Girl Scouts Journeys
Content Unit Report

Grades: 4, 5
States: Michigan Curriculum Standards

GET MOVING!
Summary: GET MOVING! In this journey, fourth- and fifth-graders become leaders who energize, investigate, and innovate as they explore their own energy, the energy of their places and spaces, and the energy of getting from here to there. Along the way, Dez, the fashionista spider, learns right along with the girls. Participants will also meet energizing artists, cooks, engineers, and architects as they "Get Moving" to get others moving, too. (978-0-88441-733-0)

Michigan Curriculum Standards

Health and PE / Language Arts / Mathematics / Science / Social Studies

Grade: **4** - Adopted **2006**

STRAND / STANDARD CATEGORY	MI.R.	Reading
STANDARD	R.1.	Word Recognition and Word Study - Word Recognition
GRADE LEVEL EXPECTATION	R.WS.04.01.	Students will explain how to use word structure, sentence structure, and prediction to aid in decoding words and understanding the meanings of words encountered in context.
GRADE LEVEL EXPECTATION	R.WS.04.04.	Students will know the meanings of words encountered frequently in grade-level reading and oral language contexts.
GRADE LEVEL EXPECTATION	R.WS.04.05.	Students will acquire and apply strategies to identify unknown words or word parts; self-monitor, and construct meaning by engaging actively in reading a variety of genre, self-correcting, and using a thesaurus.
STRAND / STANDARD CATEGORY	MI.R.	Reading
STANDARD	R.2.	Word Recognition and Word Study - Fluency
GRADE LEVEL EXPECTATION	R.WS.04.06.	Students will fluently read beginning grade-level text and increasingly demanding text as the year proceeds.
STRAND / STANDARD CATEGORY	MI.R.	Reading
STANDARD	R.3.	Word Recognition and Word Study - Vocabulary
GRADE LEVEL EXPECTATION	R.WS.04.07.	Students will in context, determine the meaning of words and phrases including similes, metaphors, content vocabulary, and literary terms using strategies and resources including context clues, semantic feature analysis, and a thesaurus.
STRAND / STANDARD CATEGORY	MI.R.	Reading
STANDARD	R.5.	Informational Text
GRADE LEVEL EXPECTATION	R.IT.04.01.	Students will identify and describe the structure, elements, features, and purpose of a variety of

		informational genre including autobiography/biography, personal essay, almanac, and newspaper.
STRAND / STANDARD CATEGORY	MI.R.	Reading
STANDARD	R.6.	Comprehension
GRADE LEVEL EXPECTATION	R.CM.04.01.	Students will connect personal knowledge, experiences, and understanding of the world to themes and perspectives in text through oral and written responses.
GRADE LEVEL EXPECTATION	R.CM.04.04.	Students will apply significant knowledge from grade-level science, social studies, and mathematics texts.
STRAND / STANDARD CATEGORY	MI.R.	Reading
STANDARD	R.7.	Metacognition
GRADE LEVEL EXPECTATION	R.MT.04.01.	Students will self-monitor comprehension when reading or listening to text by automatically applying and discussing the strategies used by mature readers to increase comprehension including: predicting, constructing mental images, visually representing ideas in text, questioning, rereading or listening again if uncertain about meaning, inferring, summarizing, and engaging in interpretive discussions.
STRAND / STANDARD CATEGORY	MI.R.	Reading
STANDARD	R.9.	Reading Attitude
GRADE LEVEL EXPECTATION	R.AT.04.01.	Students will be enthusiastic about reading and do substantial reading and writing on their own.
STRAND / STANDARD CATEGORY	MI.W.	Writing
STANDARD	W.1.	Writing Genre
GRADE LEVEL EXPECTATION	W.GN.04.04.	Students will use the writing process to produce and present a research project using a teacher-approved topic; find and narrow research questions; use a variety of resources; take notes; and organize relevant information to draw conclusions.
STRAND / STANDARD CATEGORY	MI.W.	Writing
STANDARD	W.7.	Writing Attitude
GRADE LEVEL EXPECTATION	W.AT.04.01.	Students will be enthusiastic about writing and learning to write.
STRAND / STANDARD CATEGORY	MI.S.	Speaking
STANDARD	S.1.	Conventions
GRADE LEVEL EXPECTATION	S.CN.04.02.	Students will adjust their use of language to communicate effectively with a variety of audiences

		and for different purposes including community-building, appreciation, invitations, and cross-curricular discussions.
STRAND / STANDARD CATEGORY	MI.S.	Speaking
STANDARD	S.2.	Discourse
GRADE LEVEL EXPECTATION	S.DS.04.01.	Students will engage in interactive, extended discourse to socially construct meaning in book clubs, literature circles, partnerships, or other conversation protocols.
GRADE LEVEL EXPECTATION	S.DS.04.03.	Students will respond to multiple text types by reflecting, making connections, taking a position, and/or showing deep understanding.
STRAND / STANDARD CATEGORY	MI.L.	Listening and Viewing
STANDARD	L.1.	Conventions
GRADE LEVEL EXPECTATION	L.CN.04.02.	Students will listen to or view critically while demonstrating appropriate social skills of audience behaviors (e.g., eye contact, attentive, supportive) in small and large group settings.
GRADE LEVEL EXPECTATION	L.CN.04.04.	Students will 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.
STRAND / STANDARD CATEGORY	MI.L.	Listening and Viewing
STANDARD	L.2.	Response
GRADE LEVEL EXPECTATION	L.RP.04.01.	Students will listen to or view knowledgeably and discuss a variety of genre and compare their responses to those of their peers.
GRADE LEVEL EXPECTATION	L.RP.04.03.	Students will respond to multiple text types listened to or viewed knowledgeably, by discussing, illustrating, and/or writing in order to clarify meaning, make connections, take a position, and/or show deep understanding.
GRADE LEVEL EXPECTATION	L.RP.04.04.	Students will combine skills to reveal strengthening literacy (e.g., viewing then analyzing in writing, listening then giving an opinion orally).

