

# **Information and Communication Technologies (ICT)**

## **Curriculum Framework**

### **Grades 1 - 12**

# **Philosophy of ICT Education**

The importance of preparing students for college and career applications of current and emerging digital technologies is paramount in the 21<sup>st</sup> century. The Litchfield School District Information and Communication Technologies (ICT) program is designed to provide a nurturing environment and support student learning of ever-expanding digital tools and technologies. Courses provide students with opportunities to explore a wide variety of digital applications whereby creating their personalized digital footprint. Students will become proficient in the use of 21<sup>st</sup> century tools to access, manage, integrate, evaluate, and create information. District ICT educators are committed to continually update their expertise in order to prepare students as well as to inform and support district decisions regarding the on-going challenge of hardware and software acquisition. Ultimately, coordination among all content areas is needed in order to integrate information and communication technologies throughout a student's K-12 career.

## **Committee Members**

Paula Barry, High School ICT Teacher

Robin Corbeil, Middle School ICT Teacher

Sandy Doucette, Elementary ICT Teacher

Steven Fraser, Middle School ICT Teacher

Shawn McDonough, High School ICT Teacher

Jeanne Schratwieser, High School ICT Teacher

Scott Turcotte, Elementary ICT Teacher

Dr. Julie Heon, Director of Curriculum and Instruction

# ICT Instructional Practices

Provide instruction that is aligned with the following curriculum framework, the individual needs of students that reflect opportunities to build upon prior learning, and connections to specific learning objectives.

The attached ICT Student Portfolio Evidence Rubric shall be used yearly by ICT teachers to chart the assessment evidence that students will save in their digital portfolio for each ICT course. (See Appendix)

Multiple summative assessments shall be saved to a student's portfolio with a student reflection and teacher feedback (grade and/or narrative or rubric feedback).

The long-term goal is to expand the evidence collection to include student work from all content areas.

ICT teachers are encouraged to collaborate with other content area teachers to coordinate student work that integrates technology and content area learning and assessment. Other content area teachers are encouraged to collaborate with ICT teachers to coordinate integrated student work.

Integrate college and career literacy (see Appendix) and other cross-cutting processes into instruction (reading, writing, problem solving/decision making, etc.)

Demonstrate a wide range of technology types and uses (including apps, software, websites).

Accurately evaluate and apply appropriate strategies to gather information/data from a variety of sources and media for use with students.

Model safe, legal, and responsible use of information and technology, including social media and copyright laws (plagiarism).

Promote student choice within and among assignments, encouraging the use of multiple digital tools to create various original works.

Incorporate practices that require students to follow prescribed practices as well as creative use of information and communication technologies.

Provide authentic practical applications for student investigation using appropriate digital resources.

# **Information and Communication Technologies Education Grades 1-12 Graduation Competencies**

Demonstrate appropriate use of hardware, software applications, and digital tools.

Apply digital tools and strategies to gather, evaluate, and utilize information.

Demonstrate social, ethical, and legal responsibility when using digital tools.

Communicate and interact with others using a variety of tools and digital environments.

Develop an authentic project using available digital tools.

Apply effective decision-making/evaluation skills using digital tools.

# Grade 1

## **Technology**

Competency: Demonstrate appropriate use of hardware, software applications, and digital tools.

Indicators:

- Demonstrate introductory hardware operations, including start up and shut down, use of devices, basic navigation skills, and care of equipment with assistance.
- Create a paragraph appropriate for grade 1 using word processing.

## **Research**

Competency: Apply digital tools and strategies to gather, evaluate, and utilize information.

Indicators:

- Locate information using a limited number of sites bookmarked by the teacher.
- Integrate research information into a piece of writing.

## **Digital Citizenship**

Competency: Demonstrate social, ethical, and legal responsibility when using digital tools.

Indicators:

- Demonstrate responsible use of technology.
- Explain the importance of personal safety practices when using digital tools.

## **Communication and Collaboration**

Competency: Communicate and interact with others using a variety of tools and digital environments.

Indicators:

- Identify ways that technology, including the internet connects them to the world.
- State appropriate digital technology vocabulary.
- Work together to problem solve issues using classroom technology.

## **Creativity and Innovation**

Competency: Develop an authentic project using available digital tools.

Indicators:

- Apply existing knowledge to create an authentic product.

## **Critical Thinking**

Competency: Apply effective decision-making/evaluation skills using digital tools.

Indicator: Make a decision using an assigned digital tool.

## Grade 2

### Technology

Competency: Demonstrate appropriate use of hardware, software applications, and digital tools.

Indicators:

- Demonstrate introductory hardware operations and care of equipment with assistance, including opening, saving, and printing documents.
- Create a paragraph appropriate for grade 2 using word processing tools including introductory formatting.

### Research

Competency: Apply digital tools and strategies to gather, evaluate, and utilize information.

Indicators:

- Locate information using a wide variety of sites bookmarked by the teacher.
- Integrate research information into a fully developed paragraph.

### Digital Citizenship

Competency: Demonstrate social, ethical, and legal responsibility when using digital tools.

