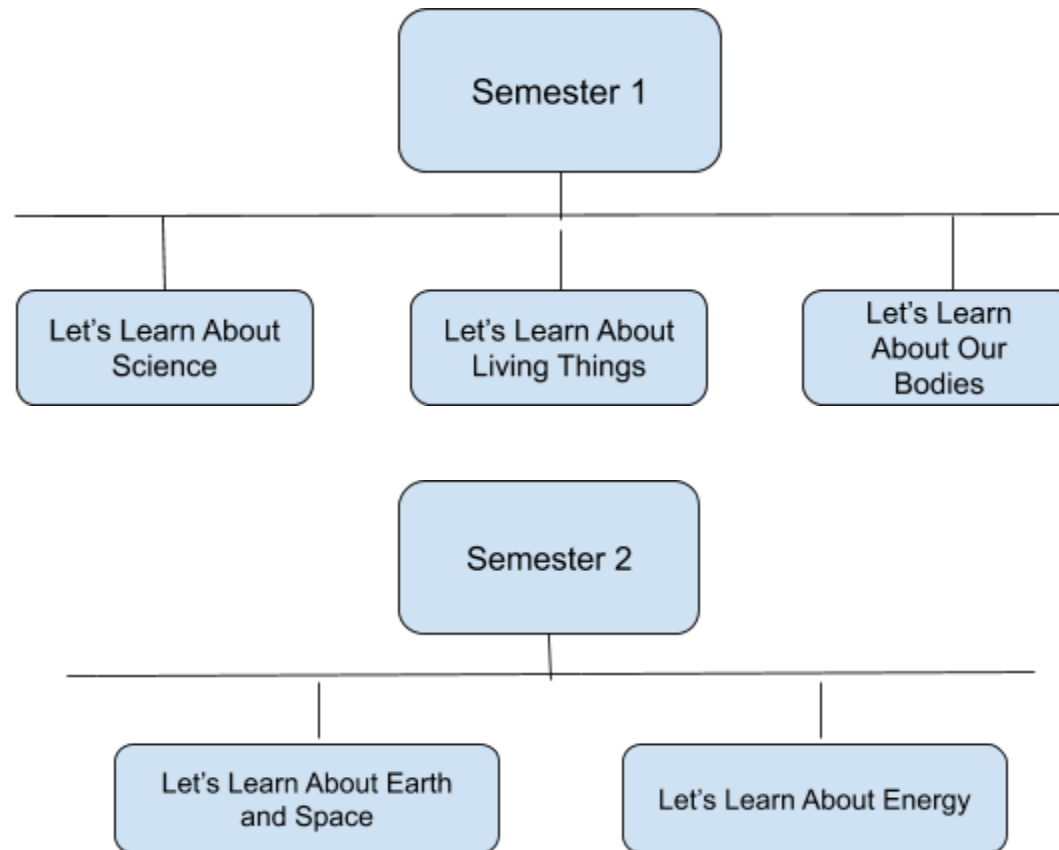




## Ridgefield Christian School First Grade Science

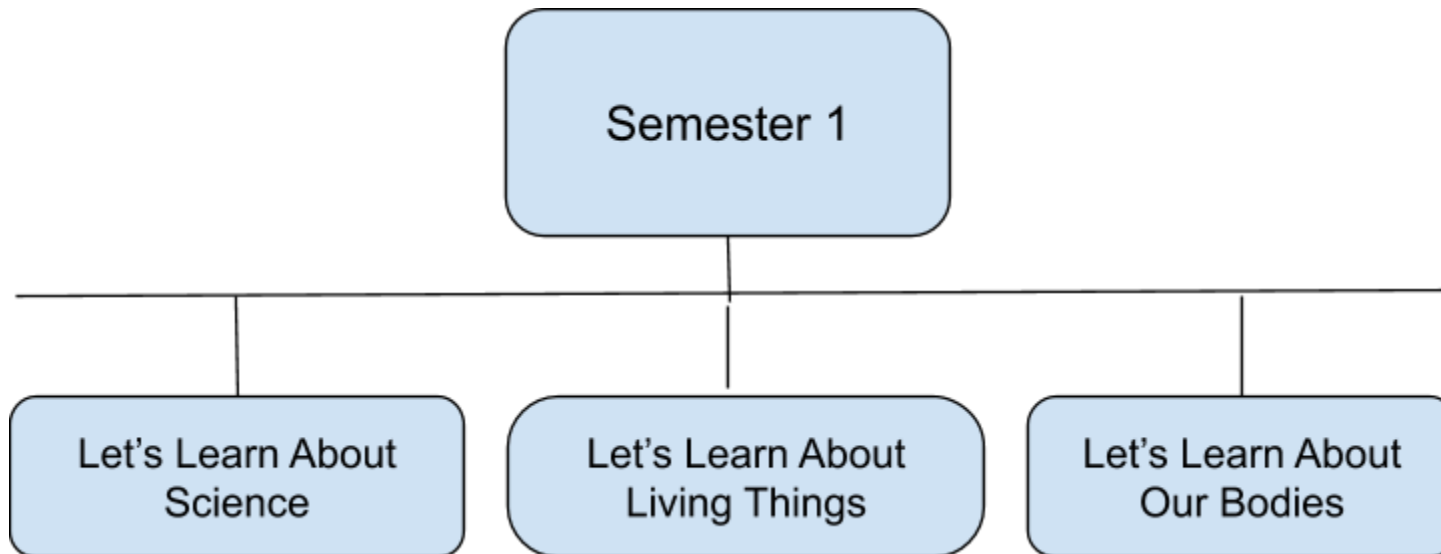
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## Ridgefield Christian School First Grade Science

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<b>Semester 1: Objectives by Unit</b>		
<b>.1. Let's Learn About Science</b>	<b>.2. Let's Learn About Living Things</b>	<b>.3. Let's Learn About Our Bodies</b>
(16 days)	(15 days)	(15 days)
1.1 Identify and locate the key text features	2.1 Identify the characteristics of living and nonliving things	3.1 Infer the topic of the unit and the chapter based on the pictures and headings
1.2 Infer from key text features the topics of Unit 1	2.2 Classify item as living or nonliving	3.2 Compare and contrast the needs of animals to the needs of people
1.3 Infer from key features the topics for Chapter 1	2.3 Identify the needs of plants	3.3 Explain how God created the first man and woman
1.4 Define science	2.4 Identify ways people use plants	3.4 Evaluate the statement that people are no different than animals
1.5 Explain from biblical truth why science is important	2.5 Explain from Genesis 3:17-18 how the Fall affected plants	3.5 Observe the human head
1.6 Distinguish science activities from activities that are not science	2.6 Identify each part of a plant and its function	3.6 Identify body parts found on the head
1.7 Recall the word science	2.7 Relate plant survival and growth to God's creational design	3.7 Identify purposes for why God designed the body parts located on the head
1.8 Infer the five senses and the body part used with each sense	2.8 Predict the effects on the growth and survival of a plant when its needs are not met	3.8 Associate each of four senses with the correct body part

1.9 Define senses	2.9 Observe and describe parts of a plant	3.9 Apply knowledge of a human body to give praise to God
