

This chart lists standards and benchmarks from the Maine Learning Results which relate directly to Odyssey of the Mind. In addition, specific requirements of long term problem may at times relate to additional standards and benchmarks.

Long Term Problems	Style	Spontaneous	Primary Problem	
			X	<p style="text-align: center;">CAREER PREPARATION</p> <p style="text-align: center;">A. PREPARING FOR THE FUTURE</p> <p>Students will be knowledgeable about the world of work, explore Career options, and relate personal skills, aptitudes, and abilities To future career decisions. Students will be able to:</p> <p><u>Elementary Grades Pre-K-2</u></p> <p>1. Develop effective ways to interact with others during school and after-school activities.</p>
X		X		<p><u>Elementary Grades 3-4</u></p> <p>1. Demonstrate how positive and negative attitudes affect one’s ability to work with others.</p>
X		X		<p>2. Use communication and listening skills that result in successful interactions with others.</p>
X		X		<p><u>Middle Grades 5-8</u></p> <p>2. Use teamwork strategies and apply communications and negotiation skills to decision making.</p>
X		X		<p><u>Secondary Grades</u></p> <p>1. Demonstrate the leadership and membership skills necessary to succeed as a member of a team.</p>
				<p style="text-align: center;">ENGLISH LANGUAGE ARTS</p> <p style="text-align: center;">C. LANGUAGE AND IMAGES</p> <p>Students will demonstrate an understanding of how words and images communicate. Students will be able to:</p> <p><u>Elementary Grades 3-4</u></p> <p>6. Makes observations about specific uses and idioms of language.</p>
		X		<p><u>Middle Grades 5-8</u></p> <p>2. Understand factors that commonly affect language change and Use.</p>
		X		<p><u>Secondary Grades</u></p> <p>1. Demonstrate an understanding of the relationship among perception, thought, and language.</p>

Long Term Problems	Style	Spontaneous	Primary Problem	<p style="text-align: center;">E. PROCESSES OF WRITING AND SPEAKING</p> <p>Students will demonstrate the ability to use the skills and strategies of the writing process.</p> <p><u>Elementary Grades 3-4</u></p> <p>2. Improve their finished product by revising content from draft to final piece.</p>
X				<p>3. Use planning, drafting, and revising to produce, on-demand, a well-developed, organized piece that demonstrates effective language use, voice, and command of mechanics.</p>
X				<p><u>Middle Grades 5-8</u></p> <p>2. Use planning, drafting, and revising to produce, on-demand, a well-developed, organized piece that demonstrates effective language use, voice, and command of mechanics.</p>
X				<p><u>Secondary Grades</u></p> <p>2. Reflect on, evaluate, revise and edit a sequence of drafts to improve and polish finished work.</p>
X				<p>3. Use planning, drafting, and revising to produce, on-demand, a well-developed, organized piece that demonstrates effective language use, voice, and command of mechanics.</p>
			X	<p style="text-align: center;">G. STYLISTIC AND RHETORICAL ASPECTS</p> <p>Students will use stylistic and rhetorical aspects of writing and speaking to explore ideas, to present lines of thought, to represent and reflect on human experience, and to communicate feelings, knowledge, and opinions. Students will be able to:</p> <p><u>Elementary Grades Pre-K-2</u></p> <p>1. Dictate or write stories or essays which convey basic ideas, have sequences that make sense, and show evidence of a beginning, middle, and ending.</p>
X	X			<p><u>Elementary Grades 3-4</u></p> <p>1. Write pieces and make remarks that begin to use descriptive language that clarifies, enhances, and develops ideas.</p>
X				<p>2. Write stories (or other pieces) that show a definite beginning (introduction), middle (body), and ending (conclusion).</p>
X	X			<p>4. Write pieces that show awareness of a variety of intended audiences and identifiable purposes.</p>

Long Term Problems	Spontaneous Style	Primary Problem	
X	X		7. Use a variety of media and technological resources to make creative and expository oral presentations.
X			<u>Middle Grades 5-8</u> 1. Write stories with an identifiable beginning, middle, and ending.
X			2. Write stories that include major events, develop settings, and deal with problems and solutions.
X	X		3. Write pieces and deliver oral presentations that use structures appropriate to audience and purpose.
X			6. Write and deliver oral presentations that achieve distinct purposes (e.g., to summarize, to narrate, to inform, to explain).
X	X		7. Write pieces and make remarks that use descriptive language to clarify, enhance, and develop ideas.
X	X		10. Deliver oral presentations that use a variety of strategies of address (e.g., eye contact, hand gestures, voice modulation, changes of rhythm).
X			<u>Secondary Grades</u> 1. Write stories that effectively develop such elements as setting, major events, problems, and solutions.
X	X		2. Write pieces and deliver oral presentations that effectively use descriptive language to clarify, enhance, and develop ideas.
X			5. Write pieces and deliver oral presentations that achieve distinct purposes (e.g., to persuade, evaluate, analyze, defend).
X			6. Write pieces and deliver oral presentations that effectively employ explicit transitional devices in order to change a situation or to move the reader/listener through the piece.
X			7. Write pieces and deliver oral presentations in which the organization of the work follows from the purpose.

