

Michigan District Lutheran School Curriculum *SCOPE & SEQUENCE*

Grade Level: K	Curricular Area: Science			
Unit 1: Science Processes <ul style="list-style-type: none"> • Inquiry, Reflection, and Social Implications 	Unit 2: Physical <ul style="list-style-type: none"> • Motion of Objects 	Unit 3: Life <ul style="list-style-type: none"> • Organization of Living Things 	Unit 4: Earth <ul style="list-style-type: none"> • Solid Earth 	Unit 5: Health <ul style="list-style-type: none"> • Sanctity of Life • Respect for each other • Healthy Habits • Human Body



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Michigan District Lutheran School Curriculum *OUTCOMES*

Curricular Area: Science (Kindergarten)

Unit 1: Science Processes

Outcome 1A: (C) I.1 All students will ask questions that help them learn about the world. All students will design and conduct investigations using appropriate methodology and technology. All students will learn from books and other sources of information. All students will communicate findings of investigations using appropriate technology.

Grade Level Content Expectations (GLCEs)	Content Statement	Integrating the Faith (I.F.)
<p>S.IR.00.01 Make purposeful observation of the natural world using the five senses.</p> <p>S.IR.00.02 Generate questions based on observations.</p> <p>S.IR.00.03 Plan and conduct simple investigations.</p> <p>S.IR.00.04 Manipulate simple tools that aid observation and data collection.</p> <p>S.IR.00.05 Make accurate measurements with appropriate units for the measurement tool.</p> <p>S.IR.00.06 Construct simple charts and graphs from data and observations.</p> <p>S.IR.00.07 Communicate and present findings of observations.</p> <p>S.IR.00.08 Develop research strategies and skills for information gathering and problem solving.</p>	<p>S.IR.00.1 Inquiry involves generating questions, conducting investigations, and developing solutions to problems through reasoning and observation. Inquiry includes an analysis and presentation of findings that lead to future questions, research, and investigations.</p>	<p>✚ Have students bring in toys from home. Discuss ways to sort and classify them.</p>



Outcome 1B:

(R) II.1 All students will analyze claims for their scientific merit and explain how scientists decide what constitutes scientific knowledge. All students will show how science is related to other ways of knowing.

Grade Level Content Expectations (GLCEs)	Content Statement	Integrating the Faith (I.F.)
<p>S.IR.00.09 Recognize that science investigations generally work the same way in different places.</p> <p>S.IR.00.10 Recognize that when science investigations are done the same way, very similar results are expected.</p> <p>S.IR.00.11 Demonstrate scientific concepts through various illustrations, performances, models, exhibits and activities.</p>	<p>S.IR.00.2 Reflecting knowledge is the application of scientific knowledge to new and different situations. Reflecting knowledge requires careful analysis of evidence that guides decision making and the application of science throughout history.</p>	



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Michigan District Lutheran School Curriculum *TEACHER ACCOUNTABILITY RECORD*

Unit 1: Science Processes Teacher Name: _____ Grade Level: Kindergarten	Curricular Area: Science School Year:				
Standards Benchmark or <i>GLCE</i> (Italicized indicates the one used)	Dates Taught (month/day/initials):				
S.IR.00.01 Make purposeful observation of the natural world using the five senses.					
S.IR.00.02 Generate questions based on observations.					
S.IR.00.03 Plan and conduct simple investigations.					
S.IR.00.04 Manipulate simple tools that aid observation and data collection.					
S.IR.00.05 Make accurate measurements with appropriate units for the measurement tool.					
S.IR.00.06 Construct simple charts and graphs from data and observations.					
S.IR.00.07 Communicate and present findings of observations.					
S.IR.00.08 Develop research strategies and skills for information gathering and problem solving.					
S.IR.00.09 Recognize that science investigations generally work the same way in different places.					
S.IR.00.10 Recognize that when science investigations are done the same way, very similar results are expected.					
S.IR.00.11 Demonstrate scientific concepts through various illustrations, performances, models, exhibits and activities.					



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Unit 2: Physical Science

Outcome 2A: All students will describe frame of reference.

Grade Level Content Expectations (GLCEs)	Content Statement	Integrating the Faith (I.F.)
P.MO.00.12 Compare an object's position to other objects around it. P.MO.00.13 Explain how a moving object looks different when viewed from different locations.	P.MO.00.1 An object's position can be described by locating the object relative to other objects or a background. The description of an object's motion from one observer's view may be different from that reported from a different observer's view.	



