A Correlation of

Elevate Science: Life
©2019

To the

Idaho Content Standards for Science
Life Sciences

Grades 6-8

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Introduction

This document demonstrates how ***Elevate Science ©2019*** meets the Idaho Content Standards for Science. Correlation page references are to the Student and Teacher's Editions and cited at the page level.

Savvas is proud to introduce ***Elevate Science*** Middle Grades – where exploration is the heart of science! Designed to address the rigors of new science standards, students will experience science up close and personal, using real-world, relevant phenomena to solve project-based problems. Our newest program prepares students for the challenges of tomorrow, building strong reasoning skills and critical thinking strategies as they engage in explorations, formulate claims, and gather and analyze data that promote evidence-based arguments. The blended print and digital curriculum covers all Next Generation Science Standards at every grade level.

Elevate Science helps teachers transform learning, promote innovation, and manage their classroom.

Transform science classrooms by immersing students in active, three-dimensional learning.
Elevate Science engages students with real-world tasks, open-ended Quests, uDemonstrate performance-based labs, and in the engineering/design process with uEngineer It! investigations.

- A new 3-D learning model enhances best practices.
- Engineering-focused features infuse STEM learning.
- Phenomena-based activities put students at the heart of a Quest for knowledge.

Innovate learning by focusing on 21st century skills.
Students are encouraged to think, collaborate, and innovate! With ***Elevate Science***, students explore STEM careers, experience engineering activities, and discover our scientific and technological world. The content, strategies, and resources of Elevate Science equip the science classroom for scientific inquiry and science and engineering practices.

- Problem-based learning Quests put students on a journey of discovery.
- STEM connections help integrate curriculum.
- Coding and innovation engage students and build 21st century skills.

Manage the classroom with confidence.
Teachers will lead their class in asking questions and engaging in argumentation. Evidence-based assessments provide new options for monitoring student understanding.

- Professional development offers practical point-of-use support.
- Embedded standards in the program allow for easy integration.
- ELL and differentiated instruction strategies help instructors reach every learner.
- Interdisciplinary connections relate science to other subjects.

Designed for today's classroom, preparing students for tomorrow's world. ***Elevate Science*** promises to:

- Elevate thinking.
- Elevate learning.
- Elevate teaching.

