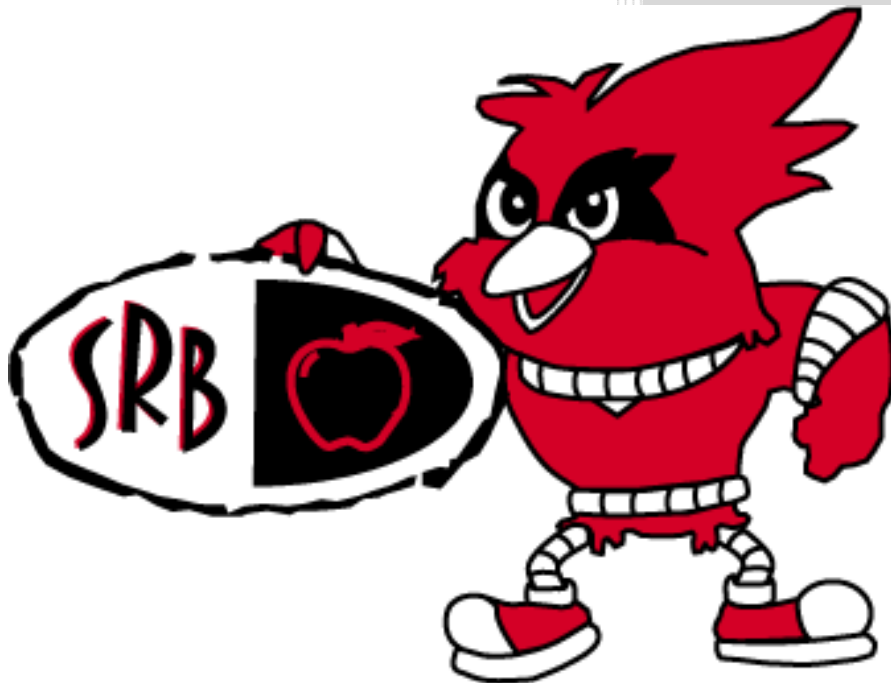


Michigan GLCE Fourth Grade Grade Level Content Expectations



A Guide for Parents, Teachers and Students

St. Robert Bellarmine School



Dear Parents, Teachers and Students:

The No Child Left Behind Act of 2001 called upon states to implement, by the 2005-2006 school year, grade level assessments based on "rigorous academic standards". Michigan's new Grade Level Content Expectations (GLCE) based on national standards have been created to provide schools, teachers, and parents with detailed information about what students are expected to know and be able to do at the end of each grade. Recently the Michigan Department of Education has released Grade Level Content Expectations for science and social studies. While these grade level outcomes highlight that which is essential for all students to learn, they are not intended to represent the entire richness of a district curriculum. The accompanying St. Robert Bellarmine School skill sheets are more inclusive and reflective of the breadth of our district's instruction for elementary students.

Parents can use the guide to:

- Learn what students should know and be able to do at the end of the school year according to State of Michigan expectations.
- Discuss student progress during Parent/Teacher Conferences.
- Explore ways to support learning in the classroom.
- Ask for strategies and learning tools to use at home to support what is being taught in the classroom.

We value and share your commitment to excellence in education. We look forward to working together to help your child achieve and succeed.

Nancy Kuszczak
Principal

4th Grade English Language Arts ➤ Reading

✓	GLCE #	GRADE LEVEL CONTENT EXPECTATION
		Word Recognition and Word Study: Students will...
<input type="checkbox"/>	R.WS.04.01	Explain how to use word structure, sentence structure, and prediction to aid in decoding words and understanding the meanings of words encountered in text.
<input type="checkbox"/>	R.WS.04.02	Use structural, semantic, and syntactic cues to automatically read frequently encountered words, decode unknown words, and decide meaning, including multiple meaning words (e.g., letter/sound, rimes, base words, affixes, syllabication).
<input type="checkbox"/>	R.WS.04.03	Automatically recognize frequently encountered words in print, with the number of words that can be read fluently increasing steadily across the school year.
<input type="checkbox"/>	R.WS.04.04	Know the meanings of words encountered frequently in grade level reading and oral language contexts.
<input type="checkbox"/>	R.WS.04.05	Acquire and apply strategies to construct meaning, self-monitor, and identify unknown words or word parts (e.g., engage actively in reading a variety of genre, self-monitor and correct in narrative and informational texts, use thesaurus).
<input type="checkbox"/>	R.WS.04.06	Fluently read beginning grade level text and increasingly demanding text as the year proceeds.
<input type="checkbox"/>	R.WS.04.07	Determine the meaning of words and phrases in context (e.g., similes, metaphors, content vocabulary), using strategies and resources (e.g., context clues, semantic feature analysis, thesaurus).
		Narrative Text: Students will...
<input type="checkbox"/>	R.NT.04.01	Describe and discuss the shared human experience depicted in classic and contemporary literature from around the world recognized for quality and literary merit.
<input type="checkbox"/>	R.NT.04.02	Identify and describe a variety of narrative genre (e.g., poetry, myths/legends, fantasy, adventure).
<input type="checkbox"/>	R.NT.04.03	Analyze characters' thoughts and motivation through dialogue; various character roles and functions (e.g., hero, villain, narrator); know first person point of view and conflict/resolution.
<input type="checkbox"/>	R.NT.04.04	Explain how authors use literary devices (i.e., flash forward, flashback, simile) to depict time, setting, conflicts, and resolutions that enhance the plot and create suspense across a variety of texts.
		Informational Text: Students will...
<input type="checkbox"/>	R.IT.04.01	Identify and explain the defining characteristics of informational genre (e.g., autobiography/biography, personal essay, almanac, newspaper).
<input type="checkbox"/>	R.IT.04.02	Identify and describe informational text patterns (e.g., compare/contrast, position/support, problem/solution).
<input type="checkbox"/>	R.IT.04.03	Explain how authors use appendices, headings, subheadings, marginal notes, keys and legends, figures, and bibliographies to enhance understanding of supporting and key ideas.
		Comprehension: Students will...
<input type="checkbox"/>	R.CM.04.01	Connect personal knowledge, experience, and understanding of the world to themes and perspectives in text through oral and written responses.
<input type="checkbox"/>	R.CM.04.02	Retell and summarize grade level appropriate narrative and informational text.
<input type="checkbox"/>	R.CM.04.03	Explain oral and written relationships among themes, ideas, and characters within and across texts to create a deeper understanding (e.g., categorize and classify, compare and contrast, draw parallels across time and culture).
<input type="checkbox"/>	R.CM.04.04	Apply significant knowledge from what is read in grade level science and social studies texts.

