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Curriculum Units by Fellows of the National Initiative
2017 Volume VI: Engineering of Global Health

Water... "Good To The Last Drop"

Guide for Curriculum Unit 17.06.04, published September 2017
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How many times do you hear middle school students complain of having headaches, or being too tired to pay attention? The answer could lie in the fact they haven't consumed much water that day. This 8th grade unit identifies the intake and output amounts of water required on a daily basis. It designates water's importance in regulating constant fluid levels that all cells, tissues, and organs need to maintain homeostasis. Topics emphasized in this unit will cover the problem solving, analytical writing, collaboration, communications and creativity all 21st Century learners need to possess. NGSS standards in life sciences, engineering practices, and Earth sciences will be addressed at the middle school level.

The topics address vital transport systems that cells, tissues, and organs utilize for maintaining hydration, and acid /- base balances, and providing an explanation of what happens when water levels throughout the body are out of balance. The unit also covers the serious health effects caused by inadequate hydration levels. Dehydration is one of the major health risks that can affect anyone at any age.

To finish the unit, students will engineer and construct apparatuses displaying possible solutions to making water enticing to increase consumption.

(Developed for Life Science and Physical Science, grade 8; recommended for Science, grade 6)