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Lab-Aids Correlations for

South Carolina College- and Career-Ready Science Standards 2021

EARTH AND SPACE SCIENCE

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This document is intended to show how the EDC Earth Science materials align with the South Carolina College- and Career-Ready Science Standards 2021.

ABOUT OUR PROGRAMS
Lab-Aids has maintained its home offices and operations in Ronkonkoma, NY, since 1963. We publish over 200 kits and core curriculum programs to support science teaching and learning, grades 6-12. All core curricula support an inquiry-driven pedagogy, with support for literacy skill development and with assessment programs that clearly show what students know and are able to do as a result of program use. All programs have extensive support for technology and feature comprehensive teacher support. For more information, please visit www.lab-aids.com and navigate to the program of interest.

SOUTH CAROLINA EARTH AND SPACE SCIENCE STANDARD	Location in EDC Earth Science Unit and title Chapter and pages
Earth's Place in the Universe (ESS1)	
E-ESS1-1. Develop a model based on evidence to illustrate that energy generated by nuclear fusion within the Sun (and other stars) radiates to and influences orbiting planets.	Unit 3: Earth's Place in the Universe Chapter 8: 200203, 212-215
E-ESS1-2. Construct an explanation of the Big Bang Theory based on evidence to show that the universe is changing overtime.	Unit 3: Earth's Place in the Universe Chapter 8: 200-206
E-ESS1-3. Construct an explanation using evidence to explain the ways elements are produced over the life cycle of a star.	Unit 3: Earth's Place in the Universe Chapter 8: 200-201
E-ESS1-4. Use mathematical or computational representations to predict the motion of orbiting objects in the universe due to gravity.	Unit 3: Earth's Place in the Universe Chapter 8: 208-209
E-ESS1-5. Evaluate evidence of the past and current movements of continental and	Unit 4: Plate Tectonics Chapter 10: 256-260; 12: 342-347

SOUTH CAROLINA EARTH AND SPACE SCIENCE STANDARD	Location in EDC Earth Science Unit and title Chapter and pages
oceanic crust and the theory of plate tectonics to explain the ages of crustal rocks.	Unit 5: The Rock Cycle Chapter 14: 399-401, 415-426
E-ESS1-6. Apply scientific reasoning and evidence from ancient Earth materials, meteorites, and other planetary surfaces to construct an account of Earth's formation and early history.	Unit 3: Earth's Place in the Universe Chapter 9: 195-199, 203-206 Unit 5: The Rock Cycle Chapter 14: 415-426
Earth's Systems (ESS2)	
E-ESS2-1. Use evidence to argue how Earth's internal and external processes operate to form and modify continental and ocean-floor features throughout Earth's history.	Unit 3: Earth's Place in the Universe Chapter 9: 241-244 Unit 4: Plate Tectonics Chapter 10: 250-279; 11: 289-322 Chapter 12: 336-345, 350-352 Unit 5: The Rock Cycle Chapter 13: 363-389 Chapter 14: 415-426
E-ESS2-2. Analyze data to make the claim that one change to Earth's surface can create feedbacks that cause changes to other Earth systems.	Unit 1: Hydrosphere: Water in Earth's Systems Chapter 3: 66-70, 72-76 Unit 2: Atmosphere and Climate Chapter 4: 102-106 Chapter 5: 115-135 Chapter 6: 155-164
E-ESS2-3. Develop a model based on evidence of Earth's interior that describes cycling of matter through convection processes.	Unit 3: Earth's Place in the Universe Chapter 9: 241-244 Unit 4: Plate Tectonics Chapter 11: 317-319 Chapter 12: 342-352
E-ESS2-4. Use a model to describe how causes of short and long-term variations in the flow of energy into and out of Earth's systems result in changes to climate.	Unit 1: Hydrosphere: Water in Earth's Systems Chapter 3: 66-76 Unit 2: Atmosphere and Climate Chapter 4: 94-98 Chapter 5: 115-123 Chapter 6: 165-178

SOUTH CAROLINA EARTH AND SPACE SCIENCE STANDARD	Location in EDC Earth Science Unit and title Chapter and pages
E-ESS2-5. Investigate the ways that water (given its unique physical and chemical properties) impacts various Earth systems.	Unit 1: Hydrosphere: Water in Earth's Systems Chapter 2:24-35 Chapter 3: 58-76 Unit 2: Atmosphere and Climate Chapter 4: 99-103 Chapter 5: 116-124, 133-135 Chapter 6: 165-175
E-ESS2-6. Develop a quantitative model to describe the cycling of carbon through the hydrosphere, atmosphere, geosphere, and biosphere.	Unit 2: Atmosphere and Climate Chapter 5: 124-135 Chapter 6: 160-163
E-ESS2-7. Communicate scientific information that illustrates how Earth's systems and life on Earth change and influence each other over time.	Unit 1: Hydrosphere: Water in Earth's Systems Chapter 2: 36-40 Unit 2: Atmosphere and Climate Chapter 5: 127-135 Chapter 6: 165-178 Unit 5: The Rock Cycle Chapter 13: 387-389 Chapter 14: 425-426 Unit 6: Earth Resources Chapter 15: 447-453 Chapter 16: 479-485
Earth and Human Activity (ESS3)	
E-ESS3-1. Construct an explanation based on evidence for how the availability of natural resources and occurrence of natural hazards have influenced human activity.	Unit 1: Hydrosphere: Water in Earth's Systems Chapter 2: 18-20, 38-40 Unit 4: Plate Tectonics Chapter 10: 250-253, 283-284 Chapter 11: 290-292, 321-322 Unit 5: The Rock Cycle Chapter 13: 358-361, 387-389 Unit 6: Earth Resources Chapter 15: 432-435, 444-456 Chapter 16: 461-468, 479-485

SOUTH CAROLINA EARTH AND SPACE SCIENCE STANDARD	Location in EDC Earth Science Unit and title Chapter and pages
E-ESS3-2. Evaluate competing design solutions that address the impacts of developing, managing, and using Earth's energy and mineral resources.	Unit 6: Earth Resources Chapter 16: 482-484
E-ESS3-3. Use computational representation to illustrate the relationships among the management of Earth's resources, the sustainability of human populations, and biodiversity.	Unit 1: Hydrosphere: Water in Earth's Systems Chapter 2: 18-23 Unit 2: Atmosphere and Climate Chapter 5: 127-132 Chapter 6: 165-178 Unit 6: Earth Resources Chapter 16: 463-467
E-ESS3-4. Evaluate or refine a technological solution that reduces impacts of human activities on natural systems.	Unit 1: Hydrosphere: Water in Earth's Systems Chapter 2: 38-40 Unit 5: The Rock Cycle Chapter 13: 387-389 Unit 6: Earth Resources Chapter 16: 479-481
E-ESS3-5. Analyze data and the results from global climate models to make an evidence-based forecast of the current rate of regional or global climate change and associated future impacts to Earth's systems.	Unit 2: Atmosphere and Climate Chapter 6: 165-178
E-ESS3-6. Use a computational representation to illustrate the relationships among Earth systems and how those relationships are being modified due to human activity.	Unit 2: Atmosphere and Climate Chapter 5: 127-135 Chapter 6: 165-175
E-ESS3-7. Create an argument, based on evidence, that describes how changes in climate on Earth have affected human activity.	Unit 2: Atmosphere and Climate Chapter 5: 111-113