

## The Public Schools of Brookline GRADE SEVEN CURRICULUM OVERVIEW

Dear Parents and Guardians,

**H**igh achievement for all has been a core value in the Public Schools of Brookline for nearly two decades. There are many variables that contribute to a student's academic achievement, one of the most important being a strong connection between the home and school. When families support their children's learning at home, express interest in their studies and hold high expectations for achievement, a partnership between home and school is created. We hope that this curriculum overview will be a useful tool for you as you support and encourage your child's academic success.

Curriculum Coordinators created this overview to highlight the concepts, skills and knowledge central to each subject area in every grade level. This document is not intended to represent the entire curriculum for this grade; rather it provides you with the key elements taught to all children across the Brookline schools in this grade. If you are interested in learning more about the curriculum, as outlined in our Learning Expectations, visit the Public Schools of Brookline website ([www.brookline.k12.ma.us](http://www.brookline.k12.ma.us)) and look under Curriculum Areas in the Teaching and Learning section.

Each year brings new learning challenges and a world of possibilities. Your involvement and knowledge of your child's school experience will help to nurture learning well beyond the four walls of the classroom. As your child begins a new year in the Public Schools of Brookline, please know that we welcome your involvement and value your support.

Respectfully,

Jennifer Fischer-Mueller, Ed.D.  
*Deputy Superintendent for Teaching and Learning*

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**The Public Schools of Brookline**  
**GRADE SEVEN CURRICULUM OVERVIEW**

**EDUCATIONAL TECHNOLOGY AND LIBRARIES**

**EDUCATIONAL TECHNOLOGY**

**Students will:**

**Basic Operations and Concepts**

- Use hardware and software appropriately.

**Communication**

- Use the computer as a writing tool with advanced word processing skills.

**Research**

- Develop the ability to use the computer as a research tool by using the school library electronic catalog and the Internet.
- Evaluate the reading level, appropriateness, relevance, and accuracy of Web pages and cite electronic resources correctly.

**Productivity**

- Use a variety of technology resources for problem solving, communication, and illustration of thoughts, ideas, and stories (complex multimedia presentations, graphic organizers, digital images and spreadsheets).

**Collaboration**

- Work cooperatively and collaboratively with peers and others when using technology.

**Social, Ethical, and Human Issues**

- Demonstrate responsible use of technology, respect for others' work (including copyright issues) and safe and respectful use of the Internet.

**LIBRARY**

**Students will:**

- Become enthusiastic readers of literature, including a variety of genres, and users of information resources.
- Develop the ability to find, gather, and assess new information from a variety of sources including electronic and print sources and will be able to compare and evaluate the use of these formats.

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**ENGLISH LANGUAGE ARTS**

**Students will:**

**Comprehension**

- Apply multiple reading strategies to critically read and respond to text.

**Vocabulary**

- Increase vocabulary knowledge through reading, using specific strategies and resources to clarify word meaning.

**Writing**

- Develop and refine their writing skills, composing pieces of increasing complexity.

**Oral Communication**

- Develop skills in effective oral presentations.

**Motivation**

- Choose to actively engage in reading and writing for enjoyment and to learn about the world.

# The Public Schools of Brookline

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### ENGLISH LANGUAGE ARTS

*continued*

#### Core Books

*A Midsummer Night's Dream*

*Bronx Masquerade*

*Impact* (short story anthology)

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### HEALTH

#### Students will:

##### Substance Awareness

- Understand risk factors.
- Differentiate between use and abuse of drugs.
- Demonstrate refusal and negotiation skills.

##### Violence Prevention

- Practice effective skills in communication, negotiation, and conflict resolution.
- Explore influences on choices and behaviors.
- Identify abusive behavior and establish healthy and respectful relationships.
- Understand cyber-bullying and related consequences.

##### Mental Health

- Understand the contribution of a good support system to good mental health.
- Understand influences related to self-esteem.
- Discuss body image related to media and gender.
- Identify peer pressure and demonstrate methods of response.

