



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

Course: 7th Grade Science

# OF DAYS	TOPICS
35	<p>Unit 1: Physical Science: Waves and their Applications in Technologies and Information Transfer</p> <p>Essential Question: How are waves used to transfer energy and information?</p> <p>I CAN Statements: I CAN model frequency, amplitude, and wavelength on a simple wave. I CAN describe how waves are reflected, absorbed, and transmitted through various mediums.</p> <p>Concepts: wave properties, electromagnetic radiation, information technologies</p>
35	<p>Unit 2: Earth and Space: The Earth and the Solar System</p> <p>Essential Question: What is the universe, and what is Earth's place in it?</p> <p>I CAN Statements: I CAN model the Earth-sun-moon system during lunar phases and eclipses of the sun and moon. I CAN describe the role of gravity in the motions within galaxies and the solar system.</p> <p>Concepts: stars, the solar system, gravity, the history of planet earth, the moon</p>
25	<p>Unit 3: Earth and Space: The Role of Water in Earth's Surface and Weather and Climate</p> <p>Essential Question: How and why is Earth constantly changing?</p> <p>I CAN Statements: I CAN describe the cycling of water through Earth's systems as well as what drives it. I CAN describe how the motions and interactions of air masses result in changes in weather conditions.</p> <p>Concepts: ocean currents, the water cycle, weather, climate, wind</p>
30	<p>Unit 4: Earth and Space: Natural Resources and Human Impacts on Earth Systems</p> <p>Essential Question: How do the Earth's surface processes and human activities affect each other?</p> <p>I CAN Statements: I CAN explain how increases in human populations impact Earth's systems. I CAN analyze evidence of the factors that have caused the change in global temperatures over the past century.</p> <p>Concepts: natural resources, human impact, climate change, human dependence</p>

25	Unit 5: Life Science: Inheritance and Variation of Traits and Changes in Organisms Over Time Essential Question: How are characteristics of one generation passed on to the next? I CAN Statements: I CAN explain how genetic variations of traits in a population increase the probability of surviving. I CAN explain how natural selection may lead to increases and decreases of specific traits in populations over time. Concepts: inheritance of traits, variation of traits, natural selection, artificial selection
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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.