

**Cherokee County School District  
Science Georgia Standards of Excellence  
Earth Systems Pacing Guide**

1 <sup>st</sup> Quarter		2 <sup>nd</sup> Quarter		3 <sup>rd</sup> Quarter		4 <sup>th</sup> Quarter		
The Nature of Earth Science; Tools Utilized in the study of Earth Science	The Nature of Our Universe; The Formation of Our Solar System and the Planets	Earth's Composition and Structure	Geologic Processes	Surface Processes on Earth	Geologic Time	Processes of Our Climate/Atmosphere and Meteorology-Oceans and Marine Environments	Resources and Our Environment	Special Topics and Research in Earth Science
SES1c SES2b SES2c SES3b SES3c SES3d SES4e SES5a SES5b SES5c SES5d SES5e SES5f SES6a SES6c SES6d	SES1a SES1b SES1c	SES1b SES2d SES1c	SES2a SES2b SES2c SES2d SES2e SES4a SES4b SES4c SES4d SES4e	SES3a SES3b SES3c SES3d SES1b	SES1c SES4a SES4b SES4c SES4d SES4e SES6c SES6d	SES5a SES5b SES5c SES5d SES5e SES5f	SES6a SES6b SES6c SES6c	Can Include ALL

GSE Standards are listed above. Additional information can be found on [www.georgiastandards.org](http://www.georgiastandards.org)

The Science Georgia Standards of Excellence(GSE) are designed to provide foundational knowledge and skills for all students to develop proficiency in science. The Project 2061's Benchmarks for Science Literacy and the follow up work, A Framework for K-12 Science Education were used as the core of the standards to determine appropriate content and process skills for students. The Science Georgia Standards of Excellence focus on a limited number of core disciplinary ideas and

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crosscutting concepts which build from Kindergarten to high school. The standards are written with the core knowledge to be mastered integrated with the science and engineering practices needed to engage in scientific inquiry and engineering design. Crosscutting concepts are used to make connections across different science disciplines.

The Science Georgia Standards of Excellence drive instruction. Hands-on, student-centered, and inquiry-based approaches should be the emphasis of instruction. The standards are a required minimum set of expectations that show proficiency in science. However, instruction can extend beyond these minimum expectations to meet student needs. At the same time, these standards set a maximum expectation on what will be assessed by the Georgia Milestones Assessment System.

Science consists of a way of thinking and investigating, as well a growing body of knowledge about the natural world. To become literate in science, students need to possess sufficient understanding of fundamental science content knowledge, the ability to engage in the science and engineering practices, and to use scientific and technological information correctly. Technology should be infused into the curriculum and the safety of the student should always be foremost in instruction.

The Earth Systems Georgia Standards of Excellence are designed to continue student investigations that began in K-8 Earth Science and Life Science curricula on the connections among Earth's systems through Earth history. These systems – the atmosphere, hydrosphere, geosphere, and biosphere – interact through time to produce the Earth's landscapes, ecology, and resources. These standards engage the students in constructing explanations of phenomena fundamental to the sciences of geology and physical geography, including the early history of the Earth, plate tectonics, landform evolution, the Earth's geologic record, weather and climate, and the history of life on Earth. Instruction should focus on development of scientific explanations, rather than mere descriptions of phenomena. Case studies, laboratory exercises, maps, and data analysis should be integrated into units. Special attention should be paid to topics of current interest (e.g., recent earthquakes, tsunamis, global warming, price of resources) and to potential careers in the geosciences.