

Grade Curriculum Map
Instructional Plan for Science
Kristin K. Hadenfeldt
St. Paul's Lutheran School
Written: June 2021

**4K Curriculum
Instructional Plan for Science
Submitted by Hope Loersch
June 2021**

Grade Curriculum Map
 Instructional Plan for Science
 Kristin K. Hadenfeldt
 St. Paul's Lutheran School
 Written: June 2021

	Content Type	Objectives	Standards	Assessment	Materials
AUGUST & SEPTEMBER	<ul style="list-style-type: none"> 24 Exploring Science Tools and Exploration 	<ul style="list-style-type: none"> students are given a chance to explore different science tools each week different science tools are laid out for individual exploration 	<ul style="list-style-type: none"> A.EL.2Engages in meaningful learning through attempting, repeating, experimenting, refining, and elaborating on experiences and activities C.EL. 1Uses observation to gather information C.EL.2Uses tools to gather information, compare observed objects, and seek answers to questions through active investigation 	<ul style="list-style-type: none"> observations/aneecdotal notes photographs work samples 	Magnifying glasses, magnets/magnet wands, scales, color paddles, eye droppers, test tubes
OCTOBER	<ul style="list-style-type: none"> 20 Cause and Effect 	<ul style="list-style-type: none"> students will make predictions on what will happen in a variety of different experiments students will be able to explain what cause and effect means students will discuss real life examples 	<ul style="list-style-type: none"> A.EL.2Engages in meaningful learning through attempting, repeating, experimenting, refining, and elaborating on experiences and activities C.EL. 1Uses observation to gather information C.EL.2Uses tools to gather information, compare observed objects, and seek answers to questions through active investigation 	<ul style="list-style-type: none"> Role playing observation/aneecdotal notes anchor chart photographs oral assessments (what will happen if...write down answer) art project (paint with colored ice cubes) 	bubbles, ice cubes, dominoes, balloons, mondo blocks, food coloring, celery, water, vase, <i>Books: No, David!</i> <i>If you Give a Moose a Muffin, Stuck</i>

	Content Type	Objectives	Standards	Assessment	Materials
--	--------------	------------	-----------	------------	-----------

Grade Curriculum Map
 Instructional Plan for Science
 Kristin K. Hadenfeldt
 St. Paul's Lutheran School
 Written: June 2021

<p>N O V E M B E R</p>	<ul style="list-style-type: none"> • 19 • Engineering and Building 	<ul style="list-style-type: none"> • students will learn how to "build a city" with printable map • students will identify what is in a city • students will create building blocks with egg cartons • students will construct a bridge with strips of cardboard, cups and teddy bear manipulatives 	<ul style="list-style-type: none"> • C.EL.2Uses tools to gather information, compare observed objects, and seek answers to questions through active investigation • C. EL. 4Forms explanations based on trial and error, observations and explorations 	<ul style="list-style-type: none"> • anecdotal notes and observation • role playing • photographs • work samples 	<p>egg cartons (to make building blocks) and paint, multiple copies of printable maps, pictures of what makes up a city, teddy bear manipulatives, cups, strips of cardboard of different lengths Books: <i>The Ultimate Book of Cities;</i> <i>Block City</i></p>
<p>D E C E M B E R</p>	<ul style="list-style-type: none"> • 15 • Christmas Science 	<ul style="list-style-type: none"> • Explore different science experiments through Christmas themed objects • students will build structures with toothpicks and gum drops • children will explore and find out why pinecones open and close • children will observe and compare and contrast they different types of pine cones • children will observe and take note what happens when a pine cone is placed in hot water and cold water. • guess and observe how long it will take a candy cane to dissolve in different solutions 	<ul style="list-style-type: none"> • C.EL. 1Uses observation to gather information • C.EL.2Uses tools to gather information, compare observed objects, and seek answers to questions through active investigation • C. EL. 4Forms explanations based on trial and error, observations and explorations 	<ul style="list-style-type: none"> • observation/anecdotal notes • photographs • oral assessment 	<p>gum drops, toothpicks pine cones (different types) mason jars, cold and hot water, ruler timer candy canes, sugar, salt</p>

Grade Curriculum Map
 Instructional Plan for Science
 Kristin K. Hadenfeldt
 St. Paul's Lutheran School
 Written: June 2021