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Supporting Content	
MS-LS1-3.LS1.A Structure and Function	
MS-LS1-3.LS1.A.i In multicellular organisms, the body is a system of multiple interacting subsystems. These subsystems are groups of cells that work together to form tissues and organs that are specialized for particular body functions.	**SE/TE:** Cellular Organization, 6 Structure of Animals, 44 Lesson 4 Check, 49 Cell Function, 63 Specialized Cells, 79 Cells Make Up an Organism, 80 Lesson 2 Check, 81 Quest Connection, 130 Organization of the Body, 131 Cells and Tissues, 132 Reproductive System, 135 Quest Check-In, 138 Lesson 1 Check, 138 Movement, 141 Hormonal Control, 145 The Digestive System as a Whole, 161 Literacy Connection: Draw Evidence, 169 Quest Check-In, 175 Lesson 4 Check, 175 Evidence-Based Assessment, 188-189
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MS-LS1-4.LS1.B.i Organisms reproduce, either sexually or asexually, and transfer their genetic information to their offspring.	**SE/TE:** Characteristics of Living Things, 5-7 Reproduction, 7 Life Produces More Life, 8-9 Connect It!, 198 Asexual and Sexual Reproduction, 199-201 Asexual Reproduction, 199 Sexual Reproduction, 200 Comparing Types of Reproduction, 201 Inherited Traits, 202-204 Codominance, 203 Multiple Alleles, 204 Acquired Traits, 205 Environmental Factors, 206 Lesson 1 Check, 207 Asexual Reproduction, 212 Lesson 2 Check, 216 Mendel's Observations, 349-350 Connect It!, 392
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LS2-MS-1.LS2.A Interdependent Relationships in Ecosystems	
LS2-MS-1.LS2.A.i Organisms, and populations of organisms, are dependent on their environmental interactions both with other living things and with nonliving factors.	**SE/TE:** Obtaining Food, 31 Form and Function, 39 Growth and Development of Organisms, 229 Plant Responses and Growth, 230-232 Seasonal Change, 231 Environmental Conditions, 232 External and Internal Factors, 235-236 Lesson 4 Check, 237 Organisms and Habitats, 253-254 Biotic Factors, 254 Abiotic Factors, 254 Ecosystem Organization, 255 Communities, 255 Food and Water, 258 Lesson 1 Check, 259 Topic 6 Opener: Populations, Communities, and Ecosystems, 290-291 Competition, 297 Quest Check-In, 303 Habitat Preservation, 321 Quest Check-In, 323 Case Study: The Dependable Elephant, 324-325
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LS2-MS-2.LS2.A Interdependent Relationships in Ecosystems	
LS2-MS-2.LS2.A.i Similarly, predatory interactions may reduce the number of organisms or eliminate whole populations of organisms. Mutually beneficial interactions, in contrast, may become so interdependent that each organism requires the other for survival. Although the species involved in these competitive, predatory, and mutually beneficial interactions vary across ecosystems, the patterns of interactions of organisms with their environments, both living and nonliving, are shared.	**SE/TE:** Communities, 255 Populations, 256-257 Lesson 1 Check, 259 Adaptations and Survival, 295-296 Competition, 297 Adaptations, 298 Model It!: Predator and Prey Adaptations, 298 Predation, 298 Population Size, 299 Commensalism, 300 Symbiotic Relationships, 300-302 Mutualism, 300-301 Quest Check-In, 301 Parasitism, 302 Lesson 1 Check, 303 Quest Check-In, 323 Case Study: The Dependable Elephant, 324-325 Topic Review and Assess, 336-337
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LS2-MS-3.LS2.B.i Food webs are models that demonstrate how matter and energy is transferred between producers, consumers, and decomposers as the three groups interact within an ecosystem. Transfers of matter into and out of the physical environment occur at every level. Decomposers recycle nutrients from dead plant or animal matter back to the soil in terrestrial environments or to the water in aquatic environments. The atoms that make up the organisms in an ecosystem are cycled repeatedly between the living and nonliving parts of the ecosystem.	**SE/TE:** Fungi, 34-35 Roles of Fungi, 35 Model It!: Trace Energy to the Source, 101 Energy Roles in an Ecosystem, 263-265 Consumers, 264 Decomposers, 265 Food Chains, 266 Food Webs, 266-267 Energy Pyramids, 268 Lesson 2 Check, 270 Carbon Cycle, 276 Topic Review and Assess, 282-283 Evidence-Based Assessment, 284-285 uDemonstrate Lab: Last Remains, 286-289 Competition, 297 Competition and Predation, 297-299 Predation, 298 Symbiotic Relationships, 300-302 Mutualism, 300-301 Quest Check-In, 301 Parasitism, 302 Lesson 1 Check, 303 Quest Check-In, 323 Supporting Services, 330

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LS2-MS-5.LS2.C Ecosystem Dynamics, Functioning, and Resilience	
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LS2-MS-6.LS4.D.i Changes in biodiversity can influence humans' resources, such as food, energy, and medicines, as well as ecosystem services that humans rely on-for example, water purification and recycling.	**SE/TE:** Quest Connection, 152 The Value of Biodiversity, 313-315 Economic Value, 314 Ecological Value, 315 Factors Affecting Biodiversity, 316-318 Niche Diversity, 316 Lesson 3 Check, 323 Ecosystem Services, 327-330 Biodiversity, 331 Factors Impacting Ecosystem Services, 331-332 Human Activities, 332 Conservation, 333 Protection, 333 Restoration, 333 Lesson 4 Check, 334 uEngineer It!: From Bulldozers to Biomes, 335
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LS3-MS-1.LS3.A Inheritance of Traits	
LS3-MS-1.LS3.A.i Genes are located in the chromosomes of cells, with each chromosome pair containing two variants of each of many distinct genes. Each distinct gene chiefly controls the production of specific proteins, which in turn affects the traits of the individual. Changes (mutations) to genes can result in changes to proteins, which can affect the structures and functions of the organism and thereby change traits.	**SE/TE:** Sexual Reproduction, 200 Inherited Traits, 202-204 Making a Punnett Square, 354-355 Genotype, 356 Lesson 1 Check, 357 Connect It!, 360 Quest Connection, 360 Chromosomes and Genes, 361-363 Genes on Chromosomes, 362 Number of Chromosomes, 362 Chromosome Pairs, 363 Quest Connection, 370 The Genetic Code, 371 Quest Check-In, 378 Lesson 3 Check, 378 Types of Chromosomes, 382 Genetic Mutations, 384 Types of Mutations, 384-385 Sex-Linked Mutations, 385 Mutation Effects, 387 Mutations in Reproduction, 388-390 Protein Changes, 390 Lesson 4 Check, 391 Quest Check-In, 391 Topic Review and Assess, 402-403 uDemonstrate Lab: Make the Right Call, 406-409 Genes and Natural Selection, 430-431 Mutations, 436-437 Lesson 3 Check, 441 Genetic Material and Evolution, 457 Proteins, 460-461 Lesson 5 Check, 464 Topic Review and Assess, 466-467

