

Hampden-Wilbraham Regional School District

Parent Guide
to
Grade Eight Curriculum



HWRSD MISSION STATEMENT

*Our mission is to be one community of learners
committed to educating productive and responsible world citizens
within a safe, healthful environment.*

ENGLISH LANGUAGE ARTS

Primary Curriculum Resources: Prentice Hall Literature Anthology, Prentice Hall Writing and Grammar, Collins Writing

LEARNING OUTCOMES

- ☆ Present an organized interpretation of a literary work, film, or dramatic production.
- ☆ Identify correct mechanics, correct usage, and correct sentence structure.
- ☆ Locate and analyze elements of plot and characterization.
- ☆ Respond to and analyze the effects of sound, form, figurative language, and graphics in order to uncover meaning in poetry.
- ☆ Write and justify a personal interpretation of literary, informational, or expository reading that includes a topic statement, supporting details from the literature, and a conclusion.
- ☆ Write poems using poetic techniques, figurative language, and graphic elements.
- ☆ Write reports based on research that include quotations, footnotes or endnotes, and a bibliography.
- ☆ Write multi-paragraph compositions that have clear topic development, logical organization, effective use of detail, and variety in sentence structure.
- ☆ Apply steps for obtaining information from a variety of sources, organizing information, documenting sources, and presenting research in individual projects.
- ☆ Use criteria to assess the effectiveness of media presentations.

MATHEMATICS

Primary Curriculum Resources

Prentice Hall Mathematics Course , selected Connected Mathematics units, and Math's Mate

All students in grade 8 study algebra content. Those who meet the criteria for the advanced level use the textbook Algebra 1 (Glencoe, 2005) for the formal study of algebra. Other students study the ideas of algebra from a problem-based perspective using Prentice Hall Pre-Algebra or selected Connected Mathematics units.

LEARNING OUTCOMES

- ☆ Demonstrate an understanding of the concepts and apply formulas and procedures for determining measures, including those of area and perimeter/ circumference of parallelograms, trapezoids, and circles. Given the formulas, determine the surface area and volume of rectangular prisms, cylinders, and spheres. Use technology as appropriate.
- ☆ Estimate and compute with fractions, integers, decimals, and percents.
- ☆ Extend, represent, analyze, and generalize a variety of patterns with tables, graphs, words, and, when possible, symbolic expressions. Include arithmetic and geometric progressions.
- ☆ Create, use, and evaluate symbolic expressions and relate them to various representations.
- ☆ Use linear equations to model and analyze problems involving proportional relationships. Use technology as appropriate.
- ☆ Use ratio and proportion (including scale factors) in the solution of problems.
- ☆ Use models, graphs, and formulas to solve simple problems involving rates, e.g., velocity and density.
- ☆ Explain and analyze how a change in one variable results in a change in another variable in functions.
- ☆ Use tables and graphs to represent and compare linear growth patterns. In particular, compare rates of change and x- and y-intercepts of different linear patterns.
- ☆ Define, compare, order, and apply frequently used irrational numbers, such as $\sqrt{2}$ and π .
- ☆ Apply the rules of powers and roots to the solution of problems. Extend the Order of Operations to include positive integer exponents and square roots.
- ☆ Identify the slope of a line as a measure of its steepness and as a constant rate of change from its table of values, equation, or graph. Apply the concept of slope to the solution of problems.
- ☆ Demonstrate an understanding of the Pythagorean Theorem and apply it to solve problems.
- ☆ Set up and solve linear equations and inequalities with one or two variables, using algebraic methods, models, and/or graphs.

SCIENCE

The science curriculum is designed to help students develop scientific reasoning as they investigate and solve complex, real-world problems using the tools they need. Major units of study are: *Cells, Genetics, Biodiversity, Properties of Matter, Elements, Compounds, and Mixtures, Motion of Objects, and Forms of Energy* (Prentice-Hall, 2002).

LEARNING OUTCOMES

- ☆ Recognize that all organisms are composed of cells.
- ☆ Compare and contrast plant and animal cells.
- ☆ Describe the hierarchical organization of multicellular organisms.
- ☆ Recognize that every organism requires a set of instructions that specifies its traits.
- ☆ Give examples of the effects of genetic variation and environmental factors.
- ☆ Define density.
- ☆ Explain and give examples of how mass is conserved in a closed system.
- ☆ Recognize that there are more than 100 elements that combine in a multitude of ways to produce compounds that make up all of the living and nonliving things that we encounter.
- ☆ Differentiate between an atom and a molecule, mixtures and pure substances, and physical and chemical changes.
- ☆ Explain and give examples of how the motion of an object can be described by its position, direction of motion, and speed.
- ☆ Graph and interpret distance vs. time graphs for constant speed.
- ☆ Differentiate between potential and kinetic energy.

SOCIAL STUDIES

LEARNING OUTCOMES

- ☆ Demonstrate understanding of the development, significance, and impact of the founding documents.
- ☆ Demonstrate understanding of U.S. government exists on a Federal, State, and Local level.
- ☆ Demonstrate knowledge of the key events of the early presidents and understand that their actions often set the precedent for future presidents.
- ☆ Explain the idea of Manifest Destiny and its role in government decisions.
- ☆ Explain the causes, major events, and effects of the Civil War.
- ☆ Explain the impact of the Industrial Revolution.
- ☆ Students should understand the U.S. role in World War I and its significance. Students should be able to explain the causes of the Great Depression and its impact on society.
- ☆ Explain the causes, major events, and effects of World War II.
- ☆ Demonstrate understanding of the Cold War and its impact on American society and policy.
- ☆ Explain the major changes in American society during the Civil Rights Era.

FOREIGN LANGUAGE

The foreign language program at WMS and TWB is a two-year sequence that prepares students for second year French or Spanish at the high school. French and Spanish are offered at WMS, and Spanish is offered at TWB. Research shows that learning a foreign language improves student performance across the curriculum; often, the knowledge acquired in the foreign language class acts to complement and reinforce what is being taught in classes such as language arts and social studies. Upon completion of the middle school foreign language course, students acquire a strong foundation in the areas of listening, speaking, reading, and writing in the target language, as well as an appreciation of the target culture.

Students whose language arts, reading, and study skills need extra attention may enroll in the F.L.A.R.E. (foreign language and reading exploration) program at WMS, or the CRWS (critical reading and writing) program at TWB. Students enrolled in these alternative courses at both schools explore a foreign language while simultaneously developing stronger skills in English.

RELATED ARTS

For students at all ability levels, the related arts play a central role in human development. Cognitive, language, and social-emotional development are positively impacted by participation in the related arts. Eighth grade students participate in a variety of related arts courses. The options and time frame differ slightly at Wilbraham Middle School and Thornton W. Burgess School. Students are randomly scheduled for the following related arts courses: art, computers, family consumer science, and modern music. All students are scheduled for physical education/health. Band and concert choir are also available for study.



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