

PWMS

8th Grade



2007 – 2008

Curriculum Overview

Woodbridge School District

Can't Hide that Raider Pride

Dear Parent/Guardian;

This booklet is designed to help you better understand what your child will be doing this year. There is an overview of each area, English Language Arts, math, science and social studies, along with overviews of each of the exploratory classes, art, music, computer, vocational exploratory, health, Spanish, and physical education. We also included supplemental programs your child may elect to participate in such as band, chorus, LEAP, reading intervention and ESL.

One of our focuses this year is to improve all students' writing skills. Each content area, exploratory class and supplementary program will incorporate writing into his or her curriculum.

We welcome any questions, suggestions and compliments regarding the programs we offer. We remind you that this is a guideline, and that there may be some minor changes in the timelines so we can better meet the needs of the students.

We hope you find this booklet useful in supporting your child's efforts throughout the school year.

Sincerely,

Dee Tunstall
Principal

Kim Mitchell
Assistant



ENGLISH LANGUAGE ARTS

Marking Period One

Utilizing the textbook Elements of Literature and classroom novels, students expand on their skills and abilities in the following areas:

- ◆ chronological order
- ◆ generalizing
- ◆ inferencing
- ◆ analysis
- ◆ cause and effect
- ◆ evaluation of non-fiction materials

We will incorporate the following strategies; vocabulary development, SOAR strategies and Accelerated Reader expectations.

Students will incorporate the DSTP rubric categories and 6+1 Traits in their writing and utilize these strategies during peer reviews.

Marking Period 2

Utilizing the textbook Elements of Literature and classroom novels, students expand on their skills and abilities in the following areas:

- ◆ identifying stereotypes
- ◆ biography review
- ◆ evaluation exposition and evidence
- ◆ unreliable narrator
- ◆ protagonist/ antagonist
- ◆ figures of speech
- ◆ mood
- ◆ story components

Students will revise their writing pieces emphasizing focus, supporting an idea and identifying the audience.

Marking Period 3

Utilizing the textbook Elements of Literature and classroom novels, students expand on their skills and abilities in the following areas:

- ◆ flashback, personification and dialogue
- ◆ word analogies, irony dialect
- ◆ comparing and contrasting style

Students will complete a research paper using internet skills and elaborating on the details.

Marking Period 4

Utilizing the textbook Elements of Literature and classroom novels, students expand on their skills and abilities in the following areas:

- ◆ literary criticism
- ◆ analyzing jargon and rhyme scheme
- ◆ didactic literature
- ◆ synthesis and presentation of story parts
- ◆ delivery analysis

Students' writing should reflect skills in manipulation of information and appropriate usage of multiple word meaning.

Students will also plan, organize and deliver an oral presentation.

** Throughout the year your child will be expected to read and participate in the Accelerated Reader program. A minimum of four novels read each marking period is expected for every student. They will also be expected to complete book projects and reading logs for each Language Arts Grade.



MATH CMP

MP1 - Samples and Populations (September)

In this book the students will apply the process of statistical investigation to pose questions, identify ways that data is collected, determine strategies for analyzing data, and interpret this data to answer the question posed. The students will also make effective use of representations to display tables, bar graphs, dot (scatter) plots, and line plots. Another big idea of the book is the concept of writing a linear equation to represent a scatter plot.

Thinking With Mathematical Models (October)

The students will take a look at patterns in tables and graphs. By identifying these patterns the students will be able to write, and solve, linear equations. These equations will then be used to explore other math ideas and to make predictions.

MP2 - The Shapes of Algebra (November)

The students will now learn how to understand the geometry of the coordinate plane: circles, parallel line, perpendicular lines, and line segments. They will also investigate graphical inequalities, write and solve systems of linear equations.

Say It With Symbols (December-January)

Interpreting symbolic expressions and statements is a big idea of this book. The students will be able to write, and reason about, equivalent expressions as well as solve linear and quadratic equations.

MP3 - Kaleidoscopes, Hubcaps, and Mirrors (January-February)

In this book the students should begin to recognize symmetry in designs. Students will be looking for patterns and recognizing designs with reflection, rotation, and translational symmetries.

