



High Touch High Tech®

Science Experiences That Come To You™

HTHTNE PROGRAM ALIGNMENT WITH MA SCIENCE CURRICULUM FRAMEWORKS FOR GRADES 6-8

MA Science Curriculum Frameworks	HTHTNE Program and Description
<p>Grades 6-8 6. General functions of the major systems of the human body, and the interactions of these systems.</p> <p>Grades 9-12 4.1 The digestive system converts macromolecules into smaller molecules. 4.2 The circulatory system transports nutrients and oxygen, and removes cell wastes. Kidneys and liver remove waste from blood. 4.3 The respiratory system provides exchange of O₂ and CO₂.</p>	<p>GLOBS, GOO AND GUTS© The way to the heart is through the stomach! Learn the functions of the body's circulatory and digestive systems and how the two are interrelated. Examine real cow hearts and other organs and do experiments to understand the functions of each.</p>
<p>Grades 6-8 .5.Many elements combine in a multitude of ways to produce compounds that make up living and nonliving things. 6. Differences between an atom and a molecule. 7. Basic examples of elements and compounds. 8. Differences between mixtures and pure substances.</p>	<p>LEGO ATOMS AND MOLECULES (Program developed by MIT's Mind Hand Alliance) Understand the difference between compounds and mixtures and what happens to atoms and molecules in a chemical reaction. First do a wet lab and experience a live chemical reaction! Then work with Lego bricks to build molecules and find out what happened to the atoms and molecules during the chemical reaction.</p>
<p>Grades 6-8 2.1 Steps of the engineering design process 2.3 The purpose of a prototype 2.4 Appropriate materials, tools and machines to construct a prototype 5.1 Parts of a structure</p>	<p>BEAMS, BRIDGES AND COLUMNS Find out what makes buildings and bridges stand up and not fall down. Learn about compression and tension. Become an engineer, design a bridge that can carry a load and test out a prototype!</p>



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5.2 Three major types of bridges and their appropriate uses 5.3 The forces of tension, compression, torsion, bending, and shear affect the performance of bridges 5.4 Effects of load and structural shape on bridges	