The Public Schools of Brookline
Grade 4 – Essential Learning Expectations

Learning Expectations are the K-8 curriculum guidelines for all content areas. They answer these questions for parents, teachers, and students:

- What will students know and be able to do?
- How will students demonstrate their learning?

The Brookline Learning Expectations have been developed by teams of teachers, led by curriculum coordinators, and meet or exceed the Massachusetts Curriculum Frameworks.

The Progress Reports (formerly called Conference Forms) that teachers share with parents list the **Essential Learning Expectations** (or ELEs) for English Language Arts, Math, Science and Social Studies. The ELEs are a subset or synthesis of the Learning Expectations that describe the key skills and understandings for students at a particular grade that are essential for them to master in order to be prepared for the next grade.

It is important to remember that while the ELEs are a shorthand version of the Learning Expectations to share with parents, our curriculum is designed to cover *the entire set of Learning Expectations*, which describe the full understanding of content and acquisition of skills that is expected of students. While the LEs are listed by subject area, it is our instructional practice and goal to integrate across curriculum areas as much as possible. The complete set of K-8 Learning Expectations is available to teachers by subject area in the FirstClass Teacher Portal. They are available to the public through the PSB website - http://brooklinek12-public.rubiconatlas.org/Atlas/Public/View/Default. (This site is being updated to reflect recent revisions.)

The ELEs for English Language Arts, Mathematics, Health, Science/Engineering and Social Studies are listed below. These ELEs are listed on the Grade 4 Progress Report. Performing Arts, Physical Education, and Visual Arts also have Learning Expectations, but these are not listed on the Progress Report. Instead, there is information about how parents/guardians are provided with information on student progress in these disciplines.

ENGLISH LANGUAGE ARTS

READING OVERVIEW

Brookline's Learning Expectations in ELA meet or exceed the standards outlined in the Massachusetts Frameworks. To reach these demanding standards, Brookline educators use the *Continuum of Literacy Learning PreK-8* (Heinemann, 2011) as their day-to-day guide when teaching specific behaviors in reading and writing. The description of the successful fourth grade reader below comes directly, with a very few changes, from the *Continuum*.

Students at the end of fourth grade automatically read and understand a full range of genres, including biographies on less well-known subjects, more complex fantasy, and hybrid genres that blend more than one genre in a coherent whole; these students can also identify and discuss the characteristics of these texts. Fourth grade students read chapter books and shorter informational texts, along with special forms such as mysteries, series books, books with sequels, short stories, diaries, and logs. The fiction narratives they read are straightforward, but have elaborate plots and many complex characters who develop and change over time. As readers, fourth grade students understand perspectives different from their own, as well as settings and people far distant in time and space. They can process longer sentences that are complex, contain prepositional phrases, introductory clauses, lists of nouns, verbs, or adjectives; they can solve new vocabulary words, some defined in the text and others unexplained. Most reading is silent; fluency and phrasing in oral reading are well-established. Fourth grade readers are challenged by many longer

descriptive words and by content-specific and technical words that require using embedded definitions, background knowledge, and readers' tools, such as glossaries. They can take apart multisyllabic words and use a full range of word-solving skills. The student at the end of fourth grade reads and understands texts in a variety of layouts and consistently searches for information in illustrations and increasingly complex graphics. (PreK-8 Continuum, p. 324)

WRITING ELEs

Structure/Craft:

Organization

- Introduce, develop, and conclude topics in nonfiction writing, including texts produced for Science, Social Studies, and Math.
- Construct narratives with a clear sequence of events, including texts produced for Science, Social Studies, and Math.
- Write in many genres and use a variety of text structures (including graphics) appropriate to both purpose and genre in ELA and all content areas.

Idea development

- Communicate main points clearly and provide accurate and relevant evidence to support all claims.
- Gather and use information from a variety of reliable sources when writing texts, including those produced for Science, Social Studies, and Math.

Word Choice

- Incorporate words learned through reading and content-area studies into writing.

Language Use

- Use a variety of sentence structures; write with expression and personal voice.
- Vary language and style as appropriate to audience and purpose.

Conventions:

Grammar and Punctuation

- Write in complete sentences, both simple and complex, with accurate and consistent verb tense and agreement; use appropriate punctuation.

Handwriting

- Write fluently and legibly by hand; use keyboard comfortably

Spelling

- Correctly spell familiar high-frequency words, a range of plurals, base words with inflectional endings, and words that have been studied in class.

Process:

Planning and Drafting

- Identify purpose and audience, select genre, and use writers' tools to produce initial drafts.

Revising and Editing

- Revise drafts, using feedback from peers and teachers, as well as new learning from instruction; edit final drafts for conventions.

Production

- Produce a quantity of writing appropriate to task and time available.

ORAL COMMUNICATION ELEs

- Participate actively in small and large group conversations; listen to and look at speaker and build upon comments of others.
- Share relevant information and ask questions that further the discussion.
- Speak at a volume and rate appropriate to setting.

MATHEMATICS ELEs

Mathematical Practices
- Makes sense of problems and perseveres in solving them.
- Communicates mathematical reasoning and ideas using words, numbers, and/or pictures.

Operations and Algebraic Thinking
- Use the four operations with whole numbers to solve problems.

Numbers 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.

Number and Operations – Fractions
- Extend understanding of fraction 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.

Measurement and Data
- Solve problems involving measurement from a larger unit to a smaller unit.

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

SCIENCE/ENGINEERING ELEs

Science/Engineering Practices and Nature of Science
- Ask questions and show curiosity.
- Observe closely and record observations.
- Develop and use models.
- Plan and carry out simple investigations.
- Analyze and interpret data.
- Make reasonable claims based on evidence.
- Share ideas and critique the ideas of other scientists.
- Recognize the importance of science and the skills/characteristics of scientists.

Plant Explorers
- Compare and contrast the needs and structures of plants and animals.
- Explain how a plant makes its own food and compare with how an animal gets its food.
- Provide evidence to support the claim that plants and animals depend on each other.
- Explain how plants are adapted to survive in different habitats.
- Compare life cycle stages of living things.

What are Changes in State and Why Do They Matter?
- Explain the relationship between temperature changes and changes in state.
- Make claims about the factors that affect the rate of change in state.
- Provide evidence to support the claim that the water cycle is a series of changes in state driven by temperature changes.

SOCIAL STUDIES ELEs

Historical Thinking

- Assess continuity and change in the peopling of North America.
- Explore the causes and consequences of exploration of and immigration to North America.

Geography

- Demonstrate mapping skills concentrating on North America.
- Describe regional geographic characteristics, ex. landforms, bodies of water, climate, and population density.
- Locate the national, state, and provincial boundaries of Canada, United States, and Mexico.

History

- Describe the way of life of the Native Americans and/or the Explorers at the time of encounter.
- Explain the "Push and Pull" effect on immigration to North America and some of the challenges immigrants and internal migrants faced.

Civics

- Identify the political systems of Canada, United States, and Mexico.
- Give examples of the major rights of citizenship in the classroom, community, and/or nation.

Economics

- Define and give examples of natural resources.
- Gives examples of how the interaction of buyers and sellers influences the prices of goods and services in markets.

Research and Writing Skills

- Read, interpret, and take notes on print and digital informational sources.
- Produce short research projects that build knowledge about a topic related to North America.