

Michigan District Lutheran School Curriculum *SCOPE & SEQUENCE*

Grade Level: Pre K	Curricular Area: Science			
<p><b>Unit 1: Nature of Science</b></p> <ul style="list-style-type: none"> <li>• <b>Introduce Scientific Method</b></li> </ul>	<p><b>Unit 2: Life</b></p> <ul style="list-style-type: none"> <li>• <b>Living vs. Non-living</b></li> <li>• <b>Plants and Animals</b></li> </ul>	<p><b>Unit 3: Physical</b></p> <ul style="list-style-type: none"> <li>• <b>Physical Characteristics</b></li> <li>• <b>Density</b></li> </ul>	<p><b>Unit 4: Earth</b></p> <ul style="list-style-type: none"> <li>• <b>Seasons</b></li> <li>• <b>Weather</b></li> <li>• <b>Severe Weather</b></li> <li>• <b>Features</b></li> </ul>	<p><b>Unit 5: Health</b></p> <ul style="list-style-type: none"> <li>• <b>Human Body</b></li> <li>• <b>Hygiene</b></li> </ul>



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**Michigan District Lutheran School Curriculum *OUTCOMES***

**Unit 1: Nature of Science**

**Outcome 1A:**

**(ECSQ) 1. Children develop positive attitudes and gain knowledge about science through observation and active play.**

Early Childhood Standards for Quality	Head Start Child Outcome Framework	Integrating the Faith (I.F.)
<p>ECSQ-S 1.1 Demonstrate curiosity about and interest in their natural environment.</p> <p>ECSQ-S 1.1 Confidently engage in activities related to science.</p> <p>ECSQ-S 1.2 Ask questions related to their own interest and observations.</p> <p>ECSQ-S 1.3 Talk about their own predictions, explanations and generalizations based on past and current experiences.</p> <p>ECSQ-S 1.4 Expand their observational skills (e.g. extending the time they observe, being able to describe and confirm their observations using a variety of resources).</p> <p>ECSQ-S 1.5 Begin to participate in simple investigations (e.g. asking questions manipulating materials, prediction, testing hypothesis).</p>	<p>HSCOF-S 4.1.1 Begins to use senses and a variety of tools and simple measuring devices to gather information, investigate materials, and observe processes and relationships.</p> <p>HSCOF-S 4.1.3 Begins to participate in simple investigations to test observations, discuss and draw conclusions, and form generalizations.</p> <p>HSCOF-S 4.1.4 Develops growing abilities to collect, describe, and report information through a variety of means, including discussion, drawings, maps, and charts.</p>	<ul style="list-style-type: none"> <li>• Go on nature walks. Talk about the plants and animals you see and hear.</li> <li>• Play music for children to imitate the movements of animals.</li> <li>• Prepare, with students, for one or more class pets. Discuss care and feeding. Point out that God wants us to take care of His Creation.</li> <li>• Look at a variety of books including the Bible. Discuss the differences and similarities in those books.</li> <li>• Walk around your school’s neighborhood. Look at the different buildings and classify them as one-story, two-story, brick, wood, etc. Keep count and create a graph when you return to the classroom.</li> </ul>



**Michigan District Lutheran School Curriculum *TEACHER ACCOUNTABILITY RECORD***

<b>Unit 1: Nature of Science</b> <b>Teacher:</b> _____ <b>Grade Level: Preschool</b>	<b>Curricular Area: Science</b> <b>School Year:</b> _____				
<b><i>Michigan Standards, Benchmarks or Grade Level Content Expectations</i></b> <b>(The <i>italicized</i> indicates the one used.)</b>	<b>Dates Taught (month/day/initials):</b>				
ECSQ-S 1.1 Demonstrate curiosity about and interest in their natural environment.					
ECSQ-S 1.1 Confidently engage in activities related to science.					
ECSQ-S 1.2 Ask questions related to their own interest and observations.					
ECSQ-S 1.3 Talk about their own predictions, explanations and generalizations based on past and current experiences.					
ECSQ-S 1.4 Expand their observational skills (e.g. extending the time they observe, being able to describe and confirm their observations using a variety of resources).					
ECSQ-S 1.5 Begin to participate in simple investigations (e.g. asking questions manipulating materials, prediction, testing hypothesis).					



