

# **Eighth Grade**

# **Curriculum**

# **Guide**



Dear Parents:

On behalf of our staff, I want to welcome you and your child to the Bay City Public Schools. Your child's teacher will assist you in guiding, encouraging, supporting, and providing education in Language Arts, Science, Social Studies and Math. Everyone involved with your child's education plays an important part in making it a success. Why? Because a successful education is not just the academics alone, but also the study habits and social skills that will carry your child through the rest of his or her life.

Together we can create an atmosphere for your child to become a knowledgeable, self-reliant, confident learner. My pledge is our that teachers, administrators and staff will provide quality educational opportunities and experiences to allow your child to have a well-rounded, enjoyable and successful education experience at the Bay City Public Schools. Thank you.

Sincerely,

*Doug Newcombe*

Superintendent

# **EIGHTH GRADE**

## **ENGLISH LANGUAGE ARTS**

**Eighth Grade English Language Arts (ELA) develops strength in reading, writing, speaking, listening and viewing skills. Your child should increase his/her ability to analyze and synthesize information, increase their reading ability and become a more proficient writer.**

### **READING - Word Study**

- Use word structure, sentence structure, and prediction to aid in decoding and understanding the meanings of words.
- Use structural, syntactic, and semantic analysis to recognize unfamiliar words in context such as idioms, analogies, metaphors, and similes to infer the history of the English language, common word origins or syllabication.
- Recognize frequently encountered words automatically.
- Know the meaning of frequently encountered words in written and oral contexts (research to support specific words).
- Apply strategies to construct meaning and identify unknown words.
- Fluently read eighth grade materials (read increasingly demanding texts as the year proceeds).
- Use strategies, such as prior knowledge, text features, structures and authentic content-related resources to determine the meaning of words and phrases in context (examples: historical terms, content area vocabulary, and literary terms).

### **Narrative Text**

- Investigate through classic and contemporary literature recognized for quality and literary merit various examples of distortion and stereotypes such as those associated with gender, race, culture, age, class, religion, and other individual differences.
- Analyze elements and style of narrative genres (examples: historical fiction, science fiction, realistic fiction).
- Analyze the role of rising and falling actions, and minor characters in relation to conflict, and credibility of the narrator.
- Analyze how authors use symbolism, imagery, and consistency to develop credible narrators, rising and falling actions and minor characters.

### **Informational Text**

- Analyze elements and style of informational genre. Examples:
  - comparative essays
  - newspaper writing

- technical writing
  - persuasive essays
- Analyze organizational patterns such as theory, evidence, and sequence.
- Explain how authors use text features such as illustrations, author's pages, prefaces and marginal notes to enhance the understanding of central, key, and supporting ideas.

### **Comprehension**

- Connect personal knowledge, experience, and understanding of the world to themes and perspectives in the text.
- Read, retell, and summarize grade level appropriate narrative and informational texts.
- State global themes, universal truths, and principles within and across texts to create a deeper understanding.
- Apply significant knowledge from what has been read in grade level appropriate science and social studies texts.

### **Metacognition**

- Independently self-monitor comprehension when reading or listening to text by automatically using and discussing the strategies used by mature readers to increase comprehension and engage in interpretative discussions. Examples: - predicting - constructing mental images representing ideas in text - questioning - rereading or listening again if uncertain about meaning - inferring - summarizing.
- Plan, monitor, regulate, and evaluate skills, strategies, and processes for his/her reading comprehension by applying appropriate metacognitive skills.
- Apply significant knowledge from what has been read in grade level appropriate science and social studies texts.

### **Critical Standards**

- Evaluate the appropriateness of shared, individual, and expert standards based on purpose, context, and audience in order to assess his/her work and the work of others.

### **Reading Attitude**

- Be enthusiastic about reading and do substantial reading on own.

## **WRITING**

### **Writing Genres**

- Write a narrative piece that includes appropriate conventions for genres such as historical fiction, science fiction, realistic fiction and contains literary and plot devices (examples: narrator

credibility, rising and falling actions, and/or conflict, transitional language, and imagery).

