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ABSTRACT

This document presents a sample of the Arkansas science curriculum and identifies the content standards for physical science systems, life science systems, and Earth science/space science systems for second grade students. Each content standard is explained and includes student learning expectations, second grade benchmarks, assessments, and strategies and activities. (YDS)

Second Grade Level Science Sample Curriculum

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Second Grade Level Science

STRAND 1: PHYSICAL SYSTEMS CONTENT STANDARD 1 Students will demonstrate an understanding of physical systems as a process of inquiry.			
Student Learning Expectations	**Second Grade Benchmarks**	**Assessments**	**Strategies/Activities**
PS.1.1. Examine the techniques of *scientific inquiry*, problem solving, questioning, reasoning, and creative decision making by utilizing *cientific methods.*	Students will examine how objects can be grouped according to similarities and differences. Students will participate in simple experiments and observe the experiment. Students know that sharing information and discussing results is an important part of the scientific method. Students will make predictions and test them.	Statewide Test Teacher-made Test Teacher Observation Checklist Performance-based Test Exhibition Demonstration Log/Journal Essay Writing	Have students sort objects by characteristics according to similarities and differences. Have students participate in simple experiments designed by the teacher. Have students share information and compare results of the experiments.
PS.1.2. Use simple equipment (microscopes), age-appropriate tools (rulers, thermometers), skills (describing and writing), technology (computers) and mathematics in scientific investigations.	Students are aware of safety rules and can identify these rules on exams. Students can use science tools to examine and measure objects (hand lenses, rulers, microscopes, etc.). Student will use mathematics and writing to examine and describe the objects studied. Students can measure length in English and metric systems.	Statewide Test Teacher-made Test Teacher Observation Portfolio Checklist Performance-based Test Exhibition Demonstration Log/Journal Essay Writing	Students are aware of teacher's safety rules. Students use science equipment to examine teacher-selected objects. Students describe sizes, weights, and numbers of objects in their writing. The measurement is done in English and metric.
PS 1.3. Communicate designs, procedures, and results of scientific investigations (graphs, charts, and writings).	Students will make scientific observations and communicate their findings.	Statewide Test Teacher-made Test Teacher Observation Performance-based Test Exhibition Demonstration Log/Journal Essay Writing	Have students create drawings, paintings, and writings about their science studies.

STRAND 1: PHYSICAL SYSTEMS CONTENT STANDARD 2 Students will explore, demonstrate, communicate, apply, and evaluate the knowledge of physical systems.			
Student Learning Expectations	**Second Grade Benchmarks**	**Assessments**	**Strategies/Activities**
PS.2.1. Recognize the differences and similarities of *solids*, *liquids* and *gases*.	Students can recognize air as a gas and describe its properties.	Statewide Test Teacher-made Test Teacher Observation Checklist Performance-based Test Exhibition Demonstration Essay Writing	Students can recognize air as a gas and give the properties of a gas. Have students blow up a balloon and release the gas in the balloon.
PS.2.2. Understand the physical properties of objects.	Students can accurately describe the physical properties of common objects selected by the teacher.	Statewide Test Teacher-made Test Teacher Observation Portfolio Checklist Performance-based Test Exhibition Demonstration Log/Journal Essay Writing	Students can describe physical properties of common objects.
PS.2.3. Learn about the physical world by observing, data collecting, using age-appropriate tools, describing, and hypothesizing.	Students are aware of safety rules and can identify these rules on exams. Students can distinguish between an observation and a hypothesis. Students know from experience that common objects are composed of parts too small to be seen without magnification. Students can measure temperature using a thermometer.	Statewide Test Teacher-made Test Teacher Observation Portfolio Checklist Performance-based Test Exhibition Demonstration Log/Journal Essay Writing	Students can identify safety rules on exams. Students can identify statements as an observation or as a hypothesis. Have students look at newspaper print under magnification to see how dots are separate. Students measure temperature of a jar of warm water and a jar of ice water.
PS.2.4. Revise *hypothesis* by sharing and communicating observations through writing.	Students can make predictions about events in the near future based upon present evidence.	Statewide Test Teacher-made Test Teacher Observation Portfolio Checklist Performance-based Test Exhibition Demonstration Log/Journal Essay Writing	Given situations, students predict what might happen. Students must give evidence with predictions.

