

Standard ID	Standard Text	Edgenuity Lesson Name
FL.SC.912.N.	Nature of Science	
SC.912.N.1.	The Practice of Science - A: Scientific inquiry is a multifaceted activity; The processes of	
SC.912.N.1.1.	Define a problem based on a specific body of knowledge, for example: biology, chemistry,	
SC.912.N.1.1.1.	Pose questions about the natural world	Formulating Scientific Questions
SC.912.N.1.1.2.	Conduct systematic observations	Scientific Inquiry
SC.912.N.1.1.3.	Examine books and other sources of information to see what is already known	Research in Science
SC.912.N.1.1.4.	Review what is known in light of empirical evidence	Analyzing Evidence
SC.912.N.1.1.5.	Plan investigations	Assessing Claims and Evidence
		Analyzing Data and Drawing Conclusions
		Collecting and Organizing Data
		Designing Scientific Investigations
		Formulating Scientific Questions
		Lab: Measurement
		Laboratory Safety
		Scientific Inquiry
		Using Math to Analyze Data
SC.912.N.1.1.6.	Use tools to gather, analyze, and interpret data (this includes the use of measurement in	
	metric and other systems, and also the generation and interpretation of graphical	
	representations of data, including data tables and graphs)	Collecting and Organizing Data
SC.912.N.1.1.7.	Pose answers, explanations, or descriptions of events	Analyzing Data and Drawing Conclusions
SC.912.N.1.1.8.	Generate explanations that explicate or describe natural phenomena (inferences)	Analyzing Data and Drawing Conclusions
SC.912.N.1.1.9.	Use appropriate evidence and reasoning to justify these explanations to others	Analyzing Data and Drawing Conclusions
		Analyzing Evidence
		Assessing Claims and Evidence
SC.912.N.1.1.10.	Communicate results of scientific investigations, and	Science-Based Communication
SC.912.N.1.1.11.	Evaluate the merits of the explanations produced by others.	Development of Scientific Knowledge

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SC.912.N.1.3.	Recognize that the strength or usefulness of a scientific claim is evaluated through scientific argumentation, which depends on critical and logical thinking, and the active consideration of alternative scientific explanations to explain the data presented.	Assessing Claims and Evidence
SC.912.N.1.4.	Identify sources of information and assess their reliability according to the strict standards of scientific investigation.	Analyzing Evidence Assessing Claims and Evidence Research in Science
SC.912.N.1.6.	Describe how scientific inferences are drawn from scientific observations and provide examples from the content being studied.	Collecting and Organizing Data
SC.912.N.2.	The Characteristics of Scientific Knowledge - A: Scientific knowledge is based on empirical	
SC.912.N.2.1.	Identify what is science, what clearly is not science, and what superficially resembles science (but fails to meet the criteria for science).	Chromosomal Changes
SC.912.N.2.2.	Identify which questions can be answered through science and which questions are outside the boundaries of scientific investigation, such as questions addressed by other ways of knowing, such as art, philosophy, and religion.	Formulating Scientific Questions
SC.912.N.3.	The Role of Theories, Laws, Hypotheses, and Models - The terms that describe examples of scientific knowledge, for example: "theory," "law," "hypothesis" and "model" have very specific meanings and functions within science.	
SC.912.N.3.1.	Explain that a scientific theory is the culmination of many scientific investigations drawing together all the current evidence concerning a substantial range of phenomena; thus, a scientific theory represents the most powerful explanation scientists have to offer.	Hypotheses, Theories, and Laws
SC.912.N.3.4.	Recognize that theories do not become laws, nor do laws become theories; theories are well supported explanations and laws are well supported descriptions.	Hypotheses, Theories, and Laws
FL.SC.912.E.	Earth and Space Science	
SC.912.E.7.	Earth Systems and Patterns - The scientific theory of the evolution of Earth states that changes in our planet are driven by the flow of energy and the cycling of matter through dynamic interactions among the atmosphere, hydrosphere, cryosphere, geosphere, and biosphere, and the resources used to sustain human civilization on Earth.	
SC.912.E.7.1.	Analyze the movement of matter and energy through the different biogeochemical cycles, including water and carbon.	

