

Life Science (Reproduction)

Grade 8 Science Grade 8 Science

Start Date: January 02, 2014

End Date : January 17, 2014

<p>Unit Overview This topic focuses on the continuation of the species.</p>	<p>Content Elaborations</p> <p>An individual organism does not live forever. Reproduction is necessary for the survival of every species. Most organisms reproduce either asexually or sexually. Some are capable of both. In asexual reproduction, all genetic information is passed to the offspring means the offspring are genetically identical to the parent. Mitosis was investigated in grade 6. The end products of mitosis are compared as they relate to asexual and sexual reproduction. In sexual reproduction, mitosis and meiosis are addressed in preparation for embryology.</p> <p>In sexual reproduction, a single specialized cell from a female (egg) and a specialized cell from a male (sperm). Typically, the egg and sperm fuse to form a fertilized cell, carrying genetic information from both parents. In asexual reproduction, new combinations of traits are produced. This increases an organism's chances for survival. Investigations are used to compare offspring to parents in sexual and asexual reproduction.</p>	<p>Unit Resources</p> <p>Gizmo Lab: Inheritance Study Island Enrichment Textbook: Chapter 2.1 Textbook: Chapter 5</p>
<p>Unit Vocabulary</p> <p>cell heredity metabolism homeostasis asexual reproduction sexual reproduction offspring</p>	<p>Enduring Understandings (Big Ideas)</p> <p>Reproduction is necessary for the continuation of every species.</p> <p>Every organism alive today comes from a long line of ancestors who reproduced successfully every generation. Reproduction is the transfer of genetic information from one generation to the next.</p>	<p>Connections</p>

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trait mitosis meiosis	the next. It can occur with mixing of genes from two individuals (sexual reproduction). It can occur with the transfer of genes from one individual to the next generation (asexual reproduction). The ability to reproduce defines living things.	
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Standards

OH Academic Content Standards - Science (2011) - Grade 8

Strand LS Life Science

Topic LS.1 This topic focuses on continuation of the species.

Content Statement LS.1.1 Reproduction is necessary for the continuation of every species.

LS.1.1.a Every organism alive today comes from a long line of ancestors who reproduced successfully every generation. Reproduction is the transfer of genetic information from one generation to the next. It can occur with mixing of genes from two individuals (sexual reproduction). It can occur with the transfer of genes from one individual to the next generation (asexual reproduction). The ability to reproduce defines living things.

Content Statement LS.1.3 The characteristics of an organism are a result of inherited traits received from parent(s).

LS.1.3.a Expression of all traits is determined by genes and environmental factors to varying degrees. Many genes influence more than one trait, and many traits are influenced by more than one gene.

LS.1.3.b During reproduction, genetic information (DNA) is transmitted between parent and offspring. In asexual reproduction, the lone parent contributes DNA to the offspring. In sexual reproduction, both parents contribute DNA to the offspring.

Student Assessment Chapter Test Gizmo Assessment Study Island Assessment	Unit Reflection
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Reproduction

Content	Skills	Assessment
A. Reproduction	A. Reproduction 1. Explain how asexual reproduction differs from sexual	

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