Arizona Academic Content Standards (2005)	ESS Presentations
Kindergarten	
Strand 1: Inquiry Process	
Concept 1: Observations, Questions, and Hypotheses	
PO 1. Observe common objects using multiple senses.	Senses
PO 2. Ask questions based on experiences with objects, organisms, and events in the environment.	Mysterious Magnets Hot and Cold Living Things Animals and Plants
PO 3. Predict results of an investigation based on life, physical, and Earth and space sciences (e.g., the five senses, changes in weather).	Mysterious Magnets Hot and Cold Living Things
Concept 2: Scientific Testing (Investigating and Modeling)	
PO 1. Demonstrate safe behavior and appropriate procedures (e.g., use of instruments, materials, organisms) in all science inquiry.	
PO 2. Participate in guided investigations in life, physical, and Earth and space sciences.	Hot and Cold Springs
PO 3. Perform simple measurements using non-standard units of measure to collect data.	
Concept 3: Analysis and Conclusions	
PO 1. Organize (e.g., compare, classify, and sequence) objects, organisms, and events according to various characteristics.	Marvellous Materials Animals and Plants Materials Matter Changing Materials
PO 2. Compare objects according to their measurable characteristics (e.g., longer/shorter, lighter/heavier).	
Concept 4: Communication	
PO 1. Communicate observations with pictographs, pictures, models, and/or words.	Changing Materials Senses Living Things Light and Dark
PO 2. Communicate with other groups to describe the results of an investigation.	Materials Matter Hot and Cold Senses
Strand 2: History and Nature of Science	
Concept 1: History of Science as a Human Endeavor	

K-2 Product
3-5 Product

PO 1. Give examples of how diverse people (e.g., children, parents, weather reporters, cooks, healthcare workers, gardeners) use science in daily life.	
PO 2. Identify how diverse people and/or cultures, past and present, have made important contributions to scientific innovations.	
Strand 3: Science in Personal and Social Perspectives	
Concept 2: Science and Technology in Society	
PO 1. Describe how simple tools (e.g., scissors, pencils, paper clips, hammers) can make tasks easier.	
Strand 4: Life Science	
Concept 1: Characteristics of Organisms	
PO 1. Distinguish between living things and nonliving things.	Living Things
PO 2. Name the following human body parts: head, shoulders, arms, elbows, wrists, hands, fingers, legs, hips, knees, ankles, feet, heels	Animals and Plants
PO 3. Identify the five senses and their related body parts: sight – eyes, hearing – ears, smell – nose, taste – tongue, touch – skin	Senses
Concept 2: Life Cycles	
PO 1. Describe that most plants and animals will grow to physically resemble their parents.	Growing Up Growing Plants
Concept 3: Organisms and Environments	
PO 1. Identify some plants and animals that exist in the local environment.	Living Things
PO 2. Identify that plants and animals need the following to grow and survive: food, water, air, space	Living Things
PO 3. Describe changes observed in a small system (e.g., ant farm, plant terrarium, aquarium).	
Strand 5: Physical Science	
Concept 1: Properties of Objects and Materials	
PO 1. Identify the following observable properties of objects using the senses: shape, texture, size, color	Marvellous Materials Materials Matter Changing Materials
PO 2. Compare objects by the following observable properties: size, color, type of material	Marvellous Materials Materials Matter Changing Materials
Concept 2: Position and Motion of Objects	
PO 1. Describe spatial relationships (i.e., above, below, next to, left, right, middle, center) of objects.	
Concept 3: Energy and Magnetism	