- Write an historical expository piece such as a journal, biography or simulated memoir that includes appropriate organization, illustrations, marginal notes, and/or annotations.
- Formulate research questions that demonstrate critical evaluation of multiple resources and perspectives and arguments/counterarguments that end in a presented, final project.

### **Writing Process**

- Set a purpose, consider audience, and replicate authors' styles and patterns when writing narrative or informational text.
- Apply a variety of pre-writing strategies for narrative text (examples: story maps designed to depict rising and falling actions, roles of minor characters, credibility of narrator) and informational text (examples: compare/contrast, cause and effect, sequential text patterns).
- Experiment with various ways of sequencing information such as ordering arguments, sequencing ideas chronologically or by importance.
- Review and revise compositions for coherence and consistency regarding word choice, cause and effect, and style, then read his/her own work from another reader's perspective in the interest of clarity.
- Edit his/her writing both individually and in peer editing groups, using proofreaders' checklists.

### **Personal Style**

- Exhibit individual style to enhance the written message (example: in narrative text: personification, humor, element of surprise; in informational text: emotional appeal, strong opinion, credible support).

### **Grammar and Usage**

- Use style conventions such as the Modern Language Association (MLA) and a variety of grammatical structures in his/her writing including infinitives, gerunds, participial phrases, and dashes or ellipsis.

### **Spelling**

- Use correct spelling conventions.

### **Handwriting**

- Be legible in compositions.

### **Writing Attitude**

- Be enthusiastic about writing.

## **SPEAKING**

### **Conventions**

- Use enunciation and stress to emphasize key ideas and concepts when presenting.
- Use body language such as gestures, posture, and facial expressions, along with tone of voice, and pace of speaking to enhance meaning and influence interpretation when presenting.
- Present work in standard American English or his/her developing version of standard American English if in the process of learning the language.

### **Discourse**

- Engage in interactive, extended discourse to socially construct meaning by participating in book clubs, literature circles, partnerships or other types of conversation groupings.
- Discuss multiple text types in order to explore problems and pose solutions, take a stand on an issue and support it, and identify personally with a universal theme.
- Discuss written narratives such as biographies and autobiographies, which contain a variety of literary and plot devices (examples: description of relevant situations, well-chosen details, relevant dialogue, specific action, physical description of characters).
- Plan and deliver an informational presentation that incorporates precise, interesting, and vivid language. The presentation is organized logically to deliver the message, includes persuasive non-verbal techniques such as voice modulation, expression, tone, appropriate pace, and makes use of rhetorical strategies to support the purpose and to positively impact the intended audience.
- Examples:
  - supportive narratives
  - key information
  - vivid descriptions

## **LISTENING AND VIEWING**

### **Conventions**

- Listen to and view a variety of peer speeches and presentations to analyze for key factors (Example: main idea, significant details, fact and opinion, bias, propaganda, argumentation, or support).
- Demonstrate the appropriate social skills of audience behavior and critically examine the verbal and non-verbal strategies in the communication process.

## **Response**

- React to a speaker's intent and apply a speaker's reasoning to other situations and topics.
- Respond thoughtfully to both classic and contemporary texts recognized for quality and literary merit.
- Paraphrase a speaker's main ideas, purpose, and point of view, and ask relevant questions about the content, delivery, and purpose of the presentation.
- Analyze oral interpretations of literature such as language choice, delivery, and the effect of the interpretations on the listener.
- Respond to multiple texts when listened to or viewed by speaking, illustrating, and/or writing in order to anticipate and answer questions, to determine personal and universal themes, and to offer opinions or solutions.
- Evaluate the credibility of a speaker by determining whether the speaker may have hidden agendas or be otherwise biased.
- Interpret and analyze the various ways in which visual image-makers such as graphic artists, illustrators communicate information and affect impressions and opinions.