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FL.SC.912.L. SC.912.L.14.	Life Science Organization and Development of Living Organisms - A. Cells have characteristic structures and functions that make them distinctive. B. Processes in a cell can be classified broadly as growth, maintenance, reproduction, and homeostasis. C. Life can be organized in a functional and structural hierarchy ranging from cells to the biosphere. D. Most multicellular organisms are composed of organ systems whose structures reflect their particular function.	
SC.912.L.14.1.	Describe the scientific theory of cells (cell theory) and relate the history of its discovery to the process of science.	Cell Theory
SC.912.L.14.2.	Relate structure to function for the components of plant and animal cells. Explain the role of cell membranes as a highly selective barrier (passive and active transport).	Animal and Plant Cells Cell Homeostasis The Function of Organelles
SC.912.L.14.3.	Compare and contrast the general structures of plant and animal cells. Compare and contrast the general structures of prokaryotic and eukaryotic cells.	Animal and Plant Cells Prokaryotic and Eukaryotic Cells
SC.912.L.14.4.	Compare and contrast structure and function of various types of microscopes.	Cell Theory
SC.912.L.14.6.	Explain the significance of genetic factors, environmental factors, and pathogenic agents to health from the perspectives of both individual and public health.	Human Health
SC.912.L.14.7.	Relate the structure of each of the major plant organs and tissues to physiological processes.	Plant Structures
SC.912.L.14.26.	Identify the major parts of the brain on diagrams or models.	The Central Nervous System
SC.912.L.14.36.	Describe the factors affecting blood flow through the cardiovascular system.	The Cardiovascular System
SC.912.L.14.52.	Explain the basic functions of the human immune system, including specific and nonspecific immune response, vaccines, and antibiotics.	Medicine and the Immune System The Immune System

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SC.912.L.15.	Diversity and Evolution of Living Organisms - A. The scientific theory of evolution is the fundamental concept underlying all of biology. B. The scientific theory of evolution is supported by multiple forms of scientific evidence. C. Organisms are classified based on their evolutionary history. D. Natural selection is a primary mechanism leading to evolutionary change.	
SC.912.L.15.1.	Explain how the scientific theory of evolution is supported by the fossil record, comparative anatomy, comparative embryology, biogeography, molecular biology, and observed evolutionary change.	
SC.912.L.15.4.	Describe how and why organisms are hierarchically classified and based on evolutionary relationships.	Biological Evidence and the Fossil Record Evolutionary Relationships
SC.912.L.15.5.	Explain the reasons for changes in how organisms are classified.	Human Evolution Identifying Unknown Organisms Methods of Classification
SC.912.L.15.6.	Discuss distinguishing characteristics of the domains and kingdoms of living organisms.	Methods of Classification
SC.912.L.15.8.	Describe the scientific explanations of the origin of life on Earth.	The Kingdoms
SC.912.L.15.10.	Identify basic trends in hominid evolution from early ancestors six million years ago to modern humans, including brain size, jaw size, language, and manufacture of tools.	Biological Evidence and the Fossil Record
SC.912.L.15.13.	Describe the conditions required for natural selection, including: overproduction of offspring, inherited variation, and the struggle to survive, which result in differential reproductive success.	Human Evolution
SC.912.L.15.14.	Discuss mechanisms of evolutionary change other than natural selection such as genetic drift and gene flow.	Darwin's Theory Lab: Natural Selection
SC.912.L.15.15.	Describe how mutation and genetic recombination increase genetic variation.	Biogeographic Isolation Factors Affecting Biological Diversity Factors Affecting Genetic Variation
		Chromosomal Changes DNA Mutations Introduction to Genetics Laws of Inheritance Probability of Inheritance

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SC.912.L.16.	Heredity and Reproduction - A. DNA stores and transmits genetic information. Genes are sets of instructions encoded in the structure of DNA. B. Genetic information is passed from generation to generation by DNA in all organisms and accounts for similarities in related individuals. C. Manipulation of DNA in organisms has led to commercial production of biological molecules on a large scale and genetically modified organisms. D. Reproduction is characteristic of living things and is essential for the survival of species.	
SC.912.L.16.1.	Use Mendel's laws of segregation and independent assortment to analyze patterns of inheritance.	Laws of Inheritance
SC.912.L.16.2.	Discuss observed inheritance patterns caused by various modes of inheritance, including dominant, recessive, codominant, sex-linked, polygenic, and multiple alleles.	Acquired and Inherited Traits Lab: Mouse Genetics (One Trait) Laws of Inheritance Non-Mendelian Inheritance Sex-linked Inheritance
SC.912.L.16.3.	Describe the basic process of DNA replication and how it relates to the transmission and conservation of the genetic information.	Chromosomes DNA and RNA Structure
SC.912.L.16.4.	Explain how mutations in the DNA sequence may or may not result in phenotypic change. Explain how mutations in gametes may result in phenotypic changes in offspring.	DNA Mutations
SC.912.L.16.5.	Explain the basic processes of transcription and translation, and how they result in the expression of genes.	Protein Synthesis
SC.912.L.16.8.	Explain the relationship between mutation, cell cycle, and uncontrolled cell growth potentially resulting in cancer.	Cell Cycle
SC.912.L.16.9.	Explain how and why the genetic code is universal and is common to almost all organisms.	Genetic Code
SC.912.L.16.10.	Evaluate the impact of biotechnology on the individual, society and the environment, including medical and ethical issues.	Applications of DNA Technology Consequences of DNA Technology The Basis of DNA Technology