PO 1. Investigate how applied forces (push and pull) can make things move.	Feel the Force
PO 2. Investigate how forces can make things move without another thing touching them (e.g., magnets, static electricity).	Mysterious Magnets
PO 3. Sort materials according to whether they are or are not attracted by a magnet.	Mysterious Magnets
PO 4. Identify familiar everyday uses of magnets (e.g., in toys, cabinet locks, decoration).	Mysterious Magnets
Strand 6: Earth and Space Science	
Concept 1: Properties of Earth Materials	
PO 1. Identify rocks, soil, and water as basic Earth materials.	Rocks Soil
PO 2. Compare physical properties (e.g., color, texture, capacity to retain water) of basic Earth materials.	Changing Materials Materials Matter
PO 3. Classify a variety of objects as being natural or man-made.	Changing Materials
PO 4. Identify ways some natural or man-made materials can be reused or recycled (e.g., efficient use of paper, recycle aluminum cans).	Pollution
Concept 3: Changes in the Earth and Sky	
PO 1. Identify the following aspects of weather: temperature, wind, precipitation, storms	Weather
PO 2. Describe observable changes in weather.	Weather
PO 3. Give examples of how the weather affects people's daily activities.	Weather
Grade One	
Strand 1: Inquiry Process	
Concept 1: Observations, Questions, and Hypotheses	
PO 1. Compare common objects using multiple senses.	Senses
PO 2. Ask questions based on experiences with objects, organisms, and events in the environment.	Mysterious Magnets Hot and Cold Living Things Growing Plants Soil
PO 3. Predict results of an investigation based on life, physical, and Earth and space sciences (e.g., animal life cycles, physical properties, Earth materials).	Mysterious Magnets Hot and Cold Living Things Growing Plants Soil
Concept 2: Scientific Testing (Investigating and Modeling)	
PO 1. Demonstrate safe behavior and appropriate procedures (e.g., use of instruments, materials, organisms) in all science inquiry.	

PO 2. Participate in guided investigations in life, physical, and Earth and space sciences.	Hot and Cold Springs
PO 3. Use simple tools such as rulers, thermometers, magnifiers, and balances to collect data (U.S. customary units).	Weather Springs Growing Plants
PO 4. Record data from guided investigations in an organized and appropriate format (e.g., lab book, log, notebook, chart paper).	Hot and Cold Springs Growing Plants
Concept 3: Analysis and Conclusions	
PO 1. Organize (e.g., compare, classify, and sequence) objects, organisms, and events according to various characteristics.	Marvellous Materials Animals and Plants Materials Matter Changing Materials
PO 2. Compare the results of the investigation to predictions made prior to the investigation.	Mysterious Magnets Hot and Cold Living Things Growing Plants Shadows
Concept 4: Communication	
PO 1. Communicate the results of an investigation using pictures, graphs, models, and/or words.	Changing Materials Senses Living Things Light and Dark
PO 2. Communicate with other groups to describe the results of an investigation.	Materials Matter Hot and Cold Senses
Strand 2: History and Nature of Science	
Concept 1: History of Science as a Human Endeavor	
PO 1. Give examples of how diverse people (e.g., children, parents, weather reporters, cooks, healthcare workers, gardeners) use science in daily life.	
PO 2. Identify how diverse people and/or cultures, past and present, have made important contributions to scientific innovations.	
Strand 3: Science in Personal and Social Perspectives	
Concept 2: Science and Technology in Society	
PO 1. Identify various technologies (e.g., automobiles, radios, refrigerators) that people use.	

PO 2. Describe how suitable tools (e.g., magnifiers, thermometers) help make better observations and measurements.	
Strand 4: Life Science	
Concept 1: Characteristics of Organisms	
PO 1. Identify the following as characteristics of living things: growth and development, reproduction, response to stimulus	Living Things Animals and Plants Growing Up Growing Plants
PO 2. Compare the following observable features of living things: movement – legs, wings, protection – skin, feathers, tree bark, respiration – lungs, gills, support – plant stems, tree trunks	
PO 3. Identify observable similarities and differences (e.g., number of legs, body coverings, size) between/among different groups of animals.	Animals and Plants
Concept 2: Life Cycles	
PO 1. Identify stages of human life (e.g., infancy, adolescence, adulthood).	
PO 2. Identify similarities and differences between animals and their parents.	Growing Up
Concept 3: Organisms and Environments	
PO 1. Identify some plants and animals that exist in the local environment.	Living Things
PO 2. Compare the habitats (e.g., desert, forest, prairie, water, underground) in which plants and animals live.	Living Things Habitats
PO 3. Describe how plants and animals within a habitat are dependent on each other.	Living Things Habitats
Strand 5: Physical Science	
Concept 1: Properties of Objects and Materials	
PO 1. Classify objects by the following observable properties: shape, texture, size, color, weight	Marvellous Materials Materials Matter Changing Materials
PO 2. Classify materials as solids or liquids.	Hot and Cold
Concept 2: Position and Motion of Objects	
PO 1. Demonstrate the various ways that objects can move (e.g., straight line, zigzag, back-and-forth, round-and-round, fast, slow).	Feel the Force
Strand 6: Earth and Space Science	
Concept 1: Properties of Earth Materials	
PO 1. Describe the following basic Earth materials: rocks, soil, water	Rocks Soil

