

		WOW! Zone	Avionics	Earth & Weather	River of Knowledge	Energy & Fossils	Kids in the Kitchen	Engineering	Brain Power	Sound & Light	Drive to Excel	InspireWorks
Earth and Space Science	Earth Structure, Processes, and Cycles	Sort different types of earth materials										
		Identify a variety of uses for water										
		Identify seasons that correspond with observable conditions. Identify how weather affects daily life										
		Ask questions about objects, organisms, and events. • Participate in simple investigations to answer a question or to test a prediction. • Use the five senses and simple equipment to gather data										
	Origin and Evolution of the Universe	Identify objects that can be found in the day or night sky										
		Ask questions about objects, organisms, and events. • Participate in simple investigations to answer a question or to test a prediction. • Use the five senses and simple equipment to gather data										
Biological Sciences	Organisms and Cells	Recognize the difference between living and non-living things										
		Identify basic needs of plants (water and light) and animals (food, air, water)										
		Recognize that plants and animals grow and change										
		Name basic parts of living things										
		Ask questions about objects, organisms, and events. • Participate in simple investigations to answer a question or to test a prediction. • Use the five senses and simple equipment to gather data										
	Genetics	Match offspring to their parents										
		Ask questions about objects, organisms, and events. • Participate in simple investigations to answer a question or to test a prediction. • Use the five senses and simple equipment to gather data										
	Evolution	Describe changes that occur in animals										

		<i>Ask questions about objects, organisms, and events. • Participate in simple investigations to answer a question or to test a prediction. • Use the five senses and simple equipment to gather data</i>										
Physical Science	Chemistry	<i>Sort and describe objects according to size, shape, color, and texture</i>										
		<i>Notice change in matter</i>										
		<i>Recognize that everything is made of matter</i>										
		<i>Ask questions about objects, organisms, and events. • Participate in simple investigations to answer a question or to test a prediction. • Use the five senses and simple equipment to gather data</i>										
	Physics	<i>Explore and describe motion of toys and objects</i>										
		<i>Create and describe variations of sound</i>										
		<i>Recognize that light from the sun is an important source of energy for living and nonliving systems and some source of energy is needed for all organisms to stay alive and grow</i>										
		<i>Ask questions about objects, organisms, and events. • Participate in simple investigations to answer a question or to test a prediction. • Use the five senses and simple equipment to gather data</i>										

		WOW! Zone	Avionics	Earth & Weather	River of Knowledge	Energy & Fossils	Kids in the Kitchen	Engineering	Brain Power	Sound & Light	Drive to Excel	InspireWorks
Earth and Space Science	Earth Structure, Processes, and Cycles	Distinguish between three types of earth materials – rock, soil, and sand										
		Identify sources of water for human consumption and use										
		Record daily weather conditions using simple charts and graphs Identify seasonal changes in the environment. Distinguish between types of precipitation										
Biological Sciences	Organisms and Cells	Identify the similarities and differences of living and non-living things										
		Observe, compare, and describe stages of life cycles for plants and/or animals										
		Observe and describe structures and behaviors of a variety of common animals										
	Genetics	Observe and describe how young animals resemble their parents and other animals of the same kind										
	Evolution	Describe changes animals and plants undergo throughout the seasons										
		Describe changes that occur as a result of climate										
Physical Science	Chemistry	Identify and classify objects by observable properties of matter. Compare different kinds of materials and discuss their uses										
		Describe the way matter can change										
		Recognize that everything is made of matter										
	Physics	Describe how temperature can affect the body										
		Recognize that light from the sun is an important source of energy for living and nonliving systems and some source of energy is needed for all organisms to stay alive and grow										

		<i>Recognize that everything is made of matter</i>										
	Physics	<i>Demonstrate various types of motion. Observe and describe how pushes and pulls change the motion of objects</i>										
		<i>Observe and record daily temperatures. Draw conclusions from daily temperature records as related to heating and cooling</i>										
		<i>Compare and contrast how light travels through different materials. Explore how mirrors and prisms can be used to redirect a light beam</i>										
		<i>Recognize that light from the sun is an important source of energy for living and nonliving systems and some source of energy is needed for all organisms to stay alive and grow</i>										