Grade: **5** - Adopted **2006**

STRAND / STANDARD CATEGORY	MI.R.	Reading
STANDARD	R.1.	Word Recognition and Word Study - Word Recognition
GRADE LEVEL EXPECTATION	R.WS.05.01.	Students will explain when to use and apply word structure, sentence structure, and prediction to aid in decoding words and understanding meanings of words encountered in context.

GRADE LEVEL EXPECTATION	R.WS.05.04.	Students will know the meanings of words encountered frequently in grade-level reading and oral language contexts.
GRADE LEVEL EXPECTATION	R.WS.05.05.	Students will acquire and apply strategies to identify unknown words or word parts, and construct meaning by analyzing derivatives, defining meanings of affixes, and applying knowledge of word origins.
STRAND / STANDARD CATEGORY	MI.R.	Reading
STANDARD	R.2.	Word Recognition and Word Study - Fluency
GRADE LEVEL EXPECTATION	R.WS.05.06.	Students will fluently read beginning grade-level text and increasingly demanding text as the year proceeds.
STRAND / STANDARD CATEGORY	MI.R.	Reading
STANDARD	R.3.	Word Recognition and Word Study - Vocabulary
GRADE LEVEL EXPECTATION	R.WS.05.07.	Students will in context, determine the meaning of words and phrases including symbols, idioms, recently coined words, content vocabulary, and literary terms using strategies and resources including analogies, content glossaries, and electronic resources.
STRAND / STANDARD CATEGORY	MI.R.	Reading
STANDARD	R.5.	Informational Text
GRADE LEVEL EXPECTATION	R.IT.05.01.	Students will analyze the structure, elements, features, style, and purpose of informational genre including advertising, experiments, editorials, and atlases.
STRAND / STANDARD CATEGORY	MI.R.	Reading
STANDARD	R.6.	Comprehension
GRADE LEVEL EXPECTATION	R.CM.05.01.	Students will connect personal knowledge, experiences, and understanding of the world to themes and perspectives in text through oral and written responses.
GRADE LEVEL EXPECTATION	R.CM.05.04.	Students will apply significant knowledge from grade-level science, social studies, and mathematics texts.
STRAND / STANDARD CATEGORY	MI.R.	Reading
STANDARD	R.7.	Metacognition
GRADE LEVEL EXPECTATION	R.MT.05.01.	Students will self-monitor comprehension when reading or listening to text by automatically applying and discussing the strategies used by mature readers to increase comprehension including: predicting, constructing mental images, visually representing ideas in text, questioning, rereading or listening again if uncertain about meaning, inferring, summarizing, and engaging in interpretive discussions.

STRAND / STANDARD CATEGORY	MI.R.	Reading
STANDARD	R.9.	Reading Attitude
GRADE LEVEL EXPECTATION	R.AT.05.01.	Students will be enthusiastic about reading and do substantial reading and writing on their own.
STRAND / STANDARD CATEGORY	MI.W.	Writing
STANDARD	W.1.	Writing Genre
GRADE LEVEL EXPECTATION	W.GN.05.04.	Students will use the writing process to produce and present a research project; use a variety of resources to gather and organize relevant information into central ideas and supporting details for a teacher-approved narrowed focus question and hypothesis.
STRAND / STANDARD CATEGORY	MI.W.	Writing
STANDARD	W.7.	Writing Attitude
GRADE LEVEL EXPECTATION	W.AT.05.01.	Students will be enthusiastic about writing and learning to write.
STRAND / STANDARD CATEGORY	MI.S.	Speaking
STANDARD	S.2.	Discourse
GRADE LEVEL EXPECTATION	S.DS.05.01.	Students will engage in interactive, extended discourse to socially construct meaning in book clubs, literature circles, partnerships, or other conversation protocols.
GRADE LEVEL EXPECTATION	S.DS.05.03.	Students will respond to multiple text types by analyzing content, interpreting the message, and evaluating the purpose.
STRAND / STANDARD CATEGORY	MI.L.	Listening and Viewing
STANDARD	L.1.	Conventions
GRADE LEVEL EXPECTATION	L.CN.05.02.	Students will listen to or view critically while demonstrating appropriate social skills of audience behaviors (e.g., eye contact, attentive, supportive) in small and large group settings.
GRADE LEVEL EXPECTATION	L.CN.05.03.	Students will listen and view critically how verbal and non-verbal strategies enhance understanding of spoken messages and promote effective listening behaviors during a variety of class presentations.
GRADE LEVEL EXPECTATION	L.CN.05.04.	Students will recognize and analyze the various roles of the communication process (e.g., to persuade, critically analyze, entertaining versus informative, different interpretations or perspectives of an action or event) in focusing attention on events and shaping opinions.
STRAND / STANDARD CATEGORY	MI.L.	Listening and Viewing

STANDARD	L.2.	Response
GRADE LEVEL EXPECTATION	L.RP.05.01.	Students will listen to or view knowledgeably and discuss a variety of genre and compare their responses to those of their peers.
GRADE LEVEL EXPECTATION	L.RP.05.03.	Students will respond to multiple text types listened to or viewed knowledgeably, by discussing, illustrating, and/or writing in order to clarify meaning, make connections, take a position, and/or show deep understanding without major misconceptions.
GRADE LEVEL EXPECTATION	L.RP.05.04.	Students will combine skills to reveal strengthening literacy (e.g., viewing then analyzing in writing, listening then paraphrasing in writing).
GRADE LEVEL EXPECTATION	L.RP.05.05.	Students will respond to and go beyond the information given by a speaker, making inferences and drawing appropriate conclusions.