Long Term Problems	X	Spontaneous	X	Primary Problem	8. Write pieces and deliver oral presentations in a personal style, with a discernible voice and effective wording.
	X				10. Make effective use of a variety of techniques to provide supporting detail (e.g., analogies, anecdotes, illustrations, detailed descriptions, restatements, paraphrases, examples, comparisons) in written work and oral presentations.
					MATHEMATICS B. COMPUTATION Students will understand and demonstrate computation skills. Students will be able to:
	X*				<u>Elementary Grades 3-4</u> 1. Solve multi-step, real-life problems using the four operations with whole numbers.
	X*				<u>Middle Grades 5-8</u> 1. Compute and model all four operations with whole numbers, fractions, decimals, sets of numbers, and percents, applying the proper order of operations.
	X*				<u>Secondary Grades</u> 1. Use various techniques to approximate solutions, determine the reasonableness of answers, and justify the results.
					F. MEASUREMENT Students will understand and demonstrate measurement skills. Students will be able to:
	X*				<u>Elementary Grades 3-4</u> 1. Solve and justify solutions to real-life problems involving the measurement of time, length, area, perimeter, weight, temperature, mass, capacity, and volume.
	X*				2. Select measuring tools and units of measurement that are appropriate for what is being measured.

* Benchmarks that are particularly applicable to problems involving balsa wood structures, technical problems or vehicle problems.

Long Term Problems	Style	Spontaneous	Primary Problem
X*			<p><u>Middle Grades 5-8</u> 3. Demonstrate an understanding of length, area, volume, and corresponding units, square units, and cubic units of measure.</p>
X*			<p><u>Secondary Grades</u> 1. Use measurement tools and units appropriately and recognize limitations in the precision of the measurement tools.</p>
X*			<p style="text-align: center;">J. MATHEMATICAL REASONING Students will understand and apply concepts of mathematical reasoning. Students will be able to:</p> <p><u>Elementary Grades 3-4</u> 1. Demonstrate an understanding that support for a claim should be based on evidence of various types (e.g., from logical processes, from measurement, or from observation and experimentation).</p>
X*			<p><u>Middle Grades 5-8</u> 1. Support reasoning by using models, known facts, properties, and relationships.</p>
X*			<p>2. Demonstrate that multiple paths to a conclusion may exist.</p>
X*			<p><u>Secondary Grades</u> 1. Analyze situations where more than one logical conclusion can be drawn from data presented.</p>
X*			<p style="text-align: center;">SCIENCE H. ENERGY Students will understand concepts of energy. Students will be able to:</p> <p><u>Elementary Grades 3-4</u> 2. Explain ways different forms of energy can be produced.</p>

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Long Term Problems	Style	Spontaneous	Primary Problem	<p style="text-align: center;">I. MOTION</p> <p>Students will understand the motion of objects and how forces can change that motion. Students will be able to:</p> <p><u>Elementary Grade 3-4</u></p> <p>1. Describe the effects of different types of forces (e.g., mechanical, electrical, magnetic) on motion.</p>
X*				<p>2. Draw conclusions about how the amount of force affects the motion of more massive and less massive objects.</p>
X*				<p><u>Middle Grades 5-8</u></p> <p>3. Describe and quantify the ways machines can provide Mechanical advantages in producing motion.</p>
X*				<p style="text-align: center;">J. INQUIRY AND PROBLEM SOLVING</p> <p>Students will apply inquiry and problem-solving approaches in science and technology. Students will be able to:</p> <p><u>Elementary Grades 3-4</u></p> <p>1. Make accurate observation using appropriate tools and units of measure.</p>
X*				<p>2. Conduct scientific investigations: make observations, collect and analyze data, and do experiments.</p>
X*				<p>3. Use results in a purposeful way: design fair tests, make predictions based on observed patterns, and interpret data to make further predictions.</p>
X*				<p>4. Design and build an invention.</p>
X*				<p><u>Middle Grades 5-8</u></p> <p>1. Make accurate observations using appropriate tools and units of measure.</p>
X*				<p>2. Design and conduct scientific investigations which include controlled experiments and systematic observations. Collect and analyze data, and draw conclusions fairly.</p>
X*				<p>3. Verify and evaluate scientific investigations and use the results in a purposeful way.</p>