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SC.912.L.16.13.	Describe the basic anatomy and physiology of the human reproductive system. Describe the process of human development from fertilization to birth and major changes that occur in each trimester of pregnancy.	The Reproductive Process The Reproductive System
SC.912.L.16.14.	Describe the cell cycle, including the process of mitosis. Explain the role of mitosis in the formation of new cells and its importance in maintaining chromosome number during asexual reproduction.	Asexual and Sexual Reproduction Cell Cycle Mitosis
SC.912.L.16.16.	Describe the process of meiosis, including independent assortment and crossing over. Explain how reduction division results in the formation of haploid gametes or spores.	Meiosis
SC.912.L.16.17.	Compare and contrast mitosis and meiosis and relate to the processes of sexual and asexual reproduction and their consequences for genetic variation.	Asexual and Sexual Reproduction
SC.912.L.17.	Interdependence - A. The distribution and abundance of organisms is determined by the interactions between organisms, and between organisms and the non-living environment. B. Energy and nutrients move within and between biotic and abiotic components of ecosystems via physical, chemical and biological processes. C. Human activities and natural events can have profound effects on populations, biodiversity and ecosystem processes.	
SC.912.L.17.2.	Explain the general distribution of life in aquatic systems as a function of chemistry, geography, light, depth, salinity, and temperature.	Freshwater and Marine Biomes
SC.912.L.17.4.	Describe changes in ecosystems resulting from seasonal variations, climate change and succession.	Human Impact on the Environment Succession and Extinction
SC.912.L.17.5.	Analyze how population size is determined by births, deaths, immigration, emigration, and limiting factors (biotic and abiotic) that determine carrying capacity.	Population Growth Population Size and Structure Populations and the Environment
SC.912.L.17.8.	Recognize the consequences of the losses of biodiversity due to catastrophic events, climate changes, human activity, and the introduction of invasive, non-native species.	Factors Affecting Biological Diversity Human Impact on the Environment Natural Events and the Environment Relationships Among Organisms

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SC.912.L.17.9.	Use a food web to identify and distinguish producers, consumers, and decomposers. Explain the pathway of energy transfer through trophic levels and the reduction of available energy at successive trophic levels.	Energy Flow in Ecosystems Relationships Among Organisms
SC.912.L.17.11.	Evaluate the costs and benefits of renewable and nonrenewable resources, such as water, energy, fossil fuels, wildlife, and forests.	Human Impact on the Environment Nuclear Power The Social Costs of Resource Use What Are Natural Resources?
SC.912.L.17.13.	Discuss the need for adequate monitoring of environmental parameters when making policy decisions.	Informed Policy
SC.912.L.17.20.	Predict the impact of individuals on environmental systems and examine how human lifestyles affect sustainability.	Sustainability The Social Costs of Resource Use
SC.912.L.18.	Matter and Energy Transformations - A. All living things are composed of four basic categories of macromolecules and share the same basic needs for life. B. Living organisms acquire the energy they need for life processes through various metabolic pathways (primarily photosynthesis and cellular respiration). C. Chemical reactions in living things follow basic rules of chemistry and are usually regulated by enzymes. D. The unique chemical properties of carbon and water make life on Earth possible.	
SC.912.L.18.1.	Describe the basic molecular structures and primary functions of the four major categories of biological macromolecules.	Macromolecules The Importance of Carbon
SC.912.L.18.7.	Identify the reactants, products, and basic functions of photosynthesis.	The Process of Photosynthesis
SC.912.L.18.8.	Identify the reactants, products, and basic functions of aerobic and anaerobic cellular respiration.	Cellular Respiration
SC.912.L.18.9.	Explain the interrelated nature of photosynthesis and cellular respiration.	Photosynthesis and Cellular Respiration
SC.912.L.18.10.	Connect the role of adenosine triphosphate (ATP) to energy transfers within a cell.	ATP

