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Curriculum Units by Fellows of the National Initiative
2015 Volume VI: Physiological Determinants of Global Health

Genetics and Mechanisms of Disease

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What keeps us alive? While it only takes four words to ask the question, an entire textbook is needed to answer it. Posing this question to sixth graders allows me to gain valuable insight about a group's background knowledge: Some sixth graders are quite knowledgeable, but, more often than not, they have a basic understanding of the human body. This unit is designed for students to preview basic vocabulary and concepts associated with genetics and disease. Understanding these concepts will foster connections between basic anatomy and physiology and molecular biology. Students will be briefly exposed to cells and their nuclei, will discover how DNA is important to life functions, and will read informational text on inherited diseases like Hereditary Sensory Autonomic Neuropathy (HSAN) and Cystic Fibrosis. To support language arts teachers in the transition to the Common Core, students will be expected to read informational text using close reading strategies. This unit utilizes hands-on activities to build interest, direct instruction on content using structured note-taking, and mini-lessons on reading strategies to assist with the comprehension of content students are responsible for reading alone.

(Developed for General Science, grade 6; recommended for Middle Level Science, grades 6-8)

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