4th Grade English Language Arts ➤ Reading (continued)

√	GLCE #	GRADE LEVEL CONTENT EXPECTATION
<input type="checkbox"/>	R.MT.04.01	<p>Metacognition: Students will...</p> <p>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 interpretive discussions (e.g., predicting, constructing mental images, representing ideas in text, questioning, rereading or listening again inferring, summarizing).</p> <p>Plan, monitor, regulate, and evaluate skills, strategies and processes to construct and convey meaning (e.g., use morphemic, syntactical, and semantic knowledge to decode unknown words, use graphic organizers to deepen their understanding of compare and contrast and sequence organizational patterns).</p>
<input type="checkbox"/>	R.MT.04.02	
<input type="checkbox"/>	R.CS.04.01	<p>Critical Standards: Students will...</p> <p>Develop, discuss, and apply individual and shared standards (e.g., student and class created rubrics), and begin to self-assess the quality, accuracy, and relevance of personal or other written text.</p>
<input type="checkbox"/> <input type="checkbox"/>	R.AT.04.01 R.AT.04.02	<p>Reading Attitude: Students will...</p> <p>Be enthusiastic about reading and learning how to read.</p> <p>Do substantial reading and writing on their own.</p>

4th Grade English Language Arts ➤ Writing

√	GLCE #	GRADE LEVEL CONTENT EXPECTATION
<input type="checkbox"/>	W.GN.04.01	<p>Writing Genres: Students will...</p> <p>Write a narrative piece (e.g., myth/legend, fantasy, adventure) creating relationships among setting, characters, theme, and plot.</p> <p>Write poetry based on reading a wide variety of grade level appropriate published poetry.</p> <p>Write a comparative piece to demonstrate understanding of central ideas and supportive ideas using an effective organizational pattern (e.g., compare and contrast) and boldface and/or italicized print.</p> <p>Use the writing process to produce and present a research project using a teacher-approved topic</p> <ul style="list-style-type: none"> — finding and narrowing research questions — using a variety of resources — taking notes — organizing relevant information to draw conclusions.
<input type="checkbox"/>	W.GN.04.02	
<input type="checkbox"/>	W.GN.04.03	
<input type="checkbox"/>	W.GN.04.04	
<input type="checkbox"/>	W.PR.04.01	<p>Writing Process: Students will...</p> <p>Set a purpose, consider audience, and replicate authors' styles and patterns when writing narrative or informational text.</p> <p>Apply a variety of drafting strategies for both narrative and informational text (e.g., graphic organizers such as story maps, webs, Venn diagrams) in order to generate, sequence, and structure ideas (e.g., plot, connecting time, setting, conflicts, resolutions, definition/description, chronological sequence).</p> <p>Use a variety of drafting techniques when writing an essay with connected, coherent, and mechanically sound paragraphs.</p>
<input type="checkbox"/>	W.PR.04.02	
<input type="checkbox"/>	W.PR.04.03	

4th Grade English Language Arts ➤ Writing (continued)

√	GLCE #	GRADE LEVEL CONTENT EXPECTATION
<input type="checkbox"/>	W.PR.04.04	Constructively and specifically respond orally to the writing of others by identifying sections of the text to improve organization (e.g., rearranging paragraphs and/or sequence, relating main and supporting ideas, using comparative transitions).
<input type="checkbox"/>	W.PR.04.05	Edit and proofread their writing using appropriate resources (e.g., dictionary, spell check, grammar check, grammar references, writing references) and grade level appropriate checklists both individually and in groups.
<input type="checkbox"/>	W.PS.04.01	Personal Style: Students will... Exhibit individual style and voice to enhance the written message (e.g., in narrative text: strong verbs, figurative language, sensory images; in informational text: precision, established importance, transitions).
<input type="checkbox"/>	W.GR.04.01	Grammar and Usage: In the context of writing students will... Use simple and compound sentences, direct and indirect objects, prepositional phrases, adjectives, common and proper nouns as subjects and objects, pronouns as antecedents, regular and irregular verbs; use hyphens between syllables, apostrophes in contractions, and commas in salutations to set off words, phrases, and dialogue; and use quotation marks or italics to identify titles or names.
<input type="checkbox"/>	W.PS.04.01	Spelling: In the context of writing students will... Spell frequently encountered words (e.g., roots, inflections, prefixes, suffixes, multisyllabic) correctly. For less frequently encountered words, students will use structural cues (e.g., letter/sound, rimes, morphemic) and environmental sources (e.g., word walls, word lists, dictionaries, spell checkers).
<input type="checkbox"/>	W.HW.04.01	Handwriting: Students will begin to... Write neatly and legibly.
<input type="checkbox"/>	W.AT.04.01	Writing Attitude: Students will: Be enthusiastic about writing and learning to write.