		WOW! Zone	Avionics	Earth & Weather	River of Knowledge	Energy & Fossils	Kids in the Kitchen	Engineering	Brain Power	Sound & Light	Drive to Excel	InspireWorks
Earth and Space Science	Earth Structure, Processes, and Cycles	Explore and describe that water exists in solid (ice) and liquid (water) form. Explain and illustrate evaporation and condensation										
	Origin and Evolution of the Universe	Observe and record • location of the Sun and the Moon in the sky over a day. • changes in the appearance of the Moon over a month. Observe, describe, and predict seasonal patterns of sunrise and sunset										
Biological Sciences	Organisms and Cells	Identify similarities and differences in the life cycles of plants and animals										
		Explain how different parts of a plant work together to make the organism function										
	Genetics	Distinguish between scientific fact and opinion. • Ask questions about objects, organisms, and events										
	Evolution	Explain that living things can only survive if their needs are being met										
		Describe some plants and animals that once lived on Earth, (e.g., dinosaurs) but cannot be found anymore. Compare them to now living things that resemble them in some way (e.g. lizards and birds)										
Physical Science	Chemistry	Demonstrate how heating and cooling may cause changes in the properties of materials										
		Experiment and explain what happens when two or more substances are combined (e.g. mixing, dissolving, and separated (e.g. filtering, evaporation)										
		Recognize that everything is made of matter										
	Physics	Explore and describe how different forms of energy cause changes. (e.g., sunlight, heat, wind)										
		Recognize that light from the sun is an important source of energy for living and nonliving systems and some source of energy is needed for all organisms to stay alive and grow.										

		WOW! Zone	Avionics	Earth & Weather	River of Knowledge	Energy & Fossils	Kids in the Kitchen	Engineering	Brain Power	Sound & Light	Drive to Excel	InspireWorks
Earth and Space Science	Earth Structure, Processes, and Cycles	<i>Explain and give examples of the ways in which soil is formed</i>										
		<i>Identify the physical properties of minerals and demonstrate how minerals can be tested for these different physical properties</i>										
		<i>Connect the various forms of precipitation to the weather in a particular place and time</i>										
		<i>Explain how air temperature, moisture, wind speed and direction, and precipitation make up the weather in a particular place and time</i>										
	Origin and Evolution of the Universe	<i>Relate the rotation of the earth and day/night, to the apparent movement of the sun, moon, and stars across the sky. Describe the changes that occur in the observable shape of the moon over the course of a month.</i>										
Biological Sciences	Organisms and Cells	<i>Describe characteristics of living things that help to identify and classify them</i>										
		<i>Describe the basic needs of living things and their dependence on light, food, air, water, and shelter</i>										
		<i>Illustrate how plants and animals go through predictable life cycles that include birth, growth, development, reproduction, and death</i>										
		<i>Identify the structures in plants that are responsible for food production, support, water transport, reproduction, growth, and protection</i>										
	Genetics	<i>Understand that plants and animals closely resemble their parents</i>										
		<i>Identify characteristics that appear in both parents and offspring</i>										
	Evolution	<i>Recognize that plants survive through adaptations, such as stem growth towards light and root growth downward in response to gravity.</i>										

		<i>Recognize that many plants and animals can survive harsh environments because of seasonal behaviors (e.g. hibernation, migration, trees shedding leaves)</i>										
		<i>Describe animal characteristics that are necessary for survival</i>										
		<i>Recognize that fossils provide us with information about living things that inhabited the Earth long ago</i>										
Physical Science	Chemistry	<i>Differentiate between properties of objects such as size, shape, and weight and properties of materials that make up the objects such as color, texture, and hardness. Differentiate between the three states of matter, classifying a substance as a solid, liquid, or gas</i>										
		<i>Recognize that all objects and materials in the world are made of matter</i>										
		<i>Demonstrate how heating and cooling may cause changes in the properties of materials including phase changes</i>										
		<i>Use basic reactions to demonstrate observable changes in properties of matter (e.g., burning, cooking)</i>										
		<i>Recognize that everything is made of matter</i>										
	Physics	<i>Explain how movement can be described in many ways</i>										
		<i>Explore energy's ability to cause motion or create change. Explore how energy can be found in moving objects, light, sound, and heat</i>										
		<i>Explore temperature changes that result from the addition or removal of heat</i>										
		<i>Identify and classify objects and materials that are conductors or insulators of electricity</i>										