PO 2. Compare the following physical properties of basic Earth materials: color, texture, capacity to retain water	
PO 3. Identify common uses (e.g., construction, decoration) of basic Earth materials (i.e., rocks, water, soil).	Rocks Soil
PO 4. Identify the following as being natural resources: air, water, soil, trees, wildlife	Changing Materials
PO 5. Identify ways to conserve natural resources (e.g., reduce, reuse, recycle, find alternatives).	Pollution
Concept 2: Objects in the Sky	
PO 1. Identify evidence that the Sun is the natural source of heat and light on the Earth (e.g., warm surfaces, shadows, shade).	Light and Dark Shadows
PO 2. Compare celestial objects (e.g., Sun, Moon, stars) and transient objects in the sky (e.g., clouds, birds, airplanes, contrails).	
PO 3. Describe observable changes that occur in the sky, (e.g., clouds forming and moving, the position of the Moon).	Weather
Concept 3: Changes in the Earth and Sky	
PO 1. Identify the following characteristics of seasonal weather patterns: temperature, type of precipitation, wind	Weather
PO 2. Analyze how the weather affects daily activities.	Weather
Grade Two	
Strand 1: Inquiry Process	
Concept 1: Observations, Questions, and Hypotheses	
PO 1. Formulate relevant questions about the properties of objects, organisms, and events in the environment.	Mysterious Magnets Hot and Cold Living Things Growing Plants Shadows Soil
PO 2. Predict the results of an investigation (e.g., in animal life cycles, phases of matter, the water cycle).	Mysterious Magnets Hot and Cold Living Things Growing Plants Shadows Soil
Concept 2: Scientific Testing (Investigating and Modeling)	
PO 1. Demonstrate safe behavior and appropriate procedures (e.g., use of instruments, materials, organisms) in all science inquiry.	

PO 2. Participate in guided investigations in life, physical, and Earth and space sciences.	Hot and Cold Springs Growing Plants Shadows
PO 3. Use simple tools such as rulers, thermometers, magnifiers, and balances to collect data (U.S. customary units).	Weather Springs Growing Plants
PO 4. Record data from guided investigations in an organized and appropriate format (e.g., lab book, log, notebook, chart paper).	Hot and Cold Springs Growing Plants
Concept 3: Analysis and Conclusions	
PO 1. Organize data using graphs (i.e., pictograph, tally chart), tables, and journals.	Senses Pollution
PO 2. Construct reasonable explanations of observations on the basis of data obtained (e.g., Based on the data, does this make sense? Could this really happen?).	Materials Matter Hot and Cold Senses Springs Growing Plants Soil Rocks
PO 3. Compare the results of the investigation to predictions made prior to the investigation.	Mysterious Magnets Hot and Cold Living Things Growing Plants Shadows
PO 4. Generate questions for possible future investigations based on the conclusions of the investigation.	
Concept 4: Communication	
PO 1. Communicate the results and conclusions of an investigation (e.g., verbal, drawn, or written).	Materials Matter Hot and Cold Senses Springs Growing Plants Soil Rocks