##### Disease Control and Prevention

- Understand risk factors for disease.
- Become aware of media influences on hygiene practices and products.

##### Family Life

- Demonstrate knowledge of resources and support system.
- Demonstrate what parents do to provide a safe and healthy environment for their children.

##### Fitness

- Understand the components of physical fitness and the FITT Principle.
- Understand the connection between self-care and emotional and physical well-being.

##### Nutrition

- Understand the relationship between servings and calories on food labels.
- Expand understanding of food choices related to peers, family, health, media, availability, nutritional knowledge, and effort.

##### Relationships and Human Sexuality

- Identify outcomes of sexual behaviors and explain how personal values affect sexual decision-making.
- Review bullying and sexual harassment.
- Define protection methods and identify resources for additional information and support.
- Explore how media promotes myths around sexual behavior.
- Explain the benefits of abstinence, postponement, and setting limits on sexual behavior.

##### Safety and Injury Prevention

- Identify negative social influences.
- Identify situation in which students may need to seek help from an adult.
- Review basic First Aid.

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### MATHEMATICS

#### Students will:

- Use ratio and proportions to solve problems that involve unit rates, scale drawings, and reading of maps.
- Demonstrate an understanding of absolute value.
- Compare, order, estimate, and translate among integers, fractions, and mixed numbers, decimals and percents.
- Apply rules of positive integer's exponents.
- Extend, represent, analyze, and generalize a variety of patterns with tables, graphs, works, and symbolic expressions.
- Solve linear equations using tables, graphs, models and algebraic methods.
- Identify, describe, and analyze linear relationships between two variables.
- Compare positive rate of change to negative rate of change.
- Analyze, apply, and explain the relationship between the number of sides and the sums of the interior angle measures of polygons.
- Use a ruler, protractor, and compass to draw polygons and circles.
- Demonstrate an understanding of area and perimeter, circumference of parallelograms, trapezoids, and circles by applying formulas and procedures for determining their measures.
- Given formulas, determine surface area for rectangular prisms and cylinders.
- Select, create, interpret, and utilize circle graphs, Venn diagrams, stem-and-leaf plots, tables and charts.
- Use tree diagrams, tables, organized lists and area models to compute probabilities for simple compound events.

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### PERFORMING ARTS

#### Students will:

##### **Perform Music**

- Develop their ability to sing and/or play instruments by performing music that extends their reading and technical abilities. They will perform with expressiveness and increased ability to interpret the music as a whole.

##### **Create Music**

- Compose music by writing a piece of length for classroom, electronic, band, or orchestral instrument.
- Create effective musical ideas that are contrasted and developed.

##### **Listen, Analyze, Describe and Critique Music**

- Listen to music and write a critical review of a work they perform or listen to as an audience member.
- Be able to describe in some detail the expressive features of the work and how it is unified and varied.
- When critiquing their work, will refer to a wide range of criteria that will include the expressive and interpretive features of performance and compositions.
- Work with others to critique their work and improve performance.

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### Cultural History

- Show understanding of a musical style indigenous to America, be able to aurally recognize its features and be able to describe the effects of American culture on it.

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## PHYSICAL EDUCATION

### Students will:

#### Physical Fitness

- Understand principles of training and conditioning for physical activity.
- Select proper warm-up, conditioning, and cool-down techniques and understand the reason for their use.
- Improve/maintain level of physical fitness in Healthy Fitness Zone (FitnessGram).
- Analyze and categorize activities and exercises according to potential fitness benefits.
- Define the role of exercise and identifies other factors involved in weight control.
- Participate in an individualized fitness program.
- Sustain an aerobic activity, by maintaining the target heart rate, to achieve cardiovascular benefits.
- Perform resistance exercises and stretching to promote muscular strength, muscular endurance, and flexibility.
- Identify the short and long term physiological, psychological, health, personal and cultural changes that result from participation in regular physical activity.

