**Fourth Grade Science Topics**

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| **Plants and Animals**  **Related Terms**: adaptation, instinct, inherit, advantage, characteristics, classify, vertebrates, invertebrates, fertilization, germinate, stimulus, chlorophyll, photosynthesis, sepal, pistil, stamen, pollination.  **Related Questions From Text**: What are ecosystems? How do living things get energy? What are food chains and food webs? How are plants and animals classified? How do plants reproduce? How do plants make food? What are adaptations? What plant and animal characteristics are inherited? How do animals respond to the environment?  **Other Questions**: How do stems support the plant? What role do flowers have in plant reproduction? What role do plants play in a food chain? How are plants adapted to their environment? How are plants dependent on other organisms to survive? How are plants organized according to kingdoms? | **Matter**  **Related Terms:** property, density, mass, volume, phase of matter, melting point, boiling point, mixture, filtration, evaporation, condensation, chemical change  **Related Questions From Text:** How can energy and matter be measured? What are properties of matter? What are phases of matter? What are mixtures? How does matter change?  **Other Questions**: How can the size, shape, mass, and material of an object determine whether it will sink or float in water? What is buoyancy and how is it connected to sinking and floating? How do we describe parts of matter that is too small for us to see without magnification? What are three forms of matter and how do they change form? Why can’t matter be created or destroyed, only change form? How does matter change by heating or cooling? |
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| **Energy and Heat**  **Related Terms**: energy, radiation, kinetic energy, potential energy, sound, frequency, wave length, pitch, amplitude, volume, refraction, reflection, absorption, convection  **Related Questions**: What are some forms of energy? What is sound energy? What is light energy? What is heat?  **Other Questions**: Why is heat a byproduct in the when energy changes form? How has people’s use of energy changes over time? What are different types of energy? | **Electricity and Magnetism**: static electricity, electric current, conductor, series circuit, parallel circuit, filament, magnetism, electromagnet, generator  **Related Questions**: How are electricity and magnetism used? What is static electricity? How do electric charges flow in a circuit? How does electricity transfer energy? What is magnetism? How are electricity and magnetism transformed?  **Other Questions**: How is magnetism related to iron and steel materials? How does electricity travel in circuits? How does a simple circuit work? How does static electricity work? How can electricity be conserved? |
| **Earth’s Resources**  **Related Terms**: mineral, cleavage, luster, streak, igneous, hardness, groundwater, weathering, landform, ground water, water cycle, erosion, precipitation, sedimentary, metamorphic  **Related Questions**: How do the earth’s resources change? How are minerals classified? How are rocks classified? What are weathering and erosion? How can the earth’s surface change rapidly? What is the water cycle?  **Other Questions**: How does the properties of soil impact how people use land? How can people prepare for and prevent erosion? | **Ecosystems**  **Related Terms**: Habitat, population, food chain, herbivores, omnivores, carnivores, population, ecosystem, producers, consumers, food web, fossil, extinct, paleontologist, competition  **Related Questions**: What are ecosystems? How do living things get energy? What are food chains and food webs? How do living things affect the environment? What are fossils? What can fossils tell us? How do living things interact with their environments?  **Other Questions**: What is a predator’s role in the food chain? How is energy transferred through food chains?  How are animals adapted to their environment? How are animals dependent on their surroundings? How are plants divided into kingdoms? How does heredity in animals work? |