify and apply concepts dealing with complementary and supplementary angles
- Understand properties of triangles
- Solve multivariable equations for a specific variable
- Graph linear equations on a coordinate plane and understand slope
- Understand mean, median, and mode, and know how to compute each
- Understand proportional reasoning
- Understand and apply basic right triangle trigonometry
- Understand and apply the concepts dealing with percents
- Understand probability and odds
- Understand weighted averages
- Understand direct and inverse variation
- Explore basic function properties

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This year your child will learn to:

- ❑ Explore measures of variation in statistics
- ❑ Find the midpoints of a line segment

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

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

Integrated Math 1

- ❑ Simplify expressions using order of operations, number properties, and combining like terms
- ❑ Use exponents effectively
- ❑ Interpret and make different types of graphs
- ❑ Organize data using stem-and-leaf plots, line plots, and scatter plots
- ❑ Recognize patterns and sequences
- ❑ Understand mean, median, and mode, and know how to compute each
- ❑ Understand and use ratios
- ❑ Identify and apply concepts dealing with complementary and supplementary angles
- ❑ Understand properties of triangles
- ❑ Understand and apply basic right triangle trigonometry
- ❑ Understand and apply the concepts dealing with percents
- ❑ Write and solve linear equations
- ❑ Understand quantity/cost relationships

Integrated Science

- ❑ Understand that science affects 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
- ❑ Describe atomic structure and properties of atoms
- ❑ Understand
- ❑ Identify types of chemical interactions
- ❑ Understand cell structure and genetics
- ❑ Analyze changes in motion of objects and forces that act on them
- ❑ Describe models and behaviors of light, heat, and sound
- ❑ Understand the meteorological forces that create weather

- ❑ Understand the theories of the origin and evolution of the earth
- ❑ Use critical reading, writing, and thinking skills

Social Studies Survey

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

US History 9

- ❑ Research a topic and present relevant data and conclusions to the class or teacher
- ❑ Read and analyze primary source materials to gain an understanding of history
- ❑ Participate in group projects
- ❑ Understand that environment affects people and culture
- ❑ Understand the impact of the Louisiana Purchase on US history
- ❑ Learn about the history, contributions, and culture of American Indian tribes
- ❑ Understand the expansion into the western territories, the economic results and the effect on Indian tribes
- ❑ Learn about slavery and discrimination in the US and world
- ❑ Understand the causes and results of the Civil War
- ❑ Add to knowledge of the Constitution and Bill of Rights

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This year your child will learn to:

and evolution of interpretation over time

- Understand the historical relationship of the US to other countries
- Understand how economic concerns have affected US history
- Understand the role of immigrants into the US
- Use critical reading, writing, and thinking skills

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 word 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
- Use a variety of library resource materials
- Demonstrate proper citation of resource materials used
- Learn to assess one's own progress and quality of work
- Use personal initiative and time management skills to complete projects on time
- Work with a group to complete a project
- Use anti-plagiarism strategies
- Participate in blended learning courses
- Produce digital video projects
- Use library catalog
- Use library web page
- Use Boolean search strategies
- Use advanced database and Internet features
- Understand the meaning of copyright and fair use
- Demonstrate safe use of the Internet
- Understand the purpose of Wikis and Blogs
- Recognize and use primary documents
- Evaluate resources
- Understand bias and opinion