1.10 Identify the reason God gave people five senses	2.10 Draw a conclusion about plant needs (about the growth and survival of plants) based on observations	3.10 Recall and describe the body parts of the head
1.11 Recall the reason God gave people five senses	2.11 Draw a conclusion from the investigation about God's creational design of plants	3.11 Describe the head, arm, and leg
1.12 Describe what scientist do	2.12 Define life cycle	3.12 Label the head, arm, and leg
1.13 Explain from the Bible the importance of what scientist do	2.13 Identify and describe the stages of the life cycle of a plant	3.13 Explain ways that God's design of the human outside body parts helps people survive and grow (Psalm 139:14)
1.14 Create a list of the ways students can use science to help others	2.14 Sequence stages of a plant's life cycle	3.14 Describe the function of the brain, lungs, heart, stomach, bones, and muscles
1.15 Classify an engineer as having a STEM career	2.15 Compare and contrast a seedling with an adult plant	3.15 Label the brain, lungs, heart, stomach, bones, and muscles on a diagram
1.16 Define worldview	2.16 Explain that young plants are like the parent plants because God made plants to reproduce after their kind (Genesis 1:11)	3.16 Explain ways that God's design of the human body parts helps people survive and grow
1.17 Identify that every scientist has a worldview	2.17 Compare and contrast the same kind of plant to show that they are recognized as similar but can also vary	3.17 Assembly internal body parts to show location
1.18 Identify that God is the Creator of all things	2.18 Design a solution to prevent unwanted plants	3.18 Construct a model that shows how the lungs work
1.19 Identify that God designed everything to work together	2.19 Draw and label the design	3.19 Explain ways that God's design of the lungs helps people survive and grow