Grade: **4** - Adopted **2006**

STRAND / STANDARD CATEGORY	MI.M.	Measurement
STANDARD	M.2.	Convert measurement units
GRADE LEVEL EXPECTATION	M.TE.04.05.	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).

Grade: **5** - Adopted **2006**

STRAND / STANDARD CATEGORY	MI.N.	Number and Operations
STANDARD	N.4.	Understand meaning of decimal fractions and percentages
GRADE LEVEL EXPECTATION	N.ME.05.09.	Understand percentages as parts out of 100, use % notation, and express a part of a whole as a percentage.
STRAND / STANDARD CATEGORY	MI.M.	Measurement
STANDARD	M.1.	Know, and convert among, measurement units within a given system
GRADE LEVEL EXPECTATION	M.UN.05.04.	Convert measurements of length, weight, area, volume, and time within a given system using easily manipulated numbers.
STRAND / STANDARD CATEGORY	MI.D.	Data and Probability
STANDARD	D.1.	Construct and interpret line graphs
GRADE LEVEL EXPECTATION	D.RE.05.01.	Read and interpret line graphs, and solve problems based on line graphs, e.g., distance-time graphs, and problems with two or three line graphs on same axes, comparing different data.

Grade: **4** - Adopted **2007**

STRAND / STANDARD CATEGORY	MI.S.	Science Processes
STANDARD	S.IP.	Inquiry Process: Develop an understanding that scientific inquiry and reasoning involves observing, questioning, investigating, recording, and developing solutions to problems.
GRADE LEVEL EXPECTATION	S.IP.E.1.	Inquiry involves generating questions, conducting investigations, and developing solutions to problems through reasoning and observation.
EXPECTATION	S.IP.04.11.	Make purposeful observation of the natural world using the appropriate senses.
EXPECTATION	S.IP.04.13.	Plan and conduct simple and fair investigations.
EXPECTATION	S.IP.04.16.	Construct simple charts and graphs from data and observations.
STRAND / STANDARD CATEGORY	MI.S.	Science Processes
STANDARD	S.IA.	Inquiry Analysis and Communication: Develop an understanding that scientific inquiry and investigations require analysis and communication of findings, using appropriate technology.
GRADE LEVEL EXPECTATION	S.IA.E.1.	Inquiry includes an analysis and presentation of findings that lead to future questions, research, and investigations.
EXPECTATION	S.IA.04.11.	Summarize information from charts and graphs to answer scientific questions.
EXPECTATION	S.IA.04.12.	Share ideas about science through purposeful conversation in collaborative groups.
EXPECTATION	S.IA.04.13.	Communicate and present findings of observations and investigations.
EXPECTATION	S.IA.04.14.	Develop research strategies and skills for information gathering and problem solving.
STRAND / STANDARD CATEGORY	MI.S.	Science Processes
STANDARD	S.RS.	Reflection and Social Implications: Develop an understanding that claims and evidence for their scientific merit should be analyzed. Understand how scientists decide what constitutes scientific knowledge. Develop an understanding of the importance of reflection on scientific knowledge and its application to new situations to better understand the role of science in society and technology.
GRADE LEVEL EXPECTATION	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.

EXPECTATION	S.RS.04.11.	Demonstrate scientific concepts through various illustrations, performances, models, exhibits, and activities.
EXPECTATION	S.RS.04.15.	Use evidence when communicating scientific ideas.
EXPECTATION	S.RS.04.16.	Identify technology used in everyday life.
EXPECTATION	S.RS.04.17.	Identify current problems that may be solved through the use of technology.
EXPECTATION	S.RS.04.18.	Describe the effect humans and other organisms have on the balance of the natural world.
EXPECTATION	S.RS.04.19.	Describe how people have contributed to science throughout history and across cultures.
STRAND / STANDARD CATEGORY	MI.P.	Physical Science
STANDARD	P.EN.	Energy: Develop an understanding that there are many forms of energy (such as heat, light, sound, and electrical) and that energy is transferable by convection, conduction, or radiation. Understand energy can be in motion, called kinetic; or it can be stored, called potential. Develop an understanding that as temperature increases, more energy is added to a system. Understand nuclear reactions in the sun produce light and heat for the Earth.
GRADE LEVEL EXPECTATION	P.EN.E.1.	Forms of Energy- Heat, electricity, light, and sound are forms of energy.
EXPECTATION	P.EN.04.12.	Identify heat and electricity as forms of energy.
STRAND / STANDARD CATEGORY	MI.P.	Physical Science
STANDARD	P.EN.	Energy: Develop an understanding that there are many forms of energy (such as heat, light, sound, and electrical) and that energy is transferable by convection, conduction, or radiation. Understand energy can be in motion, called kinetic; or it can be stored, called potential. Develop an understanding that as temperature increases, more energy is added to a system. Understand nuclear reactions in the sun produce light and heat for the Earth.
GRADE LEVEL EXPECTATION	P.EN.E.4.	Energy and Temperature- Increasing the temperature of any substance requires the addition of energy.
EXPECTATION	P.EN.04.41.	Demonstrate how temperature can be increased in a substance by adding energy.
EXPECTATION	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.
EXPECTATION	P.EN.04.43.	Describe how heat is produced through electricity, rubbing, and burning.
STRAND / STANDARD CATEGORY	MI.P.	Physical Science
STANDARD	P.PM.	

