

The *Michigan Harvest of the Month*™ featured fruit is

grapes



Adventurous Activities

Science

Crosscutting Concept #7: Stability and Change

Next Generation Science Standards

GRADES	CROSSCUTTING CONCEPT	CROSSCUTTING CONCEPT TEXT
Grades K-2	NGSS Crosscutting Concept 7: K-2 application	In grades K-2, students observe some things stay the same while other things change, and things may change slowly or rapidly.
Grades 3-5	NGSS Crosscutting Concept 7: 3-5 application	In grades 3-5, students measure change in terms of differences over time, and observe that change may occur at different rates. Students learn some systems appear stable, but over long periods of time they will eventually change.
Grades 6-8	NGSS Crosscutting Concept 7: 6-8 application	In grades 6-8, students explain stability and change in natural or designed systems by examining changes over time, and considering forces at different scales, including the atomic scale.
Grades 9-12	NGSS Crosscutting Concept 7: 9-12 application	In grades 9-12, students understand much of science deals with constructing explanations of how things change and how they remain stable. They quantify and model changes in systems over very short or very long periods of time.

Student Champions

English Language Arts

Strand: Speaking & Listening

Category: Production and Distribution of Writing

Grades K-2 Anchor Standard #2: **CCSS.ELA-LITERACY.CCRA.W.2**

Write informative/explanatory texts to examine and convey complex ideas and information clearly and accurately through the effective selection, organization, and analysis of content.

Grades 3-12 Anchor Standard #4: **CCSS.ELA-LITERACY.CCRA.W.4**

Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.

GRADES	STANDARD CODES	STANDARD TEXTS
Kindergarten	CCSS.ELA-LITERACY.W.K.2	Use a combination of drawing, dictating, and writing to compose informative/explanatory texts in which they name what they are writing about and supply some information about the topic.
Grade One	CCSS.ELA-LITERACY.W.1.2	Write informative/explanatory texts in which they name a topic, supply some facts about the topic, and provide some sense of closure.
Grade Two	CCSS.ELA-LITERACY.W.2.2	Write informative/explanatory texts in which they introduce a topic, use facts and definitions to develop points, and provide a concluding statement or section.
Grade Three	CCSS.ELA-LITERACY.W.3.4	With guidance and support from adults, produce writing in which the development and organization are appropriate to task and purpose.
Grade Four Grade Five	CCSS.ELA-LITERACY.W.4.4 CCSS.ELA-LITERACY.W.5.4	Produce clear and coherent writing in which the development and organization are appropriate to task, purpose, and audience.
Grade Six Grade Seven Grade Eight Grade band 9-10 Grade band 11-12	CCSS.ELA-LITERACY.W.6.4 CCSS.ELA-LITERACY.W.7.4 CCSS.ELA-LITERACY.W.8.4 CCSS.ELA-LITERACY.W.9-10.4 CCSS.ELA-LITERACY.W.11-12.4	Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.

Literature Links

ENGLISH LANGUAGE ARTS	COLUMN A INFORMATION TEXTS	COLUMN B FICTION TEXTS
Reading anchor standards #1 and #2	<p>CCSS.ELA-LITERACY.CCRA.R.1 <i>Read closely to determine what the text says explicitly and to make logical inferences from it; cite specific textual evidence when writing or speaking to support conclusions drawn from the text.</i></p>	<p>CCSS.ELA-LITERACY.CCRA.R.2 <i>Determine central ideas or themes of a text and analyze their development; summarize the key supporting details and ideas.</i></p>
Strands	Reading Informational Text	Reading Literature
Categories	Key Ideas and Details	Key Ideas and Details
Kindergarten	<p>CCSS.ELA-LITERACY.RI.K.1 With prompting and support, ask and answer questions about key details in a text.</p>	<p>CCSS.ELA-LITERACY.RL.K.2 With prompting and support, retell familiar stories, including key details.</p>
Grade One	<p>CCSS.ELA-LITERACY.RI.1.1 Ask and answer questions about key details in a text.</p>	<p>CCSS.ELA-LITERACY.RL.1.2 Retell stories, including key details, and demonstrate understanding of their central message or lesson.</p>
Grade Two	<p>CCSS.ELA-LITERACY.RI.2.1 Ask and answer such questions as who, what, where, when, why, and how to demonstrate understanding of key details in a text.</p>	<p>CCSS.ELA-LITERACY.RL.2.2 Recount stories, including fables and folktales from diverse cultures, and determine their central message, lesson, or moral.</p>
Grade Three	<p>CCSS.ELA-LITERACY.RI.3.1 Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers.</p>	<p>CCSS.ELA-LITERACY.RL.3.2 Recount stories, including fables, folktales, and myths from diverse cultures; determine the central message, lesson, or moral and explain how it is conveyed through key details in the text.</p>
Grade Four	<p>CCSS.ELA-LITERACY.RI.4.1 Refer to details and examples in a text when explaining what the text says explicitly and when drawing inferences from the text.</p>	<p>CCSS.ELA-LITERACY.RL.4.2 Determine a theme of a story, drama, or poem from details in the text; summarize the text.</p>
Grade Five	<p>CCSS.ELA-LITERACY.RI.5.1 Quote accurately from a text when explaining what the text says explicitly and when drawing inferences from the text.</p>	<p>CCSS.ELA-LITERACY.RL.5.2 Determine a theme of a story, drama, or poem from details in the text, including how characters in a story or drama respond to challenges or how the speaker in a poem reflects upon a topic; summarize the text.</p>
Grade Six	<p>CCSS.ELA-LITERACY.RI.6.1 Cite textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.</p>	<p>CCSS.ELA-LITERACY.RL.6.2 Determine a theme or central idea of a text and how it is conveyed through particular details; provide a summary of the text distinct from personal opinions or judgments.</p>
Grade Seven	<p>CCSS.ELA-LITERACY.RI.7.1 Cite several pieces of textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.</p>	<p>CCSS.ELA-LITERACY.RL.7.2 Determine a theme or central idea of a text and analyze its development over the course of the text; provide an objective summary of the text.</p>