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LS3-MS-1.LS3.B.i In addition to variations that arise from sexual reproduction, genetic information can be altered because of mutations. Though rare, mutations may result in changes to the structure and function of proteins. Some changes are beneficial, others harmful, and some neutral to the organism.	**SE/TE:** Genetic Mutations, 384 Types of Mutations, 384-385 Model It!: Mutations and Protein Construction, 385 Sex-Linked Mutations, 385 Mutation Effects, 387 Protein Changes, 390 Evidence-Based Assessment, 404-405 Genes and Natural Selection, 430-431 Mutations, 436-437 Lesson 3 Check, 441 Genetic Material and Evolution, 457 Proteins, 460-461
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LS3-MS-2.LS1.B.i Organisms reproduce, either sexually or asexually, and transfer their genetic information to their offspring.	**SE/TE:** Characteristics of Living Things, 5-7 Reproduction, 7 Life Produces More Life, 8-9 Connect It!, 198 Asexual and Sexual Reproduction, 199-201 Asexual Reproduction, 199 Sexual Reproduction, 200 Comparing Types of Reproduction, 201 Inherited Traits, 202-204 Codominance, 203 Multiple Alleles, 204 Environmental Factors, 206 Lesson 1 Check, 207 Asexual Reproduction, 212 Lesson 2 Check, 216 Mendel's Observations, 349-350 Connect It!, 392
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LS3-MS-2.LS3.B Variation of Traits	
LS3-MS-2.LS3.B.i In sexually reproducing organisms, each parent contributes half of the genes acquired (at random) by the offspring. Individuals have two of each chromosome and hence two alleles of each gene, one acquired from each parent. These versions may be identical or may differ from each other.	**SE/TE:** Topic Review and Assess, 50-51 Connect It!, 198 Asexual and Sexual Reproduction, 199-201 Model It!: Develop Models, 200 Sexual Reproduction, 200 Comparing Types of Reproduction, 201 Inherited Traits, 202-204 Model It!: Apply Concepts, 203 Codominance, 203 Incomplete Dominance, 203 Multiple Alleles, 204 Environmental Factors, 206 Lesson 1 Check, 207 Lesson 2 Check, 216 Topic Review and Assess, 240-241 Quest Connection, 348 Alleles Affect Inheritance, 351-352 Genes and Alleles, 351 Making a Punnett Square, 354-355 Genotype, 356 Interactivity, 356 Lesson 1 Check, 357 Connect It!, 360 Number of Chromosomes, 362 Math Toolbox: Counting on Chromosomes, 363 Quest Check-In, 368 Quest Connection, 370 Types of Chromosomes, 382 Lesson 4 Check, 391 Quest Connection, 392 Topic Review and Assess, 402-403 uDemonstrate Lab: Make the Right Call, 406-409

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LS4-MS-1 Analyze and interpret data for patterns in the fossil record that document the existence, diversity, extinction, and change of life forms throughout the history of life on Earth under the assumption that natural laws operate today as in the past.	**SE/TE:** Common Ancestry, 22 Evolution and Classification, 22-23 Evolutionary Relationships, 23 Math Toolbox: Predator-Prey Interactions, 299 Lesson 3 Check, 323 Mary Anning's Fossils, 418 Lesson 1 Check, 423 Quest Connection, 442 Connect It!, 442 The Fossil Record, 443-445 Fossil Evidence of Evolution, 446-447 Early Earth, 446 Fossils and Evolution Through Time, 447 Comparisons of Anatomy, 448-449 Quest Check-In, 453 Lesson 4 Check, 453 Case Study: Could Dinosaurs Roar?, 454-455