PO 2. Communicate with other groups to describe the results of an investigation.	Materials Matter Hot and Cold Senses Springs Growing Plants Soil Rocks
Strand 2: History and Nature of Science	
Concept 1: History of Science as a Human Endeavor	
PO 1. Identify how diverse people and/or cultures, past and present, have made important contributions to scientific innovations.	
PO 2. Identify science-related career opportunities.	
Concept 2: Nature of Scientific Knowledge	
PO 1. Identify components of familiar systems (e.g., organs of the digestive system, bicycle).	Body Systems
PO 2. Identify the following characteristics of a system: consists of multiple parts or subsystems, parts work interdependently	Body Systems Shadows
PO 3. Identify parts of a system too small to be seen (e.g., plant and animal cells).	
Strand 3: Science in Personal and Social Perspectives	
Concept 2: Science and Technology in Society	
PO 1. Analyze how various technologies impact aspects of people's lives (e.g., entertainment, medicine, transportation, communication).	
PO 2. Describe important technological contributions made by people, past and present: automobile – Henry Ford, airplane – Wilbur and Orville Wright, telephone – Alexander G. Bell	
PO 3. Identify a simple problem that could be solved by using a suitable tool.	
Strand 4: Life Science	
Concept 1: Characteristics of Organisms	
PO 1. Identify animal structures that serve different functions (e.g., sensory, defense, locomotion).	Living Things Animals and Plants
PO 2. Identify the following major parts of: the digestive system – mouth, esophagus, stomach, small and large intestines, respiratory system – nose, trachea, lungs, diaphragm, circulatory system – heart, arteries, veins, blood	Body Systems
PO 3. Describe the basic functions of the following systems: digestive – breakdown and absorption of food, disposal of waste, respiratory – exchange of oxygen and carbon dioxide, circulatory – transportation of nutrients and oxygen throughout the body	Body Systems
Concept 2: Life Cycles	

PO 1. Describe the life cycles of various insects.	Growing Up
PO 2. Describe the life cycles of various mammals.	Growing Up
PO 3. Compare the life cycles of various organisms.	Growing Up
Strand 5: Physical Science	
Concept 1: Properties of Objects and Materials	
PO 1. Describe objects in terms of measurable properties (e.g., length, volume, weight, temperature) using scientific tools.	
PO 2. Classify materials as solids, liquids, or gases.	Changing State
PO 3. Demonstrate that water can exist as a: gas – vapor, liquid – water, solid – ice	Hot and Cold Changing State
PO 4. Demonstrate that solids have a definite shape and that liquids and gases take the shape of their containers.	Changing State
Strand 6: Earth and Space Science	
Concept 3: Changes in the Earth and Sky	
PO 1. Measure weather conditions (e.g., temperature, precipitation).	Weather
PO 2. Record weather conditions (e.g., temperature, precipitation).	Weather
PO 3. Identify the following types of clouds: cumulus, stratus, cirrus	Predicting the Weather
PO 4. Analyze the relationship between clouds, temperature, and weather patterns.	Weather Predicting the Weather
Grade Three	
Strand 1: Inquiry Process	
Concept 1: Observations, Questions, and Hypotheses	
PO 1. Formulate relevant questions about the properties of objects, organisms, and events of the environment using observations and prior knowledge.	Growing Plants Soil Shadows Separating Mixtures
PO 2. Predict the results of an investigation based on observed patterns, not random guessing.	Growing Plants Shadows Separating Mixtures Friction
Concept 2: Scientific Testing (Investigating and Modeling)	
PO 1. Demonstrate safe behavior and appropriate procedures (e.g., use of instruments, materials, organisms) in all science inquiry.	
PO 2. Plan a simple investigation (e.g., one plant receives adequate water, one receives too much water, and one receives too little water) based on the formulated questions.	Growing Plants Soil

PO 3. Conduct simple investigations (e.g., related to plant life cycles, changing the pitch of a sound, properties of rocks) in life, physical, and Earth and space sciences.	Growing Plants Sounds Friction Rocks Shadows
PO 4. Use metric and U.S. customary units to measure objects.	Growing Plants Changing State
PO 5. Record data in an organized and appropriate format (e.g., t-chart, table, list, written log).	Insulators and Conductors Separating Mixtures Friction Plant Reproduction Gravity Pollution
Concept 3: Analysis and Conclusions	
PO 1. Organize data using the following methods with appropriate labels: bar graphs, pictographs, tally charts	Friction Pollution
PO 2. Construct reasonable interpretations of the collected data based on formulated questions.	Growing Plants Insulators and Conductors Separating Mixtures Friction Plant Reproduction Days and Seasons
PO 3. Compare the results of the investigation to predictions made prior to the investigation.	Growing Plants Insulators and Conductors Separating Mixtures Friction Plant Reproduction
PO 4. Generate questions for possible future investigations based on the conclusions of the investigation.	
PO 5. Record questions for further inquiry based on the conclusions of the investigation.	
Concept 4: Communication	