Student Learning Expectations	Second Grade Benchmarks	Assessments	Strategies/Activities
PS.2.5. Explore energy changes.	Students can identify different forms of energy (heat, light, sound, etc.). Students can explain that the sun provides the Earth with energy in the form of heat and light. Students know that plants can store the energy of sunlight. This chemically stored energy in the plant can be released by heating the dried plant causing it to release light and heat.	Statewide Test Teacher-made Test Teacher Observation Portfolio Checklist Performance-based Test Exhibition Demonstration Log/Journal Essay Writing	Show students pictures of objects (horn, flashlight, etc.). Students identify the energy form each produces. Describe the difference in heat and light during the day as compared to night. Teacher burns a dry leaf, twig, or charcoal to show that energy is present and can produce heat and light.
PS.2.6. Identify *chemical* and *physical changes*.			
PS.2.7. Classify simple machines and relate them to inventions and discoveries.	Students can use a simple lever to move an object. Students can name common tools that act as a lever.	Statewide Test Teacher-made Test Teacher Observation Checklist Performance-based Test Exhibition Demonstration Essay Writing	Name common tools that act as simple levers and experiment with each to move an object. Students experience moving an object using common tools such as a crowbar or ruler.
PS.2.8. Explore the effects of applying various types of *forces* to an object (push/pull).	Students explore that various things move at different speeds when different forces are applied.	Statewide Test Teacher-made Test Teacher Observation Portfolio Checklist Performance-based Test Exhibition Demonstration Log/Journal Essay Writing	Students experiment with different forces on toy cars or rubber balls by rolling them safely on the floor.

STRAND 1: PHYSICAL SYSTEMS CONTENT STANDARD 2 Students will explore, demonstrate, communicate, apply, and evaluate the knowledge of physical systems.			
Learning Expectations	**Second Grade Benchmarks**	**Assessments**	**Strategies/Activities**
PS.2.9. Identify and compare the relationships between *mass/weight, force,* and *motion.*	Students identify various ways gravity affects the motion of objects when dropped, rolling down hill, etc. Students know that different things move at different speeds.	Statewide Test Teacher-made Test Teacher Observation Portfolio Checklist Performance-based Test Exhibition Demonstration Log/Journal Essay Writing	Students compare paper balls and rubber balls when rolled down a hill. Have students observe and compare how a feather, a baseball, and a fishing lead sinker fall.
PS.2.10. Examine properties, types, and uses of magnets.	Students know that the north and south poles of magnets are attracted to each other. Students know that like magnetic poles repel each another (end to end and S to S).	Statewide Test Teacher-made Test Teacher Observation Portfolio Checklist Performance-based Test Exhibition Demonstration Log/Journal Essay Writing	Mark the ends of magnets and let students experiment. Have them discuss their results.
PS.2.11. Analyze and compare the relationship between magnets and electricity.	Students know that matter is made of positive and negative particles. Students know that positive and negative particles are attracted to one another.	Statewide Test Teacher-made Test Teacher Observation Portfolio Checklist Performance-based Test Exhibition Demonstration Log/Journal Essay Writing	Label magnetic bars with + on the north pole and - on the south pole. Have students experiment with the magnets and report their results.
PS.2.12. Experiment with *static* and *current electricity*.	Students know that static electricity is electrons jumping from one object to another and that current electricity is electrons moving in a conductor.	Statewide Test Teacher-made Test Teacher Observation Portfolio Checklist Performance-based Test Exhibition Demonstration Log/Journal	Students can shuffle their feet on a carpet and shock each other on the hands. Have them repeat this while holding a metal key or some other safe object and look for the spark.

Student Learning Expectations	Second Grade Benchmarks	Assessments	Strategies/Activities
PS.2.13. Determine the relationship between vibration and sound.	Students know that objects produce sound when they are vibrated.	Teacher-made Test Teacher Observation Checklist Performance-based Test Exhibition Demonstration Log/Journal	Vibrate tuning forks, rulers, rubber bands, or an oatmeal box with wet string attached to the bottom. Hold the box in one hand and pull the string with the index finger and thumb to produce an eerie sound (monster call).
PS.2.14. Explore the properties of light (e.g., *reflection, refraction, absorption, translucent, transparent,* and opaque).	Students can predict which objects will allow light to pass through them and which will not. Students predict which objects will reflect light and which will not. Students know that sunlight is made of all the colors.	Teacher-made Test Teacher Observation Portfolio Checklist Performance-based Test Exhibition Demonstration Log/Journal Essay Writing	The teacher selects a variety of objects to have students test which ones will allow light to pass through and which will not. Students make predictions about the objects and test results. Students use a prism to break up white light into a rainbow. Students should be able to explain results in their own words.