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## Unit 2: Life

### Outcome 2A:

**(ECSQ) 2. Children show a beginning awareness of scientific knowledge related to living and nonliving things.**

Early Childhood Standards for Quality	Head Start Child Outcome Framework	Integrating the Faith (I.F.)
<p>ECSQ-S 2.1 Demonstrate a growing ability to collect, talk about, and record information about living things and non-living things (e.g. through discussions, drawings).</p> <p>ECSQ2.2 Begin to categorize living and nonliving things in their environment based on characteristics they can observe (e.g., texture, color, size, shape, temperature, usefulness, weight).</p> <p>ECSQ2.3 Use observation skills to build awareness of plants and animals, their life cycles (e.g., birth, aging, death) and basic needs (e.g., air, food, light, rest).</p> <p>ECSQ2.4 Begin to describe relationships among familiar plants and animals (e.g., caterpillars eat leaves).</p> <p>ECSQ2.5 Begin to describe the places in which familiar plants and animals in their neighborhood live (e.g., city, drainage ponds, parks, fields, forests).</p>	<p>HSCOF-4.2.1 Expands knowledge of abilities to observe, describe and discuss the natural world, materials, living things and natural processes.</p> <p>HSCOF-4.2.2 Expands knowledge of and respect for their body and the environment.</p>	<ul style="list-style-type: none"><li>• Set out different kinds of pine branches and pine cones. After the children have examined the branches, let them glue the branches to a large paper tree. Comment that the tree looks even better when we add real branches from a tree made by God. <b>GOD’S TREES ARE THE BEST!</b></li><li>• Wrap yarn around a pine cone to use as a hangar. Spread peanut butter on the outside and roll it in bird seed. Hang it near a classroom window.</li><li>• Review Genesis 1 and the creation of the animals. Sing “God made Animals for You and Me” to the tune of “Old MacDonald”. “God made animals for you and me. Allelu-u-ia! God made animals for you and me. Allelu-u-ia! With a big one here; and a little one there. Here is one, there is one, everywhere there’s one more one. God made animals for you and me. Allelu-u-ia!”</li><li>• Celebrate God’s amazing blessing of new life by hatching eggs in the classroom.</li><li>• Play animal matching games. Praise God for making so many different kinds of animals.</li></ul>



		<ul style="list-style-type: none"><li>• Examine autumn seeds and leaves using a hand lens. Title the activity “Take a Close Look at What God Made”.</li><li>• Talk about the gifts we are given through trees: food, shelter, shade, homes for animals, pretty.</li><li>• Discuss that God gave us plants and animals to use for food.</li></ul>
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<b><i>Michigan Standards, Benchmarks or Grade Level Content Expectations</i></b> <b>(The <i>italicized</i> indicates the one used.)</b>	<b>Dates Taught (month/day/initials):</b>				
ECSQ-S 2.1 Demonstrate a growing ability to collect, talk about, and record information about living things and non-living things (e.g. through discussions, drawings).					
ECSQ2.2 Begin to categorize living and nonliving things in their environment based on characteristics they can observe (e.g., texture, color, size, shape, temperature, usefulness, weight).					
ECSQ2.3 Use observation skills to build awareness of plants and animals, their life cycles (e.g., birth, aging, death) and basic needs (e.g., air, food, light, rest).					
ECSQ2.4 Begin to describe relationships among familiar plants and animals (e.g., caterpillars eat leaves).					
ECSQ2.5 Begin to describe the places in which familiar plants and animals in their neighborhood live (e.g., city, drainage ponds, parks, fields, forests).					



