

Grade Eight English Language Arts

Grade 8: English Language Arts

Big Ideas in Reading:

Reading Literature

We engage in reading to learn about others, places, events and ourselves, yesterday, today, and tomorrow.

We engage in reading fictional text to support and deepen our understanding about authors, characters, plots, settings, and themes that we read about in literature.

How do you engage in reading books?

How does reading related texts build your understanding of literature?

Big Ideas in Writing:

Writing About Reading is an artifact of a recursive process of students engaging in reading, thinking, jotting, discussing, revising thinking, and writing.

We value academic discourse and the ability to identify, defend, and critique different perspectives.

We value students' ability to create claims and support them with textual evidence based on what is explicitly stated in the text or inferred from the text.

Big Ideas in Thinking, Talking and Writing about Reading:

Writing About Reading in Literature

Characters, settings, and plots evolve over the course of a text and work together to reveal the author's theme.

How do specific lines of dialogue or specific events propel the action, reveal aspects of character, or provoke a decision?

How does the author develop a theme over the course of a text?

How does the author develop a theme over the course of a text?

Grade Eight Science and Social Studies

Grade 8: Science and Engineering

Chemical Interactions

Students will start with a unit on chemistry which is the systematic unveiling of the nature of matter—its properties, composition, and structure—and the energy dynamics that accompany matter transformations. Chemistry is also the intellectual process of uncovering the nature of matter and energy that contributes to an ever-expanding body of chemical knowledge.

- Substances
- Elements
- Particles
- Energy
- Solutions
- Phases
- Reactions

Books:

- *Janice VanCleave's Chemistry for Every Kid: 101 Easy Experiments that Really Work* by Janice VanCleave
- *DK Eyewitness Books: Chemistry*, by Ann Newmark

Websites

<http://www.kidsolr.com/science/page11.html>

<https://www.acs.org/content/acs/en/education/resources/k-8.html>

Social Studies: In Grade 8, students study the historical and intellectual origins of the US during the Revolutionary and Constitutional eras.

- European History: Age of Exploration
- Colonization (Jamestown and Mayflower)
- Formation and Framework of American Democracy

Websites

- <http://www.archives.gov/exhibits/charters/constitution.html/>
- <http://ratify.constitutioncenter.org/constitution/index>

Grade Eight Mathematics

Grade 8: Mathematics

- Verify experimentally the properties of rotations, reflections, and translations.
- Understand that a two-dimensional figure is congruent to another if the second can be obtained from the first by a sequence of rotations, reflections, and translations.
- Describe the effects of dilations, translations, rotations, and reflections on two-dimensional figures using coordinates.
- Understand that a two-dimensional figure is similar to another if the second can be obtained from the first by a sequence of rotations, reflections, translations, and dilations.
- Use informal arguments to establish facts about the angle sum and exterior angle of triangles, about the angles created when parallel lines are cut by a transversal, and the angle-angle criterion for similarity of triangles.
- Know and apply the properties of integer exponents to generate equivalent expressions.
- Use numbers expressed in scientific notation to estimate very large and very small numbers.
- Perform operations with numbers expressed in scientific notation.
- Explain a proof of the Pythagorean Theorem.

Websites for Parents:

- <http://www.commoncoreworks.org/domain/149>
- <http://greatminds.net/parents>



Grade Eight

Dear Parents and Guardians,

Welcome and congratulations as your child enters Grade 8 in the Lowell Public Schools. Our teachers, coaches and leaders have been working hard on curriculum teams to update your child's program to reach and exceed grade level expectations. The Lowell Public Schools offers standards-based instruction in all classrooms aligned to the Massachusetts Curriculum Frameworks. This brochure lays out the plans for the first marking period. Please take some time to read through this brochure with your child and if you have any questions, please contact your child's teacher. Thank you for your support and I wish your child a safe, productive, and enjoyable school year.

Very truly yours,
Dr. Joel Boyd
Superintendent of Schools

In Literacy, students in grade eight will begin the school year by establishing routines that support a literate life throughout school into adulthood. These routines include choosing engaging books that they can read proficiently and which challenge their thinking. Students will study an author's development of theme through character, plot, and setting with an emphasis on close analysis of dialogue and events in a fictional novel. The fictional text will be enriched by a variety of literary and informational texts which will serve to deepen students' understanding of theme. Students in grade eight will learn how to respond in depth both orally and in writing to texts that they are reading by making compelling claims about meaning and author's craft that they can justify with evidence from the text and logical reasoning. Beginning in November, students in grade eight will change their focus from fiction to an in depth study of informational text focusing on determining central ideas and analyzing structure as readers and creating research-based informational texts as writers.

In Science Today, we understand matter on Earth to be composed of 90 elements. Students will explore the topics of chemistry to make meaningful connections to the world around them as they explore the known and unknown. Students will conduct experiments such as those with mystery mixtures, building of containers to keep hot and cold in or out and keep journals to document all their evidence

In Social Studies, students in grade eight will examine the historical and intellectual origins of the United States during the Revolutionary and Constitutional eras. They learn about the importance of political and economic factors that contributed to the outbreak of the Revolution.

In Mathematics, grade eight students will continue their journey of learning that mathematical ideas should be explored in ways that stimulate curiosity, develop depth of understanding, and create enjoyment of mathematics. Because students need to understand mathematics deeply and use it effectively, initial instructional time will build on their previous work with exponents as they discover and apply the properties of integer exponents. Students will also build on their previous work with distance and angles, specifically how they behave under translations, rotations, reflections, and dilations. Students will also use ideas about congruence and similarity to describe and analyze two-dimensional figures and to solve problems.

Lowell Public Schools Curriculum, Instruction and Assessment Office

Ways You Can Support Your Child's Learning

- Keep books and magazines around the house that your child will enjoy reading and learning from.

Book Titles for Eighth Graders

Fiction:

- Pinned by Sharon Flake
- Call the Shots by Don Calame
- The Fault in Our Stars by John Green

Non Fiction:

- Trapped: How the World Rescued 33 Miners from 2,000 Feet Below the Chilean Desert by Mark Aronson
- Flesh and Blood So Cheap: Moon Landing: Apollo 11 by Albert Marrin
- World War II (Profiles) by Aaron Rosenberg
- How They Croaked: The Awful Ends of the Awfully Famous by Georgia Bragg
- Beyond Courage: The Untold Story of Jewish Resistance During the Holocaust by Doreen Rappaport

HELP YOUR CHILD DEVELOP PROBLEM SOLVING SKILLS STANDARDS FOR MATHEMATICAL PRACTICE

1. Make sense of problems and persevere in solving them.
2. Reason abstractly and quantitatively.
3. Construct viable arguments and critique the reasoning of others.
4. Model with mathematics.
5. Use appropriate tools strategically.
6. Attend to precision.
7. Look for and make use of structure.
8. Look for an express regularity in repeated reasoning.