Worth County Middle School
7th Grade Science - Life Science
Curriculum Map

	Cells and The Human Body *1st Nine Weeks*	**Heredity, Evolution, and Classification** *2nd Nine Weeks*	**Ecology** *3rd Nine Weeks*	**Review** *4th Nine Weeks*
	FIRST SEMESTER		**SECOND SEMESTER**	
GSE	*Unit 1*: **S7L2 a, b** *Unit 2*: **S7L2 b,c**	*Unit 3*: **S7L3 a, b, c** *Unit 4*: **S7L5 a, b, c** *Unit 5*: **S7L1 a, b**	**S7L4 a, b, c, d**	**All Standards**
Performance Tasks	*Unit 1* • Cell model projects and cell process diagrams *Unit 2* • Organ system slide show and scenarios	*Unit 3* • Punnett squares • Asexual/sexual six kingdom graphic organizer • Why do I look like me? project *Unit 4* • Stages of natural selection visual *Unit 5* • Dichotomous key activity • Six kingdoms brochure	• Climatographs • Biome research project • Biorama	• ABC Book of Science Terms/slide presentation • Frog dissection
Core Ideas	*Cells - Unit 1* • cell structures • functions of cells (growth, reproduction, production, process waste) • cells, tissues, organs, and organ systems • basic needs of organisms *The Human Body - Unit 2* • systems of the body - how they interact to carry out life processes	*Heredity - Unit 3* • inheritance of traits • genes and chromosomes • sexual and asexual reproduction • variation of traits • selective breeding (artificial selection) *Evolution - Unit 4* • theory of evolution of living organisms • natural selection - changes in specific traits • genetic variation and environmental factors - impact on survival and reproduction • fossil record *Classification - Unit 5* • categorization of organisms based on common characteristics • six kingdom system	• Patterns of interactions in ecosystems - such as predator-prey relationships, competition, mutualism, and commensalism • cycling of matter and flow of energy • Impact of resource availability, disease, climate, and human activity on organisms, populations, communities, and ecosystems • Terrestrial biomes (tropical rain forest, savanna, temperate forest, desert, grassland, taiga, and tundra) compared to aquatic ecosystems (freshwater, estuaries, marine)	• Review of core ideas from all previous units

Revised June 2023

Worth County Middle School Seventh Grade Curriculum Map rev 7/2022

1st Nine Weeks	2nd Nine Weeks	3rd Nine Weeks	4th Nine Weeks
Gifted Components: All accelerated science lessons are completed using extensive critical thinking, and station learning. Classroom Cell PBL	**Gifted Components:** All accelerated science lessons are completed using extensive critical thinking, and station learning. Divergent book study STEM Adaptations PBL	**Gifted Components:** All accelerated science lessons are completed using extensive critical thinking, and station learning. Biodome PBL	**Gifted Components:** All accelerated science lessons are completed using extensive critical thinking, and station learning. STEAM initiatives
Unit 1-Core Ideas **Structure and Function** **Scale, Proportion and Quantity** **1. All living things are made up of cells, which is the smallest unit that can be said to be alive. An organism may consist of one single cell (unicellular) or many different numbers and types of cells (multicellular). (MS-LS1-1)** **2.Within cells, special structures are responsible for particular functions, and the cell membrane forms the boundary that controls what enters and leaves the cell. (MS-LS1-2)** **3.Within individual organisms, food moves through a series of chemical reactions in which it is broken down and rearranged to form new molecules, to support growth, or to release energy. (MS-LS1-7)** **4. Plants, algae (including phytoplankton), and many microorganisms use the energy from light to make sugars (food) from carbon dioxide from the atmosphere and water through the process of photosynthesis, which also releases oxygen. These sugars can be used immediately or stored for growth or later use. (MS-LS1-6)** **Unit- 2 Core Ideas** **Systems and System Models** **Structure and Function** **1. In multicellular organisms, the body is a system of multiple interacting**	**Unit 3-Core Ideas** **Cause and Effect** **1. Organisms reproduce, either sexually or asexually, and transfer their genetic information to their offspring. (secondary to MSLS3-2)** **2. Animals engage in characteristic behaviors that increase the odds of reproduction. (MS-LS1-4)** **3.Plants reproduce in a variety of ways, sometimes depending on animal behavior and specialized features for reproduction. (MS-LS1-4)** **4.Genetic factors as well as local conditions affect the growth of the adult plant. (MS-LS1-5) 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. (MS-LS3-1)** **6.Variations of inherited traits between parent and offspring arise from genetic differences that result from the subset of chromosomes (and therefore genes) inherited. (MS-LS3-2)** **7.In sexually reproducing organisms, each parent contributes half of the**	**Unit 6-Core Ideas** **Energy and Matter-Flows, cycles and conservation** **System and System Models** **1. Organisms, and populations of organisms, are dependent on their environmental interactions both with other living things and with nonliving factors. (MS-LS2-1)** **2.In any ecosystem, organisms and populations with similar requirements for food, water, oxygen, or other resources may compete with each other for limited resources, access to which consequently constrains their growth and reproduction. (MS-LS2-1)** **3.Growth of organisms and population increases are limited by access to resources. (MS-LS2-1)** **4.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. (MS-LS2-2)** **5.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**	**Unit 7-Review of Core Ideas from all previous units. Review of crosscutting concepts and engineering practices.**