Growing, Growing, Growing (March)

The students will begin to investigate the concept of exponents and exponential relationships, including the significance of the shapes of the graphs and patterns in tables. Making sense of the equation $y=a(b^x)$ is a big idea of the unit.

MP4 - Frogs, Fleas, and Painting Cubes (April)

This unit involves quadratic relationships by examining patterns of change in table, graph, and symbolic representations. The students will understand the importance of x- intercepts and y- intercepts, maximum, minimum, and symmetry of a graph.

Looking for Pythagoras (May-June)

Finally, the students will learn how to calculate the distance between two points, and find the area of figures drawn on the coordinate plane. The Pythagorean Theorem and understanding that it relates to the sides of a right triangle is the main idea. Other big ideas include: understanding square roots as lengths of sides of squares, rational numbers as decimals, and irrational numbers as decimals.

Each marking period, all students will complete a quarterly assessment designed in a DSTP format.

MATH ALGEBRA I

All PWMS seventh grade students are given a math placement test. This placement test score combined with the student's DSTP raw math score provide one criteria for Algebra placement. The top 55 students are eligible for Algebra I at PWMS. Students earning a minimum grade of "C" in Algebra may earn one high school math credit.

Numbers and Operations

In Algebra I, students build an understanding of real numbers by using symbolic, graphic, and numeric representations as they solve equations and inequalities. Working with rational and radical expressions, equations and functions builds a wide base of experience with rational and irrational numbers. Matrixes are introduced.

Data Analysis and Probability

In Algebra I, students work with scatter plots and functions to model two-variable or bivariate data. They compute probabilities for simple and compound events.

Algebra

Students use tables, graphs, verbal rules and symbolic rules to describe linear, quadratic, and exponential functions. They choose a best model for data from among these functions. Rate of change is studied and the context of direct variation, linear equations

and arithmetic and geometric sequences. Students learn how to write equivalent forms of polynomial, radical and rational expressions.

Geometry

In Algebra I, students begin to use geometric models with proportions, percent, and probability. They also explore ways to describe translations of familiar functions in both words and symbols.

Measurement

Students make decisions about appropriate scales with graphical representations of data. They use formulas for the perimeters and areas of figures to find missing measures, and use unit analysis (sometimes called dimensional analysis) to help set up proportions and other equations.

Problem Solving

Students practice the critical skill of expressing mathematical relationships from real-world problems with symbolic models. Where possible, students show more than one method for solving the problem. Writing, critical thinking, reasoning, and error analysis exercises allow students to analyze and verbalize their own understanding of the problem solving process.

Reasoning and Proof

Students solve equations using the properties of real numbers and of equality to justify their steps. These justifications are extended to simple algebraic proofs.

Communication

The reading for problem solving focuses on a variety of topics to help students read more effectively, so that they can, speak and think mathematically. Reading math help students use the language and notation vocabulary and English terms they already know.

Connections

Students use algebra to develop formulas for geometric measurement and to describe statistical relationships (lines of the best fit); make connections between previously learned material and new lesson content. Students understand geometric relationship using slope, midpoint, and distance formulas.

Representation

Students gain facility in graphing these families of functions: linear, quadratic, exponential and rational functions. Using tables and graphs, students determine which function best models a given set of data.

Each marking period, all students will complete a quarterly assessment designed in a DSTP format.



SCIENCE

The eighth grade science curriculum includes four Smithsonian units and two mini-units. The mini-units are completed first and cover teacher expectations, safety, and scientific inquiry. The Smithsonian kit topics are: Transformation of Energy, Weather, Planetary Science and Delaware's Ecosystems.

Transformation of Energy: The "Big Idea" of this unit is the conservation of energy. Energy exchanges are responsible for all changes in physical systems. Energy transfers and transformations occur but energy is never gained or lost. The properties of heat energy and wave energy are also explored. Student activities emphasize hands on discovery and reinforce the scientific skills of data collection, data analysis and graphing.

Weather: This unit is based on the idea that the sun's energy is the driving force for all weather and climate. The water cycle is reviewed and used to explain various forms of severe weather (hurricanes, tornadoes and thunderstorms). Local weather data is collected over an extended period of time and used to identify weather patterns. Basic forecasting skills are also explored. Kit lessons include lab activities, computer research, role-playing, weather map interpretations, as well as teacher-directed activities.

