

Kenmore-Tonawanda Union Free School District
 1500 Colvin Blvd
 Buffalo, NY 14223-3119



Science - Grade 5

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| Options | Standards | Essential Questions | Content | Skills | Suggested Resources |
|---------|-----------|---|--|--|--|
| | | <p>Life Science SUGGESTED TIME: 9-10 WEEKS (2-3 Lessons per week)Note: Students should develop an understanding of classification and cell structure. Body systems will be covered again in 6th grade to a greater depth. Do not get overwhelmed in time spent in this unit.</p> | | | |
| | | | Classification of organisms | Identify the 6 kingdoms of living things Compare vertebrates and invertebrates Define classify, kingdom, phylum, class, species, vertebrate, invertebrate Follow a "key" to classify an organism | Ch. 1 Classifying Org Directed Inquiry: Clas Lesson 1: Why do we Lesson 2: How do we vertebrates? Lesson 3:How do we invertebrates ** Learn to Use a Dict (do not need to know dichotomous key) OMIT Lesson 4 Guided Inquiry: Chara Yeast |
| | | How are living things classified? | Purpose of Classification/ 6 kingdoms of living things Cell Contents Cell Function and Organization Organ interaction | Identify structures of living things Compare and contrast structures of living things Describe the cell as the basic unit of life Describe the needs and functions of cells. Label the parts of plants and animals cells using a textbook. Students do not need to memorize the cell parts Recognize how cells are organized to form tissues in plants and animals | Directed Inquiry: What d need to grow? Lesson 1:Cells Lesson 2: How do cells v Tissues only p. 44-45 Guided Inquiry: Making : |
| | | How can systems in your body keep you alive? | Circulatory System Respiratory System Urinary System | Explains how organs interact Describe how organ systems interact Recognize the human body is made of systems with | Ch. 3 Human Body Sy Directed Inquiry: How observe your pulse? |

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| | | | Digestive System | <p>related structures and functions</p> <p>Explains how the body systems interact</p> <p>Identify the function of each system</p> <p>Label a diagram of each body system</p> <p>Make a model of a system</p> | <p>Lesson 1: What is the System?</p> <p>Lesson 2: What is the system?</p> <p>Guided Inquiry: What i capacity</p> <p>Note: All systems sho the introductory level. vocabulary and all par necessary.</p> |
| | | How do plants stay alive and produce offspring? | <p>Plant parts and functions</p> <p>Reproduction in plants and growth</p> | <p>Define photosynthesis,xylem,phloem,pollen,pollination,embryo,</p> <p>Describe the purpose and functions of plant parts</p> <p>Draw the parts and structures of a plant</p> <p>Describe and illustrate parts of the plant necessary for reproduction</p> | <p>Ch.4 Plants</p> <p>Lesson 1-3 Quick Overv Parts</p> <p>Lesson 4: How do plants</p> <p>Guided Inquiry: Does the seeds are planted affect the roots grow?</p> |
| | | How do the parts of an ecosystem interact? | <p>Ecosystems</p> <p>Land biomes</p> <p>Water ecosystems</p> <p>Energy and cycles in ecosystems</p> | <p>Define ecosystem, population,community,habitat,energy pyramid, cycle</p> <p>Describe the relationship between living and nonliving things in an ecosystem</p> <p>Describe how organisms have adapted to biomes</p> <p>Describe, illustrate and locate water ecosystems</p> <p>Illustrate the movement of energy in an ecosystem, food chains and webs</p> <p>Describe the energy pyramid</p> <p>Explain the cycles of ecosystems from growth-decay</p> | <p>Ch. 5 Interactions in E</p> <p>Directed Inquiry: Findi many animals are in a</p> <p>Lesson 1: What is an</p> <p>Lesson 2 Briefly revie studies)</p> <p>Lesson 3: What are w ecosystems?</p> <p>Lesson 4: How do org interact?</p> <p>Lesson 5: How does e ecosystems?</p> <p>Lesson 6: What cycle: ecosystems?</p> <p>Guided Inquiry: How c that plants use carbor</p> |
| | | <p>Earth Science</p> <p>SUGGESTED TIME: 4-6 Weeks (2-3 Lessons per week)</p> | | | |
| | | How does water move through the environment? | <p>Location of salt water/oceans</p> <p>Fresh Water sources</p> <p>Water Cycle and Clouds</p> | <p>Define salinity, water table, reservoir, evaporation, condensation,precipitation,sublimation,sleet</p> <p>Describe the characteristics of ocean water and fresh water</p> <p>Chart the amounts of fresh water in glaciers and ice sheets</p> | <p>Ch. 7: Water on Earth</p> <p>Directed Inquiry: Wate (density)</p> <p>Lesson 1: Oceans</p> <p>Lesson 2: Fresh wate</p> <p>Lesson 3: Water Cycl</p> <p>Lesson 4: Cloud Form</p> |

