

Grade

7

Language Arts

The English language arts are the vehicles of communication by which we live, work, share, and build ideas and understandings of the present, reflect on the past, and imagine the future.

Michigan Curriculum Framework
A portion of the Vision Statement

Genre, Craft, and Conventions of Language

- Narrative focus: realistic fiction, science fiction, poetry
- Non-fiction focus: autobiography/biography, compare/contrast essay
- Write narrative using point of view, description, colloquial language, dialect, dialogue, authentic voice to depict roles of antagonists and protagonists, portray internal/external conflicts and identify abstract themes
- Write expository using titles, captions, graphs and charts with interpretation, diagrams, appendices
- Use correct spelling conventions
- Identify and use adjective/adverbial phrases, relative nouns, superlative and comparative adjectives, commas with appositives, semicolons
- Public speaking elicits audience reaction

Literature and Understanding

- Universal themes of tolerance, change, and integrity in classic and contemporary literature examined from cultural, personal, and author's perspective

Creating Communication Products for Various Purposes and Audiences

- Written and spoken narratives and expository pieces related to universal themes using focus genres
- Vocabulary that defines critical attributes of key concepts of tolerance, change, integrity and vocabulary relative to English Language Arts

Skills, Strategies, and Processes

Comprehension

- Use essential comprehension strategies before, during, and after reading, to support proficient, independent reading. These strategies include: make connections, monitor and correct, determine order of importance, visualize, ask questions, make inferences, synthesize

Writing

- Writing includes six essential traits of writing
- Use writing process

Research

- Brainstorm, generate and evaluate questions to initiate research related to universal themes
- Select and use information from a variety of sources that represent several perspectives
- Organize and analyze information
- Present/publish research

Metacognition

- Plan and evaluate skills, strategies and processes to construct and convey meaning when reading, listening, speaking and viewing.

Critical Standards

- Compare purposes and contexts in which shared, individual and expert standards are used in order to assess own work and that of others

Connected Mathematics Instructional Program

The goal of Connected Mathematics is to help students develop mathematical knowledge, understanding and skill, as well as an awareness and appreciation of the rich connections among mathematical strands and between mathematics and other disciplines. Every unit develops a big idea, that is, an important cluster of related concepts, skills, procedures and ways of thinking. Below is an overview of the 7th grade program.

Title of Unit <i>Big Idea</i>	Concept & Skills
Accentuate the Negative <i>Integers and Rational Numbers</i>	Add, subtract, multiply and divide real numbers; apply properties of operations to perform calculations of positive and negative numbers
Stretching & Shrinking <i>Similarity</i>	Similar figures; scale factors; basic similarity transformations and their algebraic rules.
What Do You Expect? <i>Probability and Expected Value</i>	Expected value; probabilities of two-stage events.
Comparing & Scaling <i>Ratio, Proportion & Percent</i>	Rates and ratios; making comparisons; proportional reasonings.
Moving Straight Ahead <i>Linear Relationships</i>	Recognizing and representing linear relationships in tables, graphs, words and symbols; solving simple linear equations.

Number and Operations

- Convert from fraction to decimal and decimal to fraction using rational numbers
- Express a number in exponential and standard form
- Solve appropriate consumer problems involving commission, interest, taxes, percent increase, percent decrease and compound growth
- Efficiently and accurately apply operations with all rational numbers in solving problems
- Develop and apply the appropriate method of computation from mental mathematics, estimation, paper/pencil or by using a calculator with rational numbers
- Know which operation to perform in a given situation

Algebra

- Write an equation that fits a given graph or table
- Express linear relationships graphically, algebraically and verbally
- Match a graph to a set of values
- Test and evaluate predictions based on observed patterns
- Solve one- and two-step linear equations

Geometry

- Compare lengths and angles in similar and non-similar figures
- Graph sets of ordered pairs in the four quadrants
- Build, view, draw and describe objects from different perspectives
- Select and use appropriate tools to measure an object
- Create a scale drawing using ratios and proportions
- Use a formula to calculate area and volume
- Select and use appropriate tools to measure an object
- Apply formulas to real world situations
- Identify and classify prisms, pyramids, cylinders, spheres and cones
- Identify the net and what shape it will make
- Use a formula to calculate area and volume

Data and Probability

- Draw simple tree diagrams to represent possible outcomes of an experiment
- Distinguish between dependent and independent events
- Solve problems by determining the probabilities of two or more dependent events
- Collect, organize and present data using a variety of formats and strategies
- Present data in box and whisker plots, double stem-leaf plots, scattergrams, line graphs and histograms
- Identify and use a process for approaching data analysis problems
- Compare results of repeated samples from the same population, use sampling distributions, measure of center and measures of spread
- Consider how the size of a sample influences the outcome
- Develop and implement a sampling plan

Science

Goals for school science are to educate students who are able to:

- Experience the richness and excitement of knowing about the natural world
- Use appropriate scientific processes and principles in making personal decisions
- Engage intelligently in public discourse and debate about matters of scientific and technological concern
- Increase their productivity through the use of the knowledge, understanding, and skills of the scientifically literate person in their careers

The middle school science curriculum engages students in inquiries designed to increase their interest and understanding, using the “5 E model”: engage, explore, explain, extend, evaluate. The following units are based on the National Science Education Standards and address the Michigan Curriculum Framework objectives.