		<i>Identify and classify objects and materials as magnetic or non-magnetic</i>										
		<i>Recognize that light travels in a straight line until it strikes an object or travels from one material to another</i>										
		<i>Recognize that light from the sun is an important source of energy for living and nonliving systems and some source of energy is needed for all organisms to stay alive and grow</i>										

		WOW! Zone	Avionics	Earth & Weather	River of Knowledge	Energy & Fossils	Kids in the Kitchen	Engineering	Brain Power	Sound & Light	Drive to Excel	InspireWorks
Earth and Space Science	Earth Structures, Processes, and Cycles	Describe basic landforms. Identify the layers of the earth. Recognize that the surface of the earth changes due to slow processes and rapid processes										
		Identify basic properties and uses of Earth's materials including rocks, soils, water, and gases of the atmosphere.										
		Recognize that fossils provide evidence about the plants and animals that lived long ago and the nature of the environment at that time										
		Recognize Earth's different water resources, including both fresh and saltwater. Describe phase changes in the forms of water on Earth.										
		Describe basic weather elements. Identify weather patterns over time										
		Identify basic landforms using models and simple maps. Identify simple changes in the earth system as air, water, soil and rock interact. Explain how basic weather elements are measured.										
	Origin and Evolution of the Universe	Identify planets in our solar system and their basic characteristics. Describe the earth's place in the solar system that includes the sun (a star), planets, and many moons. Recognize that the universe contains many billions of galaxies and that each galaxy contains many billions of stars.										
		Know the basic characteristics and uses of telescope. Identify major lunar phases. Explain time (days, seasons) using solar system motions.										
Biological Sciences	Organisms and Cells	Classify plants and animals according to the physical characteristics that they share										
		Describe the different resources that plants and animals need to live.										

		<i>Recognize that combining two or more substances may make new materials with different properties</i>										
		<i>Use models to demonstrate the physical change as water goes from liquid to ice and from liquid to vapor</i>										
	Physics	<i>Explain how an object's change in motion can be observed and measured</i>										
		<i>Identify types of energy and their ability to be stored and changed from one form to another</i>										
		<i>Understand that objects that emit light often emit heat</i>										
		<i>Apply knowledge of basic electrical circuits to the design and construction of simple direct current circuits. Compare and contrast series and parallel circuits. Demonstrate that magnets have poles that repel and attract each other</i>										
		<i>Demonstrate how vibrating objects make sound and sound can make things vibrate. Demonstrate how light can be reflected, refracted, or absorbed by an object</i>										
		<i>Give examples of how energy can be transformed from one form to another</i>										

		WOW! Zone	Avionics	Earth & Weather	River of Knowledge	Energy & Fossils	Kids in the Kitchen	Engineering	Brain Power	Sound & Light	Drive to Excel	InspireWorks
Earth and Space Science	Earth Structure, Processes, and Cycles	<i>Describe how landforms are the result of a combination of destructive forces such as erosion and constructive erosion, deposition of sediment, etc.</i>										
		<i>Describe the usefulness of Earth's physical resources as raw materials for the human made world.</i>										
		<i>Explain how geological processes observed today such as erosion, movement of lithospheric plates, and changes in the composition of the atmosphere are similar to those in the past..</i>										
		<i>Explain the basic components of the water cycle.</i>										
		<i>Differentiate between weather and climate. Explain how the cycling of water, both in and out of the atmosphere, has an effect on climate</i>										
	Origin and Evolution of the Universe	<i>Provide evidence that the earth revolves around (orbits) the sun in a year's time and that the earth rotates on its axis once approximately every 24 hours.</i>										
Biological Sciences	Organisms and Cells	<i>Describe how life on earth depends on energy from the sun.</i>										
		<i>Compare and contrast the similarities and differences in life cycles of different organisms.</i>										
		<i>Explain the concept of a cell as the basic unit of life. Compare and contrast plant and animal cells.</i>										
	Genetics	<i>Differentiate between inherited and acquired characteristics of plants and animals</i>										
	Evolution	<i>Describe how organisms meet some of their needs in an environment by using behaviors (patterns of activities) in response to information (stimuli) received from the environment.</i>										