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Outcome 2B:

(PME) IV. 1 All students will measure and describe the things around us.

(PMO) IV. 3 All students will describe how things around us move, explain why things move as they do, and demonstrate and explain how we control the motions of objects.

Grade Level Content Expectations (GLCEs)	Content Statement	Integrating the Faith (I.F.)
<p>P.MO.00.14 Demonstrate pushes and pulls.</p> <p>P.MO.00.15 Observe that objects move in the direction of the push or pull.</p> <p>P.MO.00.16 Observe how pushes and pulls can change the speed or direction of moving objects.</p> <p>P.MO.00.17 Predict how shape, size and weight of an object can affect motion.</p>	<p>P.MO.00.3 A force is either a push or a pull. The motion of objects can be changed by forces. The size of the change is related to the size of the force. The change is also related to the weight (mass) of the object on which the force is being exerted. When an object does not move in response to a force, it is because another force is being applied</p>	



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Outcome 2C:

All students will describe the effects of gravity.

Grade Level Content Expectations (GLCEs)	Content Statement	Integrating the Faith (I.F.)
P.MO.00.18 Observe how objects fall toward the earth.	P.MO.00.4 Earth pulls down on all objects with a force called gravity. With very few exceptions, objects fall to the ground no matter where the object is on the Earth.	



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Unit 2: Physical Science Teacher Name: _____ Grade Level: Kindergarten	Curricular Area: Science School Year:				
Standards Benchmark or <i>GLCE</i> (Italicized indicates the one used)	Dates Taught (month/day/initials):				
P.MO.00.12 Compare an object’s position to other objects around it.					
P.MO.00.13 Explain how a moving object looks different when viewed from different locations.					
P.MO.00.14 Demonstrate pushes and pulls.					
P.MO.00.15 Observe that objects move in the direction of the push or pull.					
P.MO.00.16 Observe how pushes and pulls can change the speed or direction of moving objects.					
P.MO.00.17 Predict how shape, size and weight of an object can affect motion.					
P.MO.00.18 Observe how objects fall toward the earth.					



Unit 3: Life Science

Outcome 3A: (LO) III. 2All students will use classification systems to describe groups of living things. All students will compare and contrast differences in the life cycles of living things. All students will investigate and explain how living things obtain and use energy.
(LEC) III. 5All students will explain how energy is distributed to living things in an ecosystem. All students will explain and investigate how communities of living things change over a period of time.

Grade Level Content Expectations (GLCEs)	Content Statement	Integrating the Faith (I.F.)
<p>L.OL.00.19 Describe the basic requirements for all living things to maintain their existence.</p> <p>L.OL.00.20 Identify and compare living and nonliving things.</p>	<p>L.OL.00.1 Animals need air, water, and a source of energy (food). Plants also require air, water, and a source of energy (light to make food). Plants and animals break down food to produce building material for growth and repair.</p>	<ul style="list-style-type: none"> ✚ Study nocturnal versus diurnal animals. Show how God has made each animal to survive in its environment. ✚ Remind students that God provides us with water, food, and shelter and they are needed in all environments. ✚ Compare various seeds noting the differences in size, weight, and color. Discuss why God created seeds to look so different. ✚ Develop a variety of habitats in the room (sand for desert, rain forest, etc.) and study the animals and the various things God has provided for them. ✚ Adopt a tree around the school. Observe it all year. Note that God cares about plants as well as people in Matt. 6:28-29. ✚ Act out the different stages of development for a pumpkin.



Michigan District Lutheran School Curriculum *TEACHER ACCOUNTABILITY RECORD*

Unit 3: Life Science Teacher Name: _____ Grade Level: Kindergarten	Curricular Area: Science School Year:				
Standards Benchmark or <i>GLCE</i> (<i>Italicized indicates the one used</i>)	Dates Taught (month/day/initials):				
L.OL.00.19 Describe the basic requirements for all living things to maintain their existence.					
L.OL.00.20 Identify and compare living and nonliving things.					



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Unit 4: Earth Science

Outcome 4A:

All students will describe the characteristics of earth and how those characteristics support life.