4th Grade English Language Arts ➤ Speaking

√	GLCE #	GRADE LEVEL CONTENT EXPECTATION
<input type="checkbox"/>	S.CN.04.01	Conventions: Students will... Express ideas using more complex ideas.
<input type="checkbox"/>	S.CN.04.02	Adjust their use of language to communicate effectively with a variety of audiences and for different purposes (e.g., community-building, appreciation/invitations, cross-curricular discussions.)
<input type="checkbox"/>	S.CN.04.03	Make presentations or reports in standard American English if it is their first language. (Students whose first language is not English will present their work in their developing version of standard American English.)
<input type="checkbox"/>	S.CN.04.04	Be aware that language differs from region to region of the country and as a function of linguistic and cultural group membership. (They can provide examples of language differences in the United States.)

4th Grade English Language Arts ➤ Speaking (continued)

<input type="checkbox"/>	S.DS.04.01	Discourse: Students will... Engage in interactive, extended discourse to socially construct meaning (e.g., book clubs, literature circles, partnerships, or other conversation protocols). Discuss narratives (e.g., mystery, myths and legends, tall tales, poetry), conveying the story grammar (i.e., various character roles, plot, story level theme) and emphasizing facial expressions, hand gestures, and body language. Respond to multiple text types by reflecting, making connections, taking a position and sharing understandings.
<input type="checkbox"/>	S.DS.04.02	
<input type="checkbox"/>	S.DS.04.03	
<input type="checkbox"/>	S.DS.04.04	Plan and deliver presentations or reports focusing on a key question using an informational organizational pattern (e.g., descriptive, problem/solution, cause and effect), supportive facts, and details reflecting and emphasizing facial expressions, hand gestures, and body language.

4th Grade English Language Arts ➤ Listening & Viewing

✓	GLCE #	GRADE LEVEL CONTENT EXPECTATION
<input type="checkbox"/>	L.CN.04.01	Conventions: Students will... Respond to questions asked of them, providing appropriate elaboration and details. Listen and interact appropriately and view knowledgeably in small and large group settings. Distinguish between and explain how verbal and non-verbal strategies enhance understanding of spoken messages and promote effective listening behaviors. Recognize and analyze the various roles of the communication process (e.g., to persuade, critically analyze, flatter, explain, dare) in focusing attention on events and in shaping opinions.
<input type="checkbox"/>	L.CN.04.02	
<input type="checkbox"/>	L.CN.04.03	
<input type="checkbox"/>	L.CN.04.04	
<input type="checkbox"/>	L.RP.04.01	Response: Students will... Listen to or view in a variety of genres and compare their responses to those of their peers. Select, listen to, view, and respond thoughtfully to both classic and contemporary texts recognized for quality and literary merit. Respond to multiple text types listened to or viewed by speaking, illustrating, and/or writing in order to clarify meaning, make connections, take a position, and/or show deep understanding. Combine skills to reveal strengthening literacy (e.g., viewing then analyzing in writing, listening then giving an opinion orally). Summarize the major ideas and evidence presented in spoken messages and formal presentations.
<input type="checkbox"/>	L.RP.04.02	
<input type="checkbox"/>	L.RP.04.03	
<input type="checkbox"/>	L.RP.04.04	
<input type="checkbox"/>	L.RP.04.05	

4th Grade Mathematics ➤ Numbers & Operations

√	GLCE #	GRADE LEVEL CONTENT EXPECTATION
<input type="checkbox"/>	N.ME.04.01	<p>Understand and use number notation and place value</p> <p>Read and write numbers to 1,000,000 and relate them to the quantities they represent and compare and order.</p> <p>Compose and decompose numbers using place value to 1,000,000's, e.g., 25,068 is 2 ten thousands, 5 thousands, 0 hundreds, 6 tens, and 8 ones.</p> <p>Understand the magnitude of numbers up to 1,000,000; recognize the place values of numbers, and the relationship of each place value to the place to its right, e.g., 1,000 is 10 hundreds.</p>
<input type="checkbox"/>	N.ME.04.02	
<input type="checkbox"/>	N.ME.04.03	
<input type="checkbox"/>	N.ME.04.04	<p>Use factors and multiples</p> <p>Find all factors of a whole number up to 50, and list factor pairs.</p> <p>List the first ten multiples of a given one-digit whole number; determine if a whole number is a multiple of a given one-digit whole number, and if a one-digit number is a factor of a given whole number.</p> <p>Know that some numbers, including 2, 3, 5, 7, and 11 have exactly two factors (1 and the number itself) and are called prime numbers.</p> <p>Solve problems about factors and multiples, e.g., since $100 = 4 \times 25$, and $200 = 2 \times 100$, then $200 = 2 \times 4 \times 25 = 8 \times 25$.</p> <p>Add and subtract whole numbers fluently.</p>
<input type="checkbox"/>	N.ME.04.05	
<input type="checkbox"/>	N.ME.04.06	
<input type="checkbox"/>	N.ME.04.07	
<input type="checkbox"/>	N.FL.04.08	
<input type="checkbox"/>	N.ME.04.09	<p>Multiply and divide whole numbers</p> <p>Multiply two-digit numbers by 2, 3, 4, and 5, using the distributive property, e.g., $21 \times 3 = (1 + 20) \times 3 = (1 \times 3) + (20 \times 3) = 3 + 60 = 63$.</p> <p>Multiply fluently any whole number by a one-digit number, and a three-digit number by a two-digit number; for a two-digit by one-digit multiplication, use distributive property to develop meaning for the algorithm.</p> <p>Divide numbers up to four-digits by one-digit numbers, and by 10.</p> <p>Find unknowns in equations such as $a \div 10 = 25$; $125 \div b = 25$.</p> <p>Use the relationship between multiplication and division to simplify computations and check results.</p> <p>Solve applied problems involving whole number multiplication and division.</p>
<input type="checkbox"/>	N.FL.04.10	
<input type="checkbox"/>	N.FL.04.11	
<input type="checkbox"/>	N.FL.04.12	
<input type="checkbox"/>	N.MR.04.13	
<input type="checkbox"/>	N.FL.04.14	
<input type="checkbox"/>	N.ME.04.15	<p>Read, interpret and compare decimal fractions</p> <p>Read and interpret decimals up to two decimal places; relate to money and place value decomposition.</p> <p>Know that terminating decimals represent fractions whose denominators are 10, 10×10, $10 \times 10 \times 10$, etc., e.g., powers of ten.</p> <p>Locate tenths and hundredths on a number line.</p> <p>Read, write, interpret, and compare decimals up to two decimal places.</p> <p>Write tenths and hundredths in decimal and fraction forms, and know the decimal equivalents for halves and fourths.</p>
<input type="checkbox"/>	N.ME.04.16	
<input type="checkbox"/>	N.ME.04.17	
<input type="checkbox"/>	N.ME.04.18	
<input type="checkbox"/>	N.MR.04.19	
<input type="checkbox"/>	N.ME.04.20	<p>Understand fractions</p> <p>Understand fractions as parts of a set of objects.</p> <p>Explain why equivalent fractions are equal, using area models, such as fraction strips or the number line for fractions with denominators of 12 or less, or equal to 100.</p> <p>Locate and compare fractions on the number line, including improper fractions and mixed numbers with denominators of 12 or less.</p> <p>Understand the relationships among halves, fourths and eighths and among thirds, sixths and twelfths.</p>
<input type="checkbox"/>	N.MR.04.21	
<input type="checkbox"/>	N.MR.04.22	
<input type="checkbox"/>	N.MR.04.23	

