

DEAR PARENTS AND CAREGIVERS:

We recognize that you are your child’s first and most important teacher and that it is our responsibility to build on your efforts by providing the rich set of learning experiences outlined in this curriculum digest.

Our curriculum follows the hundreds of pages of the Massachusetts Department of Education Curriculum Frameworks. This curriculum digest, therefore, is only a summary, but we believe the summary paints a vivid picture of the abilities and skills your child will develop this year. If you would like additional details about our curriculum expectations, please ask your child’s teacher or download copies of the Massachusetts Frameworks from the Department of Education website at: <http://www.doe.mass.edu>.

As we deliver this curriculum we strive to provide all students with the skills and knowledge that they need to be successful in a complex world. We do this by providing an educational environment that is supportive of individual differences and where all people are valued and respected. Finally, we recognize how critical the parents and community members are to achieving this mission.

We look forward to communicating with you while we help your child to have a productive and rewarding year.



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Assistant Superintendent of Curriculum,
Assessment, and Instruction

ENGLISH LANGUAGE ARTS

Language *Students will:*

- Participate in formal and informal small and large groups discussions in all curricular areas.
- Gather relevant information for various projects and compositions through interviews and discussions.
- Give oral presentations for various purposes, showing appropriate changes in delivery (gestures, vocabulary, pace, visuals), and use language for dramatic effect while using rubrics to prepare presentations.
- Determine pronunciations, meanings, alternate word choices, and parts of speech using dictionaries and thesauruses.
- Use formal and informal English appropriately in their speaking and writing.
- Acquire and understand new vocabulary and use it correctly in reading and writing.

Reading and Literature *Students will:*

- Identify and analyze sensory details, figurative language, author’s use of dialogue and description, organizational structures, main ideas, and supporting details.
- Relate a literary work to information about its setting.
- Identify and analyze various genres.
- Identify and analyze the elements of setting, characterization, plot, and conflict.
- Identify and use knowledge of textual and graphic features, organizational structures, main ideas, and supporting details.
- Analyze poetry based on sound, figurative language, and graphics.
- Identify imagery, figurative language, flow, rhythm, and importance of shades of meaning.
- Compare traditional literature from different cultures and identify common structures.
- Identify and analyze structural elements in plays they read and analyze similarities and differences between a narrative and its film or play version.
- Apply knowledge to the concept that theme refers to the main idea and meaning of a selection
- Develop characters through the use of basic acting.

Composition *Students will:*

- Write brief research reports and short explanations of processes with clear focus, topic statements, supporting details, conclusions, and revisions.
- Make distinctions among fiction, nonfiction, dramatic literature, and poetry and use these genres selectively when writing for different purposes.
- Revise writing to improve details and word choice using dictionaries and thesauruses.
- Use knowledge of correct mechanics, sentence structure, and Standard English spelling when writing, revising, and editing.
- Focus on logical order, topic sentence, descriptive details, and concluding sentence.
- Research, take notes, and cite sources to develop research projects across the curriculum.
- Use prescribed criteria from a scoring rubric to evaluate compositions.

Major Projects / Events

- Three Writing Prompts per Year
- Summer Reading Program

Media

- Exposed to media through reading and literacy works
- Create technological projects using media production

MATHEMATICS

Number Sense and Operations *Students will:*

- Demonstrate an understanding of place value to millions and thousandths.
- Represent and compare very large (millions) and very small (thousandths) positive numbers in various forms such as expanded notation without exponents.
- Identify and determine common equivalent fractions, mixed numbers, decimals, and percents.
- Apply number theory concepts – including prime and composite numbers, prime factorizations, greatest common factor, least common multiple, and divisibility rules to the solution of problems.
- Select and use appropriate operations, accurately and efficiently add, subtract, multiply, and divide (with double-digit divisors) whole numbers, positive decimals, positive fractions, and mixed numbers.
- Demonstrate, order, and compare an understanding of whole numbers, positive fractions, positive mixed numbers, and positive decimals on a number line.
- Estimate sums and differences of whole numbers, positive fractions, and positive decimals.

Patterns, Relations, and Algebra *Students will:*

- Analyze and determine the rules for extending symbolic, arithmetic, and geometric patterns and progressions.
- Use properties of equality to solve problems.
- Represent real situations and mathematical relationships with concrete models, tables, graphs, and rules in words and with symbols, e.g., input- output tables.
- Produce and interpret graphs that represent the relationship between two variables in everyday situations.