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### Unit 3: Physical

**Outcome 3A: Children gain a basic understanding of the physical relationships between objects.**

<b>Early Childhood Standards for Quality</b>	<b>Benchmarks</b>	<b>Integrating the Faith (I.F.)</b>
<p>ECSQ2.7 Observe and can describe and compare the motions of common objects in terms of speed and direction (e.g., faster, slowest, up, down).</p> <p>ECSQ2.8 Understand the way simple tools work through their play with common toys (e.g., wheels, pulleys, gears, screws).</p>	<ol style="list-style-type: none"><li>1. Compare common objects according to their physical characteristics (e.g. texture, color, shape, size).</li><li>2. Use common items to introduce solids and liquids.</li><li>3. Identify things as being up or down.</li><li>4. Show objects that sink and float in water.</li></ol> <p>IF 1 Relate objects and shadows.</p>	<ul style="list-style-type: none"><li>• Tape record different sounds. Sounds can include: electric mixers, vacuums, oven timer, rustling paper, cars, etc.</li><li>• Set out a variety of seeds and nuts. Using baskets, children can practice making the baskets full, half full, and empty. Let the children weigh them on a balance scale.</li><li>• Bring in different types of building materials: brick, wood, canvas, mud, cardboard. Let the children talk about the types of shelters you could build with those materials.</li><li>• Set out a collection of pairs of shape in pairs of colors and pairs of sizes. Play a matching game.</li></ul>



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<b>Unit 3: Physical</b> <b>Teacher:</b> _____ <b>Grade Level: <i>Preschool</i></b>	<b>Curricular Area: Science</b> <b>School Year:</b> _____				
<b>Michigan Standards, <i>Benchmarks</i> or Grade Level Content Expectations (The <i>italicized</i> indicates the one used.)</b>	<b>Dates Taught (month/day/initials):</b>				
1. Compare common objects according to their physical characteristics (e.g. texture, color, shape, size).					
2. Use common items to introduce solids and liquids.					
3. Identify things as being up or down.					
4. Show objects that sink and float in water.					
IF 1 Relate objects and shadows.					



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**Unit 4: Earth**

**Outcome 4A:**

**(ECSQ) 3. Children show a beginning awareness of scientific knowledge related to the earth.**

Early Childhood Standards for Quality	Head Start Child Outcome Framework	Integrating the Faith (I.F.)
<p>ECSQ3.1 Can talk about observable characteristics of different seasons.</p> <p>ECSQ3.2 Can talk about the observable properties of earth materials (sand, rocks, soil, water) and living organisms.</p> <p>ECSQ3.3 Can talk about major features of the earth’s surface (streams, hills, beaches) when found in the children’s neighborhood and neighborhoods that they visit.</p> <p>ECSQ3.4 Begin to describe weather and its changing conditions (e.g., wind, rain, snow, clouds).</p> <p>ECSQ3.5 Talk about ways to be safe during bad weather.</p>	<p>HSCOF4.2.3 Develops growing awareness of ideas and languages related to attributes of time and temperature.</p> <p>HSCOF4.2.4 Shows increased awareness and beginning understanding of changes in materials and cause-effect relationships.</p> <p>IF 1 Connect lighted spaces to sun, moon, and artificial sources.</p> <p>IF 2 Identify a day.</p> <p>IF 3 Recognize a week.</p> <p>IF 4 Keep a daily record of weather.</p> <p>IF 5 Describe differences in seasons.</p> <p>IF 6 Observe consciously the environment.</p> <p>IF 7 Identify the globe as the earth.</p>	<ul style="list-style-type: none"> <li>• Look at trees blowing in the breeze. Discuss why God designed trees to blow around like that.</li> <li>• Look at magazines that focus on nature or travel. Let children look and compare the different types of pictures taken of God’s world.</li> <li>• Tell the story of Jesus stilling the storm (Mark 4:35-41). Make the shape of a boat on the floor with masking tape allowing the rock back and forth. When Jesus says, “Peace! Be still” everyone should stop rocking.</li> <li>• Read stories where weather plays a prominent role. Ask, what do you do when God sends thunder, lightning, and rain? Pray together that God calms our fears and thank Him for the rain to help grow our plants.</li> </ul>