		Properties of Matter: Develop an understanding that all matter has observable attributes with physical and chemical properties that are described, measured, and compared. Understand that states of matter exist as solid, liquid, or gas; and have physical and chemical properties. Understand all matter is composed of combinations of elements, which are organized by common attributes and characteristics on the Periodic Table. Understand that substances can be classified as mixtures or compounds and according to their physical and chemical properties.
GRADE LEVEL EXPECTATION	P.PM.E.5.	Conductive and Reflective Properties- Objects vary to the extent they absorb and reflect light energy and conduct heat and electricity.
EXPECTATION	P.PM.04.53.	Identify objects that are good conductors or poor conductors of heat and electricity.
STRAND / STANDARD CATEGORY	MI.L.	Life Science
STANDARD	L.OL.	Organization of Living Things: Develop an understanding that plants and animals (including humans) have basic requirements for maintaining life which include the need for air, water and a source of energy. Understand that all life forms can be classified as producers, consumers, or decomposers as they are all part of a global food chain where food/energy is supplied by plants which need light to produce food/energy. Develop an understanding that plants and animal can be classified by observable traits and physical characteristics. Understand that all living organisms are composed of cells and they exhibit cell growth and division. Understand that all plants and animals have a definite life cycle, body parts, and systems to perform specific life functions.
GRADE LEVEL EXPECTATION	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.
EXPECTATION	L.OL.04.15.	Determine that plants require air, water, light, and a source of energy and building material for growth and repair.
EXPECTATION	L.OL.04.16.	Determine that animals require air, water, and a source of energy and building material for growth and repair.
STRAND / STANDARD CATEGORY	MI.E.	Earth Science
STANDARD	E.ST.	Earth in Space and Time: Develop an understanding that the sun is the central and largest body in the solar system and that Earth and other objects in the sky move in a regular and predictable motion around the sun. Understand that those motions explain the day,

		year, moon phases, eclipses and the appearance of motion of objects across the sky. Understand that gravity is the force that keeps the planets in orbit around the sun and governs motion in the solar system. Develop an understanding that fossils and layers of Earth provide evidence of the history of Earth's life forms, changes over long periods of time, and theories regarding Earth's history and continental drift.
GRADE LEVEL EXPECTATION	E.ST.E.1.	Characteristics of Objects in the Sky- Common objects in the sky have observable characteristics.
EXPECTATION	E.ST.04.11.	Identify common objects in the sky, such as the sun and the moon.

Grade: **5** - Adopted **2007**

STRAND / STANDARD CATEGORY	MI.S.	Science Processes
STANDARD	S.IP.	Inquiry Process: Develop an understanding that scientific inquiry and reasoning involves observing, questioning, investigating, recording, and developing solutions to problems.
GRADE LEVEL EXPECTATION	S.IP.M.1.	Inquiry involves generating questions, conducting investigations, and developing solutions to problems through reasoning and observation.
EXPECTATION	S.IP.05.12.	Design and conduct scientific investigations.
EXPECTATION	S.IP.05.15.	Construct charts and graphs from data and observations.
STRAND / STANDARD CATEGORY	MI.S.	Science Processes
STANDARD	S.IA.	Inquiry Analysis and Communication: Develop an understanding that scientific inquiry and investigations require analysis and communication of findings, using appropriate technology.
GRADE LEVEL EXPECTATION	S.IA.M.1.	Inquiry includes an analysis and presentation of findings that lead to future questions, research, and investigations.
EXPECTATION	S.IA.05.11.	Analyze information from data tables and graphs to answer scientific questions.
STRAND / STANDARD CATEGORY	MI.S.	Science Processes
STANDARD	S.RS.	Reflection and Social Implications: Develop an understanding that claims and evidence for their scientific merit should be analyzed. Understand how scientists decide what constitutes scientific knowledge. Develop an understanding of the importance of reflection on scientific knowledge and its application to new situations to better understand the role of science in society and technology.
GRADE LEVEL EXPECTATION	S.RS.M.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.
EXPECTATION	S.RS.05.15.	Demonstrate scientific concepts through various illustrations, performances, models, exhibits, and activities.
EXPECTATION	S.RS.05.17.	Describe the effect humans and other organisms have on the balance in the natural world.
EXPECTATION	S.RS.05.19.	Describe how science and technology have advanced because of the contributions of many people throughout history and across cultures.
STRAND / STANDARD CATEGORY	MI.P.	Physical Science
STANDARD	P.FM.	Forces and Motion: Develop an understanding that the position and/or motion of an object is relative to a point of reference. Understand forces affect the motion and speed of an object and that the net force on an object is the total of all of the forces acting on it. Understand the Earth pulls down on objects with a force called gravity. Develop an understanding that some forces are in direct contact with objects, while other forces are not in direct contact with objects.
GRADE LEVEL EXPECTATION	P.FM.M.4.	Speed- Motion can be described by a change in position relative to a point of reference. The motion of an object can be described by its speed and the direction it is moving. The position and speed of an object can be measured and graphed as a function of time.
EXPECTATION	P.FM.05.43.	Illustrate how motion can be measured and represented on a graph.
STRAND / STANDARD CATEGORY	MI.L.	Life Science
STANDARD	L.EV.	Evolution: Develop an understanding that plants and animals have observable parts and characteristics that help them survive and flourish in their environments. Understand that fossils provide evidence that life forms have changed over time and were influenced by changes in environmental conditions. Understand that life forms either change (evolve) over time or risk extinction due to environmental changes and describe how scientists identify the relatedness of various organisms based on similarities in anatomical features.
GRADE LEVEL EXPECTATION	L.EV.M.1.	Species Adaptation and Survival- Species with certain traits are more likely than others to survive and have offspring in particular environments. When an environment changes, the advantage or disadvantage of the species' characteristics can change. Extinction of a species occurs when the environment changes and the characteristics of a species are insufficient to allow survival.