Geometry *Students will:*

- Identify polygons based on their properties.
- Identify three-dimensional shapes based on their properties, such as edges and faces.
- Predict, describe, and perform transformations on two-dimensional shapes, e.g., translations, rotations, and reflections.
- Identify and describe line symmetry: perform transformations on two-dimensional shapes.
- Determine if two triangles/quadrilaterals are congruent by measuring.

Measurement *Students will:*

- Apply the concepts of perimeter and area to the solution of problems and apply formulas where appropriate.
- Find volume and surface area of rectangular prisms.
- Solve problems involving simple unit conversions.
- Identify, measure, describe, classify, and draw various angles.

Data Analysis, Statistics, and Probability *Students will:*

- Describe and compare data sets using the concepts of median, mean, mode, maximum, minimum, and range.
- Construct and interpret stem-and-leaf plots, line plots, circle graphs, and line graphs.
- Predict probability of outcomes of simple experiments and test predictions.

Major Projects / Events

- Success Maker
- Math Olympics

SCIENCE

Inquiry *Students will:*

- Question, make predictions, observe, and record observations of simple investigations or experiments.
- Keep accurate records of multiple trials to test a prediction.
- Recognize simple patterns and use data for explanation.
- Record data using graphs, charts, maps, and models.
- Use oral and written reports.

Earth Science *Students will:*

- Give a simple explanation of what a mineral is and give examples.
- Identify physical properties of minerals and test for hardness, color, luster, cleavage, and streak.
- Identify the three categories of rocks based on how they are formed.
- Recognize that the earth is part of a system called the Solar System that includes the sun, planets, and many moons.
- Describe the changes that occur in the observable shape of the moon over the course of a month.
- Recognize that the earth revolves around (orbits) the sun in a year’s time and rotates on its axis once approximately every 24 hours.
- Make connections between the rotation of the earth and day/night, and apparent movement of the sun, moon, and stars across the sky.

Life Science *Students will:*

- Describe how organisms meet some of their needs in an environment.
- Recognize plant behaviors and adaptations.
- Recognize how organisms can cause changes in their environment that may affect the ecosystem.
- Describe photosynthesis and how energy is transferred within the food chain.
- Identify plant structures.
- Recognize plants’ and animals’ predictable life cycles.
- Describe major stages of the life cycle of a frog/butterfly.
- Differentiate between observed characteristics of plants and animals.
- Give examples of how changes in environment cause some plants and animals to die or migrate.
- Identify the basic forms of energy.
- Give examples of how energy can be transferred from one form to another.

Physical Science *Students will:*

- Compare and contrast solids, liquids, and gases based on the basic properties of matter.
- Describe how water can be changed from one state to another.
- Recognize that sound is produced by vibrating objects and requires a medium through which to travel.
- Relate the rate of vibration to the pitch of the sound.
- Recognize that light travels in a straight line, and that light can be reflected, refracted, and absorbed.

Technology and Engineering *Students will:*

- Identify and use materials and tools to solve or invent a problem.
- Identify a problem, describe ways to solve the problem, and create models, diagrams, or prototypes to represent the problem.
- Compare natural systems with mechanical systems, e.g., birds’ wings versus airplane wings.

HISTORY/SOCIAL STUDIES

Theme: American History:

Early Exploration Through the Westward Movement Topics

- Pre-Columbian Civilizations of the New World and European Exploration, Civilization, and Settlement to 1700.
- The Political, Intellectual, and Economic Growth of the Colonies, 1700-75.
- Revolution and the Formation of a Federal Government Under the Constitution, 1775-1789.
- Principles and Institutions of American Constitutional Government.
- The Growth of the Republic.

History and Geography *Students will:*

- Describe the earliest explorations of the New World by the Vikings.
- Identify and describe the three major Pre-Columbian civilizations (Maya, Aztec, and Inca).
- Identify the trade routes of the following explorers: the Cabots, Balboa, Ponce de Leon, Columbus, Amerigo Vespucci, Champlain, Hudson, Cartier, and Magellan.
- Explain the decline of the Aztec and Inca civilization.
- Identify the following major leaders of the colonies: John Smith, William Penn, Lord Baltimore, John Winthrop, and Roger Williams.
- Identify the links between the political principles and practices developed in Ancient China and such political institutions and practices as written constitutions and town meetings of the Puritans.

