

**Middle Grades Science Intervention Packages**  
**Standards-Based Science Concepts and Academic Vocabulary**

Strand	<b>ConceptLinks<sup>®</sup></b> Science Topics	<b>Concept Boosters<sup>™</sup></b> Science Concepts	<b>Vocabulary Boosters</b> Academic Vocabulary			
Earth Science	Earth's Changing Surface	Weathering and Erosion The Rock Cycle Properties of Rocks and Minerals Fossils The Geologic Time Scale	chemical weathering era erosion force	fossil glacier gravity luster	mechanical weathering mineral property relative age	rock cycle soil streak texture
	Oceans	Ocean Zones Ocean Properties Ocean Tides Ocean Waves Major Ocean Currents Affect Climate	aquaculture climate coral reef current fresh water	Gulf Stream intertidal zone neritic zone ocean organism	plankton property salinity submersible tide pool	tsunami wave wavelength water pressure
	Our Solar System	Planets in Our Solar System Earth Rotates and Revolves Seasons The Moon and Its Phases Other Objects in the Sky	asteroid astronomer atmosphere aurora axis comet	gravity light energy moon orbit phase planet	reflect revolve rotate season solar flare	solar system space probe star sunspot telescope
	Stars and Galaxies	Life Cycles of Stars Studying the Stars Constellations: Patterns and Stories in the Sky Distances to Stars Galaxies	absolute magnitude apparent magnitude asteroid astronomer big bang theory	black hole comet constellation fusion galaxy gravity light energy	light-year nebula orbit property pulsar reflect	solar system star supernova telescope temperature universe
	Volcanoes and Earthquakes	Earth's Layers Plate Tectonics Theory Earthquakes Volcanoes Tsunamis	cinder cone volcano colliding plate composite volcano convection current	earthquake epicenter fault focus layer of Earth	lithosphere magnitude plate plate tectonics seismograph	shield volcano sliding plate spreading plate volcano
	Weather	Major Ocean Systems Affect Climate Earth's Atmosphere The Water Cycle Precipitation and Condensation Temperature, Air Pressure, and Wind Air Masses	air mass air pressure atmosphere climate cloud	condensation evaporate front humidity hurricane	light energy precipitation property season temperature	tornado troposphere water cycle water vapor weather
Life Science	Animals	Invertebrates and Vertebrates Traits Used to Classify Animals The Classification of Animals Animal Adaptations Adaptations Work Together Endangered and Extinct Animals	adaptation backbone behavioral adaptation camouflage classification system classify ectothermic	endangered species endoskeleton endothermic energy environment exoskeleton extinct habitat	heredity inherited instinct invertebrate kingdom life cycle mammal offspring organism	predator reproduce scientific name species structural adaptation survive trait vertebrate
	Cells	The Basic Unit of Life One-celled and Many-celled Organisms Animal Cells and Plant Cells Parts of an Animal Cell Mitosis and Cell Division Cells to Systems What Makes Up Body Systems?	bacterium carbon dioxide cell cell division chloroplast chromosome	cytoplasm DNA energy microscope mitochondrion mitosis	nucleus organ organ system organelle organism	protein reproduce ribosome tissue vacuole

	Ecosystems	Parts of an Ecosystem Populations and Communities Types of Consumers Food Chains and Food Webs An Energy Pyramid An Ecosystem's Resources Change	bacterium carnivore community conserve consumer decomposer	ecosystem endangered species energy energy pyramid extinct	food chain food web habitat herbivore nutrient omnivore	organism pollute population producer reproduce survive
	Healthy Body	Cells to Systems What Makes Up Body Systems? Some Human Body Systems Functions of Some Body Systems Pathogens and Disease Nutrients You Need The Food Pyramid	antibody bacterium calorie carbohydrate cell communicable disease	energy exercise fat food pyramid fruit medicine microscope	mineral nutrient organ organ system oxygen pathogen	protein respiration tissue vaccine virus vitamin
	Plants	Nonvascular Plants and Vascular Plants Plant Parts and Their Functions Plants and Photosynthesis Photosynthesis and Respiration Sexual Reproduction in Plants Asexual Reproduction in Plants	angiosperm asexual reproduction carbon dioxide chlorophyll conifer energy	fertilization fruit function gymnosperm mineral nutrient oxygen	phloem photosynthesis pollen pollination producer reproduce	respiration root sexual reproduction stem vascular plant xylem
Physical Science	Chemical Changes	Physical Changes, Chemical Changes Signs of a Chemical Change Chemical Reactions Chemical Equations Elements, Compounds, and Mixtures Acids, Bases, and pH	acid atom bond chemical change chemical equation chemical formula chemical property	chemical reaction concentration element endothermic exothermic heat matter	melt mixture molecule physical change physical property product	reactant reaction rate solution state temperature vaporization
	Energy	Kind of Energy Forms of Energy Heat Transfer Electrical Energy Energy Resources	chemical energy conduction conductor convection electrical energy energy	force fossil fuel heat hydroelectric kinetic energy light	light energy mechanical energy potential energy power plant radiation renewable energy source	solar energy sound sound energy temperature thermal energy work
	Force and Motion	Balanced and Unbalanced Forces Speed, Velocity, and Acceleration Newton's First Law of Motion Newton's Second Law of Motion Newton's Third Law of Motion	acceleration action-reaction pair balanced forces	force friction gravity	inertia mass matter	speed velocity weight
	Light and Sound	Waves and Their Properties Light Waves and Sound Waves Sound Light Waves and Matter Refracted Light and Lenses Light and Color Electromagnetic Spectrum	amplitude color spectrum compression wave concave lens convex lens energy frequency infrared light	lens light light energy loud magnifying glass microscope opaque pitch	reflection refraction shadow sound sound energy speed of light telescope translucent	transparent ultrasound ultraviolet ray visible light volume wave wavelength
	Properties of Matter	Matter and Its Properties Three States of Matter Changing States of Matter Atoms and Molecules Molecules and States of Matter Atoms and Their Symbols The Periodic Table of the Elements	atom atomic number atomic symbol atomic weight bond chemical change condense	density electron element freeze gas liquid	mass matter melt mixture molecule neutron	nucleus physical change proton solid state volume