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East Carter Co. R-II School District  
Course Scope and Sequence  
Course: 6<sup>th</sup> Grade Science

# OF DAYS	TOPICS
10	<p><b>Introduction:</b> Scientific Method and Claim, Evidence, and Reasoning <b>Essential Question:</b> Explain how the Scientific Method is used for problem solving? How can questions be answered through scientific inquiry? <b>Concepts:</b> Observation and Question, Hypothesis, Experimentation and Data Collection, Results and Data Analysis, Conclusion. CER- A writing strategy to make connections.</p>
45	<p><b>Unit 1:</b> Force and Motion <b>Topics:</b> Newton's Third Law, Changes in Force and Motion, Electric and Magnetic Forces, and Gravitational Forces. <b>Essential Question:</b> How do forces impact motion in our daily lives? <b>Concepts:</b> Speed, velocity, acceleration, and Newton's laws.</p>
20	<p><b>Unit 2:</b> Potential and Kinetic Energy <b>Essential Question:</b> How do kinetic and potential energy interact in a system? <b>Concepts:</b> work, energy, motion, stored energy, position, gravity</p>
55	<p><b>Unit 3:</b> Interdependent Relationship in Ecosystem <b>Topics:</b> Flow of Energy in Ecosystems, Organism Interactions in Ecosystems, Relationships in Ecosystems, Competition in Ecosystems, Dynamic Nature of Ecosystems, Ecosystem Biodiversity <b>Essential Question:</b> How can changes in ecosystems affect interacting relationships among organisms in an area? <b>Concepts:</b> influence an organism's survival, some limited resources that can affect an organism's growth or population increase, competitive, predatory, and mutually beneficial relationships affect organisms, food</p>

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	<p>webs demonstrate,disruptions to components of ecosystems affect populations,changes in biodiversity.</p>
40	<p><b>Unit4:</b> Growth and Development of Organisms</p> <p><b>Topics:</b> Reproduction in Plants and Animals, Growth of Organisms, Introduction to Photosynthesis, Energy Flow in Organisms</p> <p><b>Essential Questions:</b>How can we promote the growth and development of plants and animals?</p> <p><b>Concepts:</b> characteristics do plants and animals have to increase reproduction,factors that can affect reproduction, how plants create their own food, energy flow through organisms.</p>

### Course Description

In this course, students will be taught the Missouri Learning Standards for Science along with fostering a love of science and investigation. Everyday students will be exposed to grade level lessons and practice reading, analyzing, and responding to texts through discussion or work. Students will also be exposed to the writing process(CER) and research in this course.