STRAND 1: PHYSICAL SYSTEMS CONTENT STANDARD 3 Students will demonstrate an understanding of the connections and applications of physical science.			
Learning Expectations	Second Grade Benchmarks	Assessments	Strategies/Activities
PS.3.1. Understand that physical science is interwoven into the structure of all disciplines.	Students can write about how electricity and machines affect their lives each day.	Statewide Test Teacher-made Test Teacher Observation Portfolio Performance-based Test Exhibition Demonstration Log/Journal Essay Writing	Experiment in class by having students read by candlelight, 25 watt bulb, and then with the regular classroom lights. Have them compare what life was like at different periods in history.
PS.3.2. Recognize that mathematics is the basis of communication in physical science.	Students can read more complex number symbols and number words. Students can count larger numbers of members in a group they are studying.	Statewide Test Teacher-made Test Teacher Observation Portfolio Checklist Performance-based Test Exhibition Demonstration Log/Journal	Students read and write up a simple experiment using numerical data correctly. Divide the class into teams. Count the number of drops of water students can place on a penny lying on its side using an eyedropper.

Student Learning Expectations	Second Grade Benchmarks	Assessments	Strategies/Activities
PS.3.3. Understand that tools allow tasks to be done more easily.	Students use simple tools in their classroom.	Statewide Test Teacher-made Test Teacher Observation Checklist Performance-based Test Exhibition Demonstration Log/Journal Essay Writing	Students can use simple tools, such as a screwdriver or pliers, to do work.
PS.3.4. Explore physical science related careers.	Students can name professions in their community that use knowledge about electricity.	Statewide Test Teacher-made Test Teacher Observation Portfolio Performance-based Test Exhibition Demonstration Log/Journal Essay Writing	Brainstorm professions that use knowledge of electricity in their everyday work.

STRAND 2: LIFE SCIENCE SYSTEMS
CONTENT STANDARD 1
Students will demonstrate an understanding of life science as a process of inquiry.

Learning Expectations	Second Grade Benchmarks	Assessments	Strategies/Activities
LS.1.1. Utilize the *scientific method* to investigate life sciences.	Students will examine how objects can be grouped according to similarities and differences. Students will participate in simple experiments and observe the experiment. Students know that sharing information and discussing results are important parts of the scientific method. Students will make predictions and test them.	Statewide Test Teacher-made Test Teacher Observation Portfolio Performance-based Test Exhibition Demonstration Log/Journal Essay Writing	Students bring pictures of animals from home. Have the class sort the animal pictures. Students observe ants in an ant farm or on the playground. Place a crumb of bread in their path and observe how the ants react. Discuss how the sharing and reviewing of information helps scientists.

Student Learning Expectations	Second Grade Benchmarks	Assessments	Strategies/Activities
LS.1.2. Select age-appropriate equipment and utilize technology and mathematics in the inquiry of life science.	Students are aware of lab safety rules and can identify these rules on exams. Students can use science tools to examine and measure objects (hand lenses, rulers, microscopes, etc.). Student will use mathematics and writing to examine and describe the objects studied. Students can measure length in English and metric systems.	Statewide Test Teacher-made Test Teacher Observation Checklist Performance-based Test Exhibition Demonstration Log/Journal Essay Writing	Test students on safety rules. Observe students using science tools in the classroom. Observe students' mathematics and writing skills in science activities. Check student use of both English and metric measurements.
LS.1.3. Generate graphs, writings, and charts to communicate life science investigations.	Students can write about or illustrate their observations in scientific studies.	Statewide Test Teacher-made Test Teacher Observation Checklist Performance-based Test Exhibition Demonstration Log/Journal Essay Writing	Place a drop of sugar water near a group of playground ants and have students graphically illustrate or write about their scientific observations.

STRAND 2: LIFE SCIENCE SYSTEMS CONTENT STANDARD 2 Students will explore, demonstrate, communicate, apply and evaluate the knowledge of life systems.			
Learning Expectations	**Second Grade Benchmarks**	**Assessments**	**Strategies/Activities**
LS.2.1. Identify and compare characteristics of living and nonliving things.	Students can classify age appropriate things as living or nonliving.	Statewide Test Teacher-made Test Teacher Observation Checklist Performance-based Test Demonstration Log/Journal Essay Writing	Students can distinguish between more complex living and nonliving objects by using a variety of simple plants or pictures of animals.
LS.2.2. Explore cells in *organisms.*	Students know that living things are composed of cells that in most cases are too small to be seen.	Teacher-made Test Teacher Observation Checklist Performance-based Test Exhibition Demonstration Log/Journal Essay Writing	Have students view leaf cells under a microscope or show them pictures of plant cells.