subsystems. These subsystems are groups of cells that work together to form tissues and organs that are specialized for particular body functions. (MS-LS1-3) **2. Each sense receptor responds to different inputs (electromagnetic, mechanical, chemical), transmitting them as signals that travel along nerve cells to the brain. The signals are then processed in the brain, resulting in immediate behaviors or memories. (MS-LS1-8)**	**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. (MS-LS3-2)** **8.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. (MS-LS3-1)** **Unit 4-Core Ideas** **Stability and Change** **Patterns** **1. The collection of fossils and their placement in chronological order (e.g., through the location of the sedimentary layers in which they are found or through radioactive dating) is known as the fossil record. It documents the existence, diversity, extinction, and change of many life forms throughout the history of life on Earth. (MS-LS4-1)** **2.Anatomical similarities and differences between various organisms living today and between them and organisms in the fossil record, enable the reconstruction of evolutionary history and the inference of lines of evolutionary descent. (MS-LS4-2)** **3.Comparison of the embryological development of different species also reveals similarities that show relationships not evident in the fully-formed anatomy. (MS-LS4-3)** **4.Natural selection leads to the predominance of certain traits in a population, and the suppression of others. (MS-LS4-4)** **5.In artificial selection, humans have the capacity to influence certain characteristics of organisms by**	**repeatedly between the living and nonliving parts of the ecosystem. (MS-LS2-3)** **6.Ecosystems are dynamic in nature; their characteristics can vary over time. Disruptions to any physical or biological component of an ecosystem can lead to shifts in all its populations. (MS-LS2-4) 7.Biodiversity describes the variety of species found in Earth's terrestrial and oceanic ecosystems. The completeness or integrity of an ecosystem's biodiversity is often used as a measure of its health. (MS-LS2-5)** **8.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. (secondary to MS-LS2-5)**	

	selective breeding. One can choose desired parental traits determined by genes, which are then passed on to offspring. (MS-LS4-5) **6.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. (MS-LS4)** **Unit 5-Core Ideas** **Patterns** **1.Characterization of organisms based on common characteristics.** **2.Biodiversity of Organisms**		

Science and Engineering Practices

Students will engage in relevant practices of science and engineering with a disciplinary core idea, and crosscutting concepts related to their curriculum content.

1. **Asking questions for (science) and defining problems for (engineering)**
2. **Developing and using models**
3. **Planning and carrying out investigations**
4. **Analyzing and Interpreting Data**
5. **Using Mathematics and computational thinking**
6. **Constructing explanations (for science) and designing solutions (for engineering)**
7. **Engaging in argument from evidence**
8. **Obtaining, evaluating, and communicating Information**

7th Grade World Studies Curriculum Map

Unit 1: SouthWest Asia/Middle East Geography	Unit 2: SouthWest Asia/Middle East Culture and government	Unit 3: SouthWest Asia/Middle East History	Unit 4: SouthEast Asia Geography	Unit 5: SouthEast Asian Culture and government	Unit 6: SouthEast Asian History
-Geography of the Middle East (SS7G5) -Environmental Issues of the Middle East (SS7G6) -Where People Live and Work (SS7G7)	-Cultures and religions of the Middle East (SS7G8) -Compare and Contrast governments of the Middle East (SS7CG3) -Economies of the Middle East (SS7E4, SS7E5, SS7E6)	-Analyze continuity and change in Southwest Asia (Middle East) (SS7H2) -a. European Partitioning -b.Formation and conflicts of modern Israel -c.Division of Palestine and Israel, conflict between Sunni and Shia Muslims -d. U.S Presence in SWA	-Geography of SouthEast Asia (SS7G9) -Environmental Issues of SouthEast Asia (SS7G10) -Where people live and work (SS7G11)	-Cultures and religions of SouthEast Asia (SS7G12 -Compare and Contrast governments of SEA (SS7CG4) -Economies of SouthEast Asia (SS7E7, SS7E8, SS7E9)	-Continuity and change in SouthEast Asia (SS7H3) -a. Indian independence -b. Gandhi -c. Rebuilding of Japan -d. Communist China -e. Korea and Vietnam, containment of communism.