EXPECTATION	L.EV.05.11.	Explain how behavioral characteristics (adaptation, instinct, learning, habit) of animals help them to survive in their environment.

GET MOVING! -
Summary: GET MOVING!: A HOW TO-GUIDE FOR ADULT VOLUNTEERS (978-0-88441-739-2)

Michigan Curriculum Standards

Health and PE / Language Arts / Mathematics / Science / Social Studies

Grade: **4** - Adopted **2006**

STRAND / STANDARD CATEGORY	MI.R.	Reading
STANDARD	R.1.	Word Recognition and Word Study - Word Recognition
GRADE LEVEL EXPECTATION	R.WS.04.01.	Students will explain how to use word structure, sentence structure, and prediction to aid in decoding words and understanding the meanings of words encountered in context.
GRADE LEVEL EXPECTATION	R.WS.04.04.	Students will know the meanings of words encountered frequently in grade-level reading and oral language contexts.
GRADE LEVEL EXPECTATION	R.WS.04.05.	Students will acquire and apply strategies to identify unknown words or word parts; self-monitor, and construct meaning by engaging actively in reading a variety of genre, self-correcting, and using a thesaurus.
STRAND / STANDARD CATEGORY	MI.R.	Reading
STANDARD	R.2.	Word Recognition and Word Study - Fluency
GRADE LEVEL EXPECTATION	R.WS.04.06.	Students will fluently read beginning grade-level text and increasingly demanding text as the year proceeds.
STRAND / STANDARD CATEGORY	MI.R.	Reading
STANDARD	R.3.	Word Recognition and Word Study - Vocabulary
GRADE LEVEL EXPECTATION	R.WS.04.07.	Students will in context, determine the meaning of words and phrases including similes, metaphors, content vocabulary, and literary terms using strategies and resources including context clues, semantic feature analysis, and a thesaurus.
STRAND / STANDARD CATEGORY	MI.R.	Reading
STANDARD	R.5.	Informational Text
GRADE LEVEL EXPECTATION	R.IT.04.01.	Students will identify and describe the structure, elements, features, and purpose of a variety of informational genre including autobiography/biography, personal essay, almanac, and newspaper.

STRAND / STANDARD CATEGORY	MI.R.	Reading
STANDARD	R.6.	Comprehension
GRADE LEVEL EXPECTATION	R.CM.04.01.	Students will connect personal knowledge, experiences, and understanding of the world to themes and perspectives in text through oral and written responses.
GRADE LEVEL EXPECTATION	R.CM.04.04.	Students will apply significant knowledge from grade-level science, social studies, and mathematics texts.
STRAND / STANDARD CATEGORY	MI.R.	Reading
STANDARD	R.7.	Metacognition
GRADE LEVEL EXPECTATION	R.MT.04.01.	Students will self-monitor comprehension when reading or listening to text by automatically applying and discussing the strategies used by mature readers to increase comprehension including: predicting, constructing mental images, visually representing ideas in text, questioning, rereading or listening again if uncertain about meaning, inferring, summarizing, and engaging in interpretive discussions.
STRAND / STANDARD CATEGORY	MI.R.	Reading
STANDARD	R.9.	Reading Attitude
GRADE LEVEL EXPECTATION	R.AT.04.01.	Students will be enthusiastic about reading and do substantial reading and writing on their own.
STRAND / STANDARD CATEGORY	MI.W.	Writing
STANDARD	W.1.	Writing Genre
GRADE LEVEL EXPECTATION	W.GN.04.04.	Students will use the writing process to produce and present a research project using a teacher-approved topic; find and narrow research questions; use a variety of resources; take notes; and organize relevant information to draw conclusions.
STRAND / STANDARD CATEGORY	MI.W.	Writing
STANDARD	W.7.	Writing Attitude
GRADE LEVEL EXPECTATION	W.AT.04.01.	Students will be enthusiastic about writing and learning to write.
STRAND / STANDARD CATEGORY	MI.S.	Speaking
STANDARD	S.1.	Conventions
GRADE LEVEL EXPECTATION	S.CN.04.02.	Students will adjust their use of language to communicate effectively with a variety of audiences and for different purposes including community-building, appreciation, invitations, and cross-curricular discussions.

STRAND / STANDARD CATEGORY	MI.S.	Speaking
STANDARD	S.2.	Discourse
GRADE LEVEL EXPECTATION	S.DS.04.01.	Students will engage in interactive, extended discourse to socially construct meaning in book clubs, literature circles, partnerships, or other conversation protocols.
GRADE LEVEL EXPECTATION	S.DS.04.03.	Students will respond to multiple text types by reflecting, making connections, taking a position, and/or showing deep understanding.
STRAND / STANDARD CATEGORY	MI.L.	Listening and Viewing
STANDARD	L.1.	Conventions
GRADE LEVEL EXPECTATION	L.CN.04.02.	Students will listen to or view critically while demonstrating appropriate social skills of audience behaviors (e.g., eye contact, attentive, supportive) in small and large group settings.
GRADE LEVEL EXPECTATION	L.CN.04.04.	Students will 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.
STRAND / STANDARD CATEGORY	MI.L.	Listening and Viewing
STANDARD	L.2.	Response
GRADE LEVEL EXPECTATION	L.RP.04.01.	Students will listen to or view knowledgeably and discuss a variety of genre and compare their responses to those of their peers.
GRADE LEVEL EXPECTATION	L.RP.04.03.	Students will respond to multiple text types listened to or viewed knowledgeably, by discussing, illustrating, and/or writing in order to clarify meaning, make connections, take a position, and/or show deep understanding.
GRADE LEVEL EXPECTATION	L.RP.04.04.	Students will combine skills to reveal strengthening literacy (e.g., viewing then analyzing in writing, listening then giving an opinion orally).

