

## **Grade Four ENGLISH LANGUAGE ARTS & LITERACY in the English Innovation Pathway and French Immersion**

Students in grade four develop their reading and language arts skills through a balanced literacy approach. Students will be immersed in the National Geographic Reach for Reading program and will learn to apply skills in authentic literary and informational texts throughout the course of the year. The focus is to apply appropriate strategies to further develop and strengthen comprehension skills across all content areas. Students build their knowledge of content specific vocabulary to enhance oral and written language and grade level writing includes responding to literature, crafting narrative as well as expository/informational pieces. Engaging writing activities focus on the writing process, applying spelling rules, and conventions of standard English while developing style and voice.

### ***Students will learn to:***

- Develop the comprehension strategies and skills to become independent readers. (Predicting/previewing, making connections, questioning, visualizing, making inferences, monitoring for meaning, summarizing, and synthesizing).
- Recognize and interpret sensory details, descriptive language, and figurative language.
- Implement close reading strategies by attending to key features of informational text to identify details and supporting evidence, to compare and contrast information, and to cite evidence to support the author's point of view, using facts and details.
- Compare characters, events, settings, and ideas in stories and myths.
- Locate facts that answer questions and cite evidence to support that answer.
- Create well organized multi-paragraph responses or summaries with a clearly stated main idea, and supporting details/facts.
- Conduct independent research projects on different aspects of a topic, using multiple sources of information (books, articles, media, and internet).
- Utilize accurate capitalization, grammar, paragraphing, spelling, and punctuation when writing.
- Orally present on a focused topic with relevant, supporting details/ facts, and specific word choice.
- Read and understand the meaning of assigned vocabulary and successfully use it in writing.
- Participate in class discussions with agreed upon rules and/or present ideas for varying purposes to different audiences.

## **MATHEMATICS in the English Innovation Pathway and French Immersion**

*Everyday Mathematics* is the curriculum program used for math instruction. The grade four program continues to focus on problem solving skills, number skills and mathematical concepts that are linked to relevant situations and contexts in everyday life. Students learn a variety of strategies to solve real life problems and to write about math. Students also develop mathematical vocabulary while learning core

concepts through hands on experiences and paper and pencil tasks. **Mastery of multiplication and division facts is essential at this grade.**

*Students will learn to:*

### **Operations and Algebraic Thinking**

- Use the four operations with whole numbers to solve problems.
- Gain familiarity with factors and multiples.
- Generate and analyze patterns.

Example: *Leah baked a batch of 46 brownies for a bake sale. If she places an equal amount of brownies into 6 containers, how many brownies will be left over?*

### **Number and Operations in Base Ten**

- Generalize place value understanding for multi-digit whole numbers.
- Use place value understanding and properties of operations to perform multi-digit arithmetic.

Examples:  $357,275 + 91,483 =$        $136,291 - 46,780 =$        $67 \times 29 =$        $269/3 =$

### **Number and Operations-Fractions**

- Extend understanding of fractions equivalence and ordering.
- Build fractions from unit fractions by applying and extending previous understandings of operations on whole numbers.
- Understand decimal notation for fractions, and compare decimal fractions.
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Examples: *Compare the numbers 57.41 and 57.53*  
*Order the numbers  $\frac{7}{13}$  and  $\frac{11}{13}$*

### **Measurement and Data**

- Solve problems involving measurement and conversion of measurements from a larger unit to a smaller unit.
- Represent and interpret data.
- Geometric measurement: understand concepts of angles and measure angles.
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Examples: *What time is it 3 hours and 45 minutes after 4:55p.m.?*

### **Geometry**

- Draw and identify lines and angles, and classify shapes by properties of their lines and angles.

Examples: *Draw an angle that is about 75 degrees.*

### **Basic Math Facts & Computational Strategies**

- Students will fluently add and subtract multi-digit whole numbers using the standard algorithm.
- Students will know from memory all products of multiplication facts through 12 x 12.
- Students will multiply a whole number up to 4-digits by a 1-digit, and multiply two 2-digit numbers using strategies based on place value and properties of operations.
- Students will find whole number quotients and remainders with up to 4-digit dividends and 1-digit divisors using strategies based on place value, the properties of operations, and the relationship between multiplication and division.

### **HISTORY & SOCIAL SCIENCE in the English Innovation Pathway**

Students study the geography and people of the United States today. They learn geography by addressing standards that emphasize political and physical geography, and embed five major concepts: location, place, and human interaction with environment, movement, and regions. In addition they also learn about the geography and people of contemporary Canada.

#### ***Students will learn to:***

- Use map and globe skills to determine absolute locations (latitude and longitude) of places studied.
- Interpret a map using information from its title, compass rose, scale, and legend.
- Identify and describe the five major concepts in studying geography (location, place, human interaction with the environment, movement, and regions).
- On a map of North America locate the current boundaries of the United States (including Alaska and Hawaii), New England, Middle Atlantic Coast/ Appalachia, Southeast/ Gulf, South Central, Great Lakes, Plains, Southwest desert, and Pacific States.
- Describe the climate, major physical features, and major natural resources in each region.
- Explore and describe the physical political and cultural regions of the United States, Canada, and Mexico.
- Describe and give examples of how the movement of goods, people and ideas from around the world to the United States have influenced and shaped our culture today.
- Describe the diverse nature of the American people by identifying the distinctive contributions to the American culture.
- Describe the role of Massachusetts in the War for Independence. Describe the responsibility of government, basic principles of American democracy, and explain how the Constitution and Bill of Rights reflect and preserve these principles for its citizens.

