HENRY COUNTY SCHOOLS

Better Together.





5TH GRADE

| SCIENCE |

HENRY

Teaching & Learning Standards

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Science

5th Grade

Collaboration, Communication, Creativity, and Critical Thinking skills are embedded within the language of the Henry Teaching and Learning Standards

HCS Graduate Learner Outcome	***As a Henry County graduate, I will apply science and engineering practices to understand and analyze lithospheric materials, tectonic processes, and the human and environmental impacts of natural and human-induced changes to Earth's surface.***

GA Standard Code

S5E1 **Obtain, evaluate, and communicate information to identify surface features on the Earth caused by constructive and/or destructive processes.**

S5E1a Construct an argument supported by scientific evidence to identify surface features (examples could include deltas, sand dunes, mountains, volcanoes) as being caused by constructive and/or destructive processes (examples could include deposition, weathering, erosion, and impact of organisms).

S5E1b Develop simple interactive models to collect data that illustrate how changes in surface features are/were caused by constructive and/or destructive processes.

S5E1c Ask questions to obtain information on how technology is used to limit and/or predict the impact of constructive and destructive processes.

HCS Graduate Learner Outcome	***As a Henry County graduate, I will apply scientific and engineering practices to understand and analyze the structural similarities of organisms and how they can be compared scientifically.***

GA Standard Code

S5L1 **Obtain, evaluate, and communicate information to group organisms using scientific classification procedures.**

S5L1a Develop a model that illustrates how animals are sorted into groups (vertebrate and invertebrate) and how vertebrates are sorted into groups (fish, amphibian, reptile, bird, and mammal) using data from multiple sources.

S5L1b Develop a model that illustrates how plants are sorted into groups (seed producers, non-seed producers) using data from multiple sources.

HCS Graduate Learner Outcome	***As a Henry County graduate, I will apply scientific and engineering practices to understand and analyze the relationship between genetics, adaptation, and biodiversity.***

GA Standard Code

S5L2 **Obtain, evaluate, and communicate information showing that some characteristics of organisms are inherited and other characteristics are acquired.**

S5L2a Ask questions to compare and contrast instincts and learned behaviors.

S5L2b Ask questions to compare and contrast inherited and acquired physical traits.

HCS Graduate Learner Outcome	***As a Henry County graduate, I will apply scientific and engineering practices to understand and analyze molecular, structural, and chemical biology as they relate to biological systems and each level of organization from cells to organ systems.***

GA Standard Code

S5L3 **Obtain, evaluate, and communicate information to compare and contrast the parts of plant and animal cells.**

S5L3a Gather evidence by utilizing technology tools to support a claim that plants and animals are comprised of cells too small to be seen without magnification.

S5L3b Develop a model to identify and label parts of a plant cell (membrane, wall, cytoplasm, nucleus, chloroplasts) and of an animal cell (membrane, cytoplasm, and nucleus).

S5L3c Construct an explanation that differentiates between the structure of plant and animal cells.

HCS Graduate Learner Outcome	***As a Henry County graduate, I will apply scientific and engineering practices to understand and analyze the characteristics, functions, and behavioral interactions within an ecosystem.***

GA Standard Code

S5L4 **Obtain, evaluate, and communicate information about how microorganisms benefit or harm larger organisms.**

S5L4a Construct an argument using scientific evidence to support a claim that some microorganisms are beneficial.

S5L4b Construct an argument using scientific evidence to support a claim that some microorganisms are harmful.

HCS Graduate Learner Outcome	***As a Henry County graduate, I will understand and analyze atoms, matter, reactions, and interactions through scientific processes and practices.***

GA Standard Code

S5P1 **Obtain, evaluate, and communicate information to explain the differences between a physical change and a chemical change.**

S5P1a Plan and carry out investigations of physical changes by manipulating, separating and mixing dry and liquid materials.

S5P1b Construct an argument based on observations to support a claim that the physical changes in the state of water are due to temperature changes, which cause small particles that cannot be seen to move differently.

S5P1c Plan and carry out an investigation to determine if a chemical change occurred based on observable evidence (color, gas, temperature change, odor, new substance produced).

HCS Graduate Learner Outcome	***As a Henry County graduate, I will understand and analyze energy and the characteristics of waves as demonstrated through the integration of scientific practices.***

GA Standard Code

S5P2 **Obtain, evaluate, and communicate information to investigate electricity.**

S5P2a Obtain and combine information from multiple sources to explain the difference between naturally occurring electricity (static) and human-harnessed electricity.

S5P2b Design a complete, simple electric circuit, and explain all necessary components.

S5P2c Plan and carry out investigations on common materials to determine if they are insulators or conductors of electricity.

S5P3 **Obtain, evaluate, and communicate information about magnetism and its relationship to electricity.**

S5P3a Construct an argument based on experimental evidence to communicate the differences in function and purpose of an electromagnet and a magnet.

S5P3b Plan and carry out an investigation to observe the interaction between a magnetic field and a magnetic object.