Grade Level Content Expectations (GLCEs)	Content Statement	Integrating the Faith (I.F.)
E.SE.00.21 Identify earth materials (air, water, soil) that are used to grow food.	E.SE.00.3 Earth materials that occur in nature include rocks, minerals, soils, water, and the gases of the atmosphere. Earth materials have properties which sustain plant and animal life.	<p>✚ Use the story of the Great Flood to introduce the reasons why we have such a diverse landscape.</p> <p>✚ Begin a discussion on the use of water in Baptism.</p>



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Michigan District Lutheran School Curriculum *TEACHER ACCOUNTABILITY RECORD*

Unit 4: Earth Teacher Name: _____ Grade Level: K	Curricular Area: Science School Year:				
Standards Benchmark or <i>GLCE</i> (<i>Italicized indicates the one used</i>)	Dates Taught (month/day/initials):				
E.SE.00.21 Identify earth materials (air, water, soil) that are used to grow food.					
IF 1 Compare the day sky and the night sky.					
IF 2 Observe the moon.					
IF 3 Recognize the globe as the earth.					



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Unit 5: Health

Outcome 5A: Students will learn to appreciate the sanctity of life.

Grade Level Content Expectations (GLCEs)	Michigan Standards	Integrating the Faith (I.F.)
<ol style="list-style-type: none">1. Explain that life is a gift from God.2. Show the equality of life in Jesus' eyes.	See revised Health Education GLCE for Kindergarten.	✚ Decorate a gingerbread man. Show the children that they all started the same, but after being decorated they have a special look. Explain how God gave us the same basic parts, but develops us differently to fit our talents.



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Outcome 5B: Students will respect each other's physical differences.

Grade Level Content Expectations (GLCEs)	Michigan Standards	Integrating the Faith (I.F.)
1. Discuss some differences between boys and girls (e.g. hair, clothing).	See revised Health Education GLCE for Kindergarten.	



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Outcome 5C: Students will correlate a healthy body to proper nutrition and physical activity.

Grade Level Content Expectations (GLCEs)	Michigan Standards	Integrating the Faith (I.F.)
<ol style="list-style-type: none"> 1. Describe how food gives people energy. 2. Place foods in the proper food group. 3. Introduce the food pyramid. 4. Discuss basic human needs like food, sleep, exercise, water. 5. Introduce basic grooming skills. 6. Introduce the idea of a balanced meal. 	<p>See revised Health Education GLCE for Kindergarten.</p>	<ul style="list-style-type: none"> ✚ Discuss the importance of a good night’s sleep. Read Psalm 4:8 and recognize that sleep is a gift of God and that He desires that we take good care of His gift of health. ✚ Create a book titled “Foods I Like to Eat”. Separate the pages by types of food. Have children cut and glue pictures of what they like in each group (bread, fruit, vegetables, meat, dessert). ✚ Explain that food comes from the earth God gave us. Use Psalm 104:14. ✚ Have children grind wheat into flour. Give examples of the many products that use this as its basic ingredient.



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Outcome 5D: Students will recognize the basic structure and function of the human body.

Grade Level Content Expectations (GLCEs)	Michigan Benchmarks	Integrating the Faith (I.F.)
1. Match the sense organs with its function. 2. Introduce the location and function of the heart, brain, lungs, bones, and muscles.	See revised Health Education GLCE for Kindergarten.	✠ Play the game “People to People”. Children stand with a partner. When a certain part is called, the partners point to each other’s part.



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Michigan District Lutheran School Curriculum *TEACHER ACCOUNTABILITY RECORD*

Unit 5: Health Teacher Name: _____ Grade Level: K	Curricular Area: Science School Year:				
Standards Benchmark or <i>GLCE</i> (<i>Italicized indicates the one used</i>)	Dates Taught (month/day/initials):				
Explain that life is a gift from God.					
Show the equality of life in Jesus' eyes.					
Discuss some differences between boys and girls (e.g. hair, clothing).					
Describe how food gives people energy.					
Place foods in the proper food group.					
Introduce the food pyramid.					
Discuss basic human needs like food, sleep, exercise, water.					
Introduce basic grooming skills.					
Introduce the idea of a balanced meal.					
Match the sense organs with its function.					
Introduce the location and function of the heart, brain, lungs, bones, and muscles.					



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