

Curriculum Map: High School Technology

Essential Questions	Grade Level Scope and Sequence
<p>How can computer programs make problem solving easier and more efficient?</p> <p>In what order does a computer execute the lines of code in a computer program?</p> <p>How can that order be manipulated, and can steps be repeated?</p> <p>How can a program be written so that the user of program can interact with it (by providing it with information) while it is running?</p> <p>How can an autonomously programmed robot be designed to perform specific tasks using a variety of sensors that acquire information about the world external to the robot?</p> <p>How can autonomous robots be designed and used to perform manual and repetitive tasks safely?</p> <p>Do robots have an important place in our world?</p> <p>Why do engineers need to clearly document & communicate their work?</p>	<p>AP Computer Science Principles</p> <ol style="list-style-type: none"> 1. Creativity 2. Abstraction 3. Data & Information 4. Algorithms 5. Programming 6. The Internet 7. Global Impact <p>AutoCAD</p> <ol style="list-style-type: none"> 1. Drafting 2. Measuring 3. Geometric construction 4. Orthographic construction 5. Dimensioning <p>Programming</p> <ol style="list-style-type: none"> 1. Syntax 2. Variables 3. Math & Assignment operators 4. Logic & conditions 5. Loops 6. Objects <p>Robotics</p> <ol style="list-style-type: none"> 1. Engineering design process 2. Robotics 3. Control flow by sequencing 4. Control flow by instruction: loops & parameters 5. Sensors 6. Control flow by instruction: branches