Literature Links continued

ENGLISH LANGUAGE ARTS	COLUMN A INFORMATION TEXTS	COLUMN B FICTION TEXTS
Grade Eight	<p>CCSS.ELA-LITERACY.RI.8.1 Cite the textual evidence that most strongly supports an analysis of what the text says explicitly as well as inferences drawn from the text.</p>	<p>CCSS.ELA-LITERACY.RL.8.2 Determine a theme or central idea of a text and analyze its development over the course of the text, including its relationship to the characters, setting, and plot; provide an objective summary of the text.</p>
Grade Band 9-10	<p>CCSS.ELA-LITERACY.RI.9-10.1 Cite strong and thorough textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.</p>	<p>CCSS.ELA-LITERACY.RL.9-10.2 Determine a theme or central idea of a text and analyze in detail its development over the course of the text, including how it emerges and is shaped and refined by specific details; provide an objective summary of the text.</p>
Grade Band 11-12	<p>CCSS.ELA-LITERACY.RI.11-12.1 Cite strong and thorough textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text, including determining where the text leaves matters uncertain.</p>	<p>CCSS.ELA-LITERACY.RL.11-12.2 Determine two or more themes or central ideas of a text and analyze their development over the course of the text, including how they interact and build on one another to produce a complex account; provide an objective summary of the text.</p>

Exploring Michigan Grapes: Taste Testing

Science

Next Generation Science Standards

Science and Engineering Practice #4:

Analyzing and Interpreting Data

GRADES	PRACTICE IDENTIFIERS	PRACTICE TEXTS
Grades K-2	NGSS Practice 4: K-2 application	Record information (observations, thoughts, and ideas).
Grades 3-5	NGSS Practice 4: 3-5 application	Analyze and interpret data to make sense of phenomena, using logical reasoning, mathematics, and/or computation.
Grades 6-8	NGSS Practice 4: 6-8 application	Construct, analyze, and/or interpret graphical displays of data and/or large data sets to identify linear and nonlinear relationships.
Grades 9-12	NGSS Practice 4: 9-12 application	Analyze data using tools, technologies, and/or models (e.g., computational, mathematical) in order to make valid and reliable scientific claims or determine an optimal design solution.

School Gardens: Solar Cooker

Science

Crosscutting Concept #6: Structure & Function

Next Generation Science Standards

Crosscutting Concepts

GRADES	CROSSCUTTING CONCEPT	CROSSCUTTING CONCEPT TEXT
Grades K-2	NGSS Crosscutting Concept 6: K-2 application	In grades K-2, students observe the shape and stability of structures of natural and designed objects are related to their function(s).
Grades 3-5	NGSS Crosscutting Concept 6: 3-5 application	In grades 3-5, students learn different materials have different substructures, which can sometimes be observed; and substructures have shapes and parts that serve functions.
Grades 6-8	NGSS Crosscutting Concept 6: 6-8 application	In grades 6-8, students model complex and microscopic structures and systems and visualize how their function depends on the shapes, composition, and relationships among its parts. They analyze many complex natural and designed structures and systems to determine how they function. They design structures to serve particular functions by taking into account properties of different materials, and how materials can be shaped and used.
Grades 9-12	NGSS Crosscutting Concept 6: 9-12 application	In grades 9-12, students investigate systems by examining the properties of different materials, the structures of different components, and their interconnections to reveal the system's function and/or solve a problem.

Student Sleuths

English Language Arts

Strand: Writing

Category: Research to Build and Present Knowledge

Anchor Standard #7: CCSS.ELA-LITERACY.CCRA.W.7

Conduct short as well as more sustained research projects based on focused questions, demonstrating understanding of the subject under investigation.

GRADES	STANDARD CODES	STANDARD TEXTS
Kindergarten	CSS.ELA-LITERACY.W.K.7 CCSS.ELA-LITERACY.W.1.7 CCSS.ELA-LITERACY.W.2.7	Participate in shared research and writing projects.
Grade Three	CCSS.ELA-LITERACY.W.3.7	Conduct short research projects that build knowledge about a topic.
Grade Four	CCSS.ELA-LITERACY.W.4.7	Conduct short research projects that build knowledge through investigation of different aspects of a topic.
Grade Five	CCSS.ELA-LITERACY.W.5.7	Conduct short research projects that use several sources to build knowledge through investigation of different aspects of a topic.
Grade Six	CCSS.ELA-LITERACY.W.6.7	Conduct short research projects to answer a question, drawing on several sources and refocusing the inquiry when appropriate.

Student Sleuths, continued

GRADES	STANDARD CODES	STANDARD TEXTS
Grade Seven	CCSS.ELA-LITERACY.W.7.7	Conduct short research projects to answer a question, drawing on several sources and generating additional related, focused questions for further research and investigation.
Grade Eight	CCSS.ELA-LITERACY.W.8.7	Conduct short research projects to answer a question (including a self-generated question), drawing on several sources and generating additional related, focused questions that allow for multiple avenues of exploration.
Grade Band 9-10 Grade Band 11-12	CCSS.ELA-LITERACY.W.9-10.7 CCSS.ELA-LITERACY.W.11-12.7	Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.