## **MATHEMATICS**

**Best practices and current research provide the foundation for the mathematics curriculum during the eighth grade. All students will be held to rigorous expectations. Students will learn the following topics:**

### **Number and Operations**

- Fluency - efficiency and accuracy in computation.
- Connections between various number systems (whole numbers, fractions, decimal fractions, ratio, percentages, rational numbers, and the real numbers).
- Understand real number concepts including the meaning of square root, cube root and irrational numbers.
- Locate real numbers on the number line.
- Calculate weighted averages.
- Solve problems in real world contexts.

### **Measurement**

- Understand the attributes of various measurement concepts (time, length, area, volume, weight, capacity, money, and temperature).
- Apply the measurement concepts in applied problems and contexts.

### **Geometry**

- Solve problems about geometric shapes.
- Understand concepts of volume and surface area and apply formulas.

- Understand and apply concepts of transformation and symmetry.
- Perform transformations.
- Work with congruence and similarity.
- Understand and apply the Pythagorean Theorem.
- Understand and apply the distance formula.
- Understand and model geometric situations.
- Solve common real world problems involving geometry.
- Justify geometric arguments.
- Understand the definition of a circle and apply the formulas for circumference and area.

### **Algebra**

- Understand the concept of non-linear functions.
- Understand and represent quadratic functions.
- Recognize, represent, and apply common formulas.
- Solve simultaneous linear equations using algebra, graphs, or other appropriate methods.
- Solve simultaneous linear inequalities using algebra, graphs, or other appropriate methods.
- Solve applied problems involving quadratic equations.
- Compute using real numbers and algebraic expressions.

### **Data and Probability**

- Solve problems using information from given data sets
- Determine independent and dependent.
- Investigate and compare theoretical probabilities and experimental probabilities
- Understand and apply probability concepts for simple and compound events.
- Draw, explain, and justify conclusions based on data

## **SCIENCE**

**Eighth graders will study the following systems in a year long course in Earth Science: solid Earth, fluid Earth, the cycles and movement of elements, compounds, and energy within and between the systems. Students will also learn about the position of the Earth in the universe and its evolution over time.**

### **Formation of the Earth**

- Explain how the solar system formed from a nebula of dust and gas in a spiral arm of the Milky Way Galaxy about 4.6 Ga.

- Explain why the Earth is essentially a closed system.
- Describe the Earth's principal sources of internal and external energy.
- Explain the process of radioactive decay and explain how radioactive elements are used to date the rocks that contain them.
- Relate major events in the history of the Earth to the geologic time scale, including formation of the Earth, formation of an oxygen atmosphere, rise of life, Cretaceous-Tertiary and Permian extinctions, and Pleistocene ice age.
- Describe the interior of the Earth.
- Explain how scientists infer that the Earth has internal layers with discernable properties using patterns of primary and secondary seismic wave arrivals.

#### **Dynamic Planet: Plate Tectonics**

- Explain how plate tectonics accounts for the features and processes that occur on or near the Earth's surface.
- Describe the differences between oceanic and continental crust.
- Describe natural processes in which heat transfer in the Earth occurs by conduction, convection, and radiation.
- Explain why tectonic plates move using the concept of heat flowing through mantle convection, coupled with the cooling and sinking of aging ocean plates those results from their increased density.
- Describe the motion history of geologic features using equations relating rate, time and distance.

#### **Dynamic Planet: Earthquakes & Volcanoes**

- Use the distribution of earthquakes and volcanoes to locate and determine the types of plate boundaries.
- Describe how the sizes of earthquakes and volcanoes are measured or characterized.
- Describe the effects of earthquakes and volcanic eruptions on humans.
- Describe natural processes in which heat transfer in the Earth occurs by conduction, convection, and radiation.
- Explain, using specific examples, how a change in one system affects other Earth systems.

#### **The Rock Cycle**

- Discriminate between igneous, metamorphic, and sedimentary rocks and describe the processes that change one kind of rock into another.
- Explain the relationship between the rock cycle and plate tectonics theory in regard to the origins of igneous, sedimentary, and metamorphic rocks.

