

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)
Genetic Counselor	3-8	5	Life Science Physical Science	<p><u>Grade Three</u> Analyze and interpret data to provide evidence that plants and animals have traits inherited from parents and that variation of these traits exists in a group of similar organisms. (3-LS3-1) Use evidence to construct an explanation for how the variations in characteristics among individuals of the same species may provide advantages in surviving, finding mates, and reproducing. (3-LS4-2)</p> <p><u>Grade Four</u> Construct an argument that plants and animals have internal and external structures that function to support survival, growth, behavior, and reproduction. (4-LS1-1)</p> <p><u>Grade Six</u> Develop and use a model to describe the function of a cell as a whole and ways parts of cells contribute to the function. (MS-LS1-2) Use argument supported by evidence for how the body is a system of interacting subsystems composed of groups of cells. (MS-LS1-3) Conduct an investigation to provide evidence that living things are made of cells; either one cell or many different numbers and types of cells. (MS-LS1-1) Develop and use a model to describe why asexual reproduction results in offspring with identical genetic information and sexual reproduction results in offspring with genetic variation. (MS-LS3-2) Develop models to describe the atomic composition of simple molecules and extended structures. (MS-PS1-1)</p> <p><u>Grade Seven</u> Develop and use a model to describe why structural changes to genes (mutations) located on chromosomes may affect proteins and may result in harmful, beneficial, or neutral effects to the structure and function of the organism. (MS-LS3-1) Construct a scientific explanation based on evidence for how environmental and genetic factors influence the growth of organisms. (MS-LS1-5)</p>

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Genetic Counselor	3-8	5	Life Science Physical Science	<p>Develop a model to describe the cycling of matter and flow of energy among living and nonliving parts of an ecosystem. (MS-LS2-3)</p> <p><u>Grade Eight</u></p> <p>Construct an explanation based on evidence that describes how genetic variations of traits in a population increase some individuals' probability of surviving and reproducing in a specific environment. (MS-LS4-4)</p> <p>Gather and synthesize information about the technologies that have changed the way humans influence the inheritance of desired traits in organisms. (MS-LS4-5)</p>