#### Skill Acquisition and Development

- Refine specific sport skills: team, individual, dual (shift towards lifetime activities).
- Review basic rules and strategies for team and individual/dual sport activities.
- Combine sport skills into skill sequences for game play.

#### Social and Personal Development

- Assume the role of leader and follower.
- Demonstrate respect for physical abilities and limitations in self and others.
- Contribute to positive, inclusive class environment by sharing thoughts and feelings in group debriefing sessions.
- Utilize strengths of group members in solving a problem, completing a task and playing a game.
- Accept and show respect for decisions of game officials, leaders, and groups.
- Show a responsibility for the safety of self and others.
- Recognize that attainment of skills and fitness requires perseverance and repetition.

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## SCIENCE

### Students will:

#### Nature of Science

- Explore the natural world using their senses and scientific tools.
- Record their observations in science notebooks and share this information with others.
- Search for patterns in their observations
- Listen to other students' ideas, raise new questions and suggest ways to investigate these questions.
- Explain and illustrate the importance of changing one variable in an experiment, while maintaining controls.
- Judge the quality of evidence and the accuracy of experimental interpretations.

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### Cells

- Explore the structure and function of cell components using microscopes.
- Learn about cellular processes such as diffusion, osmosis, respiration, photosynthesis, protein synthesis, and mitosis.
- Demonstrate how cell functions affect a multi-cellular organism.
- Create a 3-dimensional model of a plant or animal cell.

### Classification

- Use classification methods for organisms and rocks/minerals.
- Learn about the proper use of scientific names.

### Genetics

- Learn the basics of genetics, including genes, traits, DNA replication, mitosis, meiosis, and the use of a Punnett Square.
- Discover how DNA works as universal code for traits.

### Evolution & Geologic Time

- Explore the structure of the earth and plate tectonics, including the origins and characteristics of the major tectonic features of the earth's crust.
- Discover how long term changes in the earth have caused changes in living things.
- Discuss evidence for the theory of evolution.
- Learn about how natural selection is involved in the development of new species.

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## SOCIAL STUDIES

### Students will:

#### Civics

- Exhibit knowledge of such Constitutional concepts as checks and balances, enumerated powers, and individual rights.

#### Economics

- Become familiar with such economic terms as taxation, mercantilism, tariff, protectionism, and free trade.

#### History

- Understand the origins and early history of the United States through the Civil War.

#### Geography

- Grasp how geographical features in the North, South, and West contributed to American regionalism.

#### Skill Acquisition

- Students might simulate a trial, write an argumentation essay, apply Constitutional principles to contemporary legal cases, and make bar graphs and pie charts.

#### Social Development

- Discuss the implications of concepts like individual rights and responsibilities with respect to their own lives.

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## VISUAL ARTS

### Students will:

#### Understandings

- Art as an essential part of daily life.
- Artists respond to what happens during the process.

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- Artists develop favorite tools and materials.
- Artists use what they know, who they are and what they imagine to inform their art.
- Artists implement strong habits of mind to create artwork that is expressive, personal, and communicated clearly.

### **Demonstrate Skills**

- Consistently exhibit the elements of a good 2D composition.
- Consistently exhibit the elements of solid construction in 3D compositions.
- Create work that demonstrates knowledge of the unique characteristics of tools and materials.

### **Engage in Habits of Mind**

- Observe, plan, implement, and reflect during the making of art.
- Revise works; refine the expressive qualities.
- Respect and react to others' ideas and responses.
- Understand personal preferences and strengths.
- Determine what you need to remember.

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## WORLD LANGUAGE

### **Students will:**

- Greet and respond to greetings, introduce and respond to introductions.
- Engage in conversations.
- Express likes and dislikes.
- Make requests.
- Obtain information.
- Understand some ideas and some familiar details.
- Begin to provide information.