Planetary Systems: The interaction of the earth, moon and sun will be explored to help students build explanation for why we experience seasons, day and night, and eclipses. Daily observations of moon phases and sunrise/sunset times will help students to discover many predictable cycles in nature. The moon will also be explored extensively as students will be taken through the history of moon exploration and along the way be presented with many of the same challenges faced by NASA scientists. Students will also get a chance to conduct research on the composition and conditions of all the planets in our solar system.

Ecosystems: To answer the basic question of how organisms interact with their living and nonliving environment, students will use their math skills to come up with ways to determine the population size of organisms in a given area. They will then determine the quantity and types of resources those organisms would need to survive and reproduce. The particular adaptations that organisms have evolved and how those adaptations are essential for survival will be explored as well. In addition, the path of energy flow throughout the ecosystem will be traced. Finally, we will explore the major ecosystem issues faced by both Delaware's residents and wildlife.

SOCIAL STUDIES



Welcome to 8th Grade Global Studies! During the school year, we will study a wide variety of topics. We will learn about the cultures, history, physical features, conflicts/issues (i.e., religious, economic, political, and environmental) that are associated with the Middle East. In addition, we will discuss the oceans and global issues which ultimately affect each of us in some way. We will also focus on issues affecting us here in our local community and in the State of Delaware. Technological advancements in communication and transportation have made the study of a global society and geography even more important than just a decade ago. Studying the earth and its people is and will be a critical ingredient in our children's future success. It is necessary for students to not only know geographic locations, but also to understand how geography affects various people and their relationships with others in the world.

Students will be expected to become familiar with physical areas, landforms, political divisions, economic systems, and cultures that exist across the globe. A major emphasis is placed on reoccurring concepts and themes that occur (i.e., starvation, overpopulation, political problems, religious conflict, and ethnic conflict).

Some of the topics we will cover include the following:

- Foundations of physical and human geography
- Brief overview of local, state, and North American geography
- Russia and the former Soviet Republics
- North Africa and the Middle East (Southwest Asia)
- Asia (i.e., China, North/South Korea, Vietnam, Japan, and India)
- Sub-Saharan Africa
- Oceania (Australia and New Zealand)
- Current Event topics via USA Today, Time magazines, local newspapers, and other various sources

Throughout this school year, your child will be doing a wide range of activities and projects. Some of the activities and projects include making maps, doing group presentations, using the computer and Internet, and researching and writing a report about current day issues in various countries.

Each marking period, all students will complete a quarterly assessment designed in a DSTP format.

EXPLORATORY COURSES – Students will participate in each exploratory for one marking period. If students chose to participate in chorus or band, these electives will replace the exploratory course.



MUSIC – Eighth grade music will begin with review of basic musical ideas from 5th, 6th and 7th grade. Topics covered will include pitch, melodic and rhythmic notation, singing and playing instruments alone and with others, and listening skills. Students will complete a music history presentation on a composer representing one of the four major musical areas.

ART - Students will refine their existing skills in the use of media, techniques and process to create a variety of art forms. Students will plan and select effective media, techniques and processes to communicate ideas and experiences in their artwork. Students initiate, define and solve challenging visual arts problems independently. They combine the use of technology and research to define their problem and relate it to other art and artists. Students rely on personal interest and expenses as well as content from other subject areas to design independent studies in some art projects. They refine skills in specific areas of interest such as watercolor, pencil drawing or acrylic painting. They begin to explore variations of a single theme as for multiple projects. Gesture and contour drawing is introduced as students continue to practice drawing realistic still life and figures.



PHYSICAL EDUCATION – The instructional focus for the 8th grade physical education is lifetime skills. All students are expected to dress appropriately for class each day and participate to the best of his/her ability. Students will partake in various activities including bocce ball, lawn darts, horseshoes and badminton.

VOCATIONAL EXPLORATORY – Eighth grade students will review critical thinking and problem solving skills. The students will study about high school pathways and learn about careers by having a job in class. They will get paid each week along with paying bills by writing checks. They will maintain a checkbook in their job folder. A large project they will complete is the design and construction of a balsa wood bridge. They will learn about construction and engineering careers while building the bridge. All students are also required to write four one page papers on the job/career they are interested in after they finish high school or college.