LS.2.3. Identify and investigate the functions of body systems in *organisms*.	Students understand that plants and animals are different, they share common characteristics. (They have structures for reproduction, respiration, and growth.)	Statewide Test Teacher-made Test Teacher Observation Portfolio Checklist Performance-based Test Exhibition Demonstration Log/Journal Essay Writing	Review traits of all living things and then ask students, "If you were a plant, how would you get food?" "If you were a fish, how would you get oxygen?" Continue with other questions.
LS.2.4. Recognize patterns and characteristics of *organisms*.	Students can tell the difference between common plants and animals.	Statewide Test Teacher-made Test Teacher Observation Checklist Performance-based Test Exhibition Demonstration Log/Journal Essay Writing	Ask students questions and ask them to stand up if the items are true. - Plants have green parts. - All animals have fur. - Some animals grow from seeds. Think of other examples.
LS.2.5. Explore the life cycles of *organisms*.	Students can name the ways living things change as they grow and mature.	Statewide Test Teacher-made Test Teacher Observation Portfolio Performance-based Test Exhibition Demonstration Log/Journal Essay Writing	Students compare their baby pictures to themselves today. How did they change and mature? Observe the life cycle of butterflies, frogs, and millworms, etc.
LS.2.6. Name some common animals that no longer exist (e.g., dinosaurs and mammoths)	Students can name animals that lived in the past (dinosaurs, saber-toothed tiger, woolly mammoths).	Statewide Test Teacher-made Test Teacher Observation Portfolio Performance-based Test Exhibition Demonstration Log/Journal Essay Writing	Name dinosaurs, saber-toothed tigers, mammoths, alligators, etc. as animals that lived in the past.

Student Learning Expectations	Second Grade Benchmarks	Assessments	Strategies/Activities
LS.2.7. Understand that offspring are similar to their parents.	Students can identify that plants and animals produce similar types of offspring (flowers produce flowers, dogs produce dogs).	Statewide Test Teacher-made Test Teacher Observation Portfolio Checklist Performance-based Test Exhibition Demonstration Log/Journal Essay Writing	Have students match offspring of specific species to their parents (kitten to cat, puppy to dog, calf to cow, tadpole to frog, etc.).
LS.2.8. Identify the features of plants and animals that enable them to live in different environments.	Students can name ways that animals and plants are adapted to living in different environments.	Statewide Test Teacher-made Test Teacher Observation Portfolio Checklist Performance-based Test Exhibition Demonstration Log/Journal Essay Writing	Divide the class into six teams. Have each team select four different environments with animals that life there. Set up a game where other teams try to guess the animals.
LS.2.9. Define and describe a *food chain* and a *food web*.	Students can name common food webs.	Statewide Test Teacher-made Test Teacher Observation Performance-based Test Exhibition Demonstration Log/Journal Essay Writing	Brainstorm woodland animals and plants and have students to arrange them into food webs.
LS.2.10. Understand that *organisms* are interdependent.	Students know that organisms need air, nutrients, minerals, water, and shelter.	Statewide Test Teacher-made Test Teacher Observation Portfolio Performance-based Test Exhibition Demonstration Log/Journal Essay Writing	Have the students act out a skit portraying animals and their needs. Remove one thing the animal needs and act out what happens.

STRAND 2: LIFE SCIENCE SYSTEMS CONTENT STANDARD 3 Students will demonstrate an understanding of the connections and applications in life sciences.			
Learning Expectations	**Second Grade Benchmarks**	**Assessments**	**Strategies/Activities**
LS.3.1. Understand that life sciences are interwoven into all disciplines.	Students can write about how other living things affect their lives each day.	Statewide Test Teacher-made Test Teacher Observation Portfolio Performance-based Test Exhibition Demonstration Log/Journal Essay Writing	Have the students brainstorm all the ways they use plants and animals on a particular day.
LS.3.2. Recognize that mathematics is the basis of communication in life science.	Students can read more complex number symbols and number words. Students can count greater numbers of members in a group they are studying.	Statewide Test Teacher-made Test Teacher Observation Portfolio Performance-based Test Exhibition Demonstration Log/Journal Essay Writing	Have students read and summarize a simple science essay. Have students count the earthworms in a box from the bait shop.
LS.3.3. Identify that humans change environments in ways that can be beneficial or detrimental for themselves and other *organisms*.	Students can write about ways to save the rain forests of the world. Students can develop plans for their homes that can save resources.	Statewide Test Teacher-made Test Teacher Observation Portfolio Performance-based Test Exhibition Demonstration Log/Journal Essay Writing	Research on the Internet products from the rain forest that can help the forest families to make money without cutting the forest. Have students list things they can do at home to save resources.
LS.3.4. Explore careers related to life sciences.	Students can identify careers in the life sciences.	Statewide Test Teacher-made Test Teacher Observation Portfolio Checklist Performance-based Test Exhibition Demonstration Log/Journal Essay Writing	Have students interview or obtain letters from life science career people.

