Science Lesson Plans
Fifth Grade Science Curriculum
Total Activities: 143

Chapter -"Scientific Investigation"-The learner will demonstrate competency in the process of completing scientific investigations.		
Lesson Code	Lesson Title and Description	LA Number
1	Identify the Problem-Identify problems that can be solved by conducting experiments.	5644, 5645
2	Plan the Experiment-Create a written plan for an experiment.	5646 5647
3	Conduct Scientific Experiments-Design and conduct a scientific experiment within the generally accepted rules and ethics of science.	5648 5649
4	Collect & Organize Data-Collect and organize data to support the result of an experiment.	5650 5651
5	Record Observations-Keep records of observations during an experiment.	5652 5653
6	Unexpected Findings-Explain that scientific experiments sometimes result in unexpected findings that lead to new questions and more experiments.	5580 5654 5655
7	Control Groups in Experiments-Design	5656

	and conduct an experiment incorporating the use of a control group.	5657
8	Time Line of Scientific Events-Develop a time line of major events and people in the history of science, that also include major world events in other fields.	5658 5659
Chapter -"Changes in Matter"-The learner will demonstrate knowledge of how changes in matter are related to atoms and molecules.		
Lesson Code	Lesson Title and Description	LA Number
1	Structural Components of Atoms-Identify electrons, protons, and neutrons as basic structural components of atoms.	5660 5661
2	Construction of Matter-Know that all matter is made up of atoms that may join together to form molecules and compounds, and that the state of matter is determined by the motion of molecules.	5662 5663
3	Elements-Know that elements have atoms of only one kind, and recognize that elements can be organized in a systematic way.	5664 5665
4	Periodic Table-Be able to read and understand some of the periodic table: elements can be identified by symbols, the table can be read across from left to right and from top to bottom, atomic numbers tell how many protons are in each atom, the table is divided into metals and nonmetals, elements on opposite sides of the table easily react with each other to form compounds.	5666 5667
Chapter -"Electricity and Matter"-The learner will examine how electricity interacts with matter.		
Lesson Code	Lesson Title and Description	LA Number

1	Characteristics of Electricity-Identify electricity as the flow of electrons: positive pole (terminal), negative pole (terminal).	5668 5669
2	Unit of Electrical Force-Know that the force that makes electrons flow is called voltage and that the unit of electrical force, or push, is called the volt. Define: alternating current (AC), direct current (DC), alternator.	5670 5671
3	Electrical Measurement-Know how electricity is measured: volts, amps (amperage), ohms, Ohm's law: volts = amps x ohms.	5672 5673
4	Electric Power-Know how electric power is measured: watts (wattage), volt x amp = watt.	5687 5688
5	Conductors & Insulators-Know the difference between conductors and insulators.	5675 5676
6	Structure of Circuits-Know the structure of simple electrical circuits: closed circuit, open circuit, short circuit.	5677 5678
7	Series & Parallel Circuits-Demonstrate principles of series and parallel electrical circuits.	5679
8	Electrical Resistance & Ohms-Demonstrate electrical resistance and understand the use of ohms.	5681
9	Electrical Safety-Learn about electrical safety.	5683 5684
10	Michael Faraday-Describe the scientific contribution of Michael Faraday.	5685 5686
11	Thomas Edison-Describe the scientific contribution of Thomas Edison.	5674
Chapter -"Light"-The learner will demonstrate understanding of the basic characteristics of light.		

Lesson Code	Lesson Title and Description	LA Number
1	Light as Energy-Know that light is a form of energy, and that the speed of light is 186,000 miles per second.	5689 5690
2	Characteristics of White Light-Describe the basic characteristics of white light: visible spectrum, light waves, reflection, refraction.	5691 5692
3	Opaque/Transparent/Translucent-Describe the basic characteristics of white light: opacity, transparency, translucence.	5693 5694
4	Light Measurement-Know how light is measured: wavelengths, frequency, cycle.	5695 5696
5	Light Interaction with Matter-Show how light is reflected, refracted, or absorbed when it interacts with matter and how colors appear as a result of this interaction.	5697
6	Reflections of Light-Describe the use and basic design of kaleidoscopes, flashlights, and mirrors.	5540 5699
7	Refractions of Light-Describe the use and basic design of eyeglasses, prisms, and cameras.	5541 5542
8	Optics & Magnifiers of Light-Describe the use and basic design of binoculars, microscopes, and telescopes.	5543 5544
9	Lasers & Photocopiers-Describe the use and basic design of lasers, and photocopiers.	5545 5546
Chapter -"Organisms"-The learner will demonstrate an understanding that organisms are made up of cells and will explain how cells grow, develop, and reproduce.		
Lesson	Lesson Title and Description	LA

Code		Number
1	The Smallest Unit of Life-Identify the cell as the basic unit of life and the smallest unit that can reproduce itself.	5547 5548
2	Characteristics of a Cell-Identify and describe the structure and function of cell parts: cell membrane, cytoplasm, mitochondria, ribosomes.	5549 5550
3	Function of Cell Parts-Identify and describe the structure and function of cell parts: nucleus, nuclear membrane, vacuoles, endoplasmic reticulum.	5551 5552
4	Single & Multi-celled Organism-Give examples of single-celled and multicellular organisms.	5553 5554
5	Plant & Animal Cells-Identify the similarities and differences between plant and animal cells.	5555 5556
6	Parts of a Microscope-Identify and label the parts of a simple compound microscope: eyepiece, ocular tube, coarse adjustment knob, fine adjustment knob, arm, base, mirror, aperture or diaphragm, stage, low-power objective lens, high-power objective lens.	5557 5558
8	Ernest Just-Describe the scientific contribution of Ernest Just.	5559 5560
Chapter -"Classifying Living Things"-The learner will use classification systems to describe groups of living things.		
Lesson Code	Lesson Title and Description	LA Number
1	Five Major Kingdoms-Identify and describe the five major kingdoms: Monera, Protista, Fungi, Plantae, Animalia.	5563 5564
2	Method to Classifying-Explain the scientific method of classifying living	5561 5562