4th Grade Mathematics ➤ Numbers & Operations (continued)

√	GLCE #	GRADE LEVEL CONTENT EXPECTATION
<input type="checkbox"/>	N.MR.04.24	Know that fractions of the form m/n , where m is greater than n , are greater than 1 and are called improper fractions; locate improper fractions on the number line; express as mixed numbers.
<input type="checkbox"/>	N.MR.04.25	Write improper fractions as mixed numbers, and understand that a mixed number represents the number of “wholes” and the part of a whole remaining, e.g., $5 \div 4 = 1 + 1/4 = 1 \frac{1}{4}$. Compare and order up to three fractions with denominators 2, 4, and 8, and 3, 6, and 12, including improper fractions and mixed numbers.
<input type="checkbox"/>	N.MR.04.26	
<input type="checkbox"/>	N.MR.04.27	
<input type="checkbox"/>	N.FL.04.28	Add and subtract fractions Add and subtract fractions less than 1 with denominators up to 12 and/or equal to 100, in cases where the denominators are equal or when one denominator is a multiple of the other e.g., $1/12 + 5/12 = 6/12$; $2/25 + 7/50 = 11/50$. Solve fraction problems involving sums and differences for fractions where the dominator is a multiple of the other (denominators 2 through 12 and 100). Solve for the unknown in equations such as: $1/8 + x = 5/8$ or $3/4 * y = 1/2$.
<input type="checkbox"/>	N.MR.04.29	
<input type="checkbox"/>	N.MR.04.30	Multiply fractions by whole numbers Multiply fractions by whole numbers, using repeated addition, area or array models.
<input type="checkbox"/>	N.MR.04.31	Add and subtract decimal fractions For problems that use addition and subtraction of decimals with up to two-digits, represent with mathematical statements and solve. Add and subtract decimals up to two decimal places.
<input type="checkbox"/>	N.FL.04.32	
<input type="checkbox"/>	N.FL.04.33	Multiply and divide decimal fractions Multiply and divide decimals up to two decimal places by a one-digit whole number where the result is a terminating decimal (emphasize), e.g., $0.42 \div 3 = 0.14$, but not $5 \div 3 = 1.66\dots$
<input type="checkbox"/>	N.FL.04.34	Estimate Estimate the answers to calculations involving addition, subtraction or multiplication. Know when approximation is appropriate and use it to check the reasonableness of answers; be familiar with common place-value errors in calculations. Make appropriate estimations and calculations fluently with whole numbers using mental math strategies.
<input type="checkbox"/>	N.FL.04.35	
<input type="checkbox"/>	N.FL.04.36	
<input type="checkbox"/>	N.MR.04.37	Problem-Solving Solve problems using the four basic arithmetic operations using appropriate fractions, decimals and whole numbers.

4th Grade Mathematics ➤ Measurement

√	GLCE #	GRADE LEVEL CONTENT EXPECTATION
<input type="checkbox"/>	M.UN.04.01	Measure using common tools and appropriate units Measure using common tools and select appropriate units of measure. Give answers to a reasonable degree of precision in the context of a given problem.
<input type="checkbox"/>	M.PS.04.02	

4th Grade Mathematics ➤ Measurement (continued)

