

Iowa Common Core Standards for Science

4-H Youth Development Curriculum and Kits from Iowa State University Extension and Outreach, Scott County

Name	Target Grade	Number of Lessons	Iowa Core Content Anchor Standard in Science	Specific Standard(s)
River Cutters	7-12	7	Life Science Earth & Space Sciences Engineering, Technology & Applications of Science	<p><u>Grade Seven</u></p> <p>Construct an argument supported by empirical evidence that changes to physical or biological components of an ecosystem affect populations. (MS-LS2-4)</p> <p>Define the criteria and constraints of a design problem with sufficient precision to ensure a successful solution, taking into account relevant scientific principles and potential impacts on people and the natural environment that may limit possible solutions. (MS-ETS1-1)</p> <p>Evaluate competing design solutions using a systematic process to determine how well they meet the criteria and constraints of the problem. (MS-ETS1-2)</p> <p><u>Grade Eight</u></p> <p>Define the criteria and constraints of a design problem with sufficient precision to ensure a successful solution, taking into account relevant scientific principles and potential impacts on people and the natural environment that may limit possible solutions. (MS-ETS1-1)</p> <p>Evaluate competing design solutions using a systematic process to determine how well they meet the criteria and constraints of the problem. (MS-ETS1-2)</p> <p>Analyze and interpret data for patterns in the fossil record that document the existence, diversity, extinction, and change of life forms throughout the history of life on Earth under the assumption that natural laws operate today as in the past. (MS-LS4-1)</p> <p>Apply scientific principles to design a method for monitoring and minimizing a human impact on the environment. (MS-ESS3-3)</p> <p>Develop a model to describe the cycling of water through Earth's systems driven by energy from the sun and the force of gravity. (MS-ESS2-4)</p> <p><u>Grade Nine</u></p> <p>Design, evaluate, and refine a solution for reducing the impacts of human activities on the environment and biodiversity. (HS-LS2-7)</p>

Name	Target Grade	Number of Lessons	Iowa Core Content Anchor Standard in Science	Specific Standard(s)
River Cutters	7-12	7	Life Science Earth & Space Sciences Engineering, Technology & Applications of Science	<p>Plan and conduct an investigation of the properties of water and its effects on Earth materials and surface processes. (HS-ESS2-5)</p> <p>Construct an explanation based on evidence for how the availability of natural resources, occurrence of natural hazards, and changes in climate have influenced human activity.(HS-ESS3-1)</p> <p><u>Grade Ten</u></p> <p>Design, evaluate, and refine a solution for reducing the impacts of human activities on the environment and biodiversity. (HS-LS2-7)</p> <p>Plan and conduct an investigation of the properties of water and its effects on Earth materials and surface processes. (HS-ESS2-5)</p> <p>Construct an explanation based on evidence for how the availability of natural resources, occurrence of natural hazards, and changes in climate have influenced human activity.(HS-ESS3-1)</p> <p><u>Grade Eleven</u></p> <p>Design, evaluate, and refine a solution for reducing the impacts of human activities on the environment and biodiversity. (HS-LS2-7)</p> <p>Plan and conduct an investigation of the properties of water and its effects on Earth materials and surface processes. (HS-ESS2-5)</p> <p>Construct an explanation based on evidence for how the availability of natural resources, occurrence of natural hazards, and changes in climate have influenced human activity.(HS-ESS3-1)</p> <p><u>Grade Twelve</u></p> <p>Design, evaluate, and refine a solution for reducing the impacts of human activities on the environment and biodiversity. (HS-LS2-7)</p> <p>Plan and conduct an investigation of the properties of water and its effects on Earth materials and surface processes. (HS-ESS2-5)</p> <p>Construct an explanation based on evidence for how the availability of natural resources, occurrence of natural hazards, and changes in climate have influenced human activity.(HS-ESS3-1)</p>