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SC.912.L.18.11.	Explain the role of enzymes as catalysts that lower the activation energy of biochemical reactions. Identify factors, such as pH and temperature, and their effect on enzyme activity.	Catalysts
SC.912.L.18.12.	Discuss the special properties of water that contribute to Earth's suitability as an environment for life: cohesive behavior, ability to moderate temperature, expansion upon freezing, and versatility as a solvent.	The Importance of Water
FL.HE.912. HE.912.C. HE.912.C.1.	Health Education HEALTH LITERACY: CONCEPTS Core Concepts - Comprehend concepts related to health promotion and disease prevention to enhance health.	
HE.912.C.1.3.	Evaluate how environment and personal health are interrelated.	Human Health
HE.912.C.1.5.	Analyze strategies for prevention, detection, and treatment of communicable and chronic diseases.	
HE.912.C.1.7.	Analyze how heredity and family history can impact personal health.	Acquired and Inherited Traits Human Health
FL.LAFS.910.RST. LAFS.910.RST.1.	READING STANDARDS FOR LITERACY IN SCIENCE AND TECHNICAL SUBJECTS 6-12 Key Ideas and Details	
LAFS.910.RST.1.1.	Cite specific textual evidence to support analysis of science and technical texts, attending to the precise details of explanations or descriptions.	The Basis of DNA Technology
LAFS.910.RST.1.2.	Determine the central ideas or conclusions of a text; trace the text's explanation or depiction of a complex process, phenomenon, or concept; provide an accurate summary of the text.	The Importance of Carbon
LAFS.910.RST.1.3.	Follow precisely a complex multistep procedure when carrying out experiments, taking measurements, or performing technical tasks, attending to special cases or exceptions defined in the text.	Lab: Natural Selection
LAFS.910.RST.2.	Craft and Structure	
LAFS.910.RST.2.4.	Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to grades 9-10 texts and topics.	The Function of Organelles
LAFS.910.RST.2.5.	Analyze the structure of the relationships among concepts in a text, including relationships among key terms (e.g., force, friction, reaction force, energy).	The Function of Organelles
LAFS.910.RST.2.6.	Analyze the author's purpose in providing an explanation, describing a procedure, or discussing an experiment in a text, defining the question the author seeks to address.	Factors Affecting Biological Diversity

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LAFS.910.RST.3.	Integration of Knowledge and Ideas	
LAFS.910.RST.3.7.	Translate quantitative or technical information expressed in words in a text into visual form (e.g., a table or chart) and translate information expressed visually or mathematically (e.g., in an equation) into words.	Collecting and Organizing Data
LAFS.910.RST.3.8.	Assess the extent to which the reasoning and evidence in a text support the author's claim or a recommendation for solving a scientific or technical problem.	Assessing Claims and Evidence
LAFS.910.RST.3.9.	Compare and contrast findings presented in a text to those from other sources (including their own experiments), noting when the findings support or contradict previous explanations or accounts.	Darwin's Theory
LAFS.910.RST.4.	Range of Reading and Level of Text Complexity	
LAFS.910.RST.4.10.	By the end of grade 10, read and comprehend science/technical texts in the grades 9-10 text complexity band independently and proficiently.	Biogeographic Isolation
FL.LAFS.910.WHST.	WRITING STANDARDS FOR LITERACY IN SCIENCE AND TECHNICAL SUBJECTS	
LAFS.910.WHST.1.	Text Types and Purposes	
LAFS.910.WHST.1.1.	Write arguments focused on discipline-specific content.	
LAFS.910.WHST.1.1.a.	Introduce precise claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that establishes clear relationships among the claim(s), counterclaims, reasons, and evidence.	Biological Evidence and the Fossil Record
LAFS.910.WHST.1.1.b.	Develop claim(s) and counterclaims fairly, supplying data and evidence for each while pointing out the strengths and limitations of both claim(s) and counterclaims in a discipline-appropriate form and in a manner that anticipates the audience's knowledge level and concerns.	Biological Evidence and the Fossil Record
LAFS.910.WHST.1.1.c.	Use words, phrases, and clauses to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons, between reasons and evidence, and between claim(s) and counterclaims.	Biological Evidence and the Fossil Record
LAFS.910.WHST.1.1.d.	Establish and maintain a formal style and objective tone while attending to the norms and conventions of the discipline in which they are writing.	Biological Evidence and the Fossil Record
LAFS.910.WHST.1.1.e.	Provide a concluding statement or section that follows from or supports the argument presented.	Biological Evidence and the Fossil Record

