

Curriculum Guide Second Grade Science

Science -Unit 1: Life Science

S2.1, S2.3, S2.4, S2.5, S2.6

Biblical Worldview Essential Questions

What can we learn about God from learning about creation?

How does God provide for our needs through his creation?

9 weeks

Objectives	Methods	Resources	Assessment
<p>The students will</p> <ul style="list-style-type: none"> • demonstrate their understanding of the uses, needs, parts, and types of plants • identify the characteristics of vertebrates and classify animals as mammals, birds, reptiles, fish or amphibians • discover God’s wonderful creation through experience • order the stages of metamorphosis in amphibians • classify animals as either vertebrates or invertebrates • identify characteristics of earthworms, insects, spiders, and mollusks • conclude God created all that exists • describe habitats as forest, freshwater region, wetland, desert, polar region, or tropical rain forest and identify animals that live in each 	<ul style="list-style-type: none"> • class readings • lecture • discussion of Biblical concepts • content worksheets • review worksheets • enrichment worksheets • experiments • demonstrations • games 	<ul style="list-style-type: none"> • ACSI Second Grade Curriculum • Student text Purposeful Design Level 2 • Purposeful Design Blackline Masters and Resources cd • Purposeful Design Color Transparencies Level 2 • Purposeful Design Posters Level 2 • ACSI Science Kit • crayons • leaves, sticks, nuts, flowers • paper • rubber bands • string • tape • scissors • glue • lima beans • seeds-sunflower, pumpkin, grass • zippered plastic bags • hand lenses • clear plastic cups • flashlight • balloon • plant • celery • straws • apple, orange, pine cone • edible plant parts • cotton balls • game markers • poster board • clay • chenille stems • book-Two Bad Ants • sea shells • 2 liter bottle • clear plastic wrap • hard-boiled eggs • egg cartons 	<ul style="list-style-type: none"> • observation of class participation • class assignments • quizzes • tests • oral responses • plant poster project • Vertebrate Model Project • Invertebrate Box Project • Animal Habitat Project

		<ul style="list-style-type: none">• tissue boxes• bubble wrap	
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Science -Unit 2: Physical Science

S2.1, S2.6, S2.7

Biblical Worldview Essential Questions

Energy is everywhere. How can we use our energy to fulfill God's purpose?

The universe was formed at God's command. Does that mean what is seen was not made out of what was visible?

9 weeks

Objectives	Methods	Resources	Assessment
<p>The students will</p> <ul style="list-style-type: none"> • identify different forms, sources, and types of energy • identify ways in which the sun provides energy for the earth • discover God's wonderful creation through experience • recognize how light travels, is reflected, refracted, and absorbed by objects • order the colors of the visible spectrum • identify the method of heat transfer involved in cooking various food items • demonstrate their knowledge of how heat moves through different substances and through space • conclude God created all that exists 	<ul style="list-style-type: none"> • class readings • lecture • discussion of Biblical concepts • content worksheets • review worksheets • enrichment worksheets • experiments • demonstrations • games 	<ul style="list-style-type: none"> • ACSI Second Grade Curriculum • Student text Purposeful Design Level 2 • Purposeful Design Blackline Masters and Resources cd • Purposeful Design Color Transparencies Level 2 • Purposeful Design Posters Level 2 • ACSI Science Kit • electric fan • extension cord • pinwheel • ping-pong balls • empty soft drink cans • tennis balls • baseball • attery-operated mechanical toy • wind-up toy • basketballs • wooden rulers • large erasers • blocks • pencil sharpener • metal BB • crayons • lined writing paper • game tokens • sunglasses • cardboard box • construction paper • tape • glue • craft sticks • reflective items • hand mirror • blank transparency film • translucent materials • flashlights 	<ul style="list-style-type: none"> • observation of class participation • class assignments • quizzes • tests • oral responses • Spool Toy Project • Shadow Theater Project • Insulation Project

		<ul style="list-style-type: none">• opaque materials• jump rope• colored chalk• newspaper• hand lens• matches or lighter• candle• clear glass light bulb• fluorescent tube• poster board• prism• light beam box• tempera paints• watercolor paper• paintbrushes• LEGO bricks• ceramic and Styrofoam cups• metal pans• desk lamp• toaster• hair dryer• chalk• cocoa	
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Science -Unit 3: Earth Science

S2.1, S2.2

Biblical Worldview Essential Questions

**What does the Bible say about the weather?
Does God control the weather and the seasons?
Why did God create the weather?**

9 weeks

Objectives	Methods	Resources	Assessment
<p>The students will</p> <ul style="list-style-type: none"> • identify the body part associated with each of the five senses • identify the parts of the ear • describe the steps of hearing • identify the parts of function of the eyes and skin • list ways to keep the eyes and skin healthy • discover God’s wonderful creation through experience • identify the structure of the tongue and nose • describe the function and purpose of the senses of taste and smell • list ways to keep the tongue and nose healthy • conclude God created all that exists 	<ul style="list-style-type: none"> • class readings • lecture • discussion of Biblical concepts • content worksheets • review worksheets • enrichment worksheets • experiments • demonstrations • games 	<ul style="list-style-type: none"> • ACSI Second Grade Curriculum • Student text Purposeful Design Level 2 • Purposeful Design Blackline Masters and Resources cd • Purposeful Design Color Transparencies Level 2 • Purposeful Design Posters Level 2 • ACSI Science Kit • flashlight • drum • hammer • picture of an anvil • picture of a stirrup • straw • bell • timer • guitar • blindfolds • candle • tennis ball • key • leaf • marble • spoon • glue • scissors • paper • crayons • hand lens • lamp • projector screen • eyeglasses, contact lens case sunglasses • sports goggles • swimming goggles • carrots • video camera • poster board • sandpaper • game markers • mirrors • candy • lemons 	<ul style="list-style-type: none"> • observation of class participation • class assignments • quizzes • tests • oral responses • Weather Poster Project • Ocean Report Project

		<ul style="list-style-type: none">• chocolate• index cards• tape• film canisters• cotton ball• apples• hand lotion• glitter• potato	
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Science -Unit 4: Human Body

S2.1, S2.8, S2.9

Biblical Worldview Essential Questions

Does God have a purpose in the design of our bodies?

How can we use our bodies to glorify God?

9 weeks

Objectives	Methods	Resources	Assessment
<p>The students will</p> <ul style="list-style-type: none"> • recognize weather concepts • write a story involving weather phenomena • match ocean terms and definitions • label parts of the ocean • describe ocean movement • identify equipment used in ocean exploration 	<ul style="list-style-type: none"> • class readings • lecture • discussion of Biblical concepts • content worksheets • review worksheets • enrichment worksheets • experiments • demonstrations • creative writing 	<ul style="list-style-type: none"> • ACSI Second Grade Curriculum • Student text Purposeful Design Level 2 • Purposeful Design Blackline Masters and Resources cd • Purposeful Design Color Transparencies Level 2 • Purposeful Design Posters Level 2 • ACSI Science Kit • umbrellas • sunglasses • kite • coat and hat • thermometer • sponge • plastic hoop • electric pot • metal pie pan • highlighters • construction paper • index cards • globe • plastic jar with lid • sand • rocks • thermometers • crayons • table salt • measuring cup • world map • blue food coloring • clay • dowel rod • clear transparency • scissors • glue • pieces of coral • magnifying glass • flashlight • directional compass • sea animal patterns • stapler 	<ul style="list-style-type: none"> • observation of class participation • class assignments • quizzes • tests • oral responses • Hearing Model Project • Health Booklet Project • Taste and Smell Book Project

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