

**Idaho Science Content and Performance Standards:
Science and Engineering Practices and Cross Cutting Concepts “At-A-Glance” K-5**



	Kindergarten	First	Second	Third	Fourth	Fifth	Total
Science and Engineering Practices							
Asking Questions (science) and Defining Problems (engineering)	✓			✓✓	✓		4 (5%)
Develop and Use Model	✓	✓	✓✓✓		✓✓✓✓	✓✓✓	12 (16%)
Plan and Carry Out Investigations	✓✓	✓✓	✓✓	✓✓	✓✓	✓✓	12 (16%)
Analyze & Interpret data	✓✓✓✓	✓	✓	✓✓	✓	✓✓	11 (15%)
Mathematical Thinking						✓✓	2 (3%)
Construct Explanation and Design Solutions	✓	✓✓✓✓✓	✓✓✓	✓	✓✓✓✓✓	✓	16 (19%)
Engage In Argument	✓		✓	✓✓	✓	✓✓✓✓✓	10 (14%)
Obtain evaluate & Communicate Information	✓✓	✓	✓	✓	✓	✓	7 (9%)
Cross Cutting Concepts							
Patterns	✓✓✓	✓✓✓✓✓	✓✓✓	✓✓✓✓	✓✓✓✓	✓	20
Cause and Effect	✓✓✓✓✓✓✓	✓✓✓	✓✓✓	✓✓✓✓✓	✓✓✓✓	✓✓✓✓	26
Scale, Proportion and Quantity						✓✓✓✓✓✓	6
Systems and System Models	✓✓				✓✓✓	✓✓✓	8
Energy and Matter			✓		✓✓✓✓	✓✓	7
Structure and Function		✓	✓				2
Stability and Change			✓✓				2

Idaho State Science Content and Performance Standards: Supporting Content “At-A-Glance” K-5



	Kindergarten	First	Second	Third	Fourth	Fifth
PS: Physical Science						
Matter & Its Interactions			<ul style="list-style-type: none"> Materials have observable properties Purpose of materials Objects can be dis/reassembled Heating/cooling 			<ul style="list-style-type: none"> Matter is made of particles too small to be seen Effects of heating/cooling/mixing substances Identify materials based on properties Results of mixing substances
Motion & Stability: Forces & Interactions	<ul style="list-style-type: none"> Pushes & pulls Pushes & pulls affect speed & direction 			<ul style="list-style-type: none"> Balanced & unbalanced forces affect motion Electric/magnetic interactions Magnets 		<ul style="list-style-type: none"> Gravitational force
Energy	<ul style="list-style-type: none"> Effect of sunlight Structures & sunlight 				<ul style="list-style-type: none"> Speed & energy relationship Energy transfers from place to place Energy changes when objects collide Energy conversion 	<ul style="list-style-type: none"> Energy in animals' food came from the sun
Waves		<ul style="list-style-type: none"> Sound/vibration Properties of light Long distance communication 			<ul style="list-style-type: none"> Wave properties and patterns Light reflection & vision Transfer of information 	
LS: Life Science						
Molecules to Organisms: Structures & Processes	<ul style="list-style-type: none"> Needs of plants & animals Living & non-living 	<ul style="list-style-type: none"> Plants & animals use external parts to survive Survival of offspring Life cycle 			<ul style="list-style-type: none"> Internal & external structures of plants & animals have specific functions Animals receive, process, & respond to information 	<ul style="list-style-type: none"> Plants get material for growth chiefly from air & water
Ecosystems: Interactions, Energy, & Dynamics			<ul style="list-style-type: none"> Plants need sunlight & water Seed dispersion/plant pollination 	<ul style="list-style-type: none"> Some animals form groups to help members survive 	<ul style="list-style-type: none"> Movement of matter throughout an ecosystem 	
Heredity: Inheritance & Variation of Traits		<ul style="list-style-type: none"> Young are alike and different from parents 		<ul style="list-style-type: none"> Plants & animals inherit traits/ variations exist in similar organisms Traits can be influenced by environment 		
Biological Adaptation: Unity & Diversity			<ul style="list-style-type: none"> Plant/animal diversity in different habitats 			<ul style="list-style-type: none"> Fossils provide evidence of organisms & environment Variations & advantages in survival Organism survival/characteristics/habitat Survival relative to environmental changes
ESS: Earth and Space Science						
Earth's Place in Universe		<ul style="list-style-type: none"> Patterns of sun/ moon/stars Seasonal patterns 	<ul style="list-style-type: none"> Earth events can occur quickly or slowly 	<ul style="list-style-type: none"> Typical weather conditions expected in a season Different climates throughout the world 	<ul style="list-style-type: none"> Rock formations & fossils reveal changes over time 	<ul style="list-style-type: none"> Apparent brightness of sun/stars Shadows/day/night/seasonal appearance of stars
Earth's Systems	<ul style="list-style-type: none"> Weather & four seasons Plants/animals change the environment 		<ul style="list-style-type: none"> Effects of wind/water Shapes/kinds of land/water Location of water on Earth/ exists as solid/liquid/gas 	<ul style="list-style-type: none"> Weather related hazards/solutions 	<ul style="list-style-type: none"> Effects of weathering & erosion Use maps to describe patterns of Earth's features 	<ul style="list-style-type: none"> Interaction of geosphere/biosphere/hydrosphere, & atmosphere Distribution of water on Earth
Earth & Human Activity	<ul style="list-style-type: none"> Needs of living things Weather forecasting/ severe weather Impact of humans on the environment 				<ul style="list-style-type: none"> Energy & fuels come from natural resources/their uses affect the environment Natural Earth processes impact humans 	<ul style="list-style-type: none"> Communities use science ideas to protect the Earth's resources and environment.