STRAND 3: EARTH/SPACE SYSTEMS

CONTENT STANDARD 1
Students will demonstrate an understanding of the inquiry process through the study of earth and space systems.

Learning Expectations	Second Grade Benchmarks	Assessments	Strategies/Activities
ES.1.1. Utilize the *scientific method* to investigate earth/space systems.	Students will examine how objects can be grouped according to similarities and differences. Students will participate in simple observations. Students know that sharing information and discussing results are important parts of the scientific method. Students will make predictions and test them.	Statewide Test Teacher-made Test Teacher Observation Portfolio Checklist Performance-based Test Exhibition Demonstration Log/Journal Essay Writing	Have students gather leaves and make leaf prints and sort them into groups. Have students collect rocks and sort them into groups. Have students divide into teams and determine the lowest area on the playground. They should share data and reach a conclusion.
ES.1.2. Select appropriate equipment and utilize technology and mathematics in the inquiry of earth/space systems.	Students are aware of safety rules and can identify these rules on exams. Students can use science tools to examine and measure objects (hand lenses, rulers, microscopes, etc.). Students will use mathematics and writing to examine and describe the objects studied. Students can measure length in English and metric systems.	Statewide Test Teacher-made Test Teacher Observation Checklist Performance-based Test Exhibition Demonstration Log/Journal Essay Writing	Students can recite safety rules. Have students use the tools of science in the classroom and use math and writing in studying and writing reports or observations.
ES.1.3. Generate graphs, writings, and charts to communicate earth/space systems investigations.	Students will make scientific observations and communicate their findings.	Statewide Test Teacher-made Test Teacher Observation Portfolio Performance-based Test Exhibition Demonstration Log/Journal Essay Writing	Have students record their observations in scientific studies by drawings or writing.

STRAND 3: EARTH/SPACE SYSTEMS CONTENT STANDARD 2 Students will explore, demonstrate, communicate, apply and evaluate knowledge of the properties of earth and space systems.			
Learning Expectations	**Second Grade Benchmarks**	**Assessments**	**Strategies/Activities**
ES.2.1. Recognize and classify different types of earth materials.	Students can recognize sand, silt, and clay in soils.	Statewide Test Teacher-made Test Teacher Observation Portfolio Performance-based Test Exhibition Demonstration Log/Journal Essay Writing	Mix sand, silt, and clay in water, add one drop of dish washing soap, shake and let settle for three days. After three days, have students identify the three as they have separated into layers.
ES.2.2. Describe major features of the earth's surface and how it is affected by natural changes.	Students can identify how water and ice break up the soil on the school ground and in their community.	Statewide Test Teacher-made Test Teacher Observation Portfolio Checklist Performance-based Test Exhibition Demonstration Log/Journal Essay Writing	Have students search the school grounds for signs of how water and ice break up the soil.
ES.2.3. Identify the natural divisions of Arkansas.	Students can name common trees, wildlife, and plants of Arkansas.	Statewide Test Teacher-made Test Teacher Observation Portfolio Checklist Performance-based Test Exhibition Demonstration Log/Journal Essay Writing	Have students name pine, broad-leafed trees, bears, deer, snakes, frogs, fish, and birds. (See resource list.)
ES.2.4. Understand that the Earth is layered (*crust, mantle, and core*).	Students know that the Earth has an outer crust and a warmer middle.	Statewide Test Teacher-made Test Teacher Observation Portfolio Performance-based Test Exhibition Demonstration Log/Journal Essay Writing	Have students create a model of the Earth with a Silly Putty middle and a clay outer crust.