		<i>Give examples of how inherited characteristics (e.g., shape of beak, length of neck, location of eyes, shape of teeth) may change over time as adaptations to changes in the environment that enable organisms to survive.</i>										
Physical Science	Chemistry	<i>Describe how water can be changed from one state to another by adding or taking away heat</i>										
	Physics	<i>Explain how mass of an object resists change to motion</i>										
		<i>Examine how energy can be transferred from one form to another</i>										
		<i>Demonstrate how heat energy is usually a byproduct of an energy transformation</i>										
		<i>Demonstrate how electrical circuits provide a means of transferring electrical energy when heat, light, sound, and chemical changes are produced. Demonstrate how electromagnets can be made and used.</i>										
		<i>Compare the characteristics of sound as it is transmitted through different materials. Relate the rate of vibration to the pitch of the sound.</i>										

		<i>Explain why the life cycles of different organisms have varied lengths.</i>										
		<i>Explain how cells arise from pre-existing cells.</i>										
		<i>Explain how the cell is the basic structural and functional unit of living things.</i>										
		<i>Identify the levels of organization from cell to organism.</i>										
		<i>Compare life processes (e.g. growth, digestion) at the organism level with life processes at the cellular level.</i>										
		<i>Apply the appropriate models to show interactions among organisms in an environment.</i>										
	Genetics	<i>Explain how genetic instructions influence inherited traits. Identify Mendelian patterns of inheritance.</i>										
		<i>Compare sexual reproduction with asexual reproduction.</i>										
		<i>Describe how selective breeding and biotechnology can alter the genetic composition of organisms.</i>										
		<i>Compare and contrast observable patterns in the physical characteristics across families, strains and species.</i>										
	Evolution	<i>Describe how natural selection is an underlying factor in a population's ability to adapt to changes.</i>										
		<i>Explain why the extinction of a species may occur when the environment changes. Explain that mutations can alter a gene and are the original source of new variations in a population.</i>										
		<i>Identify evidence drawn from geology, fossils, and comparative anatomy that provides the basis for the theory of evolution.</i>										

		WOW! Zone	Avionics	Earth & Weather	River of Knowledge	Energy & Fossils	Kids in the Kitchen	Engineering	Brain Power	Sound & Light	Drive to Excel	InspireWorks
Earth and Space Science	Earth Structure, Processes, and Cycle	<i>Distinguish between physical and chemical weathering. Compare and contrast the types of energy that drive Earth's systems.</i>										
		<i>Describe renewable and nonrenewable energy resources.</i>										
		<i>Explain how matter on earth is conserved throughout the geological processes over time.</i>										
		<i>Explain how the oceans form one interconnected circulation system powered by wind, tides, the Earth's rotation, and water density differences.</i>										
		<i>Explain how the curvature of the earth contributes to climate. Compare and contrast water vapor, clouds, and humidity.</i>										
		<i>Explain changes in earth systems in terms of energy transformation and transport. Explain how satellite images, models, and maps are used to identify</i>										
	Origin and Evolution of the Universe	<i>Explain how light, measured remotely, can be used to classify objects in the universe.</i>										
		<i>Explain measurements and evidence indicating the age of the universe.</i>										
Biological Sciences	Organisms and Cells	<i>Explain mechanisms organisms use to adapt to their environment.</i>										
	Genetics	<i>Compare and contrast scientific theories. Know that both direct and indirect observations are used by scientists to study the natural world and universe.</i>										
	Evolution	<i>Explain how reproductive success coupled with advantageous traits over many generations contributes to natural selection.</i>										
Physical Science	Chemistry	<i>Differentiate between mass and weight.</i>										
		<i>Identify characteristics of elements derived from the periodic table..</i>										