Civics and Government *Students will:*

- Define and use correctly words related to government, such as citizen, suffrage, rights, representation, federal, state, county, and municipal.
- Give examples of responsibilities and powers associated with major federal and state officials.
- Explain the structure of the student's city or town government.

Economics *Students will:*

- Give examples of the ways people save their money and explain the advantages and disadvantages.
- Define entrepreneur and give examples from history.
- Define profit.
- Give examples of how changes in supply and demand affected prices in colonial history.

Major Projects / Events

- Field trip to Lexington and Concord
- Field trip to Boston to walk the Freedom Trail
- Creation of hornbooks and quill pens (made out of feathers)
- Accordion book timeline of the Revolutionary War

ART

Students will:

- Use a variety of materials and media (pencils, crayons, chalk, pastels, paints, clay, textiles, yarns, wood, found objects, wire, foil) to create original works of art in 2D and 3D.
- Demonstrate an understanding of the art elements of line, shape, form, color, value, and texture and how each applies to a work of art.
- Demonstrate an understanding of the art principles of balance, movement, rhythm, contrast, emphasis, pattern and unity and how each applies to a work of art.
- Learn a variety of techniques and processes unique to each media, and explore how each creates different visual effects in a work of art.
- Learn and use appropriate vocabulary related to specific art methods, materials, and techniques.

WELLNESS

Physical Education *Students will:*

- Perform all locomotor skills at mature levels of development and apply them to a variety of activities.
- Throw, catch, kick, and strike at mature levels of development with accuracy and distance.
- Balance on a variety of large pieces of equipment, keeping center of gravity over base of support.
- Support, lift, and control body in a variety of movement and stationary activities.
- Identify ways that movement concepts and strategies can be used to refine skills.
- Identify the fundamental movement components and strategies used in games and activities, e.g., give and go, moving to a space to receive a pass, etc.
- Applies target heart rate level in aerobic fitness activities.
- Develop personal fitness goals.
- Identify names of muscles affected by participation in exercise and various activities.
- Use time effectively to complete assigned tasks.
- Work cooperatively and productively in both competitive and cooperative activities.
- Accept teacher's decisions regarding personal rule infractions in a positive way.

Health *Students will:*

- Identify and practice behaviors that contribute to physical health and wellness.
- Learn the basic characteristics of physical growth and development, including body functions and systems throughout the life cycle, and will acquire the skills to promote and maintain positive growth and development.

Drug Abuse Resistance Education Program (DARE)

Students will:

- Provide accurate information about drugs, alcohol, and tobacco.
- Learn good decision-making skills.
- Show how to recognize and resist peer pressure.
- Learn positive alternatives to drug use.

INFORMATION TECHNOLOGY

In all academic courses *students will:*

- Communicate using a variety of media and formats.
- Locate, evaluate, analyze, and use information.
- Compile, organize, analyze, and synthesize information.
- Draw conclusions and make generalizations based on information gathered.
- Collaborate and cooperate in team efforts.
- Communicate locally and globally.
- Select appropriate tools to solve problems.
- Use technology in ethical and appropriate ways.

LIBRARY MEDIA

Students will:

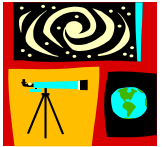
- Acquire information problem-solving skills.
- Appreciate literature, fiction and non-fiction, and its ability to reflect on one's own life and one's place in the world.
- Acquire increasingly sophisticated information accessing, evaluating, and synthesizing skills from library resources, including electronic resources and the Internet.

MUSIC

Students in Grade 5 will use the *Yamaha MIE* electronic keyboard system for virtually all topics listed below. Topics taught in Grade 4 will be reviewed prior to the following:

- The Grand Staff – Students will learn that pitches may be symbolized on a staff with treble and bass clef and locate on keyboard.
- Duple Meter – Students will understand rhythm may be organized into consistent groups of beats and identify and perform examples of this concept.
- Eighth Note and Rest – These primary rhythmic components will be taught to enable students to perform musical examples.
- Dynamics: Forte and Piano – Music may vary in degrees of loudness and softness. Listening examples will be used, and students will use other simple instruments and voice to reinforce this concept.

Maynard Public Schools



A CURRICULUM OVERVIEW YOUR CHILD'S YEAR IN FIFTH GRADE



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