

## Tech Essentials

### Course Syllabus and Planner

#### Course Overview

The CompuScholar **Tech Essentials** curriculum is a one-semester course covering required topics in many introductory “Computer Skills” classes for middle school students. Please visit our course description page for a video tour and alignment information.

<https://www.compuscholar.com/schools/courses/tech-essentials/>

Students should have basic familiarity with using a keyboard and mouse to interact with their operating systems before starting this course.

#### Teaching Strategies

The course material is designed to appeal to a variety of students. All content is delivered through an online system that allows students to work seamlessly both in the classroom and at home.

#### Instructional Material

The course contains the following instructional material for students:

- **Instructional Videos** – optional (not required) but enjoyed by many students as short, audio-visual introductions to the lesson topics.
- **Lesson Text** – required reading; contains full topic details and reinforcement exercises

#### Hands-On Activities

Every chapter contains one or more hands-on activities that allow students to practice and demonstrate understanding of the lesson topics. Activities can be completed on any Windows, Mac OS, Chromebook, or tablet device when using online options (like Google Docs). Teachers may choose to use locally installed software (like Microsoft Office) if desired.

## Course Planner

A typical school semester consists of approximately 18 calendar weeks or 90 days of school. The course plan covers approximately 90 school days.

Each “day” listed below represents one typical class period of 45 – 60 minutes, so students will typically work 3-5 hours per week. The suggested number of days factors in 1 day per lesson & lesson quiz, 1 day per activity, and 1 day per chapter test. Some classes may move faster or slower than the suggested pace.

Each chapter contains multiple lessons, quizzes, and a chapter test in addition to the listed Activity assignments. Team Projects and other assignments may be adjusted to fit the available time.

<b>Days</b>	<b>Reading and Objectives</b>	<b>Activities</b>
<b>6</b>	<b>Chapter One: File Management</b> <ul style="list-style-type: none"> <li>• Understanding Files and Folders</li> <li>• Managing Files on Your Computer</li> <li>• File Associations</li> <li>• Managing Files in the Cloud</li> </ul>	<b>File Management</b>
<b>7</b>	<b>Chapter Two: Spreadsheets</b> <ul style="list-style-type: none"> <li>• Choosing Software</li> <li>• Entering Data</li> <li>• Creating Graphs and Charts</li> <li>• Analyzing Data</li> <li>• Sharing, Publishing, and Printing</li> </ul>	<b>Expense Analysis</b>

<b>Days</b>	<b>Reading and Objectives</b>	<b>Activities</b>
<b>8</b>	<b>Chapter Three: Word Processing</b> <ul style="list-style-type: none"> <li>• Choosing Software</li> <li>• Creating and Editing Documents</li> <li>• Simple Formatting</li> <li>• Tables and Charts</li> <li>• Validation and Distribution</li> <li>• Typing</li> </ul>	<b>Bamboo Report</b>
<b>6</b>	<b>Chapter Four: Multimedia</b> <ul style="list-style-type: none"> <li>• Image Editors</li> <li>• Vector Graphics</li> <li>• Creating Sounds</li> <li>• Creating Videos</li> </ul>	<b>Game Concept</b>
<b>5</b>	<b>Chapter Five: Online Research</b> <ul style="list-style-type: none"> <li>• Using Search Engines</li> <li>• Getting Help Online</li> <li>• Checking Online Sources</li> </ul>	<b>Search and Evaluation</b>
<b>8</b>	<b>Chapter Six: Presentations</b> <ul style="list-style-type: none"> <li>• Choosing Software</li> <li>• Creating Slides</li> <li>• Formatting Slides</li> <li>• Tables and Charts</li> <li>• Adding Multimedia</li> <li>• Polished Presentations</li> </ul>	<b>Food Import Presentation</b>

<b>Days</b>	<b>Reading and Objectives</b>	<b>Activities</b>
<b>10</b>	<b>Chapter Seven: Group Presentation Project</b> <ul style="list-style-type: none"> <li>• Working as a Team</li> <li>• Knowing Your Audience</li> <li>• Collaboration Tools</li> <li>• Project Requirements</li> </ul>	<b>Planning and Research</b>  <b>Creation</b>  <b>Revision and Publication</b>
<b>7</b>	<b>Chapter Eight: Coding Concepts</b> <ul style="list-style-type: none"> <li>• Coding Languages</li> <li>• Simple Sequences</li> <li>• Data Types</li> <li>• Variables</li> <li>• Simple Math</li> </ul>	<b>Tic-Tac-Toe Board</b>  <b>Rectangle Areas</b>
<b>6</b>	<b>Chapter Nine: Program Flow</b> <ul style="list-style-type: none"> <li>• Input and Events</li> <li>• Conditionals</li> <li>• Loops</li> <li>• Nested Loops</li> </ul>	<b>Artsy Square</b>  <b>String Processor</b>
<b>6</b>	<b>Chapter Ten: Algorithms</b> <ul style="list-style-type: none"> <li>• Algorithms and Abstraction</li> <li>• Visual Design Tools</li> <li>• Pseudocode</li> <li>• Debugging</li> </ul>	<b>Flower Power</b>  <b>Rock-Paper-Scissors</b>

<b>Days</b>	<b>Reading and Objectives</b>	<b>Activities</b>
<b>10</b>	<b>Chapter Eleven: Software Projects</b> <ul style="list-style-type: none"> <li>• Project Planning</li> <li>• Design Process</li> <li>• Testing</li> <li>• Project Requirements</li> </ul>	<b>Planning and Requirements</b> <b>Design</b> <b>Implementation</b> <b>Testing</b>
<b>6</b>	<b>Chapter Twelve: Digital Citizenship</b> <ul style="list-style-type: none"> <li>• Your Digital Footprints</li> <li>• Online Ethics</li> <li>• Intellectual Property</li> <li>• Emerging Technologies</li> </ul>	<b>Citizenship Challenges</b>
<b>5</b>	<b>Chapter Thirteen: Digital Safety</b> <ul style="list-style-type: none"> <li>• Safety Risks</li> <li>• Safeguards</li> <li>• Cyber-Bullying</li> </ul>	<b>Cybersecurity Poster</b>