1.20 Identify that God made people in His own image to care for the earth	2.20 Explain how the design solves the problem	3.20 Recall terms and concepts from Chapter 5
1.21 Infer that people learn science to care for the earth and to help others	2.21 Relate the growth of weeds and other unwanted plants to Genesis 3:17-18 and how the Fall affected plants	3.21 Recall and apply terms and concepts from Chapter 5
1.22 Recall terms and concepts from Chapter 1	2.22 Recall terms and concepts from Chapter 3	3.22 Identify kind and respectful behavior
1.23 Recall and apply terms and concepts from Chapter 1	2.23 Recall and apply terms and concepts from Chapter 3	3.23 Explain why we should treat other people with kindness and respect
1.24 Recall what science is and what scientist do	2.24 Infer from key text features the topic for Chapter 4	3.24 Formulate a plan to show how to treat another person with love, care, and respect
1.25 Define science process skill	2.25 Distinguish the identity of living and nonliving things in an environment	3.25 Identify healthy habits for a strong body
1.26 Observe an object using the five senses	2.26 Identify the needs of animals	3.26 Identify ways to prevent the spread of germs
1.27 Classify objects based on a chosen criteria	2.27 Explain that God designed animals and their environments to work together so they can survive and grow	3.27 Identify healthy habits for strong teeth
1.28 Measure an object using a non-standard unit	2.28 Identify external characteristics of mammals, birds, and fish	3.28 Explain the importance of developing healthy habits
1.29 Classify science process skills as observe, classify, and measure	2.29 Classify animals as mammals, birds, and fish based on similar external characteristics	3.29 Practice healthy habits
1.30 Recall that the science process skills of observing, classifying and measuring are ways people learn about God's world	2.30 Classify a zoologist as a scientist	3.30 Formulate a hypothesis to determine the effect that washing hands has on germs

1.31 Define inference as a science process skill	2.31 Relate the function of animal body parts to the survival and growth of animals	3.31 Record observations
1.32 Infer the cause from the effect	2.32 Identify and sequence the stages of the life cycle of an animal	3.32 Draw conclusions from data collected
1.33 Predict the outcome of a certain action	2.33 Name ways that animals care for their offspring	3.33 Identify safe habits when at play and in the car
1.34 Define what a scientific prediction is	2.34 Compare and contrast animals of the same kind	3.34 Explain the importance of safe habits
1.35 Identify communicate as a science process skill	2.35 Compare and contrast animals and their offspring	3.35 Identify safe habits at home and in the community
1.36 Identify science tools and their uses	2.36 Identify the Bible's explanation for animal death	3.36 Identify fire hazards
1.37 Measure length using non-standard and standard units	2.37 Identify a real-life human problem	3.37 Explain the proper response in an emergency
1.38 Infer reasons for using standard units of measurement	2.38 Design a solution to a human problem by using biomimicry	3.38 Identify trustworthy adults to go to in a dangerous situation
1.39 Explain how people learn about God's world	2.39 Draw and label the design	3.39 Propose a possible solution to the real-life problem of slick-soled shoes
1.40 Explain from Genesis 1:28 why accurate measurement is important	2.40 Explain how the design solves the problem	3.40 Construct a design to solve the problem
1.41 Measure objects using age-appropriate science tools	2.41 Recall terms and concepts from Chapter 4	3.41 Communicate to others how the design solves the problem
1.42 Record observations	2.42 Recall and apply terms and concepts from Chapter 4	3.42 Recall terms and concepts from Chapter 6

