

Academic Vocabulary

CONTENT BUILDER FOR THE PLC

SCIENCE
GRADE 7

PLEASE NOTE: The words contained in **Academic Vocabulary** are words/concepts/terms essential for concept development; this list is not intended to be comprehensive. The “new to grade level” vocabulary suggestions are a starting point, and educators are encouraged to refer to their district curriculum resources for additional words/concepts/terms.

Properties of Matter

7.6 Matter and energy. The student distinguishes between elements and compounds, classifies changes in matter, and understands the properties of solutions.

important words for concept development				
subcluster	standards	new to grade level		previously introduced
Elements and Compounds	7.6(A), 7.6(B)	atom* atomic mass atomic number chemical formula* chemical symbol* compound* subscript symbol*		element* molecule* Periodic Table of the Elements* solution
Physical and Chemical Changes	7.6(C)	flammability oxidation product reactant sublimation yield		chemical change compound condensation corrosion element evaporation freezing matter melting physical change* precipitate
Solutions	7.6(D), 7.6(E)	agitation aqueous aqueous solution concentration dilution	equilibrium rate of dissolution saturation solid solutes surface area	solubility solute solution* solvent temperature

Force and Motion

7.7 Force, motion, and energy. The student describes the cause-and-effect relationship between force and motion.

important words for concept development				
subcluster	standards	new to grade level		previously introduced
Motion	7.7(A), 7.7(B), 7.7(C)	acceleration* average speed* constant speed* constant velocity* displacement instantaneous speed linear motion	slope speed* time* velocity* x-axis y-axis	direction distance motion*
Balanced and Unbalanced Forces	7.7(D)	inertia* Newton's first law of motion	balanced force* force* motion	net force Newton unbalanced force*

Thermal Energy

7.8 Force, motion, and energy. The student understands the behavior of thermal energy as it flows into and out of systems.

important words for concept development			
subcluster	standards	new to grade level	previously introduced
Thermodynamics	7.8(B)	heat transfer thermal equilibrium	temperature thermal energy*
Transfer of Energy	7.8(A)	conduction convection radiation	energy transfer thermal energy
Temperature and Kinetic Energy	7.8(C)		heat kinetic energy* particle temperature thermal energy

The Solar System

7.9 Earth and space. The student understands the patterns of movement, organization, and characteristics of components of our solar system.

important words for concept development			
subcluster	standards	new to grade level	previously introduced
Solar System Components, Properties, and Locations	7.9(A)	asteroid comet* Kuiper belt meteor moon* Oort cloud	physical property* planet* revolve/revolution* rotate/rotation* Sun*
Newton's Law of Universal Gravitation	7.9(B)	elliptical orbit* gravitational attraction*	force* gravity* orbit* solar system
Characteristics that Support Life in Space	7.9(C)	habitability optimal conditions proximity stable climate sustainability	atmosphere biodiversity solar system

Earth's Changing Surface

7.10 Earth and space. The student understands the causes and effects of plate tectonics.

important words for concept development				
subcluster	standards	new to grade level		previously introduced
Earth's Changing Surface	7.10(A)	continental drift theory fault* fossil record Pangaea plate tectonics theory superposition		evidence magma
Plate Tectonics	7.10(B)	convection current convergent boundary* divergent boundary* geological event hot spot mid-ocean ridge* mountain building	ocean basin plate tectonics seafloor spreading subduction* super volcano transform boundary*	earthquake* fault volcano

Human Impact on the Hydrosphere

7.11 Earth and space. The student understands how human activity can impact the hydrosphere.

important words for concept development					
subcluster	standards	new to grade level		previously introduced	
Human Dependence and Influence	7.11(A), 7.11(B)	agricultural runoff	hydrosphere	dependence	porosity
		aquifer	infiltration	groundwater*	runoff
		artificial reef	ocean system	permeability	surface water
		coral bleaching	percolate*	pollution	watershed*
		eutrophication	phytoplankton*		
		fertilizer*	water table		
		habitat destruction			

Energy Flow in Ecosystems

7.12 Organisms and environments. The student understands that ecosystems are dependent upon the cycling of matter and the flow of energy.

important words for concept development				
subcluster	standards	new to grade level		previously introduced
Flow of Energy	7.12(A), 7.12(B)	10% rule	autotroph	food chain
		biomass	biosphere	heterotroph
		carbon	consumer	matter
		carbon cycle	decomposer	producer
		chemosynthesis	ecosystem*	recycling
		nitrogen fixation	energy flow	sustainability*
		nutrient	energy pyramid*	
		phosphorus cycle		
		primary consumer		
		secondary consumer		
		tertiary consumer		
		trophic level		

Structure, Function, and Evolution

7.13 Organisms and environments. The student knows how systems are organized and function to support the health of an organism and how traits are inherited.

important words for concept development					
subcluster	standards	new to grade level		previously introduced	
Human Structure and Function	7.13(A)	circulatory* digestive* endocrine* immune integumentary muscular	nervous* reproductive respiratory* skeletal urinary	function	
Hierarchical Organization	7.13(B)	organ organ system phloem tissue xylem		cell hierarchy organism	
Genetic Diversity	7.13(C)	asexual reproduction* diverse offspring gene pool genetic diversity	genetically identical* sexual reproduction* uniform offspring	genetic variation* inherited offspring	
Evolutionary Mechanisms	7.13(D)	artificial selection domestic animal dominant species* frequency*	generation hybrid plant mutation selective breeding*	adaptation* habitat* natural selection offspring*	population species* trait

Taxonomy

7.14 Organisms and environments. The student knows how the taxonomic system is used to describe relationships between organisms.

important words for concept development				
subcluster	standards	new to grade level		previously introduced
Taxonomic System	7.14(A), 7.14(B)	animalia*	kingdom*	decomposition
		archaea	order	species*
		bacteria	phylum	
		class	plantae*	
		digestion	protista	
		domain	taxon	
		family	taxonomic classification	
		fungi*	system*	
		genus	taxonomic group	
		hierarchical classification system		