✓	GLCE #	GRADE LEVEL CONTENT EXPECTATION
<input type="checkbox"/>	M.UN.04.03	Measure and compare integer temperatures in degrees, BOTH Celsius and Fahrenheit.
<input type="checkbox"/>	M.TE.04.04	Measure surface area of cubes and rectangular prisms by covering and counting area of the faces.
<input type="checkbox"/>	M.TE.04.05	Covert measurement units Carry out the following conversions from one unit of measure to a larger or smaller unit of measure: meters to centimeters, kilograms to grams, liters to milliliters, hours to minutes, minutes to seconds, years to months, weeks to days, feet to inches, ounces to pounds (using numbers that involve only simple calculations).
<input type="checkbox"/>	M.TE.04.06	Use perimeter and area formulas Know and understand the formulas for perimeter and area of a square, and a rectangle, and calculate the perimeters and areas of these shapes and combinations of these shapes by using the formulas. Find one dimension of a rectangle given the other dimension and its perimeter or area. Find the side of a square given its perimeter or area. Solve contextual problems about perimeter and area of squares and rectangles in compound shapes.
<input type="checkbox"/>	M.TE.04.07	
<input type="checkbox"/>	M.TE.04.08	
<input type="checkbox"/>	M.PS.04.09	
<input type="checkbox"/>	M.TE.04.10	Understand right angles Identify right angles and compare angles to right angles.
<input type="checkbox"/>	M.PS.04.11	Problem-solving Solve contextual problems about surface area.

4th Grade Mathematics ➤ Geometry

✓	GLCE #	GRADE LEVEL CONTENT EXPECTATION
<input type="checkbox"/>	G.GS.04.01	Understand perpendicular, parallel, and intersecting lines Identify and draw perpendicular, parallel, and intersecting lines using a ruler and a tool or object with a square (90°) corner.
<input type="checkbox"/>	G.GS.04.02	Identify basic geometric shapes and their components, and solve problems. Identify basic geometric shapes, including isosceles, equilateral and right triangles, and use their properties to solve problems. Identify and count the faces, edges, and vertices of basic three-dimensional geometric solids including cubes, rectangular prisms, and pyramids; describe the shape of their faces.
<input type="checkbox"/>	G.SR.04.03	
<input type="checkbox"/>	G.TR.04.04	Recognize symmetry and transformations Recognize plane figures that have line symmetry. Recognize rigid motion transformation (flips, slides, turns) of a two-dimensional object.
<input type="checkbox"/>	G.TR.04.05	

4th Grade Mathematics ➤ Data & Probability

✓	GLCE #	GRADE LEVEL CONTENT EXPECTATION
<input type="checkbox"/>	D.RE.04.01	Represent and solve problems for given data Construct tables and bar graphs from given data. Order a given set of data, find the median, and specify the range of values. Solve problems using data presented in tables and bar graphs, e.g., compare data represented in two bar graphs; read bar graphs showing two data sets.
<input type="checkbox"/>	D.RE.04.02	
<input type="checkbox"/>	D.RE.04.03	

4th Grade Social Studies ➤ History

√	GLCE #	GRADE LEVEL CONTENT EXPECTATION
		<p>History of Michigan (Beyond Statehood) <i>Use historical thinking to understand the past</i></p>
<input type="checkbox"/>	4 – H3.0.1	<p>Use historical inquiry questions to investigate the development of Michigan’s major economic activities (agriculture, mining, manufacturing, lumbering, tourism, technology, and research) from statehood to present. (C, E)</p> <ul style="list-style-type: none"> • What happened? • When did it happen? • Who was involved? • How and why did it happen? • How does it relate to other events or issues in the past, in the present or in the future? • What is its significance?
<input type="checkbox"/>	4 – H3.02	Use primary and secondary sources to explain how migration and immigration affected and continue to affect the growth of Michigan. (G)
<input type="checkbox"/>	4 – H3.03	Describe how the relationship between the location of natural resources and the location of industries (after 1837) affected and continues to affect the location and growth of Michigan cities. (G, E)
<input type="checkbox"/>	4 – H3.04	Draw upon stories, photos, artifacts, and other primary sources to compare the life of people in towns and cities in Michigan and in the Great Lakes region during a variety of time periods from 1837 to the present (e.g., 1837-1900, 1900-1950, 1950-2000). (G)
<input type="checkbox"/>	4 – H3.05	Use visual data and informational text or primary accounts to compare a major Michigan economic activity today with that same or a related activity in the past. (E)
<input type="checkbox"/>	4 – H3.06	Use a variety of primary and secondary sources to construct a historical narrative about the beginnings of the automobile industry and the labor movement in Michigan. (G, E)
<input type="checkbox"/>	4 – H3.07	Use case studies or stories to describe the ideas and actions of individuals involved in the Underground Railroad in Michigan and in the Great Lakes region. (Se8-U4.2.2; 8-U4.3.2; 8-U5.1.5, USHG 7.2.4). (G, C, E)
<input type="checkbox"/>	4 – H3.08	Describe past and current threats to Michigan’s natural resources; describe how Michigan worked in the past and continues to work today to protect its natural resources. (G, C, E)
<input type="checkbox"/>	4 – H3.09	Create timelines (using decades after 1930) to sequence and describe important events in Michigan history; annotate with connections to the past and impact on the future.

4th Grade Social Studies ➤ Geography

√	GLCE #	GRADE LEVEL CONTENT EXPECTATION
		<p>The World in Spatial Terms <i>Use geographic representations to acquire, process, and report information from a spatial perspective.</i></p>
<input type="checkbox"/>	4 – G1.0.1	Identify questions geographers ask in examining the United States (e.g., Where is it? What is it like there? How is it connected to other places?).
<input type="checkbox"/>	4 – G1.0.2	Use cardinal and intermediate directions to describe the relative location of significant places in the United States.