1.43 Compare and contrast observations		3.43 Recall and apply terms and concepts from Chapter 6
1.44 Infer steps needed to determine accurate measurements		
1.45 Identify the purpose for an investigation		
1.46 Identify the steps of the scientific method		
1.47 Explain the purpose for the problem and hypothesis in a scientific investigation		
1.48 Create a hypothesis		
1.49 Recall what an engineer does		
1.50 Identify the steps of the engineering design process		
1.51 Apply the engineering design process to solve a real life problem		
1.52 Relate the work of engineering to the commands of Genesis 1:28		
1.53 Recall terms and concepts from Chapter 2		
1.54 Recall and apply terms and concepts from Chapter 2		

**Semester 1: Standards by Unit**

**.1. Let's Learn About Science**

**.2. Let's Learn About Living Things**

**.3. Let's Learn About Our Bodies**

(16 days)

(15 days)

(15 days)

AR-1-LS1-2  
AR-1-LS3-1

AR-1-LS1-1  
AR-1-LS1-2  
AR-1-LS3-1  
AR-1-ETS1

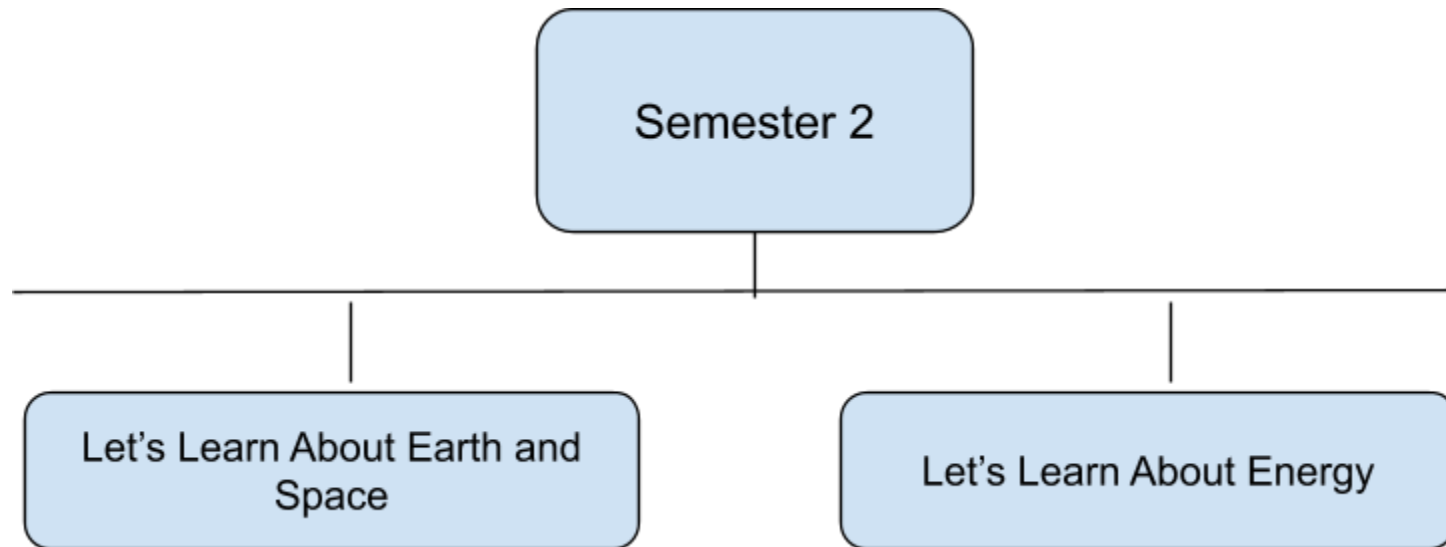
AR-1-LS1-1  
AR-1-LS1-2  
AR-1-LS3-1





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### Semester 1: Objectives by Unit