Grade: **5** - Adopted **2006**

STRAND / STANDARD CATEGORY	MI.R.	Reading
STANDARD	R.1.	Word Recognition and Word Study - Word Recognition
GRADE LEVEL EXPECTATION	R.WS.05.01.	Students will explain when to use and apply word structure, sentence structure, and prediction to aid in decoding words and understanding meanings of words encountered in context.
GRADE LEVEL EXPECTATION	R.WS.05.04.	Students will know the meanings of words encountered frequently in grade-level reading and oral language contexts.

GRADE LEVEL EXPECTATION	R.WS.05.05.	Students will acquire and apply strategies to identify unknown words or word parts, and construct meaning by analyzing derivatives, defining meanings of affixes, and applying knowledge of word origins.
STRAND / STANDARD CATEGORY	MI.R.	Reading
STANDARD	R.2.	Word Recognition and Word Study - Fluency
GRADE LEVEL EXPECTATION	R.WS.05.06.	Students will fluently read beginning grade-level text and increasingly demanding text as the year proceeds.
STRAND / STANDARD CATEGORY	MI.R.	Reading
STANDARD	R.3.	Word Recognition and Word Study - Vocabulary
GRADE LEVEL EXPECTATION	R.WS.05.07.	Students will in context, determine the meaning of words and phrases including symbols, idioms, recently coined words, content vocabulary, and literary terms using strategies and resources including analogies, content glossaries, and electronic resources.
STRAND / STANDARD CATEGORY	MI.R.	Reading
STANDARD	R.5.	Informational Text
GRADE LEVEL EXPECTATION	R.IT.05.01.	Students will analyze the structure, elements, features, style, and purpose of informational genre including advertising, experiments, editorials, and atlases.
STRAND / STANDARD CATEGORY	MI.R.	Reading
STANDARD	R.6.	Comprehension
GRADE LEVEL EXPECTATION	R.CM.05.01.	Students will connect personal knowledge, experiences, and understanding of the world to themes and perspectives in text through oral and written responses.
GRADE LEVEL EXPECTATION	R.CM.05.04.	Students will apply significant knowledge from grade-level science, social studies, and mathematics texts.
STRAND / STANDARD CATEGORY	MI.R.	Reading
STANDARD	R.7.	Metacognition
GRADE LEVEL EXPECTATION	R.MT.05.01.	Students will self-monitor comprehension when reading or listening to text by automatically applying and discussing the strategies used by mature readers to increase comprehension including: predicting, constructing mental images, visually representing ideas in text, questioning, rereading or listening again if uncertain about meaning, inferring, summarizing, and engaging in interpretive discussions.
STRAND / STANDARD CATEGORY	MI.R.	Reading
STANDARD	R.9.	Reading Attitude

GRADE LEVEL EXPECTATION	R.AT.05.01.	Students will be enthusiastic about reading and do substantial reading and writing on their own.
STRAND / STANDARD CATEGORY	MI.W.	Writing
STANDARD	W.1.	Writing Genre
GRADE LEVEL EXPECTATION	W.GN.05.04.	Students will use the writing process to produce and present a research project; use a variety of resources to gather and organize relevant information into central ideas and supporting details for a teacher-approved narrowed focus question and hypothesis.
STRAND / STANDARD CATEGORY	MI.W.	Writing
STANDARD	W.7.	Writing Attitude
GRADE LEVEL EXPECTATION	W.AT.05.01.	Students will be enthusiastic about writing and learning to write.
STRAND / STANDARD CATEGORY	MI.S.	Speaking
STANDARD	S.2.	Discourse
GRADE LEVEL EXPECTATION	S.DS.05.01.	Students will engage in interactive, extended discourse to socially construct meaning in book clubs, literature circles, partnerships, or other conversation protocols.
GRADE LEVEL EXPECTATION	S.DS.05.03.	Students will respond to multiple text types by analyzing content, interpreting the message, and evaluating the purpose.
STRAND / STANDARD CATEGORY	MI.L.	Listening and Viewing
STANDARD	L.1.	Conventions
GRADE LEVEL EXPECTATION	L.CN.05.02.	Students will listen to or view critically while demonstrating appropriate social skills of audience behaviors (e.g., eye contact, attentive, supportive) in small and large group settings.
GRADE LEVEL EXPECTATION	L.CN.05.03.	Students will listen and view critically how verbal and non-verbal strategies enhance understanding of spoken messages and promote effective listening behaviors during a variety of class presentations.
GRADE LEVEL EXPECTATION	L.CN.05.04.	Students will recognize and analyze the various roles of the communication process (e.g., to persuade, critically analyze, entertaining versus informative, different interpretations or perspectives of an action or event) in focusing attention on events and shaping opinions.
STRAND / STANDARD CATEGORY	MI.L.	Listening and Viewing
STANDARD	L.2.	Response
GRADE LEVEL EXPECTATION	L.RP.05.01.	Students will listen to or view knowledgeably and discuss a variety of genre and compare their responses

		to those of their peers.
GRADE LEVEL EXPECTATION	L.RP.05.03.	Students will respond to multiple text types listened to or viewed knowledgeably, by discussing, illustrating, and/or writing in order to clarify meaning, make connections, take a position, and/or show deep understanding without major misconceptions.
GRADE LEVEL EXPECTATION	L.RP.05.04.	Students will combine skills to reveal strengthening literacy (e.g., viewing then analyzing in writing, listening then paraphrasing in writing).
GRADE LEVEL EXPECTATION	L.RP.05.05.	Students will respond to and go beyond the information given by a speaker, making inferences and drawing appropriate conclusions.