<p>Cells</p> <p>Unifying Concept: All organisms are composed of cells, from one cell to many cells. In multicellular organisms, specialized cells perform specialized functions. Organs and organ systems are composed of cells, and function to serve the needs of cells for food, air and waste removal. The way in which cells function is similar in all living organisms.</p> <p>Key Concepts:</p> <ul style="list-style-type: none"> • All organisms are composed of cells (single cell organisms, multicellular organisms). • Cells make up different body tissues, organs, and organ systems. • Cells in all multicellular organisms are specialized to take in nutrients, which they use to provide energy for the work that cells do and to make the materials that a cell or organism needs. • Cells function in a similar way in all organisms. 	<p>Earth in the Solar System</p> <p>Unifying Concept: The earth is the third planet from the sun in a system that includes the moon, the sun, eight other planets and their moons, and smaller objects. Models are used to demonstrate the motions and interactions of objects in the universe.</p> <p>Key Concepts:</p> <ul style="list-style-type: none"> • A model of something is a simplified imitation of it that we hope can help us understand it better. Different models can be used to represent the same thing. What kind of model to use and how complex it should be depends on its purpose. • Gravity is the force that keeps planets in orbit around the sun and governs the rest of motion in the solar system. • Most objects in the solar system are in regular and predictable motion. Those motions explain such phenomena as the day, the year, phases of the Moon, eclipses and seasons. • The sun, an average star, is the central and largest body in the solar system.
<p>Structures and Changes of Matter</p> <p>Unifying Concept: Although substances have different properties, everything is really made up of a relatively few kinds of basic material combined in various ways.</p> <p>Key Concepts:</p> <ul style="list-style-type: none"> • All matter is made up of atoms which are far too small to see directly through a microscope. • There are more than 100 classified elements that combine in a multitude of ways to produce compounds that account for the living and non-living substances we encounter • Elements do not break down during normal laboratory reactions involving such treatments as heating, exposure to electrical current, or reaction with acids. • Substances react chemically in characteristic ways with other substances to form new substances (compounds) with different characteristic properties. • In chemical reactions, the total mass is conserved. 	<p>Transfer of Energy</p> <p>Unifying Concept: Energy is a property of many substances and is associated with heat, light, electricity, mechanical motion, sound, nuclei and the nature of a chemical.</p> <p>Key Concepts:</p> <ul style="list-style-type: none"> • Whenever the amount of energy in one place or form diminishes, the amount in another place or form increases by an equivalent amount. • Transformations of energy usually result in producing some energy in the form of heat, which leaks away by radiation or conduction. • Sound energy is chiefly the regular back and forth motion of molecules that will vary depending on the medium. • The sun’s energy arrives as light with a range of wavelengths, consisting of visible light, infrared, and ultraviolet radiation. Light interacts with matter by transmission (including refraction), absorption or scattering (including reflection). • Electrical circuits provide a means of transferring electrical energy when heat, light, sound & chemical changes are produced.

Grade

7

Social Studies

Social Studies is the integrated study of the social sciences to prepare young people to become responsible citizens. Responsible citizens display social understanding and civic efficacy. Social understanding includes knowledge of the human condition, how it has changed over time, the variations that occur in different physical environments and cultural settings, and the emerging trends that appear likely to shape the future in an interdependent world. Civic efficacy is the readiness and willingness to assume responsibilities of citizenship, knowing how, when, and where to make informed and reasoned decisions for the public good in a democratic society.

GRADES K-8 SOCIAL STUDIES CONTENT EXPECTATIONS,
MICHIGAN DEPARTMENT OF EDUCATION



Eastern Hemisphere Studies Geography, People, Places, and Issues World History Eras I, II, III (Beginnings of human society through 300 C.E) World Religions

The first semester of the seventh grade social studies curriculum introduces students to cultures of the East, with emphasis on the contemporary geography of Africa and Asia. Through the study of geography, students learn the locations of significant places in each of these world regions; explore cultural and natural features that characterize each region; trace movement of people, ideas, and products within the regions; and discover ways that regions can be divided into sub-regions. Historical background is provided to enable students to understand how a region developed from the past to the present. Differences in governments and economies are examined. The economy of each region and its role in the global economy is explored. Using a variety of media, students compile, analyze, and present geographic and economic data pertaining to the regions. Throughout the course, students study public issues of global significance in the East. Through analysis, discussion, and writing, students consider what actions, if any, their country should pursue with respect to these regions.

The second half of the course is devoted to the study of the first three eras in World History. These units lay a foundation for the future study of World History in high school. Calling on the geography, economics, and civics that they have previously studied, students learn about the earliest humans and explore early migration and settlement patterns. Students learn how the emergence of pastoral and agrarian societies set the stage for the development of powerful empires, trade networks, and the diffusion of skills and ideas. The course concludes with a unit of study of different world religions. Students will explore their origins, their spread, and their influence in early world history.