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<b><i>Michigan Standards, Benchmarks or Grade Level Content Expectations</i></b> <b>(The <i>italicized</i> indicates the one used.)</b>	<b>Dates Taught (month/day/initials):</b>				
ECSQ3.1 Can talk about observable characteristics of different seasons.					
ECSQ3.2 Can talk about the observable properties of earth materials (sand, rocks, soil, water) and living organisms.					
ECSQ3.3 Can talk about major features of the earth’s surface (streams, hills, beaches) when found in the children’s neighborhood and neighborhoods that they visit.					
ECSQ3.4 Begin to describe weather and its changing conditions (e.g., wind, rain, snow, clouds).					
ECSQ3.5 Talk about ways to be safe during bad weather.					



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**Unit 5: Health**

**Outcome 4A: Children learn that their bodies are a gift from God.**

Early Childhood Standards for Quality	Benchmarks	Integrating the Faith (I.F.)
<p>ECSQ2.6 Demonstrate greater knowledge and respect for their bodies (e.g., describe visible parts of the human body and their functions).</p>	<ol style="list-style-type: none"> <li>1. Identify eyes, ears, nose, mouth, hands, feet, shoulders, hips, and knees.</li> <li>2. Tell the basic function of named body parts.</li> <li>3. Introduce basic grooming skills like brushing teeth and hair.</li> <li>4. Teach proper habits for eating, sleeping, and exercise.</li> <li>5. Show children how to properly express emotions by using words to describe feelings.</li> </ol> <p>IF 1 Demonstrate the use of all five senses.</p>	<ul style="list-style-type: none"> <li>• Help the children develop responsibility by assigning classroom jobs.</li> <li>• Use people cookie cutters with bread to make a special treat. Let them decorate their sandwiches with peanut butter, jelly, raisins, or seeds. Talk about how each sandwich was unique, but still a person. Tell them that God loves them and each person in their family.</li> <li>• Have children draw situations where they can help their family. Talk about how God created families for us to help each other.</li> <li>• Look at pictures of people showing different emotions. Tell children that God knows their feelings and wants them to talk about it. Also tell them that King David danced when he was happy.</li> <li>• Review ways to keep your bodies healthy at any age. Learn to take care of the gift of health and strength God has given you.</li> <li>• Classify pictures of food as healthy (good for you) or unhealthy (bad for you).</li> <li>• Use different tools we have to stay healthy like toothbrushes, band-aids, cotton swabs, gauze, or soap to create a picture.</li> </ul>



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		<ul style="list-style-type: none"><li>• Demonstrate and practice hand-washing skills.</li><li>• Remind children that God that God gave us our eyes, ears, nose, and tongue, and He wants us to take care of them.</li></ul>
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**Michigan District Lutheran School Curriculum *TEACHER ACCOUNTABILITY RECORD***

<b>Unit 5: Health</b> <b>Teacher:</b> _____ <b>Grade Level: Preschool</b>	<b>Curricular Area: Science</b> <b>School Year:</b> _____				
<b>Michigan Standards, <i>Benchmarks</i> or Grade Level Content Expectations (The italicized indicates the one used.)</b>	<b>Dates Taught (month/day/initials):</b>				
1. Identify eyes, ears, nose, mouth, hands, feet, shoulders, hips, and knees.					
2. Tell the basic function of named body parts.					
3. Introduce basic grooming skills like brushing teeth and hair.					
4. Teach proper habits for eating, sleeping, and exercise.					
5. Show children how to properly express emotions by using words to describe feelings.					
IF 1 Demonstrate the use of all five senses.					



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