Grade: **4** - Adopted **2006**

STRAND / STANDARD CATEGORY	MI.M.	Measurement
STANDARD	M.2.	Convert measurement units
GRADE LEVEL EXPECTATION	M.TE.04.05.	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).

Grade: **5** - Adopted **2006**

STRAND / STANDARD CATEGORY	MI.N.	Number and Operations
STANDARD	N.4.	Understand meaning of decimal fractions and percentages
GRADE LEVEL EXPECTATION	N.ME.05.09.	Understand percentages as parts out of 100, use % notation, and express a part of a whole as a percentage.
STRAND / STANDARD CATEGORY	MI.M.	Measurement
STANDARD	M.1.	Know, and convert among, measurement units within a given system
GRADE LEVEL EXPECTATION	M.UN.05.04.	Convert measurements of length, weight, area, volume, and time within a given system using easily manipulated numbers.
STRAND / STANDARD CATEGORY	MI.D.	Data and Probability
STANDARD	D.1.	Construct and interpret line graphs
GRADE LEVEL EXPECTATION	D.RE.05.01.	Read and interpret line graphs, and solve problems based on line graphs, e.g., distance-time graphs, and problems with two or three line graphs on same axes, comparing different data.

Grade: **4** - Adopted **2007**

STRAND / STANDARD CATEGORY	MI.S.	Science Processes

STANDARD	S.IP.	Inquiry Process: Develop an understanding that scientific inquiry and reasoning involves observing, questioning, investigating, recording, and developing solutions to problems.
GRADE LEVEL EXPECTATION	S.IP.E.1.	Inquiry involves generating questions, conducting investigations, and developing solutions to problems through reasoning and observation.
EXPECTATION	S.IP.04.11.	Make purposeful observation of the natural world using the appropriate senses.
EXPECTATION	S.IP.04.13.	Plan and conduct simple and fair investigations.
EXPECTATION	S.IP.04.16.	Construct simple charts and graphs from data and observations.
STRAND / STANDARD CATEGORY	MI.S.	Science Processes
STANDARD	S.IA.	Inquiry Analysis and Communication: Develop an understanding that scientific inquiry and investigations require analysis and communication of findings, using appropriate technology.
GRADE LEVEL EXPECTATION	S.IA.E.1.	Inquiry includes an analysis and presentation of findings that lead to future questions, research, and investigations.
EXPECTATION	S.IA.04.11.	Summarize information from charts and graphs to answer scientific questions.
EXPECTATION	S.IA.04.12.	Share ideas about science through purposeful conversation in collaborative groups.
EXPECTATION	S.IA.04.13.	Communicate and present findings of observations and investigations.
EXPECTATION	S.IA.04.14.	Develop research strategies and skills for information gathering and problem solving.
STRAND / STANDARD CATEGORY	MI.S.	Science Processes
STANDARD	S.RS.	Reflection and Social Implications: Develop an understanding that claims and evidence for their scientific merit should be analyzed. Understand how scientists decide what constitutes scientific knowledge. Develop an understanding of the importance of reflection on scientific knowledge and its application to new situations to better understand the role of science in society and technology.
GRADE LEVEL EXPECTATION	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.
EXPECTATION	S.RS.04.11.	Demonstrate scientific concepts through various illustrations, performances, models, exhibits, and activities.

EXPECTATION	S.RS.04.15.	Use evidence when communicating scientific ideas.
EXPECTATION	S.RS.04.16.	Identify technology used in everyday life.
EXPECTATION	S.RS.04.17.	Identify current problems that may be solved through the use of technology.
EXPECTATION	S.RS.04.18.	Describe the effect humans and other organisms have on the balance of the natural world.
EXPECTATION	S.RS.04.19.	Describe how people have contributed to science throughout history and across cultures.
STRAND / STANDARD CATEGORY	MI.P.	Physical Science
STANDARD	P.EN.	Energy: Develop an understanding that there are many forms of energy (such as heat, light, sound, and electrical) and that energy is transferable by convection, conduction, or radiation. Understand energy can be in motion, called kinetic; or it can be stored, called potential. Develop an understanding that as temperature increases, more energy is added to a system. Understand nuclear reactions in the sun produce light and heat for the Earth.
GRADE LEVEL EXPECTATION	P.EN.E.1.	Forms of Energy- Heat, electricity, light, and sound are forms of energy.
EXPECTATION	P.EN.04.12.	Identify heat and electricity as forms of energy.
STRAND / STANDARD CATEGORY	MI.P.	Physical Science
STANDARD	P.EN.	Energy: Develop an understanding that there are many forms of energy (such as heat, light, sound, and electrical) and that energy is transferable by convection, conduction, or radiation. Understand energy can be in motion, called kinetic; or it can be stored, called potential. Develop an understanding that as temperature increases, more energy is added to a system. Understand nuclear reactions in the sun produce light and heat for the Earth.
GRADE LEVEL EXPECTATION	P.EN.E.4.	Energy and Temperature- Increasing the temperature of any substance requires the addition of energy.
EXPECTATION	P.EN.04.41.	Demonstrate how temperature can be increased in a substance by adding energy.
EXPECTATION	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.
EXPECTATION	P.EN.04.43.	Describe how heat is produced through electricity, rubbing, and burning.
STRAND / STANDARD CATEGORY	MI.P.	Physical Science
STANDARD	P.PM.	Properties of Matter: Develop an understanding that all matter has observable attributes with physical and chemical properties that are described, measured, and compared. Understand that states of matter exist as