<b>.4. Let's Learn About Earth and Space</b>	<b>.5. Let's Learn About Energy</b>
(24 days)	( 20 days)
4.1 Infer topics by previewing the unit and chapter	5.1 Identify what energy is
4.2 Explain from Genesis 1 how the earth, sun, moon, and stars were formed	5.2 Identify light as energy
4.3 Evaluate from the Bible an opposing view of how the earth, sun, moon, and stars were formed	5.3 Defend, using Scripture, the statement that God created light
4.4 Describe the earth's daily motion	5.4 Describe sources of light as natural or manmade
4.5 Identify the sun as a star	5.5 Identify cause-and-effect energy relationships
4.6 Identify the beneficial properties of the sun	5.6 Predict the amount of light that travels through different objects
4.7 Explain from Genesis 1 why God made the sun	5.7 Record observations
4.8 Describe and predict the sun's pattern across the sky	5.8 Graph data from observations
4.9 Formulate a hypothesis for why it is hard to see stars during the daytime	5.9 Draw conclusions from the data
4.10 Observe simulated stars in various lighting	5.10 Differentiate between objects that are transparent, translucent, and opaque

4.11 Infer why it is hard to see stars, other than our sun, during the daytime	5.11 Recognize that a shadow forms when light is blocked
4.12 Identify the characteristics of stars other than the sun	5.12 Explain that a shadow changes when a light source moves
4.13 Identify the telescope as a magnifying tool to observe stars other than the sun	5.13 Predict whether objects can be seen if light is available to illuminate them or if they give off their own light
4.14 Identify the groups of stars called the Big Dipper and the Little Dipper	5.14 Observe objects in a pinhole box
4.15 Identify the North Star	5.15 Infer that objects can be seen if light is available to illuminate them or if they give off their own light
4.16 Identify the characteristics of the moon	5.16 Identify that light travels in a straight line
4.17 Identify what an astronaut does	5.17 Infer that mirrors reflect light
4.18 Identify the changes in the shape of the moon over the course of a month	5.18 Recall terms and concepts from Chapter 10
4.19 Predict the phases of the moon over the course of a month	5.19 Recall and apply terms and concepts from Chapter 10
4.20 Explain from Genesis 1 why God made the moon	5.20 Recall hearing as one of the five senses
4.21 Explain how the sky changes each day	5.21 Identify sound as a form of energy
4.22 Compare and contrast the nighttime sky with the daytime sky	5.22 Identify sound as a vibration that can be heard
4.23 Predict the moon's phase	5.23 Infer different ways that sound can be made

4.24 Infer the cause for the changes in the sky each day	5.24 Identify that sound travels in waves
4.25 Apply our knowledge of the earth, sun, moon, and stars to praising God for His greatness and goodness	5.25 Observe that sound travels in all directions
4.26 Recall terms and concepts from Chapter 7	5.26 Observe that sound travels through matter
4.27 Recall and apply terms and concepts from Chapter 7	5.27 Relate sound and the human ear to God's creational design
4.28 Recall that the earth rotates once each day	5.28 Relate sound to the vibration of materials
4.29 Identify that the earth revolves around the sun	5.29 Identify the characteristics of volume
4.30 Identify that one complete revolution around the sun is equal to one year	5.30 List examples of loud and soft sound
4.31 Identify the two things that cause the seasons	5.31 Identify the characteristics of pitch
4.32 Sequence the cycle of the seasons	5.32 List examples of sound with high and low pitch
4.33 Recall two things that cause the seasons	5.33 Explain two ways that sound changes
4.34 Recall the thermometer as a scientific tool used to measure temperature	5.34 Formulate a hypothesis for how the thickness of a rubber band will affect pitch
4.35 Relate the movement of the red line on the thermometer to changes in temperature	5.35 Measure with numbers the length of a stretched rubber band
4.36 Measure temperature to record information	5.36 Observe that the pitch of a sound is affected by the thickness of a rubber band when the rubber band is plucked