PO 1. Communicate investigations and explanations using evidence and appropriate terminology.	Growing Plants Insulators and Conductors Separating Mixtures Friction Plant Reproduction Days and Seasons
PO 2. Describe an investigation in ways that enable others to repeat it.	Plant Reproduction
PO 3. Communicate with other groups to describe the results of an investigation.	Growing Plants Insulators and Conductors Separating Mixtures Friction Plant Reproduction Days and Seasons
Strand 2: History and Nature of Science	
Concept 1: History of Science as a Human Endeavor	
PO 1. Identify how diverse people and/or cultures, past and present, have made important contributions to scientific innovations.	
PO 2. Describe science-related career opportunities.	
Concept 2: Nature of Scientific Knowledge	
PO 1. Describe how, in a system (e.g., terrarium, house) with many components, the components usually influence one another.	Body Systems Food Chains Interdependence
PO 2. Explain why a system may not work if a component is defective or missing.	Body Systems Food Chains Interdependence
Strand 3: Science in Personal and Social Perspectives	
Concept 1: Changes in Environments	
PO 1. Describe the major factors that could impact a human population (e.g., famine, drought, disease, improved transportation, medical breakthroughs).	
PO 2. Describe the beneficial and harmful impacts of natural events and human activities on the environment (e.g., forest fires, flooding, pesticides).	Pollution Habitats Interdependence
Concept 2: Science and Technology in Society	
PO 1. Identify ways that people use tools and techniques to solve problems.	
PO 2. Describe the development of different technologies (e.g., communication, entertainment, transportation, medicine) in response to resources, needs, and values.	

PO 3. Design and construct a technological solution to a common problem or need using common materials.	
Strand 4: Life Science	
Concept 1: Characteristics of Organisms	
PO 1. Describe the function of the following plant structures: roots – absorb nutrients, stems – provide support, leaves – synthesize food, flowers – attract pollinators and produce seeds for reproduction	Growing Plants Plant Reproduction
Concept 2: Life Cycles	
PO 1. Compare life cycles of various plants (e.g., conifers, flowering plants, ferns).	Plant Reproduction
PO 2. Explain how growth, death, and decay are part of the plant life cycle.	
Concept 3: Organisms and Environments	
PO 1. Identify the living and nonliving components of an ecosystem.	Habitats Adaptations
PO 2. Examine an ecosystem to identify microscopic and macroscopic organisms.	
PO 3. Explain the interrelationships among plants and animals in different environments: producers – plants, consumers – animals, decomposers – fungi, insects, bacteria	Habitats Food Chains
PO 4. Describe how plants and animals cause change in their environment.	
PO 5. Describe how environmental factors (e.g., soil composition, range of temperature, quantity and quality of light or water) in the ecosystem may affect a member organism's ability to grow, reproduce, and thrive.	Habitats Pollution Adaptations
Concept 4: Diversity, Adaptation and Behavior	
PO 1. Identify adaptations of plants and animals that allow them to live in specific environments.	Adaptations
PO 2. Describe ways that species adapt when introduced into new environments.	Adaptations
PO 3. Cite examples of how a species' inability to adapt to changing conditions in the ecosystem led to the extinction of that species.	Adaptations
Strand 5: Physical Science	
Concept 3: Energy and Magnetism	
PO 1. Demonstrate that light can be: reflected (with mirrors), refracted (with prisms), absorbed (by dark surfaces)	Reflection and Refraction
PO 2. Describe how light behaves on striking objects that are: transparent (clear plastic), translucent (waxed paper), opaque (cardboard)	Shadows
PO 3. Demonstrate that vibrating objects produce sound.	Sounds
PO 4. Demonstrate that the pitch of a sound depends on the rate of the vibration (e.g., a long rubber band has a lower pitch than a short rubber band).	Sounds
Strand 6: Earth and Space Science	