	Content Type	Objectives	Standards	Assessment	Materials
J A N U A R Y	<ul style="list-style-type: none"> 21 Weather Magnetism 	<ul style="list-style-type: none"> record graph the weather everyday Identify different seasons and the season we are in Observes objects and events with curiosity sorts objects by size and shape predict objects that are magnetic sort objects that are magnetic and non-magnetic identify objects that are magnetic 	<ul style="list-style-type: none"> C.EL. 1Uses observation to gather information C.EL.2Uses tools to gather information, compare observed objects, and seek answers to questions through active investigation C.EL. 3Hypothesizes and makes predictions. C. EL. 4Forms explanations based on trial and error, observations and explorations 	<ul style="list-style-type: none"> create a weather graph observation/anecdotal notes journals photographs 	magnets, magnet wands art materials: construction paper, cotton balls, bins and containers to hold objects collect objects from classroom that are both magnetic and non-magnetic
F E B R U A R Y	<ul style="list-style-type: none"> 18 Float and Sink 	<ul style="list-style-type: none"> students will observe and make predictions on what objects in our classroom will sink or float when put in water students will make predictions and identify why some things float and others sink students will create "marshmallow" boats with large marshmallows and toothpicks to see if they will sink identify what happens to an egg that is dropped in plain water and an egg dropped in salt water identify what happens to an egg that is hard boiled and dropped into plain water 	<ul style="list-style-type: none"> C.EL. 1Uses observation to gather information C.EL.2Uses tools to gather information, compare observed objects, and seek answers to questions through active investigation C.EL. 3Hypothesizes and makes predictions. C. EL. 4Forms explanations based on trial and error, observations and explorations 	<ul style="list-style-type: none"> children will cut out worksheet of objects or sort the ones that floated and didn't float observations/anecdotal notes, photographs 	water table assortment of different classroom objects large marshmallows, toothpicks, salt 4 eggs (one hard boiled) large bin

Grade Curriculum Map
 Instructional Plan for Science
 Kristin K. Hadenfeldt
 St. Paul's Lutheran School
 Written: June 2021

	Content Type	Objectives	Standards	Assessment	Materials
M A R C H	<ul style="list-style-type: none"> 17 Life Cycle Exploration 	<ul style="list-style-type: none"> discover the growth of a plant by planting beans and pumpkin seeds learn how to take care of plants Identify different plants and their seeds. identify what plants need to grow and live identify how plants need similar things as we do to live and grow! 	<ul style="list-style-type: none"> A.EL.1 Uses multi-sensory abilities to process information C.EL. 1 Uses observation to gather information C.EL.2 Uses tools to gather information, compare observed objects, and seek answers to questions through active investigation C.EL. 3 Hypothesizes and makes predictions. 	<ul style="list-style-type: none"> anecdotal notes photographs art projects oral assessments 	Seeds Dirts Cups Watering can Book: The Tiny Seed and The Bad Seed smartboard, white board art materials
A P R I L	<ul style="list-style-type: none"> 20 Life Cycles 2 	<ul style="list-style-type: none"> watch the metamorphosis of butterflies explore the growth of tadpoles to frogs identify that butterflies and chicks need the same things as we do to live and grow 	<ul style="list-style-type: none"> A.EL.1 Uses multi-sensory abilities to process information C.EL. 1 Uses observation to gather information C.EL.2 Uses tools to gather information, compare observed objects, and seek answers to questions through active investigation C.EL. 3 Hypothesizes and makes predictions. 	<ul style="list-style-type: none"> anecdotal notes photographs art projects oral assessment Worksheet: cut and glue the pictures in order for life cycle of butterfly Worksheet: cut and glue the pictures in order for life cycle of frog 	Butterfly Kit Books: <i>The Very Hungry Caterpillar</i> and <i>A Frog's Life, Jump Frog Jump</i> Tadpoles Bucket art supplies: crayons, markers, pencils, glue

Grade Curriculum Map
 Instructional Plan for Science
 Kristin K. Hadenfeldt
 St. Paul's Lutheran School
 Written: June 2021

	Content Type	Objectives	Standards	Assessment	Materials
M A Y	<ul style="list-style-type: none"> • 24 • Bugs and Insects 	<ul style="list-style-type: none"> • Identify what bugs are • learn what makes an insect an insect • identify different kinds of insects • explore outside and find different types of insects and bugs • explore different types of insects outside • make "bug fossils" 	<ul style="list-style-type: none"> • C.EL. 1Uses observation to gather information • C.EL.2Uses tools to gather information, compare observed objects, and seek answers to questions through active investigation 	<ul style="list-style-type: none"> • cut out and arrange pictures of bugs in order of smallest to largest • Art project-creating bugs with fingerprints • observations/anecdotal notes 	Magnifiers Materials from outside to investigate Pictures of different bugs Plastic bugs Play-doh Art materials: stamp pads, glue, scissors, paper, crayons, markers, pencil