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Unit 7: African Geography	Unit 8: African Culture and government	Unit 9: African History	Unit 10: Personal Finance
-Geography of Africa (SS7G1) -Environmental Issues of Africa (SS7G2) -Where people live and work (SS7G3)	-Cultures and religions of Africa (SS7G4) -Compare and Contrast governments of Africa (SS7CG1) -How instability impacts standards of living (SS7CG2) -Compare and contrast the economies of Africa (SS7E1) -Voluntary Trade (SS7E2) -Factors of economic growth (SS7E3)	-Analyze continuity and change in Africa (SS7H1) -a. European partitioning -b.Pan-African Movement -c.Apartheid and Nelson Mandela	-Living within one's income (SS7E10) -a.Where does income come from -b.Budgeting -c.Savings -d.Credit

7th Grade Math Curriculum Map

Semester 1						Semester 2					
Unit 1		Unit 2		Unit 3			Unit 4		Unit 5		Unit 6
1a	1b	2a	2b	3a	3b	3c	4a	4b	5a	5b	Culminating
Integers	Rational Numbers	Expressions and Equations	Inequalities	Ratios and Proportions	Percents	Scale Drawings	2D Figures (Angles, Area, Circumference)	3D Figures (Surface Area, Volume)	Probability	Inferences	Capstone Unit
2-3 weeks	2-3 weeks	4 weeks	2 weeks	5 weeks	2 weeks	2 weeks	3 weeks	2 weeks	4 weeks	2 weeks	5 weeks
7 NR 1.1 7 NR 1.2 7 NR 1.5 7 NR 1.7 7 NR 1.8 7 NR 1.9 7 MP 1-8	7.NR.1.3 7.NR.1.4 7.NR.1.6 7.NR.1.10 7.NR.1.11 7 MP 1-8	7.PAR.2.1 7.PAR.2.2 7.PAR.3.1 7 MP 1-8	7.PAR.3.2 7 MP 1-8	7.PAR.4.1 7.PAR.4.2 7.PAR.4.3 7.PAR.4.4 7.PAR.4.5 7.PAR 4.8 7 MP 1-8	7.PAR.4.9 7 MP 1-8	7.PAR.4.6 7.PAR.4.7 7 MP 1-8	7.GSR.5.1 7.GSR.5.2 7.GSR.5.3 7.GSR.5.4 7.GSR.5.5 7 MP 1-8	7.GSR.5.6 7.GSR.5.7 7.GSR.5.8 7 MP 1-8	7.PR.6.1 7.PR.6.2 7.PR.6.3 7.PR.6.4 7.PR.6.5 7 MP 1-8	7.PAR..4.10 7.PAR.4.11 7.PAR.4.12 7.PR.6.6 7 MP 1-8	All standards 7 MP 1-8
Concepts	Concepts	Concepts	Concepts	Concepts	Concepts	Concepts	Concepts	Concepts	Concepts	Concepts	Concepts
-Integer Rules -Absolute Value -Compare & Order -Properties of Numbers -Add, Subtract, Multiply & Divide -Operations # lines vertical and horizontal Using Models to display operations Zero Pairs/Additive Inverse	Operations involving Fractions, decimals Converting Fractions to Decimals with long Division Looking for patterns between terminating and repeating decimals Compare and order Rational #'s Add, subtract, multiply, divide rational numbers	Variable & Coefficients Write/Interpret Algebraic Expressions Solving Equations w/rational numbers One-Step Two-step Multistep Converting word problems into equations & expression	Inequalities One-Step Two-step Converting word problems into Inequalities	-Ratios Unit Rates -Lengths -Area Representing Proportional Relationships Testing Equivalent Ratios in tables and graphs Constant of Proportionality/ Slope	Multistep Ratio and Percent problems.	Scale Drawings (using proportions) Similar figures	Constructing Triangles with given conditions Angles (supplementary, complementary, vertical, adjacent) Write and Solve equations for unknown angles Circumference & Area of Circles Area of 2D objects	Cross-sections of 3D figures Volume, & Surface Area of 3D objects	Events -Probability (simple and compound, experimental and theoretical) Approximating & Predicting -Lists -Tables -Diagrams -Sample Space Probability Models (uniform and non-uniform) Explaining Discrepancy	-Statistics -Populations -Samples -Validity Drawing Inferences w/ multiple samples -Comparative Inferences -Measures of Center (Mean, Median, Mode) *Measures of Variablity	Test Review Acceleration for 8th grade math

