

## ITLA Program Goals and alignment with CT State Curriculum Frameworks & Standards

Program Goals	Student Outcomes and Objectives	CT Curriculum Framework K-12 Content and Performance Standards	Activities	Pre and Post Student Assessment and Program Evaluation
<p>Increase Student Achievement in the areas of technological studies and technology utilization.</p>	<p>1. By May 30, 2004, 200 high school students from 2 urban and 10 suburban districts will learn about IT careers while they develop and apply creative thinking, engineering design and problem solving skills through the completion of a comprehensive IT Research and Design project.</p>	<p><b>Technology Education:</b>  <b>Content Standard 1 Economics:</b> Students will understand the link between technology and the economy, and recognize that link as the force behind societal emergence and evolution.  d. Describe the characteristics of single ownership, corporations, companies and partnerships</p> <p><b>Content Standard 4 Problem Solving/Research and Development:</b> Students will recognize technology as the result of a creative act, and will be able to apply disciplined problem-solving strategies to enhance invention and innovation.  c. Develop several alternative design solutions to the same problem  d. Use a communication technology to visualize a design idea  g. prepare and document a design brief  h. Select appropriate technical processes and fabricate a prototype</p> <p><b>Content Standard 5 Leadership:</b> Students will identify and develop leadership attributes and apply them in team situations.</p>	<p>In September of '03, during the first meeting of the ITLA, participating students will receive a copy of the ITLA Design Brief and Design Activity Guide and an in-depth explanation to begin the comprehensive IT Design Challenge.</p> <p>In October of '03 students will form "mock" technology companies and assume different roles and responsibilities in the company needed to complete the IT Design Challenge.</p> <p>During weekly meeting students and teachers will use the ITLA Activity Guide to direct and document student progress on the ITLA Design Challenge.</p> <p>During monthly meetings of the ITLA, IT professionals will present topics that focus on the ITLA Design Challenge, related information and communications technologies and their associated careers.</p>	<p>Teachers and students will utilize the ITLA Design Project Guide to document and evaluate all of their work on all aspects of the IT Design Challenge. (see attached Design Brief and Activity Guide) The completed guide will be presented as part of the final exposition of students work in May '04, evaluated by a panel of IT professionals and scored using the ITLA Expo Evaluation sheet. (see attached)</p> <p>In May '04 ITLA teachers will utilize the Holistic Critical Thinking Scoring Rubric to assess their students critical thinking skills exhibited in the ITLA project. (see attached)</p> <p>Teachers and students will utilize the ITLA Design Project Guide and activity rubric for Task 1 to document and evaluate the creation of a Mock Information Technology Company. (see attached Design Activity Guide)</p> <p>Teachers and students will utilize the ITLA Design Project Guide and activity rubric for Task 3 to document and evaluate the development of a communications device and the required device specifications. (see attached Design Activity Guide)</p> <p>In September '03 (pre test) students will complete an IT Careers Interest Inventory and Survey. The survey will assess their knowledge about and interest in IT careers prior to participation in the ITLA. (see attached survey)</p> <p>In May '04 (post test) students will again complete the IT Careers Interest Inventory and Survey. An analysis of the completed surveys will indicate whether the ITLA program has impacted student's knowledge and interest in IT careers. (see attached survey)</p>

	<p>2. By May 30, 2004, 200 high school students from 2 urban and 10 suburban districts will utilize the Internet and the WWW to access and retrieve information to complete research in the area of copyright, trademarks, patents and intellectual property right.</p>	<p><b>Learning Resources &amp; Information Technology, Defining Information Needs Content Standard 1:</b> Students will</p> <ul style="list-style-type: none"> <li>a. define their information needs and identify effective courses of action to conduct research, solve complex problems and pursue personal interests.</li> <li>b. independently identify and assess existing knowledge related to a given task and articulate information needs to information providers or peers</li> <li>c. develop essential questions related to a topic and formulate a research hypothesis related to the topic</li> <li>d. independently identify key words for searching information sources</li> <li>e. independently search print, non-print and electronic resources within and outside their school</li> </ul> <p><b>Information Strategies, Content Standard 3:</b> Students will</p> <ul style="list-style-type: none"> <li>a. demonstrate a command of information skills and strategies to locate and use effectively print, non-print and/or electronic resources to solve problems, conduct research and pursue personal interests.</li> <li>b. use advanced references, indexes, dictionaries and abstracts</li> <li>c. use key word descriptors and Boolean logic to perform advanced on-line and CD-ROM searches (e.g., field searches)</li> <li>d. gather information from primary and secondary sources</li> <li>e. independently use the full range of print, non-print and electronic resources within the school or district</li> <li>f. demonstrate the ability to establish connectivity with resources outside the school (e.g., e-mail, computer conferencing, the Internet, the Connecticut Library Network)</li> </ul> <p>□</p> <p><b>Responsible Information Use, Content Standard 7:</b> Students will</p> <ul style="list-style-type: none"> <li>a. demonstrate the responsible and legal use of information resources, computers and other technologies, recognizing the attendant social, economic and ethical issues.</li> <li>b. give complete bibliographic credit to original sources when using or transmitting information to others</li> <li>c. observe all ethical and legal restraints in copying or using material from any print, non-print or electronic resources</li> <li>d. demonstrate an understanding of the process for copyrighting/protecting their own original work.</li> </ul> <p><b>Technology Education, Content Standard 4 Problem Solving/Research and Development:</b> Students will</p> <ul style="list-style-type: none"> <li>a. recognize technology as the result of a creative act, and will be able to apply disciplined problem solving strategies to</li> </ul>	<p>Beginning in September '03 students will research prospective names for their "mock" technology company. They will access general WWW search engines such as Google to identify any copyright protected names or companies and record results in the Project Guide.</p> <p>Beginning in October '03 and continuing monthly until April '04 students will use the following web sites to research copyright, intellectual property rights, patents and trademarks related to their "mock" technology companies and Design Project solutions.</p> <p>Library of Congress:  <a href="http://www.loc.gov/copyright/">http://www.loc.gov/copyright/</a></p> <p>US Patents Tracking Office  <a href="http://www.uspto.gov">http://www.uspto.gov</a></p> <p>Delphion Patents Search  <a href="http://www.delphion.com/simple">http://www.delphion.com/simple</a></p>	<p>Teachers and students will utilize the ITLA Design Project Guide and activity rubric for Task 2 to document and evaluate their research and citations on the IT Design Challenge. (see attached Design Activity Guide)</p> <p>In May '04 students will present their completed research at the final ITLA Expo and post them on-line in their "mock" company web sites. The completed citations will be evaluated by a panel of IT professionals and scored using the ITLA Expo Evaluation sheet. (see attached)</p>
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