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| | | | | | Guided Inquiry: What |
| | | Why does weather change? | <p>Movement of air and air masses</p> <p>Weather and Climate</p> | <p>Illustrate the layers of air</p> <p>Define convection current, air mass, front, barometer, anemometer, rain guage, climate</p> <p>Explain how air pressure effects currents and water cycle</p> <p>Describe the effect of air masses on climate</p> <p>Describe the tools used to collect weather data</p> <p>Compare and contrast weather and climate</p> <p>Interpret and compare weather charts</p> | <p>Ch 8: Weather Patterns</p> <p>Directed Inquiry: Pressu</p> <p>Lesson 1: How does air</p> <p>Lesson 2: What are air n</p> <p>Lesson 3: What causes weather?</p> <p>Lesson 4: How are weat made?</p> <p>Lesson 5: What is climat</p> <p>OMIT Guided Inquiry</p> |
| | | What causes the earth's surface to change? | <p>Earth's layers</p> <p>Geographical features such as earthquakes,volcanoes, mountains change surface</p> <p>Weathering and Erosion</p> <p>Classifying rocks and minerals</p> | <p>Define crust, mantel, core, plate, mechanical weathering, chemical weathering, igneous, sedimentary, metamorphic</p> <p>Recognize the earth's layers from crust-core</p> <p>Explain how geographical features change surface of earth</p> <p>Explain the effect of earthquakes, tsunamis' and volcanoes on the earth's crust</p> <p>Explain the types of erosion changing earth's surface</p> <p>Identify the properties of minerals using samples</p> <p>Classify rocks into igneous, sedimentary, and metamorphic rocks</p> | <p>Ch. 9 Earth's Changin</p> <p>OMIT Directed Inquiry</p> <p>Lesson 1: What is the earth?</p> <p>Lesson 2: What cause and volcanoes?</p> <p>Lesson 3-4: Overview and erosion</p> <p>Lesson 5: Identifying r (Introductory only-not</p> <p>Lesson 6: Classifying (Introductory only not</p> |
| | | <p>Physical Science SUGGESTED TIME: 6-8 Weeks (2-3 Lessons per week)</p> | | | |
| | | What makes up everything around us? | <p>Properties of matter</p> <p>Atoms</p> <p>Mixtures and Solutions</p> | <p>Define elements,atoms,proton,neutron,electron,</p> <p>Describe the chemical/ physical properties of matter or elements</p> <p>Describe the similarities and differences between solids, liquids and gases</p> | <p>Define elements,atoms,proton,r</p> <p>Describe the chemical/ p properties of matter or e</p> <p>Describe the similarities between solids, liquids a</p> |
| | | How are forces and motion part of your everyday life? | <p>Motion and Forces</p> <p>Newton's law</p> <p>Simple and complex machines</p> | <p>Define velocity, force, work, power, equilibrium, acceleration, machine</p> <p>Recognize types of motion and forces</p> <p>State the ways forces such as gravity,electricity,and magnetism affect motion</p> <p>Compare simple and complex machines in relationship to force and distance</p> <p>Identify pulleys, wheel and axle,lever, inclined planes,complex machines</p> | <p>Ch. 13: Forces in Mot</p> <p>Directed Inquiry: Lear pendulum</p> <p>Lesson 1: Describe m</p> <p>Lesson 2: What are fo</p> <p>OMIT Lesson 3</p> <p>Lesson 4: Simple Mac</p> <p>GUIDED INQUIRY IF</p> |

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| | | | | | measuring speed |
| | | How many types of energy do you use every day? | Energy Sound energy Light energy Thermal energy | Define energy, kinetic energy, potential energy, electromagnetic radiation, thermal energy, conduction, convection Describe how energy can change form. Illustrate the ways energy can be stored and converted to new forms of energy Compare and contrast each form of energy Describe the characteristics of sound, light and thermal energy. Analyze the effect of energy on daily life | Ch. 14: Changing form Lesson 1: What is ene Lesson 2: What is sou (INTRODUCTION) Lesson 3: What is ligh Lesson 4: What is the Guided Inquiry: How c move? Directed Inquiry: How change form? |
| | | Space SUGGESTED TIME: 4-6 Weeks (2-3 Lessons per week) Note: Technology is not part of the tested standards, and as such is not addressed in the core curriculum. | | | |
| | | How has the study of stars expanded our knowledge of the universe? | Characteristics of stars, sun The life of stars | Define the following: light year, black hole, galaxy, constellation Describe tools /telescopes used by astronomers in the past and present Illustrate patterns in the sky/constellations Describe the brightness, color, and temperature of stars | Ch. 16: Stars and Galax Lesson 1: History of Asti Lesson 2: What is a star Lesson 3: How are stars (INTRODUCTION only-- |
| | | How does the motion of objects in space cause cycles in climate, seasons? | The Earth's movement The 9 planets The moon | Describe the earth's orbit in the solar system. Relate the tilt of the Earth to the change of seasons, length of day and the amount of energy available Illustrate the arrangement of the planets Describe the effect of the Moon's phases on earth Explain and demonstrate the effect of Moon's and Sun's gravity on the planet earth | Ch. 17 Earth and Spa Lesson 1: What ways move? Lesson 2: What are th solar system? Lesson 3: What are cc asteroids? Lesson 4: The Moon Guided Inquiry: Why c phases? |

Last updated: 7/27/2011