		solid, liquid, or gas; and have physical and chemical properties. Understand all matter is composed of combinations of elements, which are organized by common attributes and characteristics on the Periodic Table. Understand that substances can be classified as mixtures or compounds and according to their physical and chemical properties.
GRADE LEVEL EXPECTATION	P.PM.E.5.	Conductive and Reflective Properties- Objects vary to the extent they absorb and reflect light energy and conduct heat and electricity.
EXPECTATION	P.PM.04.53.	Identify objects that are good conductors or poor conductors of heat and electricity.
STRAND / STANDARD CATEGORY	MI.L.	Life Science
STANDARD	L.OL.	Organization of Living Things: Develop an understanding that plants and animals (including humans) have basic requirements for maintaining life which include the need for air, water and a source of energy. Understand that all life forms can be classified as producers, consumers, or decomposers as they are all part of a global food chain where food/energy is supplied by plants which need light to produce food/energy. Develop an understanding that plants and animal can be classified by observable traits and physical characteristics. Understand that all living organisms are composed of cells and they exhibit cell growth and division. Understand that all plants and animals have a definite life cycle, body parts, and systems to perform specific life functions.
GRADE LEVEL EXPECTATION	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.
EXPECTATION	L.OL.04.15.	Determine that plants require air, water, light, and a source of energy and building material for growth and repair.
EXPECTATION	L.OL.04.16.	Determine that animals require air, water, and a source of energy and building material for growth and repair.
STRAND / STANDARD CATEGORY	MI.E.	Earth Science
STANDARD	E.ST.	Earth in Space and Time: Develop an understanding that the sun is the central and largest body in the solar system and that Earth and other objects in the sky move in a regular and predictable motion around the sun. Understand that those motions explain the day, year, moon phases, eclipses and the appearance of motion of objects across the sky. Understand that gravity is the force that keeps the planets in orbit around the sun and governs motion in the solar

		system. Develop an understanding that fossils and layers of Earth provide evidence of the history of Earth's life forms, changes over long periods of time, and theories regarding Earth's history and continental drift.
GRADE LEVEL EXPECTATION	E.ST.E.1.	Characteristics of Objects in the Sky- Common objects in the sky have observable characteristics.
EXPECTATION	E.ST.04.11.	Identify common objects in the sky, such as the sun and the moon.

Grade: **5** - Adopted **2007**

STRAND / STANDARD CATEGORY	MI.S.	Science Processes
STANDARD	S.IP.	Inquiry Process: Develop an understanding that scientific inquiry and reasoning involves observing, questioning, investigating, recording, and developing solutions to problems.
GRADE LEVEL EXPECTATION	S.IP.M.1.	Inquiry involves generating questions, conducting investigations, and developing solutions to problems through reasoning and observation.
EXPECTATION	S.IP.05.12.	Design and conduct scientific investigations.
EXPECTATION	S.IP.05.15.	Construct charts and graphs from data and observations.
STRAND / STANDARD CATEGORY	MI.S.	Science Processes
STANDARD	S.IA.	Inquiry Analysis and Communication: Develop an understanding that scientific inquiry and investigations require analysis and communication of findings, using appropriate technology.
GRADE LEVEL EXPECTATION	S.IA.M.1.	Inquiry includes an analysis and presentation of findings that lead to future questions, research, and investigations.
EXPECTATION	S.IA.05.11.	Analyze information from data tables and graphs to answer scientific questions.
STRAND / STANDARD CATEGORY	MI.S.	Science Processes
STANDARD	S.RS.	Reflection and Social Implications: Develop an understanding that claims and evidence for their scientific merit should be analyzed. Understand how scientists decide what constitutes scientific knowledge. Develop an understanding of the importance of reflection on scientific knowledge and its application to new situations to better understand the role of science in society and technology.
GRADE LEVEL EXPECTATION	S.RS.M.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.

EXPECTATION	S.RS.05.15.	Demonstrate scientific concepts through various illustrations, performances, models, exhibits, and activities.
EXPECTATION	S.RS.05.17.	Describe the effect humans and other organisms have on the balance in the natural world.
EXPECTATION	S.RS.05.19.	Describe how science and technology have advanced because of the contributions of many people throughout history and across cultures.
STRAND / STANDARD CATEGORY	MI.P.	Physical Science
STANDARD	P.FM.	Forces and Motion: Develop an understanding that the position and/or motion of an object is relative to a point of reference. Understand forces affect the motion and speed of an object and that the net force on an object is the total of all of the forces acting on it. Understand the Earth pulls down on objects with a force called gravity. Develop an understanding that some forces are in direct contact with objects, while other forces are not in direct contact with objects.
GRADE LEVEL EXPECTATION	P.FM.M.4.	Speed- Motion can be described by a change in position relative to a point of reference. The motion of an object can be described by its speed and the direction it is moving. The position and speed of an object can be measured and graphed as a function of time.
EXPECTATION	P.FM.05.43.	Illustrate how motion can be measured and represented on a graph.
STRAND / STANDARD CATEGORY	MI.L.	Life Science
STANDARD	L.EV.	Evolution: Develop an understanding that plants and animals have observable parts and characteristics that help them survive and flourish in their environments. Understand that fossils provide evidence that life forms have changed over time and were influenced by changes in environmental conditions. Understand that life forms either change (evolve) over time or risk extinction due to environmental changes and describe how scientists identify the relatedness of various organisms based on similarities in anatomical features.
GRADE LEVEL EXPECTATION	L.EV.M.1.	Species Adaptation and Survival- Species with certain traits are more likely than others to survive and have offspring in particular environments. When an environment changes, the advantage or disadvantage of the species' characteristics can change. Extinction of a species occurs when the environment changes and the characteristics of a species are insufficient to allow survival.
EXPECTATION	L.EV.05.11.	Explain how behavioral characteristics (adaptation, instinct, learning, habit) of animals help them to survive in their environment.