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Long Term Problems	Style	Spontaneous	Primary Problem
X*			6. Design, construct, and test a device (invention) that solves a special problem.
X*			<u>Secondary Grades</u> 1. Make accurate observations using appropriate tools and units of measure.
X*			2. Verify, evaluate, and use results in a purposeful way. This includes analyzing and interpreting data, making predictions based on observed patterns, testing solutions against the original problem conditions, and formulating additional questions.
X*			3. Demonstrate the ability to use scientific inquiry and technological method with short term and long term investigations, recognizing that there is more than one way to solve a problem. Demonstrate knowledge of when to try different strategies.
X*			4. Design and construct a device to perform a specific function, then redesign for improvement (e.g., performance, cost).
X*			K. SCIENTIFIC REASONING Students will learn to formulate and justify ideas and to make informed decisions. Students will be able to: <u>Elementary Grades 3-4</u> 3. Draw conclusions about observations.
X*			4. Use various types of evidence (e.g., logical, quantitative) to support a claim.
X		X	6. Practice and apply simple logic, intuitive thinking, and brainstorming.
X*			<u>Middle Grades 5-8</u> 6. Support reasoning by using a variety of evidence.
X*			8. Construct logical arguments.
X*			9. Apply analogous reasoning.

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Long Term Problems	Style	Spontaneous	Primary Problem
X*			<u>Secondary Grades</u> 1. Judge the accuracy of alternative explanations by identifying the evidence necessary to support them.
X*			3. Develop generalizations based on observations.
X*			5. Produce inductive and deductive arguments to support conjecture.
X			6. Analyze situations where more than one logical conclusion can be drawn.
X*			<p style="text-align: center;">L. COMMUNICATION</p> Students will communicate effectively in the application of science And technology. Students will be able to: <u>Elementary Grades 3-4</u> 1. Record results of experiments or activities (e.g., interviews, discussions, field work) and summarize and communicate what they have learned.
X*			2. Ask clarifying and extending questions.
X	X		7. Function effectively in groups within various assigned roles (e.g., reader, recorder).
X*			<u>Middle Grades 5-8</u> 2. Defend problem-solving strategies and solutions.
X			3. Evaluate individual and groups communication for clarity, and work to improve communication.
X			6. Identify and perform roles necessary to accomplish group tasks.

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VISUAL AND PERFORMING ARTS
A. CREATIVE EXPRESSION

Long Term Problems	Style	Spontaneous	Primary Problem	
	X		X	<p>Students will create and/or perform to express ideas and feelings. Students will be able to:</p> <p><u>Elementary Grades Pre-K-2</u></p> <p>1. Investigate the characteristics and purpose of each of the arts to communicate ideas, feelings, and meaning.</p>
	X		X	2. Experiment with art forms.
	X		X	4. Recognize the functions and the expressive qualities of the elements and principles of each art form (visual art, music, dance, drama) and incorporate them into their own creative works.
	X		X	5. Use improvisation to solve problems in the performing arts.
	X		X	14. Use materials and tools in a safe and responsible manner.
	X		X	15. Understand that the success of musical, theatrical, and dance groups depends on collaboration.
X	X			<p><u>Elementary Grades 3-4</u></p> <p>1. Develop personal expression in works in each of the visual (2-D or 3-D) and performing arts (music, theater, and dance).</p>
X	X			2. Apply previously learned principles to perform, create, revise, and/or refine works.
X	X			3. Refine and develop improvisations into complete works.
X	X			4. Create original works using different media, techniques, and processes to communicate ideas, feelings, and meaning.
X	X			<p><u>Middle Grades 5-8</u></p> <p>2. Use the expressive qualities of the elements and principles of each art form to explore a variety of styles in their work.</p>
X	X			3. Discriminate among the qualities and characteristics of art media, techniques, and processes for the purposes of selecting appropriate media to communicate artistic ideas.
X	X			4. Use a variety of resources, materials, and techniques to design and execute art works.

Long Term Problems	Style	Spontaneous	Primary Problem
X	X		8. Perform a variety of styles and types of music, dance, and theatre.
X	X		<u>Secondary Grades</u> 1. Create a visual or performance piece to communicate an idea, feeling, or meaning using: a distinct style; <ul style="list-style-type: none"> • imagination and technical skill; and • the creative process, reflections, and self-evaluation (problem-solving skills).
X	X		3. Create a piece in one art form which complements one of the other art forms (e.g., music to complement poetry).
X	X		4. Use the elements and principles of design to demonstrate Multiple solutions to specific visual or performing arts problems.
X	X		9. Use skills and knowledge of arts elements and principles, whenever applicable, to solve problems or enhance meaning in other disciplines.