



Curriculum Units by Fellows of the Yale-New Haven Teachers Institute  
2001 Volume VI: Human Intelligence: Theories and Developmental Origins

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## **A Multiple Intelligence Approach to the Physiology of the Brain and How Middle School Students Learn**

Guide for Curriculum Unit 01.06.11  
by Thomas O. Merritt

This unit is about how students learn. It details extensive study into the physiology of the brain and how the brain works. In my unit, a comparison of Howard Gardner's Theory of Multiple Intelligences and the general beliefs of mainstream psychologists was created. The unit reviews how Gardner believes in different independent intelligences such as Verbal/Linguistic, Logical /Mathematical, Visual/Spatial, Bodily/Kinesthetic, Musical/Rhythmic, Interpersonal and Intrapersonal skills. Then this theory is compared to the ideas of other researchers, such as Thomas Armstrong, Dr. Susan Teele, Ceci and Liker, as well as Dr. James Austin and Dr. Andrew Newberg, who support Howard Gardner's claims of Independent Intelligences. It also looks at mainstream psychologists like Sperman, Wissler, Lewis Terman and R.B Cattell and their determination of "g" or general intelligence as well as the research into specific intelligence also known as "s".

This unit encourages students to learn about how the brain functions when using different styles of learning. The use of hands-on activities will be the thrust of this classroom curriculum. The purpose of this unit is to let the students develop concrete guidelines that will help them understand how they learn best. The opportunity for the students to learn about how their brain functions will also help them to understand their own shortcomings or strengths at an early age. They may also begin to analyze how their intelligences have changed and can modify over time. This will also help students employ the learning styles that work best for them at this point in their lives.

(Recommended for Science, grades 7-8.)

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