Updated 8/13/24

7th Grade ELA Curriculum Map 2024-2025

Unit 1	Unit 2	Unit 3	Unit 4
Informational Text & Informational Writing	**Narrative Text & Narrative Writing**	**Argumentative Text & Argumentative Writing**	**Review**
Reading	**Reading**	**Reading**	**Reading**
Primary Focus: Informational Text **Secondary Focus:** Poetry **Standards:** RI.1, RI.2, RI.3 Spiral: RI.4 **Text(s):** "Do Animals Lie?"p. 289 "Variations of Species"p.194 A "How Evolution Happens: Natural Selection"p.196 "Apes and Monkeys"p. 198 Research other animals who lie by nature "The Giggle Prescription"p.384 "Face Value" p.112 "Missing" p. 854 "Birdfoot's Grampa" p. 859 "Code of Success"article **Resources:** Georgia GSC Success Grade 7 Language Arts(ABC), Georgia Treasure Literature Book Course 2, Elements of Literature, Commonlit, Epic, etc. **Include any additional high interest short stories on a diverse set of topics*.	**Primary Focus** Narrative Text **Secondary Focus** Folk Tales & Fables **Standards:** Spiral: RI1, RL.4, 7L1a **Text(s):** "Fish Cheeks" p.2 "Thank you, Ma'am" p. "Charles" p. 178 "The Lottery" "The Wise Old Woman" p.8 "The Traveler's and the Bear" p.88 "From When Plague Striked" p. 222 **Extended Text:** "Rikki Tikki Tavi" p.38 **Resources:** Georgia GSC Success Grade 7 Language Arts(ABC), Georgia Treasure Literature Book Course 2, Elements of Literature, Commonlit, Epic, etc. **Include any additional high interest short stories on a diverse set of topics.*	Primary Focus: Argumentative Text **Secondary Text:** Informational Text **Standards:** RI.3, RI.5, RI.8, RI.9 Spiral: RI.1, RI.2, RI.3 **Text(s):** "Toward A Rainbow Nation"p.555 "Message of Hope"p. 712 "Immigration"p. 16(ABC) "The Case Against Immigration"p.18 (ABC) **Extended Text:** **The Long Walk to Water** (Coincides with the study of Africa in Social Studies) Review for Georgia Milestones using **Resources:** Georgia GSC Success Grade 7 Language Arts(ABC), Georgia Treasure Literature Book Course 2, Elements of Literature, Commonlit, Epic, etc. **Include any additional high interest short stories on a diverse set of topics.*	**Primary Focus**- Literary, or Informational texts (Teachers Choice) **Secondary Text**: Poetry/Drama **Standards:** RI.7, RL.7 Spiral: RI.4 **Text(s):** "Monsters are Due on Maple Street, Act 1" p.794 "War of the Wall" p. 510 "Outdoor Art inAmerica" p. 524 "The Road Not Taken" "Dreams"p.393 "Miracles" p. 397 **Extended Text:** Teachers Choice **Resources:** Georgia GSC Success Grade 7 Language Arts(ABC), Georgia Treasure Literature Book Course 2, Elements of Literature, Commonlit, Epic, etc. ** Include any additional high interest short stories on a diverse set of topics.*

Writing	**Writing**	**Writing**	**Writing**
Primary Focus: Informational Writing ELAGSE7W2 a-e **Secondary Focus:** Research to Build and Present Knowledge **Routine writing** Notes, summaries, process journals, and short responses across all genres ELAGSE7W1, 2, 3, 9, 10	**Primary Focus:** Narrative Writing ELAGSE7W3 a-e **Secondary Focus:** Research to Build and Present Knowledge *Gifted/Accelerated DAR **Routine writing** Notes, summaries, process journals, and short responses across all genres ELAGSE7W1, 2, 3, 9, 10	**Primary Focus**- Argumentative Writing ELAGSE7W1 a-e **Secondary Focus:** Research to Build and Present Knowledge *Gifted/Accelerated Young Georgia Authors **Routine writing** Notes, summaries, process journals, and short responses across all genres ELAGSE7W1, 2, 3, 9, 10	**Primary Focus**: Write one example of each type of essay **Secondary Focus**: Research to Build and Present Knowledge **Routine writing** Notes, summaries, process journals, and short responses across all genres ELAGSE7W1, 2, 3, 9, 10
Language	**Language**	**Language**	**Language**
Conventions: Parts of Speech, review, Types of Sentences, clauses/phrases, transitions. ELAGSE7L1, 2, 3 **Vocabulary**: Word meanings, use of reference materials ELAGSE7L4 Common Key ELA terms-	**Conventions**: Types of Sentences, coordinating adjectives, comma, semicolon ELAGSE7L1-3 **Vocabulary**: Greek and Latin roots/affixes, word meanings, figurative language, connotations/denotations; key terms	**Conventions**: Usage Errors, combining sentences, redundancy/wordiness, precise/concise words ELAGSE7L1-3 **Vocabulary**: Greek and Latin roots/affixes, word meanings, figurative language, connotations/denotations; key terms	**Conventions**: Types of Sentences, comma, semicolon Usage Errors, combining sentences, redundancy ELAGSE7L1-3 **Vocabulary**: Greek and Latin roots/affixes, word meanings, figurative language, connotations/denotations; key terms