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LAFS.910.WHST.1.2.	Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.	
LAFS.910.WHST.1.2.a.	Introduce a topic and organize ideas, concepts, and information to make important connections and distinctions; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension.	Factors Affecting Biological Diversity
LAFS.910.WHST.1.2.b.	Develop the topic with well-chosen, relevant, and sufficient facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic.	Factors Affecting Biological Diversity
LAFS.910.WHST.1.2.c.	Use varied transitions and sentence structures to link the major sections of the text, create cohesion, and clarify the relationships among ideas and concepts.	Factors Affecting Biological Diversity
LAFS.910.WHST.1.2.d.	Use precise language and domain-specific vocabulary to manage the complexity of the topic and convey a style appropriate to the discipline and context as well as to the expertise of likely readers.	Factors Affecting Biological Diversity
LAFS.910.WHST.1.2.e.	Establish and maintain a formal style and objective tone while attending to the norms and conventions of the discipline in which they are writing.	Factors Affecting Biological Diversity
LAFS.910.WHST.1.2.f.	Provide a concluding statement or section that follows from and supports the information or explanation presented (e.g., articulating implications or the significance of the topic).	Factors Affecting Biological Diversity
LAFS.910.WHST.2.	Production and Distribution of Writing	
LAFS.910.WHST.2.4.	Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.	The Basis of DNA Technology
LAFS.910.WHST.2.5.	Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on addressing what is most significant for a specific purpose and audience.	Biological Evidence and the Fossil Record
LAFS.910.WHST.2.6.	Use technology, including the Internet, to produce, publish, and update individual or shared writing products, taking advantage of technology's capacity to link to other information and	The Basis of DNA Technology
LAFS.910.WHST.3.	Research to Build and Present Knowledge	
LAFS.910.WHST.3.7.	Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.	Lab: Natural Selection

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LAFS.910.WHST.3.8.	Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the usefulness of each source in answering the research question; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and following a standard format for citation.	Research in Science
LAFS.910.WHST.3.9.	Draw evidence from informational texts to support analysis, reflection, and research.	Analyzing Evidence Assessing Claims and Evidence
LAFS.910.WHST.4.	Range of Writing	
LAFS.910.WHST.4.10.	Write routinely over extended time frames (time for reflection and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.	The Basis of DNA Technology
FL.LAFS.910.SL.	STANDARDS FOR SPEAKING AND LISTENING	
LAFS.910.SL.1.	Comprehension and Collaboration	
LAFS.910.SL.1.1.	Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grades 9-10 topics, texts, and issues, building on others' ideas and expressing their own clearly and persuasively.	
LAFS.910.SL.1.1.a.	Come to discussions prepared, having read and researched material under study; explicitly draw on that preparation by referring to evidence from texts and other research on the topic or issue to stimulate a thoughtful, well-reasoned exchange of ideas.	
LAFS.910.SL.1.1.b.	Work with peers to set rules for collegial discussions and decision-making (e.g., informal consensus, taking votes on key issues, presentation of alternate views), clear goals and deadlines, and individual roles as needed.	
LAFS.910.SL.1.1.c.	Propel conversations by posing and responding to questions that relate the current discussion to broader themes or larger ideas; actively incorporate others into the discussion; and clarify, verify, or challenge ideas and conclusions.	
LAFS.910.SL.1.1.d.	Respond thoughtfully to diverse perspectives, summarize points of agreement and disagreement, and, when warranted, qualify or justify their own views and understanding and make new connections in light of the evidence and reasoning presented.	
LAFS.910.SL.1.2.	Integrate multiple sources of information presented in diverse media or formats (e.g., visually, quantitatively, orally) evaluating the credibility and accuracy of each source.	Research in Science
LAFS.910.SL.1.3.	Evaluate a speaker's point of view, reasoning, and use of evidence and rhetoric, identifying any fallacious reasoning or exaggerated or distorted evidence.	Research in Science

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LAFS.910.SL.2.	Presentation of Knowledge and Ideas	
LAFS.910.SL.2.4.	Present information, findings, and supporting evidence clearly, concisely, and logically such that listeners can follow the line of reasoning and the organization, development, substance, and style are appropriate to purpose, audience, and task.	
LAFS.910.SL.2.5.	Make strategic use of digital media (e.g., textual, graphical, audio, visual, and interactive elements) in presentations to enhance understanding of findings, reasoning, and evidence and to add interest.	Biological Evidence and the Fossil Record
FL.MAFS.912.N.	NUMBER & QUANTITY	
MAFS.912.N-Q.	QUANTITIES	
MAFS.912.N-Q.1.	Reason quantitatively and use units to solve problems. (Algebra 1 - Supporting Cluster; Algebra 2 - Supporting Cluster)	
MAFS.912.N-Q.1.1.	Use units as a way to understand problems and to guide the solution of multi-step problems; choose and interpret units consistently in formulas; choose and interpret the scale and the origin in graphs and data displays.	Lab: Measurement
MAFS.912.N-Q.1.3.	Choose a level of accuracy appropriate to limitations on measurement when reporting quantities.	Lab: Measurement