



East Carter Co. R-II School District  
Course Scope and Sequence

**Course: 8<sup>th</sup> Grade Science**

# OF DAYS	TOPICS
35	<p>Unit 1: Physical Science: Chemical Reactions Essential Question: How can one explain the structure, properties, and interactions of matter? I CAN Statements: I CAN describe where synthetic materials come from and how they impact society. I CAN determine when a chemical reaction has occurred. Concepts: matter, physical and chemical properties, synthetic materials, conservation of mass</p>
35	<p>Unit 2: Physical Science: Structure and Properties of Matter and Energy Transfer in Temperature Essential Question: How is energy transferred and conserved? I CAN Statements: I CAN describe changes in particle motion, temperature, and state when thermal energy is added or removed. I CAN construct a device that either releases or absorbs thermal energy by chemical processes. Concepts: thermal energy, heat transfer, changes in energy on the molecular level</p>
25	<p>Unit 3: Earth and Space: Earth's Materials, Systems, and Natural Hazards Essential Question: How and why is Earth constantly changing? I CAN Statements: I CAN predict changes in rock types after going through erosion, heat, and pressure. I CAN interpret data on natural hazards to forecast future catastrophic events. Concepts: weathering, erosion, natural hazards, geoscience processes, the rock cycle</p>
25	<p>Unit 4: Earth and Space: The History of Planet Earth and Evidence of Common Ancestry and Diversity Essential Question: Why do the continents move and what evidence do we have of these motions? I CAN Statements: I CAN explain how the geologic time scale is used to organize Earth's history. I CAN analyze and interpret data to provide evidence of the past plate motions. Concepts: fossil record, plate tectonics, seafloor spreading, Pangea, geologic record</p>

30	<p>Unit 5: Life Science: Structure, Function, and Information Processing</p> <p>Essential Question: How do organisms live, grow, respond to their environment, and reproduce?</p> <p>I CAN Statements: I CAN describe the function of a cell as a whole and ways parts of the cells contribute to that function. I CAN present evidence that body systems interact to carry out key body functions.</p> <p>Concepts: cells, sensory receptors, anatomy of a cell, bodies and systems</p>
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### **Course Description**

In this course, students will be taught the Missouri Learning Standards for science along with exploring how science plays a role in their everyday lives. The standards will be taught through five units that integrate reading, mathematics, projects, and experiments. Everyday students will be exposed to grade level expectations and practice reading, analyzing, and thinking critically about the information presented. Students will also be exposed to variations in scientific theories and research in this course.