4th Grade Social Studies ➤ Geography (continued)

✓	GLCE #	GRADE LEVEL CONTENT EXPECTATION
<input type="checkbox"/>	4 – G1.0.3	Identify and describe the characteristics and purposes (e.g., measure distance, determine relative location, classify a region) of a variety of geographic tools and technologies (e.g., globe, map, satellite image).
<input type="checkbox"/>	4 – G1.0.4	Use geographic tools and technologies, stories, songs, and pictures to answer geographic questions about the United States.
<input type="checkbox"/>	4 – G1.0.5	Use maps to describe elevation, climate, and patterns of population density in the United States.
		Places and Regions <i>Understand how regions are created from common physical and human characteristics.</i>
<input type="checkbox"/>	4 – G2.0.1	Describe ways in which the United States can be divided into different regions (e.g., political regions, economic regions, landform regions, vegetation regions).
<input type="checkbox"/>	4 – G2.0.2	Compare human and physical characteristics of a region to which Michigan belongs (e.g., Great Lakes, Midwest) with those of another region in the United States.
		Human Systems <i>Understand how human activities help shape the Earth's surface.</i>
<input type="checkbox"/>	4 – G4.0.1	Use a case study or story about migration within or to the United States to identify push and pull factors (why they left, why they came) that influenced the migration. (H)
<input type="checkbox"/>	4 – G4.0.2	Describe the impact of immigration to the United States on the cultural development of different places or regions of the United States (e.g., forms of shelter, language, food). (H)
		Environment and Society <i>Understand the effects of human-environment interactions.</i>
<input type="checkbox"/>	4 – G5.0.1	Assess the positive and negative effects of human activities on the physical environment of the United States.

4th Grade Social Studies ➤ Civics and Government

✓	GLCE #	GRADE LEVEL CONTENT EXPECTATION
		Purposes of Government <i>Explain why people create governments.</i>
<input type="checkbox"/>	4 – C1.0.1	Identify questions political scientists ask in examining the United States (e.g., What does government do? What are the basic values and principles of American democracy? What is the relationship of the United States to other nations? What are the roles of the citizen in American democracy?).
<input type="checkbox"/>	4 – C1.0.2	Explain probable consequences of an absence of government and of rules and laws.
<input type="checkbox"/>	4 – C1.0.3	Describe the purposes of government as identified in the Preamble of the Constitution.
		Values and Principles of American Democracy <i>Understand values and principles of American constitutional democracy.</i>
<input type="checkbox"/>	4 – C2.0.1	Explain how the principles of popular sovereignty, rule of law, checks and balances, separation of powers, and individual rights (e.g., freedom of religion, freedom of expression, freedom of press) serve to limit the powers of the federal government as reflected in the Constitution and Bill of Rights.
<input type="checkbox"/>	4 – C2.0.2	Identify situations in which specific rights guaranteed by the Constitution and Bill of Rights are involved (e.g., freedom of religion, freedom of expression, freedom of press).

4th Grade Social Studies ➤ Civics and Government (continued)

✓	GLCE #	GRADE LEVEL CONTENT EXPECTATION
Structure and Functions of Government		
<i>Describe the structure of government in the United States and how it functions to serve citizens.</i>		
<input type="checkbox"/>	4 – C3.0.1	Give examples of ways the Constitution limits the powers of the federal Government (e.g., election of public officers, separation of powers, checks and balances, Bill of Rights).
<input type="checkbox"/>	4 – C3.0.2	Give examples of powers granted to the federal government (e.g., coining of money, declaring war) and those reserved for the states (e.g., driver’s license, marriage license).
<input type="checkbox"/>	4 – C3.0.3	Describe the organizational structure of the federal government in the United States (legislative, executive, and judicial branches).
<input type="checkbox"/>	4 – C3.0.4	Describe how the powers of the federal government are separated among the branches.
<input type="checkbox"/>	4 – C3.0.5	Give examples of how the system of checks and balances limits the power of the federal government (e.g., presidential veto of legislation, courts declaring a law unconstitutional, congressional approval of judicial appointments).
<input type="checkbox"/>	4 – C3.0.6	Describe how the President, members of the Congress, and justices of the Supreme Court come to power (e.g., elections versus appointments).
<input type="checkbox"/>	4 – C3.0.7	Explain how the federal government uses taxing and spending to serve the purposes of government.
Roles of the Citizen in American Democracy		
<i>Explain important rights and how, when, and where American citizens demonstrate their responsibilities by participating in government.</i>		
<input type="checkbox"/>	4 – C5.0.1	Explain responsibilities of citizenship (e.g., initiating changes in laws or policy, holding public office, respecting the law, being informed and attentive to public issues, paying taxes, registering to vote and voting knowledgeably, serving as a juror).
<input type="checkbox"/>	4 – C5.0.2	Describe the relationship between rights and responsibilities of citizenship.
<input type="checkbox"/>	4 – C5.0.3	Explain why rights have limits.
<input type="checkbox"/>	4 – C5.0.4	Describe ways citizens can work together to promote the values and principles of American democracy.

4th Grade Social Studies ➤ Economics

✓	GLCE #	GRADE LEVEL CONTENT EXPECTATION
Market Economy		
<i>Use fundamental principles and concepts of economics to understand economic activity in a market economy.</i>		
<input type="checkbox"/>	4 – E1.0.1	Identify questions economists ask in examining the United States (e.g., What is produced? How is it produced? How much is produced? Who gets what is produced? What role does the government play in the economy?).
<input type="checkbox"/>	4 – E1.0.2	Describe some characteristics of a market economy (e.g., private property rights, voluntary exchange, competition, consumer sovereignty, incentives, specialization).
<input type="checkbox"/>	4 – E1.0.3	Describe how positive and negative incentives influence behavior in a market economy.
<input type="checkbox"/>	4 – E1.0.4	Explain how price affects decisions about purchasing goods and services (substitute goods).
<input type="checkbox"/>	4 – E1.0.5	Explain how specialization and division of labor increase productivity (e.g., assembly line). (H)