Concept 1: Properties of Earth Materials	
PO 1. Identify the layers of the Earth: crust, mantle, core (inner and outer)	
PO 2. Describe the different types of rocks and how they are formed: metamorphic, igneous, sedimentary	
PO 3. Classify rocks based on the following physical properties: color, texture	
PO 4. Describe fossils as a record of past life forms.	Fossils
PO 5. Describe how fossils are formed.	Fossils
PO 6. Describe ways humans use Earth materials (e.g., fuel, building materials, growing food).	Growing Plants Rocks
Grade Four	
Strand 1: Inquiry Process	
Concept 1: Observations, Questions, and Hypotheses	
PO 1. Differentiate inferences from observations.	
PO 2. Formulate a relevant question through observations that can be tested by an investigation.	Separating Mixtures Friction Circuits Plant Reproduction Sounds Forces
PO 3. Formulate predictions in the realm of science based on observed cause and effect relationships.	Separating Mixtures Friction Circuits Plant Reproduction Sounds Forces
PO 4. Locate information (e.g., book, article, website) related to an investigation.	
Concept 2: Scientific Testing (Investigating and Modeling)	
PO 1. Demonstrate safe behavior and appropriate procedures (e.g., use and care of technology, materials, organisms) in all science inquiry.	
PO 2. Plan a simple investigation that identifies the variables to be controlled.	Forces
PO 3. Conduct controlled investigations (e.g., related to erosion, plant life cycles, weather, magnetism) in life, physical, and Earth and space sciences.	Separating Mixtures Friction Circuits Plant Reproduction Sounds Forces

PO 4. Measure using appropriate tools (e.g., ruler, scale, balance) and units of measure (i.e., metric, U.S. customary).	Changing State
PO 5. Record data in an organized and appropriate format (e.g., t-chart, table, list, written log).	Insulators and Conductors Separating Mixtures Friction Plant Reproduction Gravity
Concept 3: Analysis and Conclusions	
PO 1. Analyze data obtained in a scientific investigation to identify trends.	Insulators and Conductors Separating Mixtures Friction Plant Reproduction Days and Seasons
PO 2. Formulate conclusions based upon identified trends in data.	Insulators and Conductors Separating Mixtures Friction Plant Reproduction Days and Seasons
PO 3. Determine that data collected is consistent with the formulated question.	Insulators and Conductors Separating Mixtures Friction Plant Reproduction Days and Seasons
PO 4. Determine whether the data supports the prediction for an investigation.	Circuits Separating Mixtures Friction Plant Reproduction Sounds Forces
PO 5. Develop new questions and predictions based upon the data collected in the investigation.	
Concept 4: Communication	

PO 1. Communicate verbally or in writing the results of an inquiry.	Insulators and Conductors Separating Mixtures Friction Plant Reproduction Days and Seasons
PO 2. Choose an appropriate graphic representation for collected data: bar graph, line graph, Venn diagram, model	Friction Forces
PO 3. Communicate with other groups or individuals to compare the results of a common investigation.	
Strand 2: History and Nature of Science	
Concept 1: History of Science as a Human Endeavor	
PO 1. Identify how diverse people and/or cultures, past and present, have made important contributions to scientific innovations	
PO 2. Describe science-related career opportunities.	
Concept 2: Nature of Scientific Knowledge	
PO 1. Explain the role of experimentation in scientific inquiry.	
PO 2. Describe the interaction of components in a system (e.g., flashlight, radio).	Circuits
PO 3. Explain various ways scientists generate ideas (e.g., observation, experiment, collaboration, theoretical and mathematical models).	
Strand 3: Science in Personal and Social Perspectives	
Concept 1: Changes in Environments	
PO 1. Describe how natural events and human activities have positive and negative impacts on environments (e.g., fire, floods, pollution, dams).	Pollution Adaptations Interdependence
PO 2. Evaluate the consequences of environmental occurrences that happen either rapidly (e.g., fire, flood, tornado) or over a long period of time (e.g., drought, melting ice caps, the greenhouse effect, erosion).	Erosion, Transportation and Deposition
Concept 2: Science and Technology in Society	
PO 1. Describe how science and technology (e.g., computers, air conditioning, medicine) have improved the lives of many people.	
PO 2. Describe benefits (e.g., easy communications, rapid transportation) and risks (e.g., pollution, destruction of natural resources) related to the use of technology.	Pollution
PO 3. Design and construct a technological solution to a common problem or need using common materials.	
Strand 4: Life Science	
Concept 1: Characteristics of Organisms	