Thanks to the generous support of the Milton Foundation for Education, we will be enriching our Social Studies instruction with a literacy based enrichment curriculum meant to enhance students' social studies and literacy learning through increased opportunities for children to read, write, and speak about such sophisticated topics as democracy, equality, justice and fairness. Students begin to understand the connection between rules and law and are "***empowered to stand***

*up for their beliefs, engage in respectful discourse, and resolve differences in constructive ways.”- <http://discoveringjustice.org>*

## **GENERAL SCIENCE in the English Innovation Pathway**

### ***Physical Science: Energy and Electromagnetism***

The **Energy and Electromagnetism** investigations are designed to introduce or reinforce concepts in physical science dealing with energy and change. Students experience electricity and magnetism as related effects and learn useful applications of electromagnetism in everyday life. In this module, students will

- Ask questions that can be answered about electricity and magnetism.
- Plan and conduct investigations about electromagnetism; record and organize data using appropriate tools for the task.
- Analyze observations; build reasonable explanations; discuss and justify the merits of explanations.
- Conduct an experiment to determine how the force of attraction between two magnets changes with the distance between the magnets.
- Conduct an experiment to determine how the number of winds in an electromagnet coil affects the strength of the magnetism.
- Design and build a model telegraph system.
- Use tools and techniques to make observations and build explanations about light.

### ***Life Science: Environments***

The study of the relationships between one organism and its environment builds knowledge of all organisms. With this knowledge comes an awareness of limits. Such knowledge is important because humans can change environments. The Environments Module focuses on the concepts that organisms need energy and matter to live and grow, and living organisms depend on one another and on their environment for their survival and the survival of populations. In this module, students will:

- Determine an organism's environmental preferences for various nonliving environmental factors to better understand the environment in which it will survive.
- Observe and record changes in organisms and their environment over time.
- Identify and describe ecosystem-feeding relationships.
- Use modeling to construct representations of the natural world and make predictions.
- Conduct controlled experiments with organisms to discover their range of tolerance for environmental factors.
- Graph and interpret data from multiple trials from experiments, and build explanations from evidence.

### ***Earth and Space Science: Landforms***

Geology is the study of our planet's earth materials and natural resources. Because they are so ubiquitous and abundant, they are often taken for granted. The Landforms investigations provide students with firsthand experiences with soils, rocks, and minerals, and modeling experiences to study changes to rocks and landforms at Earth's surface. In this module, students will:

- Investigate the processes of physical and chemical weathering of rocks and minerals.

- Investigate the composition of soils from four different locations; observe and compare local soils.
- Observe weather by using senses and simple tools.
- Use stream tables to investigate how the slow processes of erosion and deposition alter landforms; predict the results of a student-designed stream-table investigation, and then compare actual results to predictions.
- Make observations and interpret them to develop explanations in the way that scientists do.
- Observe how earth materials are used in the community around school, and consider the ways people impact natural resources.

## **DIGITAL LITERACY and COMPUTER SCIENCE in the English Innovation Pathway**

Elementary Scholars explore a variety of computing devices and digital tools and further develop their computational thinking problem solving skills.

The strands covered third through fifth grade include:

1. Computing and Society
  - Safety and Security
  - Ethics and Laws
  - Interpersonal and Societal Impact
2. Digital Tools and Collaboration
  - Digital Tools
  - Collaboration and Communication
  - Research
3. Computing Systems
  - Computing Devices
  - Human and Computer Partnerships
  - Networks
  - Services
4. Computational Thinking
  - Abstraction
  - Algorithms
  - Data
  - Programming and Development
  - Modeling and Simulation

Incorporated Use of Technology as outlined in the Common Core English Language Arts:

Scholars in fourth grade will:

- Paraphrase portions of a text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally.
- Introduce a topic clearly and group related information in paragraphs and sections, include formatting (headings), illustrations, and multimedia when useful to aiding comprehension.
- With some guidance and support from adults, use technology, including the internet, to produce and publish writing as well as to interact and collaborate with others.
- Demonstrate sufficient command of keyboarding skills to type a minimum of one page in a single setting.
- Recall relevant information from experiences or gather relevant information from print and digital; take notes and categorize information, and provide a list of sources.
- Interpret information presented visually, orally, or quantitatively (e.g., in charts, graphs, diagrams, time lines, animations, or interactive elements on Web pages) and explain how the information contributes to an understanding of the text in which it appears.
- Consult reference materials (dictionaries, glossaries, thesauruses), both print and digital to find the pronunciation and determine or clarify the precise meaning of keywords and phrases.

All Milton scholars in grades 2-12 are issued a Google account which gives them access to Google Apps for Education where they currently utilize Google Drive, Google Docs, Google Slides, Google Sheets, and Google Classroom.

Fourth graders are additionally utilizing: Typing.com, Various iPad apps including My Story, Tell About This, Write About This, Book Creator, Explain Everything, Chatterpix Kids, Popplet, and Seesaw.

### **Standards Based Report Cards- Year 2**

The purpose of this report card is to communicate to parents, guardians, and students, ongoing achievement towards grade level state standards. This is an objective tool that is used to measure progress towards proficiency in the Massachusetts Curriculum Frameworks and will provide clear information for students, families and caregivers on what students are expected to know and be able to do by the end of each of three terms. Each of the four elementary schools in the district will provide opportunities for parents to learn more about the new report card.