Student Learning Expectations	Second Grade Benchmarks	Assessments	Strategies/Activities
ES.2.5. Investigate seasonal changes in weather and factors that affect weather conditions.	Students can investigate and record weather changes from day to day and throughout the year. They can also compare their results with their local media weather report.	Statewide Test Teacher-made Test Teacher Observation Portfolio Performance-based Test Exhibition Demonstration Log/Journal Essay Writing	Have students record daily weather and match it to local media weather.
ES.2.6. Describe the *water cycle.*	Students have watched teacher demonstration of steam condensing on a cooler glass surface and can successfully name this process as condensation.	Statewide Test Teacher-made Test Teacher Observation Portfolio Checklist Performance-based Test Exhibition Demonstration Essay Writing	View condensation forming on a cool surface in a teacher demonstration.
ES.2.7. Discuss land forms in the ocean and how they change.	Students can identify islands and continents on maps.	Statewide Test Teacher-made Test Teacher Observation Portfolio Performance-based Test Exhibition Demonstration Log/Journal Essay Writing	Students outline islands and continents on a map and are able to tell the difference.
ES.2.8. Analyze the features and motions of the sun, moon, earth and other celestial bodies (e.g., *solar system*, moon phases, earth's *rotation* and *revolution*).	Students know that day and night are caused by the rotation of the Earth. Students know that our year is based on the number of days for Earth to revolve around the sun.	Statewide Test Teacher-made Test Teacher Observation Performance-based Test Exhibition Demonstration Log/Journal Essay Writing	Set up flashlight models to illustrate the Earth's rotation around the sum. Demonstrate one day and one year with this model.

STRAND 3: EARTH/SPACE SYSTEMS CONTENT STANDARD 3 Students will demonstrate an understanding of the connections and applications of earth and space systems.			
Learning Expectations	**Second Grade Benchmarks**	**Assessments**	**Strategies/Activities**
ES.3.1. Understand and appreciate the uses of water.	Students can describe how water can become polluted.	Statewide Test Teacher-made Test Teacher Observation Portfolio Checklist Performance-based Test Exhibition Demonstration Log/Journal Essay Writing	Students illustrate the water cycle and how water can become polluted.
ES.3.2. Describe uses and conservation of materials taken from the earth.	Students can write about ways to save the mineral resources of the world.	Statewide Test Teacher-made Test Teacher Observation Portfolio Performance-based Test Exhibition Demonstration Log/Journal Essay Writing	Students explore alternate energy sources and recycling to conserve mineral resources and write about them. Hold a class discussion to select the best ideas.
ES.3.3. Identify the effect humans have on the environment (e.g., use and misuse).	Students can write about ways to save the natural resources of the world. Students can develop plans for their homes that can save resources.	Statewide Test Teacher-made Test Teacher Observation Portfolio Checklist Performance-based Test Exhibition Demonstration Log/Journal Essay Writing	Have students develop written plans to save natural resources of the world and to conserve at home.
ES.3.4. Understand how earth/space systems connect to other disciplines.	Students use art materials to draw and paint the past and present environment in their community.	Statewide Test Teacher-made Test Teacher Observation Portfolio Performance-based Test Exhibition Demonstration Log/Journal Essay Writing	Illustrate how the present community looks now and how it looked in the past. Compare the two.

Student Learning Expectations	Second Grade Benchmarks	Assessments	Strategies/Activities
ES.3.5. Recognize the importance of mathematics as the basis of communication in earth/space systems.	Students can read more complex number symbols and number words. Students can count larger numbers of members in a group they are studying.	Statewide Test Teacher-made Test Teacher Observation Portfolio Checklist Performance-based Test Exhibition Demonstration Log/Journal Essay Writing	Students can pick out double-digit numbers in books. Students can sort rocks or marbles into larger groups of 20 or more.
ES.3.6. Use age-appropriate equipment, tools, techniques, technology, and mathematics in *scientific investigation* of earth/space systems.	Students are aware of safety rules and can identify these rules on exams. Students can use science tools to examine and measure objects (hand lenses, rulers, microscopes, etc.). Students will use mathematics and writing to examine and describe the objects studied. Students can measure length in English and metric systems.	Statewide Test Teacher-made Test Teacher Observation Portfolio Checklist Performance-based Test Exhibition Demonstration Log/Journal Essay Writing	Students can identify safety rules on exams. Students use appropriate science tools in their classroom. Have students use math to solve science problems. Students and teacher use English and metric in the classroom.
ES.3.7. Explore careers related to earth/space science.	Students can name professions in their community that use knowledge about soils and rocks.	Statewide Test Teacher-made Test Teacher Observation Portfolio Checklist Performance-based Test Exhibition Demonstration Log/Journal Essay Writing	Brainstorm professions that use knowledge on soils.

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