4th Grade Social Studies ➤ Economics (continued)

√	GLCE #	GRADE LEVEL CONTENT EXPECTATION
<input type="checkbox"/>	4 – E1.0.6	Explain how competition among buyers results in higher prices and competition among sellers results in lower prices (e.g., supply, demand).
<input type="checkbox"/>	4 – E1.0.7	Demonstrate the circular flow model by engaging in a market simulation, which includes households and businesses and depicts the interactions among them.
<input type="checkbox"/>	4 – E1.0.8	Explain why public goods (e.g., libraries, roads, parks, the Mackinac Bridge) are not privately owned. (H)
<input type="checkbox"/>	4 – E2.0.1	<p>National Economy <i>Use fundamental principles and concepts of economics to understand economic activity in the United States.</i></p> <p>Explain how changes in the United States economy impact levels of employment and unemployment (e.g., changing demand for natural resources, changes in technology, changes in competition). (H)</p>
<input type="checkbox"/>	4 – E3.0.1	<p>International Economy <i>Use fundamental principles and concepts of economics to understand economic activity in the global economy.</i></p> <p>Describe how global competition affects the national economy (e.g., outsourcing of jobs, increased supply of goods, opening new markets, quality controls).</p>

4th Grade Social Studies ➤ Public Discourse, Decision Making, and Citizen Involvement

√	GLCE #	GRADE LEVEL CONTENT EXPECTATION
<input type="checkbox"/>	4 – P3.1.1	<p>Identifying and Analyzing Public Issues <i>Clearly state a problem as a public policy issue, analyze various perspectives, and generate and evaluate possible alternative resolutions.</i></p> <p>Identify public issues in the United States that influence the daily lives of its citizens.</p>
<input type="checkbox"/>	4 – P3.1.2	Use graphic data and other sources to analyze information about a public issue in the United States and evaluate alternative resolutions.
<input type="checkbox"/>	4 – P3.1.3	Give examples of how conflicts over core democratic values lead people to differ on resolutions to a public policy issue in the United States.
<input type="checkbox"/>	4 – P3.3.1	<p>Persuasive Communication About a Public Issue <i>Communicate a reasoned position on a public issue.</i></p> <p>Compose a brief essay expressing a position on a public policy issue in the United States and justify the position with a reasoned argument.</p>
<input type="checkbox"/>	4 – P4.2.1	<p>Citizen Involvement <i>Act constructively to further the public good.</i></p> <p>Develop and implement an action plan and know how, when, and where to address or inform others about a public issue.</p>
<input type="checkbox"/>	4 – P4.2.2	Participate in projects to help or inform others.

4th Grade Science ➤ Science Processes

√	GLCE #	GRADE LEVEL CONTENT EXPECTATION
<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	S.IP.04.11 S.IP.04.12 S.IP.04.13 S.IP.04.14	Inquiry Process <i>S.IP.E.1. Inquiry involves generating questions, conducting investigations, and developing solutions to problems through reasoning and observation.</i> Make purposeful observation of the natural world using the appropriate senses. Generate questions based on observations. Plan and conduct simple and fair investigations. Manipulate simple tools that aid observation and data collection (for example: hand lens, balance, ruler, meter stick, measuring cup, thermometer, spring scale, stop watch/timer, graduated cylinder/beaker).
<input type="checkbox"/> <input type="checkbox"/>	S.IP.04.15 S.IP.04.16	Make accurate measurements with appropriate units (millimeters centimeters, meters, milliliters, liters, Celsius, grams, seconds, minutes) for the measurement tool. Construct simple charts and graphs from data and observations.
<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	S.IA.04.11 S.IA.04.12 S.IA.04.13 S.IA.04.14 S.IA.04.15	Inquiry Analysis and Communication <i>S.IA.E.1 Inquiry includes an analysis and presentation of findings that lead to future questions, research, and investigations.</i> Summarize information from charts and graphs to answer scientific questions. Share ideas about science through purposeful conversation in collaborative groups. Communicate and present findings of observations and investigations. Develop research strategies and skills for information gathering and problem solving. Compare and contrast sets of data from multiple trials of a science investigation to explain reasons for differences.
<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	S.RS.04.11 S.RS.04.14 S.RS.04.15 S.RS.04.16 S.RS.04.17 S.RS.04.18 S.RS.04.19	Reflection and Social Implications <i>S.RS.E.1 Reflecting on knowledge is the application of scientific knowledge to new and different situations. Reflecting on knowledge requires careful analysis of evidence that guides decision-making and the application of science throughout history and within society.</i> Demonstrate scientific concepts through various illustrations, performances, models, exhibits, and activities. Use data/samples as evidence to separate fact from opinion. Use evidence when communicating scientific ideas. Identify technology used in everyday life. Identify current problems that may be solved through the use of technology. Describe the effect humans and other organisms have on the balance of the natural world. Describe how people have contributed to science throughout history and across cultures.

4th Grade Science ➤ Physical Science

√	GLCE #	GRADE LEVEL CONTENT EXPECTATION
<input type="checkbox"/>	P.EN.04.12	Energy <i>P.EN.E.1 Forms of Energy - Heat, electricity, light, and sound are forms of energy.</i> Identify heat and electricity as forms of energy.