#### **Hydrogeology**

- Compare and contrast surface water systems and groundwater in regard to their relative size as Earth's freshwater reservoirs and the dynamics of water movement.

- Explain the features and processes of groundwater systems and how the sustainability of North American aquifers has changed in recent history qualitatively using the concepts of recharge, residence time, inputs and outputs.
- Explain how water quality in both groundwater and surface systems is impacted by land use decisions.

### **Oceans and Climate**

- Describe the major causes for the ocean's surface and deep water currents, including the prevailing winds, the Coriolis Effect, unequal heating of the Earth, changes in water temperature and salinity in high latitudes, and basin shape.
- Explain how the interactions between the oceans and the atmosphere influence global and regional climate. Include the major concepts of heat transfer by ocean currents, thermohaline circulation, boundary currents, evaporation, precipitation, climatic zones, and the ocean as a major CO<sub>2</sub> reservoir.

### **Severe Weather**

- Describe the various conditions of formation associated with severe weather.
- Describe the damage resulting from the social impact of thunderstorms, tornadoes, hurricanes, and floods.
- Describe severe weather and flood safety and mitigation.
- Describe the seasonal variations in severe weather.
- Describe conditions associated with frontal boundaries that result in severe weather.
- Describe how mountains, frontal edging convection, and convergence form clouds and precipitation.

### **Cosmology and Earth's Place in Space**

- Describe the position and motion of our solar system in our galaxy and the overall scale, structure, and age of the universe.

### **The Sun and Other Stars**

- Identify patterns in solar activities.
- Relate events on the Sun to phenomena such as auroras, disruption of radio and satellite communications, and power disturbances.
- Describe how nuclear fusion produces energy in the Sun.
- Describe how nuclear fusion and other processes in stars have led to the formation of all the other chemical elements.

### **Age of the Earth**

- Describe how index fossils can be used to determine time sequence.

### **Climate Change**

- Identify the main sources of energy to the climate system.

- Explain the natural mechanism of the greenhouse effect including comparisons of the major greenhouse gases.
- Describe natural mechanisms that could result in significant changes in climate.
- Analyze the empirical relationship between the emission of carbon dioxide, atmospheric carbon dioxide levels and the average global temperature over the past 150 years.
- Based on evidence of observable changes in recent history and climate change models, explain the consequences of warmer oceans and changing climatic zones.

#### **Earth as a System**

- Identify differences in the origin and use of renewable and nonrenewable sources of energy.
- Explain how carbon exists in different forms such as limestone, carbon dioxide, carbonic acid, and animals and how those forms can be beneficial or harmful to humans.
- Describe renewable and nonrenewable sources of energy for human consumption, compare their effects on the environment, and include overall costs and benefits.
- Explain how the impact of human activities on the environment can be understood through the analysis of interactions between the four Earth systems.

## **SOCIAL STUDIES**

### *Integrated United States History*

**Eighth graders will study the history of the United States from the writing of the Constitution through Reconstruction. For a more complete and detailed explanation of the 8<sup>th</sup> grade Social Studies curriculum please visit our website: [www.bcschools.net](http://www.bcschools.net) .**

#### **United States History**

##### **ERA 3 – Revolution and the New Nation**

- Explain the challenges faced by the new nation and analyze the development of the Constitution as a new plan for governing.  
Note: Expectations address content that was introduced in grade 5, but ask for explanation and analysis at a higher level than expected in grade 5. They are included here to support in-depth discussion of the historical and philosophical origins of constitutional government in the United States.

##### **ERA 4 – Expansion and Reform (1792-1861)**

- Analyze the challenges the new government faced and the role of political and social leaders in meeting these challenges.
  - Washington's Farewell
  - Establishing America's Place in the World
  - treaties with American Indian nations,
  - Jay's Treaty (1795),
  - French Revolution, Pinckney's Treaty (1795)
  - Louisiana Purchase,
  - War of 1812, Transcontinental Treaty (1819)
  - The Monroe Doctrine.