HEALTH – The instructional focus for eighth grade is healthy attitudes. Students will learn about the consequences of sexual activity with an emphasis on practicing abstinence. Students will also be introduced to the components of physical fitness and the importance of staying healthy and well.



COMPUTER – These students will utilize the WORD software program to complete a project requiring a mailable letter written to the department of choice at Woodbridge High School, requesting acceptance into their pathway.

These students will utilize the EXCEL software program to write formulas, create tables and keep a record of their payment schedule when purchasing electronics on credit. The students will show two different amortization schedules (2 different ways of paying off their debt).

These students will utilize the POWERPOINT software program to create a presentation elaborating on the *Characteristics of Geometric Shapes*. Incorporating links to other web pages and websites, animations and transitions, automatic and customized timings, and backgrounds are other features on which we will place our focus.

In addition, these students are expected to demonstrate proper keyboarding techniques daily while importing and exporting tables, graphics, etc between two different software programs.

**Students are expected to pass an end of the marking period technology test in order to earn one high school credit in technology.

SPANISH – This class focuses on exposure to a language and culture. Your child will spend a few weeks learning vocabulary about each of the following topics in Spanish: The house, family & occupations. During each unit, the emphasis will be on vocabulary

pronunciations, spelling, word recognition and utilization. When learning about the culture of other lands, all students are expected to be open-minded and respectful of others.

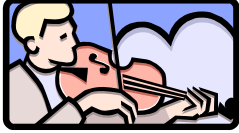
SUPPLEMENTAL PROGRAMS



CHORUS – The eighth grade chorus will focus on advanced singing techniques. We focus on proper vocal production, breath support, phrasing, dynamics, as well as sight singing. Students will also learn some basic music theory. The eighth grade chorus is one-half of the 7/8-grade choir that will perform at least twice throughout the school year. The 7/8-grade choir will sing two part and three-part music from a varying range of difficulty and genre.

COUNSELING – The goals of the middle school counseling program are: to help children better understand themselves and others, to assist students in acquiring knowledge and skills that contribute to effective learning in school and across the life span, to provide career information that assists the student in developing skills to make informed future career decisions, to help prevent problems from reoccurring, to help with identification of children with special needs, to help with coordination of efforts of parents, teachers and administrators and to provide crisis intervention when necessary. Services provided by the middle school counselors are: consultation with students, parent, teachers, administrators and other agencies, conflict resolution – listening in a non-judgmental environment in an effort to resolve conflicts, assisting parents to understand how to help children, referring students and parent to outside agencies when appropriate, and helping students learn responsibility by becoming aware of the consequences of their own behavior.

LEAP – The 8th grade LEAP curriculum will focus on Reading, Writing and Social Studies enrichment. Students will read and respond to several novels throughout the year. In addition, 8th graders will study college prep (SAT) vocabulary words. They will continue using the six traits of writing to write, revise and score writing. Some social studies themes will be the United States Civil War and character education. Thinking skills, in class individual projects and role-playing will also be included in our yearly activities. Students will also examine their learning preferences and reflect on how they learn best and time will be given for personal connection and reflection in their journal.



BAND – Eighth grade band is opened to students who have completed two or more years of instruction on their chosen instrument. These students should demonstrate a higher level of proficiency and good working knowledge of their instrument. Students should be able to play grade 1 ½ music comfortably and grade 2 or 2 ½ music by the end of the school year. Students will be required to memorize one scale or rudiment each semester and play two scales each marking period using eighth notes. Parades and other public performances are included in grades. Students are encouraged to audition for Sussex County Honors Band and Delaware All-State Junior Band. Students will be given individual help after school to help prepare for these auditions and extra credit will be given.

ENGLISH AS A SECOND LANGUAGE (ESL) – This program provides structured English language instruction and content area English instruction for students who are learning English as their second language. The goal is to enable English Language Learners to acquire sufficient English proficiency so that they can enter the regular classroom and meet with success. The ACCESS Placement test (Assessing Comprehension and Communication in English State to State) is used to screen and identify students as English Language Learners. The ACCESS Proficiency test is administered in the spring to measure students’ social and academic proficiency in English.