

ENGLISH LANGUAGE ARTS

Reading:

Key Ideas and Details:

- Cite strong and thorough textual evidence
- Provide a summary distinct from personal opinions or judgements
- Describe how a plot unfolds in a series of episodes

Craft and Structure:

- Determine the meaning of words
- Explain how an author develops the point of view

Integration:

- Compare and contrast one author's presentation of events with another (memoir and biography)
- Integrate information presented in different media or formats

Language:

- Demonstrate command of the conventions of standard English grammar and punctuation
- Use knowledge of language and its conventions when writing, speaking, reading, or listening
- Demonstrate understanding of figurative language, word relationships, and nuances in word meanings

Writing:

- Write arguments to support claims with clear reasons and relevant evidence
- Write informative texts to examine a topic and convey information
- Produce clear and coherent writing
- Develop and strengthen writing by planning, revising, editing, rewriting, or trying a new approach
- Conduct short research projects to answer a question drawing on several sources
- Gather relevant information from multiple sources

Speaking and Listening:

- Engage in a range of collaborative discussions
- Present claims and findings sequencing ideas logically and use pertinent descriptions

MATHEMATICS

- Understand ratio concepts and use ratio reasoning to solve problems
- Apply and extend previous understanding of multiplication and division to divide fractions by fractions
- Apply and extend previous understandings of numbers to the system of rational numbers
- Apply and extend previous understandings of arithmetic to algebra

Mathematical Practices:

- Make sense of problems and persevere in solving them
- Reason abstractly and quantitatively
- Construct viable arguments and critique the reasoning of others
- Model with mathematics
- Use appropriate tools strategically
- Attend to precision
- Look for and make use of structure
- Look for and express regularity in repeated Reasoning

SCIENCE AND TECHNOLOGY

Earth and Space:

- Develop and use a model of the Earth-Sun-Moon system to explain the causes of lunar phases, and eclipses of the sun and moon
- Analyze and interpret rock layers and index fossils to determine the relative ages of rock formations
- Graphically display that Earth and its solar system are part of the Milky Way
- Analyze and interpret maps showing the distribution of fossils and rocks, continental shapes and

seafloor structures

Life Science:

- Provide evidence that organisms are made of cells
- Develop and use a model to describe the ways parts of cells contribute to essential cellular functions
- Construct an evidence-based argument that body systems interact to carry out essential functions of life
- Analyze and interpret evidence from the fossil record to describe organisms and their environment
- Argue using anatomical structures to support evolutionary relationships among/between fossils and modern organisms

Physical Science:

- Plan and conduct an experiment with exothermic and endothermic chemical reactions to measure and describe release or absorption of thermal energy
- Use a particulate model to show that density is the amount of matter in a given volume
- Conduct an experiment to show that many materials are mixtures of pure substances that can be separated physically into their component pure substances
- Use evidence to explain that gravitational forces between objects are attractive and noticeable only when one or both have a very large mass
- Model a simple wave to explain that it has a repeating pattern with a specific amplitude, frequency & wavelength; and the amplitude of a wave is related to the energy of the wave
- Use diagrams/models to explain how light rays/mechanical waves are reflected, absorbed or transmitted through various materials
- Present qualitative data to support that digitized signals can be used to encode and transmit information

Technology and Engineering:

- Design criteria and constraints of a design problem to ensure a successful solution
- Create visual representations of solutions to a design problem using scale and proportion
- Communicate a design solution to an intended user
- Analyze and compare properties of metals, plastics, wood and ceramics including flexibility, ductility, hardness, thermal conductivity and melting point
- Given a design task, select appropriate materials needed in the construction of a solution
- Choose and safely use appropriate tools to construct a prototype

SOCIAL STUDIES

History and Geography:

- Use maps and globes
- Use geographic terms correctly
- Interpret geographic information from a graph or chart and construct a graph or chart
- Identify how current world atlases are organized and the kind of information they provide
- Identify what time zones are and how they are used
- Use demographic terms correctly

Civics and Government:

- Define what a nation is and give examples of the different ways nations are formed
- Give examples of several well known international organizations
- Study foreign nations and their policies

Economics:

- Provide example of currencies from several countries

The purpose of this guide is to identify the major topics, concepts, and skills that are considered essential for this grade level as identified by the Massachusetts Curriculum Frameworks.

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CURRICULUM GUIDE GRADE 6



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