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Supporting Content	
LS4-MS-1.LS4.A Classification of Organisms	
LS4-MS-1.LS4.A.i The collection of fossils and their placement in chronological order is known as the fossil record and documents the change of many life forms throughout the history of the Earth. Anatomical similarities and differences between various organisms living today and between them and organisms in the fossil record enable the classification of living things.	**SE/TE:** Linnaean Naming System, 17 Common Ancestry, 22 Evolution and Classification, 22-23 Evolutionary Relationships, 23 Lesson 2 Check, 24 Extraordinary Science: Classification - What's A Panda?, 25 Lesson 3 Check, 323 Mary Anning's Fossils, 418 Lesson 1 Check, 423 Quest Connection, 442 Connect It!, 442 Microevolution and Macroevolution, 443 The Fossil Record, 443-445 Fossil Evidence of Evolution, 446-447 Fossils and Evolution Through Time, 447 Comparisons of Anatomy, 448-449 Homologous Structures, 448-449 Quest Check-In, 453 Lesson 4 Check, 453 Case Study: Could Dinosaurs Roar?, 454-455 Genetic Evidence for a Common Ancestor, 458-459 uDemonstrate Lab: A Bony Puzzle, 470-473

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Performance Expectation	
LS4-MS-2 Apply scientific ideas to construct an explanation for the anatomical similarities and differences among modern organisms and between modern and fossil organisms to infer relationships.	**SE/TE:** Evolution and Classification, 22-23 Lesson 2 Check, 24 Fossils, 419 Quest Connection, 442 Connect It!, 442 Microevolution and Macroevolution, 443 The Fossil Record, 443-445 Fossil Evidence of Evolution, 446-447 Comparisons of Anatomy, 448-449 Homologous Structures, 448-449 Quest Check-In, 453 Lesson 4 Check, 453 Case Study: Could Dinosaurs Roar?, 454-455 Genetic Evidence for a Common Ancestor, 458-459 Extraordinary Science: DNA, Fossils, and Evolution, 465 Topic Review and Assess, 466-467 uDemonstrate Lab: A Bony Puzzle, 470-473

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Supporting Content	
LS4-MS-2.LS4.A Classification of Organisms	
LS4-MS-2.LS4.A.i The collection of fossils and their placement in chronological order is known as the fossil record and documents the change of many life forms throughout the history of the Earth. Anatomical similarities and differences between various organisms living today and between them and organisms in the fossil record enable the classification of living things.	**SE/TE:** Linnaean Naming System, 17 Common Ancestry, 22 Evolution and Classification, 22-23 Evolutionary Relationships, 23 Lesson 2 Check, 24 Extraordinary Science: Classification - What's A Panda?, 25 Mary Anning's Fossils, 418 Lesson 1 Check, 423 Quest Connection, 442 Connect It!, 442 Microevolution and Macroevolution, 443 The Fossil Record, 443-445 Fossil Evidence of Evolution, 446-447 Fossils and Evolution Through Time, 447 Comparisons of Anatomy, 448-449 Homologous Structures, 448-449 Quest Check-In, 453 Lesson 4 Check, 453 Case Study: Could Dinosaurs Roar?, 454-455 Genetic Evidence for a Common Ancestor, 458-459 Topic Review and Assess, 466-467 uDemonstrate Lab: A Bony Puzzle, 470-473
Performance Expectation	
LS4-MS-3 Analyze displays of pictorial data to compare patterns of similarities in the anatomical structures across multiple species of similar classification levels to identify relationships.	**SE/TE:** Homologous Structures, 448-449 Embryological Development, 448 Interactivity, 448 Math Toolbox: Homolgous Structures, 449 Case Study: Could Dinosaurs Roar?, 454-455 Topic Review and Assess, 466-467