4.37 Record temperature using a thermometer	5.37 Infer that the thickness of a rubber band influences the pitch of the sound the rubber band produces
4.38 Recall the cycle of the seasons by singing a song	5.38 Explain how the pitch of a stringed instrument can be changed
4.39 Compare and contrast temperature and amount of daylight among the seasons	5.39 Design a musical instrument with four strings of varying pitch
4.40 Infer the temperature and length of daylight hours for each season	5.40 Draw and label the design of the stringed musical instrument
4.41 Explain, using Scripture, that seasonal patterns exist by God's design	5.41 Make a model of the stringed musical instrument
4.42 Identify characteristics of winter and spring	5.42 Test and improve the stringed musical model
4.43 Explain what a landscape architect does	5.43 Explain how the design of the musical instrument solved the problem of having four strings of varying pitch
4.44 Identify characteristics of summer and fall	5.44 Recall terms and concepts from Chapter 11
4.45 Defend, using Scripture, that seasonal patterns exists by God's design	5.45 Recall and apply terms and concepts from Chapter 11
4.46 Compare and contrast the characteristics of seasons with the seasons in your area	5.46 Identify ways light and sound are used to communicate at home and school
4.47 Communicate by constructing a booklet that represents the seasons in your area	5.47 Explain how various sources of light and sound communication at home and school can be used to help people
4.48 Recall terms and concepts from Chapter 8	5.48 Explain how to determine whether light or sound communication is good or bad

4.49 Recall and apply terms and concepts from Chapter 8	5.49 Evaluate uses of light and sound communication
4.50 Define weather	5.50 Identify ways light and sound are used in the community to communicate
4.51 Recall what temperature is	5.51 Explain how various sources of light and sound communication in the community can be used to help other people
4.52 Recall the scientific tool that measures temperature	5.52 Propose possible solutions to a real-life problem using light or sound
4.53 Define wind	5.53 Draw a design that uses light or sound to solve a real-life problem
4.54 Identify the appearance of a flag when the wind is calm, light, and strong	5.54 Communicate to others how the design solves the problem
4.55 Define water cycle	5.55 Recall what a worldview is
4.56 Sequence the movement of water in the water cycle	5.56 Summarize from the Bible where the world came from
4.57 Identify the appearance of the sky on clear, partly cloudy and cloudy days	5.57 Construct a response explaining why things work the way they do in our world
4.58 Identify types of precipitation	5.58 Determine who we are and why we are here
4.59 Explain how the weather changes from day to day	5.59 Compare and contrast the importance of science with the importance of the Bible
4.60 Define meteorologist	5.60 Create a song of praise for God's creation
4.61 Explain what a meteorologist does	5.61 Formulate a sentence explaining how the song of praise will be used

4.62 Contrast the trustworthiness of Bible promises with the trustworthiness of scientific predictions	5.62 Explain how to determine whether the words of the song of praise are good or bad
4.63 Evaluate the statement that science gives us the most trustworthy information about our world	
4.64 Practice using tools of a meteorologist	
4.65 Recall what a weather prediction is	
4.66 Infer from Proverbs 22:3 that weather predictions help us to prepare for the future	
4.67 Observe, collect, record, and report weather data using tools of a meteorologist	
4.68 Identify weather patterns in data collected to predict the weather	
4.69 Compare and contrast weather predictions with actual observations	
4.70 Recall terms and concepts from Chapter 9	
4.71 Recall and apply terms and concepts from Chapter 9	

## Semester 2: Standards by Unit

### .4. Let's Learn About Earth and Space

(24 days)

AR-1-ESS1-1  
AR-1-ESS1-2  
AR-1-ESS1-3  
AR-1-ETS1-2  
AR-1-ETS1-3

### .5. Let's Learn About Energy

(20 days)

AR-1-PS4-1  
AR-1-PS4-2  
AR-1-PS4-3  
AR-1-PS4-4