PO 1. Compare structures in plants (e.g., roots, stems, leaves, flowers) and animals (e.g., muscles, bones, nerves) that serve different functions in growth and survival.	Body Systems Plant Reproduction
PO 2. Classify animals by identifiable group characteristics: vertebrates – mammals, birds, fish, reptiles, amphibians, invertebrates – insects, arachnids	Habitats
Concept 3: Organisms and Environments	
PO 1. Describe ways various resources (e.g., air, water, plants, animals, soil) are utilized to meet the needs of a population.	
PO 2. Differentiate renewable resources from nonrenewable resources.	
PO 3. Analyze the effect that limited resources (e.g., natural gas, minerals) may have on an environment.	
PO 4. Describe ways in which resources can be conserved (e.g., by reducing, reusing, recycling, finding substitutes).	Pollution
Concept 4: Diversity, Adaptation and Behavior	
PO 1. Recognize that successful characteristics of populations are inherited traits that are favorable in a particular environment.	Adaptations
PO 2. Give examples of adaptations that allow plants and animals to survive.	Adaptations
Strand 5: Physical Science	
Concept 3: Energy and Magnetism	
PO 1. Demonstrate that electricity flowing in circuits can produce light, heat, sound, and magnetic effects.	Circuits Energy Forms Electromagnets
PO 2. Construct series and parallel electric circuits.	Circuits
PO 3. Explain the purpose of conductors and insulators in various practical applications.	Insulators and Conductors
PO 4. Investigate the characteristics of magnets (e.g., opposite poles attract, like poles repel, the force between two magnet poles depends on the distance between them).	Magnets Electromagnets
PO 5. State cause and effect relationships between magnets and circuitry.	Electromagnets
Strand 6: Earth and Space Science	
Concept 2: Earth's Processes and Systems	
PO 1. Identify the Earth processes that cause erosion.	Erosion, Transportation and Deposition
PO 2. Describe how currents and wind cause erosion and land changes.	Erosion, Transportation and Deposition
PO 3. Describe the role that water plays in the following processes that alter the Earth's surface features: erosion, deposition, weathering	Erosion, Transportation and Deposition
PO 4. Compare rapid and slow processes that change the Earth's surface, including: rapid – earthquakes, volcanoes, floods, slow – wind, weathering	Erosion, Transportation and Deposition
PO 5. Identify the Earth events that cause changes in atmospheric conditions (e.g., volcanic eruptions, forest fires).	

PO 6. Analyze evidence that indicates life and environmental conditions have changed (e.g., tree rings, fish fossils in desert regions, ice cores).	Fossils
Concept 3: Changes in the Earth and Sky	
PO 1. Identify the sources of water within an environment (e.g., ground water, surface water, atmospheric water, glaciers).	
PO 2. Describe the distribution of water on the Earth's surface.	Water Cycle
PO 3. Differentiate between weather and climate as they relate to the southwestern United States.	Predicting the Weather
PO 4. Measure changes in weather (e.g., precipitation, wind speed, barometric pressure).	Predicting the Weather
PO 5. Interpret the symbols on a weather map or chart to identify the following: temperatures, fronts, precipitation	Predicting the Weather
PO 6. Compare weather conditions in various locations (e.g., regions of Arizona, various U.S. cities, coastal vs. interior geographical regions).	