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Supporting Content	
LS4-MS-3.LS4.A Classification of Organisms	
LS4-MS-3.LS4.A.i Scientific genus and species level names indicate a degree of relationship.	**SE/TE:** Taxonomy, 18 Binomial Nomenclature, 20 Lesson 2 Check, 24 Topic Review and Assess, 50-51 Organisms, 255
Performance Expectation	
LS4-MS-4 Construct an explanation based on evidence that describes how genetic variations of traits in a population increase some individuals' probability of surviving and reproducing in a specific environment.	**SE/TE:** Acquired Traits, 205 Genes and the Environment, 205-206 Lesson 1 Check, 207 Connect It!, 348 Case Study: Cephalopods Special Edition, 358-359 Connect It!, 414 Question It!: We Got the Beak!, 421 Lesson 1 Check, 423 Connect It!, 424 Model It!: Natural Selection in Action, 429 Lesson 2 Check, 432 Connect It!, 434 Lesson 3 Check, 441 uDemonstrate Lab: A Bony Puzzle, 470-473
Supporting Content	
LS4-MS-4.LS4.B Natural Selection	
LS4-MS-4.LS4.B.i Natural selection leads to the predominance of certain traits in a population, and the suppression of others.	**SE/TE:** Adaptations and Survival, 295-296 Quest Check-In, 357 Darwin's Search for a Mechanism, 425-427 How Natural Selection Works, 427 Selection, 428-429 Lesson 2 Check, 432 Lesson 5 Check, 464 Topic Review and Assess, 466-467

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Performance Expectation	
LS4-MS-5 Gather and synthesize information about the technologies that have changed the way humans influence the inheritance of desired traits in organisms.	**SE/TE:** uEngineer It!: A Disease Becomes a Cure, 37 uEngineer It!: Artificial Skin, 139 Protecting Biodiversity, 321 uEngineer It: Reinventing DNA as Data Storage, 379 Connect It!, 392 Quest Connection, 392 Selective Breeding, 393 Artiificial Selection, 393 Genetic Engineering, 394-397 Gene Therapy in Humans, 396 Lesson 5 Check, 401 Evidence-Based Assessment, 404-405
Supporting Content	
LS4-MS-5.LS4.B Natural Selection	
LS4-MS-5.LS4.B.i In artificial selection, humans have the capacity to influence certain characteristics of organisms by selective breeding. One can choose desired parental traits determined by genes, which are then passed on to offspring.	**SE/TE:** Protecting Biodiversity, 321 Quest Check-In, 357 Connect It!, 392 Selective Breeding, 393 Artificial Selection, 393 Lesson 5 Check, 401 Evidence-Based Assessment, 404-405 Topic Review and Assess, 466-467
Performance Expectation	
LS4-MS-6 Use mathematical representations to support explanations of how natural selection may lead to increases and decreases of specific traits in populations over time.	**SE/TE:** Adaptations and Survival, 295-296 Quest Check-In, 357 Darwin's Search for a Mechanism, 425-427 How Natural Selection Works, 427 Math Toolbox: Hatching for Success, 428 Selection, 428-429 Lesson 2 Check, 432 Topic Review and Assess, 466-467

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Supporting Content	
LS4-MS-6.LS4.C Adaptation	
LS4-MS-6.LS4.C.i Adaptation by natural selection acting over generations is one important process by which species change over time in response to changes in environmental conditions. Traits that support successful survival and reproduction in the new environment become more common; those that do not become less common. Thus, the distribution of traits in a population changes.	**SE/TE:** Common Ancestry, 22 Evolutionary Relationships, 23 Acquired Traits, 205 Genes and the Environment, 205-206 Environmental Factors, 206 Connect It!, 294 Adaptations and Survival, 295-296 Adaptations, 298 Model It!: Predator and Prey Adaptations, 298 Lesson 1 Check, 301 Lesson 2 Check, 310 Case Study: Cephalopods Special Edition, 358-359 Quest Check-In, 378 Quest Connection, 380 Selective Breeding, 393 Artificial Selection, 393 Quest Connection, 414 Observing Changes, 415-418 Question Check-In, 423 Quest Connection, 424 Darwin's Search for a Mechanism, 425-427 How Natural Selection Works, 427 Selection, 428-429 Beyond Natural Selection, 435 Processes of Evolution, 435-438 Lesson 5 Check, 464 Topic Review and Assess, 466-467