##### **Political Challenge**

- Whiskey Rebellion, Alien and Sedition Acts
- The Jacksonian era
- foreign relations (e.g., French Revolution, relations with Great Britain)
- Economic policy (e.g., the creation of a national bank, assumption of revolutionary debt)

##### **Establishing a National Judiciary and Its Power**

- Marbury v. Madison (1803)
- The role of Chief Justice John Marshall and the Supreme Court
  - McCullough v. Maryland,
  - Dartmouth College v. Woodward,
  - Gibbons v. Ogden

- Describe and analyze the nature and impact of the territorial, demographic, and economic growth in the first three decades of the new nation using maps, charts, and other evidence.

### **Comparing Northeast and the South The Institution of Slavery**

- Analyze the growth of antebellum American reform movements.
- American education system and Horace Mann
- Abolitionist Movement
- Women's Suffrage and Antebellum Temperance Movement

### **ERA 5 – Civil War and Reconstruction (1850-1877) The Coming of the Civil War**

- Analyze and evaluate the early attempts to abolish or contain slavery and to realize the ideals of the Declaration of Independence.
  - Missouri Compromise (1820)
  - Wilmot Proviso (1846)
  - Compromise of 1850 including the Fugitive Slave Act
  - Kansas-Nebraska Act (1854) and subsequent conflict in Kansas
  - Dred Scott v. Sandford decision (1857)
  - Changes in the party system (e.g., the death of the Whig party, rise of the Republican party and division of the Democratic party)
  - Resistance of enslaved people

### **Civil War**

- Evaluate the multiple causes, key events, and complex consequences of the Civil War.
  - Secession of Southern States
  - Why the North won the war
  - Identify critical battles won by both sides
  - Abraham Lincoln's presidency
  - Emancipation Proclamation and the Gettysburg Address
  - Role of African Americans in the war

### **Reconstruction**

- Using evidence, develop an argument regarding the character and consequences of Reconstruction.
  - Reconstruction of Southern society

- President Lincoln vs. President Johnson view of Reconstruction
- Freedman's Bureau, Black Codes, and Racial Segregation
- Thirteenth, Fourteenth, and Fifteenth Amendments
- Removal of the Union Troops in 1877

## **ERA 6 – DEVELOPMENT OF AN INDUSTRIAL, URBAN, AND GLOBAL UNITED STATES - (1870-1930)**

### **America in the Last Half of the 19th Century**

- Analyze the major changes in communication, transportation, demography, and urban centers; include the location and growth of cities linked by industry and trade, in the last half of the 19th century.
  - Territory, including the size of the United States and land use
  - Immigration
  - The changing demographic structure of rural and urban America
  - Systems of transportation (canals and railroads, including the Transcontinental Railroad)
  - Governmental policies promoting economic development (e.g., tariffs, banking, land grants and mineral rights, the Homestead Act).
  - The rise of segregation in the South--Plessy v. Ferguson
  - The policies toward American Indians, including removal, reservations, the Dawes Act of 1887

### **Public Discourse, Decision Making, and Citizen Involvement**

- Identify and analyze Issues that affect the Eastern Hemisphere nations.
- Compose persuasive communications about a public issue.
- Act constructively to further the public good.

### **TECHNOLOGY**

- Please visit our website [www.bcschools.net](http://www.bcschools.net) for detailed information regarding the curriculum.



I dreamed I stood in a studio  
And watched two sculptors there  
The clay they used was a young child's mind  
And they fashioned it with care.

One was a teacher—the tools she used  
Were a book, music, and art.  
The other, a parent, worked with a guiding hand  
And a gentle, loving heart.

Day after day, the teacher toiled with touch  
That was careful, deft, and sure.  
While the parent labored by the side  
And polished and smoothed it o'er.

And when at last their work was done  
They were proud of what they wrought.  
For the things they had molded into the child  
Could neither be sold nor bought.

And each agreed they would have failed  
If each had worked alone.  
For behind the parent stood the school  
And behind the teacher, stood the home.

Author Unknown

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