

Curriculum Units by Fellows of the Yale-New Haven Teachers Institute 2009 Volume IV: How We Learn about the Brain

## **How the Brain Learns**

Guide for Curriculum Unit 09.04.03 by Ruth K. Chaffee

Over the course of four weeks, this unit will introduce high-school students to the basic components of the brain, the process of learning, and variables and strategies that can increase or decrease learning success. This unit is specifically designed for students in a special education resource room but has a number of activities and ideas that could be easily adapted and expanded for the regular education setting. Employing digital texts, such as interactive Shockwave web programs and video clips to illustrate brain functions and abnormalities, will allow students to connect to the information through different intelligences. Among other topics, students will explore the effects of sleep, eating breakfast, omega-3 fatty acids, alcohol, and drugs on cognitive and learning abilities. Embedded within the unit are skill-building exercises from the core curriculum and CAPT preparation, such as assessing lab reports, identifying the hypothesis, independent variable, and controls, interpreting graphic representations, creating and analyzing graphs, and interdisciplinary writing. Through this unit students should gain not only a greater understanding of how the brain works, but also a greater appreciation for all its abilities.

(Recommended for Biology, Anatomy and Physiology, and Special Education, grades 9-12)

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