

The Public Schools of Brookline

GRADE EIGHT CURRICULUM OVERVIEW

Dear Parents and Guardians,

High 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) 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 EIGHT 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. Students will 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.

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
GRADE EIGHT CURRICULUM OVERVIEW

ENGLISH LANGUAGE ARTS

continued

Core Books

Romeo and Juliet

Of Mice and Men

Impact (short story anthology)

HEALTH

Students will:

Substance Awareness

- Recognize risk factors and signs of addiction and affects on the family and community.
- Identify resources for getting help.
- Demonstrate skills to resist peer pressure.
- Understand media influences on alcohol and drug use.

Violence Prevention

- Practice effective skills in communication, negotiation, and conflict resolution.
- Demonstrate an understanding of and respect for individual differences.
- Explain dating and acceptable dating attitudes and appropriate conduct.
- Develop management skills to cope with anger.
- Know where to find resources to stop assault and prevent violence.

Mental Health

- Identify the benefits of assertiveness.
- Develop skills to deal with stress appropriately.
- Identify self-injurious behaviors and discuss symptoms, causes and support.
- Demonstrate the ability to set achievable personal goals.
- Know how to access support and appropriate interventions.

Disease Control and Prevention

- Understand the risks of sun exposure and avoidance behaviors.
- Develop empathy for people with health issues and disabilities.
- Recognize the importance of sleep.

Family Life

- Demonstrate what parents do to provide a safe and healthy environment for their children.

Fitness

- Determine resting and active heart rates and respiratory rates.
- Demonstrate knowledge of basic injury prevention.
- Understand the connection between self-care and emotional and physical well-being.

Nutrition

- Synthesize the relationships among nutrition, exercise and rest.
- Evaluate fast food choices and their effects on wellness.
- Describe major disorders and diseases related to poor nutrition and resources for help.

Relationships and Human Sexuality

- Recognize healthy vs. unhealthy relationships
- Identify inappropriate vs. appropriate contact
- Practice effective communication skills.

The Public Schools of Brookline

GRADE EIGHT CURRICULUM OVERVIEW

Safety and Injury Prevention

- Identify accident prevention for home, school, and community.
- Practice resistance skills around peer pressure, to make safe choices.
- Develop personal and family emergency plans

MATHEMATICS

Students will:

- Select and use appropriate operations to solve problems with positive and negative rational numbers.
- Estimate and compute with integers, fractions, decimals, and percents that include those greater than 100 and less than one.
- Determine when an estimate is more appropriate than an exact answer.
- Use linear equations to model and analyze problems involving proportional relationships.
- Evaluate simple algebraic expressions for given variable values.
- Determine whether figures are congruent or similar.
- Demonstrate an understanding of the relationship of angles formed by intersecting lines.
- Use a straight edge compass, or other tools to formulate and test conjectures, and to draw geometric figures.
- Given formulas, convert from one system of measurement to another.
- Solve simple problems involving rates such as velocity and density by using models, graphs and formulas.
- Use ratio and proportion to solve problems that includes similar plane figures and indirect measurements.
- Describe the characteristics and limitations of a data sample. Identify different ways of selecting a sample.
- Find, describe, and interpret appropriate measures of central tendency and spread that represent a set of data.

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.
- 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

- Write a critical review of a work they perform or listen to as an audience member.
- When critiquing their work, 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.

The Public Schools of Brookline

GRADE EIGHT CURRICULUM OVERVIEW

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.
- Show understanding of its roots and be able to cite several artists instrumental in its development.

PHYSICAL EDUCATION

Students will:

Physical Fitness

- Integrate principles of training and conditioning for development of personal fitness plan; 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.
- Perform resistance exercises and stretching to promote muscular strength, muscular endurance, and flexibility.
- Identify physiological, psychological, health, personal and cultural changes that result from participation in regular physical activity.

Skill Acquisition and Development

- Refine sport skills: team/individual/dual (continue shift towards lifetime activities).
- Combine sport skills into skill sequences for game play.
- Identify and follow rules/strategies while playing games.

Social and Personal Development

- Assume roles of leader and follower.
- Demonstrate respect for physical abilities and limitations in self and others.
- 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; shows a responsibility for the safety of self and others.
- Recognize that the attainment of skills and fitness requires perseverance and repetition.

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.

Matter

- Define matter and its properties (density, freezing point, boiling point, melting point, and solubility).
- Differentiate between atoms and molecules.

The Public Schools of Brookline

GRADE EIGHT CURRICULUM OVERVIEW

- Use the Periodic Table to provide information about naturally occurring elements.
- Analyze matter by interpreting characteristic properties.
- Define, compare, and contrast chemical and physical changes.
- Demonstrate that balanced chemical equations provide evidence of conservation of mass.

Motion

- Define and measure force; explain gravity as a force.
- Determine the speed and acceleration of an object.
- Explain how momentum is conserved.
- Explain how energy is transferred and conserved.

Astronomy

- Learn about the features of our solar system and the universe.
- Study the movement of the Earth and the Moon in relationship to each other and the sun; identify regularly occurring periods.
- Learn about methods for mapping the solar system.

Meteorology

- Describe weather and climate, and their relationship to the structure and position of the Earth.
- Explain the relationship between heat energy and weather.
- Investigate ways in which human activity has changed Earth's land, oceans, and atmosphere.

SOCIAL STUDIES

Students will:

Civics

- Understand the amendment process, judicial review, and the developing concept of human rights.

Economics

- Explore laissez-faire, protectionist, socialist, Keynesian, and free market economic policy.

History

- Understand the causes and consequences of the emergence of the United States as a global power.

Geography

- Investigate the impact of global imperialism on both the Great Powers and colonized peoples in the late 19th and 20th century.

Skill Acquisition

- Use technology to fashion presentations, write five paragraph essays, interpret political cartoons, and compose point of view narratives.

Social Development

- Track the formation of their identities, debate the morality of such historical events as Japanese internment, and explore strategies of justice movements.

The Public Schools of Brookline

GRADE EIGHT CURRICULUM OVERVIEW

VISUAL ARTS

Students will:

Develop Understandings

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

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.