	things: kingdom, phylum, class, order, family, genus, species. Describe the scientific contribution of Carolus Linnaeus.	
Chapter -"Life Cycle & Reproduction"-The learner will examine differences in the life cycles and reproduction of living things.		
Lesson Code	Lesson Title and Description	LA Number
1	Life Cycle of a Plant-Identify the life cycle of covered-seed (flowering) plants: fertilization, embryo, endosperm, seed coat, germination, plant growth, flowers, new seeds.	5567 5568
2	Reproduction of a Plant-Investigate the reproduction of covered-seed (flowering) plants: petals, stamen, anther, pistil, ovule, ovum, pollen and pollination, pollen tube, ovary, embryo, germination, fruit.	5565 5566
3	Life Cycle of Naked-Seed Plant-Identify the life cycle of naked-seed (conifer) plants: pollen, seed, male and female cones.	5569 5570
4	Common Pollen Carriers-Identify common pollen carriers: insects, birds, wind.	5571 5572
5	Reproduction of Non-seed Plant-Investigate the reproduction of non-seed (moss, fern) plants (spores).	5573 5574
Chapter -"Custom Curriculum"-Custom Curriculum		
Lesson Code	Lesson Title and Description	LA Number
8	Custom Standard-Custom Standard	
Chapter -"Weather"-The learner will demonstrate understanding of the general characteristics of the atmosphere and how weather conditions and weather phenomena occur		

and can be predicted.		
Lesson Code	Lesson Title and Description	LA Number
1	Weather & Climate-Differentiate between weather and climate.	5611 5620
2	The Water Cycle-Describe the hydrologic cycle and the role of evaporation, precipitation, and condensation as they relate to water in the atmosphere.	5601 5615
3	Layers of the Atmosphere-Know that the sun and the Earth heat the atmosphere and that the atmosphere is made up of several layers, including the troposphere, the stratosphere, the mesosphere, the ionosphere, and the exosphere.	5616 5617
4	Classification of Clouds-Classify clouds (cirrus, stratus, cumulus, cumulonimbus) by their composition, height, and type of precipitation.	5636 5637
5	Instruments to Collect Data-Use weather instruments to collect data and measure air temperature (thermometer), precipitation (rain gauge), and wind speed (anemometer).	5613 5638
6	Air Pressure & Humidity-Use weather instruments to collect data and measure air pressure (barometer) and humidity (hygrometer).	5629 5639
7	Identify Pressure Systems-Identify pressure systems, fronts, and other features on weather maps and charts.	5618 5640
8	Develop Forecasts-Develop forecasts using pressure systems, fronts, and other features on weather maps.	5641 5642
9	The Earth's Climate Zone-Describe Earth's climate zones and what causes	5612 5634

	each.	
10	Meteorology-Describe meteorology as a field of study.	5614 5635
Chapter -"Forever Changing Earth"-The learner will demonstrate understanding of how the Earth's surface is constantly changing.		
Lesson Code	Lesson Title and Description	LA Number
1	Earth's Interior-Study the basic structure of the Earth's interior: crust, mantle, outer core, inner core.	5602 5619
2	Plate Tectonics-Explain that some changes in the Earth's surface are due to plate tectonics.	5633
3	Measuring an Earthquake-Define: tsunamis, seismograph, Richter scale.	5606 5607
4	Results of an Earthquake-Identify what happens in an earthquake. Locate: some major faults, major fault zones, Mid-Atlantic Ridge.	5603 5621
5	Changes of Earth's Surface-Recognize that changes that occur on the Earth's surface are a result of forces acting upon it. Explain the structure of a volcano: magma, lava, active, dormant, extinct. Locate the Ring of Fire.	5610 5622
6	Continental Drift & Pangaea-Know that heat flow and movement of material within the Earth move the continents. Describe the continental drift and Pangaea.	5604 5605 5623
7	Volcanoes & Folded Mountains-Understand how volcanic mountains and folded mountains are formed.	5609
8	Mountains & Ocean Basins-Know that plate movement creates mountains and ocean basins. Understand how fault-	5625 5632

	block mountains and dome-shaped mountains are formed. Locate the Mariana Trench.	
9	Rocks & Fossils Tell a Story-Describe ways in which rocks and fossils record events of Earth's history, documenting plate movements, volcanic eruptions, and cycles of erosion and deposition.	5626 5643
10	Ice Cores & Tree Rings-Describe ways in which ice cores and tree rings record events of Earth's history, documenting plate movements, volcanic eruptions, and cycles of erosion and deposition.	5627 5630
11	Geology-Describe geology as a field of study.	5628 5631
Chapter -"Human Body"-Identify personal interests, capabilities, and values. Identify personal strengths and weaknesses and develop ways to maximize strengths. Describe conditions that contribute to disease, such as contaminated food or water, lack of immunization, poor nutrition, and improper hygiene. Explain the roles of sleep and rest in fitness.		
Lesson Code	Lesson Title and Description	LA Number
1	Body and Mind-Identify personal interests, capabilities, and values. Identify personal strengths and weaknesses and develop ways to maximize strengths. Describe conditions that contribute to disease, such as contaminated food or water, lack of immunization, poor nutrition, and improper hygiene. Explain the roles of sleep and rest in fitness.	56021 56022 56023 56025 56027 56028 56029 56030 56031 56032 56033 56034 56035