4th Grade Science ➤ Physical Science (continued)

√	GLCE #	GRADE LEVEL CONTENT EXPECTATION
<input type="checkbox"/>	P.EN.04.41	<i>P.EN.E.4 Energy and Temperature - Increasing the temperature of any substance requires the addition of energy.</i> Demonstrate how temperature can be increased in a substance by adding energy.
<input type="checkbox"/>	P.EN.04.42	Describe heat as the energy produced when substances burn, certain kinds of materials rub against each other, and when electricity flows through wire.
<input type="checkbox"/>	P.EN.04.43	Describe how heat is produced through electricity, rubbing, and burning.
<input type="checkbox"/>	P.EN.04.51	<i>P.EN.E.5 Electrical Circuits - Electrical circuits transfer electrical energy and produce magnetic fields.</i> Explain how electrical energy is transferred and changed through the use of a simple circuit.
<input type="checkbox"/>	P.EN.04.52	Create a simple working electromagnet and explain the conditions necessary to make the electromagnet.
<input type="checkbox"/>	P.PM.04.16	Properties of Matter <i>P.PM.E.1 Physical Properties - All objects and substances have physical properties that can be measured.</i> Measure the weight (spring scale) and mass (balances in grams or kilograms) of objects.
<input type="checkbox"/>	P.PM.04.17	Measure volumes of liquids and capacities of containers in milliliters and liters.
<input type="checkbox"/>	P.PM.04.18	Demonstrate the use of centimeter cubes poured into a container to estimate the container's capacity.
<input type="checkbox"/>	P.PM.04.23	<i>P.PM.E.2 States of Matter - Matter exists in several different states: solids, liquids, and gases. Each state of matter has unique physical properties. Gases are easily compressed, but liquids and solids do not compress easily. Solids have their own particular shapes, but liquids and gases take the shape of the container.</i> Compare and contrast the states (solids, liquids, gases) of matter.
<input type="checkbox"/>	P.PM.04.33	<i>P.PM.E.3 Magnets - Magnets can repel or attract other magnets. Magnets can also attract certain non-magnetic objects at a distance.</i> Demonstrate magnetic field by observing the patterns formed with iron filings using a variety of magnets.
<input type="checkbox"/>	P.PM.04.34	Demonstrate that non-magnetic objects are affected by the strength of the magnet and the distance away from the magnet.
<input type="checkbox"/>	P.PM.04.53	<i>P.PM.E.5 Conductive and Reflective Properties - Objects vary to the extent they absorb and reflect light energy and conduct heat and electricity.</i> Identify objects that are good conductors or poor conductors of heat and electricity.
<input type="checkbox"/>	P.CM.04.11	Changes in Matter <i>P.CM.E.1 Changes in State - Matter can be changed from one state (liquid, solid, gas) to another and then back again. This may be caused by heating and cooling.</i> Explain how matter can change from one state (liquid, solid, gas) to another by heating and cooling.

4th Grade Science ➤ Life Science

√	GLCE #	GRADE LEVEL CONTENT EXPECTATION
<input type="checkbox"/>	L.OL.04.15	<p>Organization of Living Things <i>L.OL.E.1 Life Requirements - Organisms have basic needs. Animals and plants need air, water, and food. Plants also require light. Plants and animals use food as a source of energy and as a source of building material for growth and repair.</i></p> <p>Determine that plants require air, water, light, and a source of energy and building material for growth and repair.</p>
<input type="checkbox"/>	L.OL.04.16	
<input type="checkbox"/>	L.EV.04.21	<p>Evolution <i>L.EV.E.2 Survival - Individuals of the same kind differ in their characteristics, and sometimes the differences give individuals an advantage in surviving and reproducing.</i></p> <p>Identify individual differences (for example: color, leg length, size, wing size) in organisms of the same kind.</p>
<input type="checkbox"/>	L.EV.04.22	
<input type="checkbox"/>	L.EC.04.11	<p>Ecosystems <i>L.EC.E.1 Interactions - Organisms interact in various ways including providing food and shelter to one another. Some interactions are helpful: others are harmful to the organism and other organisms.</i></p> <p>Identify organisms as part of a food chain or food web.</p>
<input type="checkbox"/>	L.EC.04.21	<p><i>L.EC.E.2 Changed Environment Effects - When the environment changes, some plants and animals survive to reproduce; others die or move to new locations.</i></p> <p>Explain how environmental changes can produce a change in the food web.</p>

4th Grade Science ➤ Earth Science

√	GLCE #	GRADE LEVEL CONTENT EXPECTATION
<input type="checkbox"/>	E.ST.04.11	<p>Earth in Space and Time <i>E.ST.E.1 Characteristics of Objects in the Sky - Common objects in the sky have observable characteristics.</i></p> <p>Identify common objects in the sky, such as the sun and the moon.</p>
<input type="checkbox"/>	E.ST.04.12	
<input type="checkbox"/>	E.ST.04.21	<p><i>E.ST.E.2 Patterns of Objects in the Sky - Common objects in the sky have observable characteristics and predictable patterns of movement.</i></p> <p>Describe the orbit of the Earth around the sun as it defines a year.</p> <p>Explain that the spin of the Earth creates day and night.</p> <p>Describe the motion of the moon around the Earth.</p> <p>Explain how the visible shape of the moon follows a predictable cycle which takes approximately one month.</p> <p>Describe the apparent movement of the sun and moon across the sky through day/night and the seasons.</p>
<input type="checkbox"/>	E.ST.04.22	
<input type="checkbox"/>	E.ST.04.23	
<input type="checkbox"/>	E.ST.04.24	
<input type="checkbox"/>	E.ST.04.25	
<input type="checkbox"/>	E.ST.04.31	<p><i>E.ST.E.3 Fossils - Fossils provide evidence about the plants and animals that lived long ago and the nature of the environment at that time.</i></p> <p>Explain how fossils provide evidence of the history of the Earth.</p>
<input type="checkbox"/>	E.ST.04.32	