Indicators:

- Demonstrate responsible use of technology.
- Explain the importance of personal safety practices when using digital tools.

### Communication and Collaboration

Competency: Communicate and interact with others using a variety of tools and digital environments.

Indicators:

- Identify ways that technology, including the internet connects them to the world.
- Demonstrate appropriate digital technology vocabulary.
- Work together to problem solve issues using classroom technology.

### Creativity and Innovation

Competency: Develop an authentic project using available digital tools.

Indicators:

- Apply existing knowledge to create an authentic product.

### Critical Thinking

Competency: Apply effective decision-making/evaluation skills using digital tools.

Indicators:

- Make a decision using assigned digital tools.

## Grade 3

### Technology

Competency: Demonstrate appropriate use of hardware, software applications, and digital tools.

Indicators:

- Demonstrate basic hardware operations independently, including opening, saving and printing documents, use of devices, navigation skills and care of equipment.
- Create a basic digital slide presentation (such as PowerPoint).
- Demonstrate introductory keyboarding skills with proper posture and finger placement.
- Create a piece of writing appropriate for grade 3 using word processing tools including appropriate formatting.

### Research

Competency: Apply digital tools and strategies to gather, evaluate, and utilize information.

Indicators:

- Locate information by correctly entering a teacher supplied web address with guidance.
- Cite a URL when using information from a digital resource, with guidance.

### Digital Citizenship

Competency: Demonstrate social, ethical, and legal responsibility when using digital tools.

Indicators:

- Demonstrate responsible use of technology.
- Identify appropriate grade-level internet safety guidelines - including the use of mobile apps.

### Communication and Collaboration

Competency: Communicate and interact with others using a variety of tools and digital environments.

Indicators:

- Exhibit ways that technology, including the internet connects them to the world.
- Apply appropriate digital technology vocabulary.
- Work together to problem solve issues using classroom technology.

### Creativity and Innovation

Competency: Develop an authentic project using available digital tools.

Indicator: Create an original work individually or with others, using digital tools.

### Critical Thinking

Competency: Apply effective decision-making/evaluation skills using digital tools.

Indicator: Make a decision using an assigned digital tool and explain how the digital tool contributed to a decision.

## Grade 4

### Technology

Competency: Demonstrate appropriate use of hardware, software applications, and digital tools.

Indicators:

- Demonstrate care of equipment; basic hardware operations independently, including the use of devices; and navigating to network drives and storage devices.
- Create a basic spreadsheet with a graph.
- Self-assess the use of appropriate formatting tool.
- Apply keyboarding skills with proper posture and finger placement.

### Research

Competency: Apply digital tools and strategies to gather, evaluate, and utilize information.

Indicators:

- Locate information by correctly entering a teacher supplied web address independently.
- Locate information using various search engines with guidance.
- Cite a URL when using information from a digital resource, with guidance.

### Digital Citizenship

Competency: Demonstrate social, ethical, and legal responsibility when using digital tools.

Indicators:

- Demonstrate responsible use of technology.
- Explain appropriate grade-level digital environment guidelines including internet safety and mobile apps.

### Communication and Collaboration

Competency: Communicate and interact with others using a variety of tools and digital environments.

Indicators:

- Compare ways that technology, including the internet connects them to the world.
- Independently apply appropriate digital technology vocabulary.
- Create a teacher-directed project, collaborating with one another using technology.

### Creativity and Innovation

Competency: Develop an authentic project using available digital tools.

Indicator: Create an original work individually or with others, using digital tools.

### Critical Thinking

Competency: Apply effective decision-making/evaluation skills using digital tools.

Indicator: Defend a decision related to the use of digital tools.



## Grade 5

### Technology

Competency: Demonstrate appropriate use of hardware, software applications, and digital tools.

Indicators

- Demonstrate respectful use of materials and equipment.
- Apply basic techniques from word processing spreadsheet and presentation applications.
- Practice appropriate use of school email.
- Apply keyboarding skills with proper posture and finger placement.

### Research

Competency: Apply digital tools and strategies to gather, evaluate, and utilize information.

Indicators:

- Apply research phrases/Boolean expressions to locate information utilizing search engines.
- Identify the criteria for determining a reliable source.
- Verify that a web site is a reliable source of information, with guidance.
- Record multiple URL's when using information from a digital resource, independently.

### Digital Citizenship

Competency: Demonstrate social, ethical, and legal responsibility when using digital tools.

Indicators:

- Apply safe, cooperative use of technology.
- Demonstrate responsible use of technology, including email.

### Communication and Collaboration

Competency: Communicate and interact with others using a variety of tools and digital environments.

Indicators:

- Compare ways that technology, including the internet connects them to the world.
- Apply appropriate digital technology vocabulary.
- Create a teacher-directed project, collaborating with one another using technology.

### Creativity and Innovation

Competency: Develop an authentic project using available digital tools.

Indicators:

- Create multiple original works using digital tools.

## **Critical Thinking**

Competency: Apply effective decision-making/evaluation skills using digital tools.

Indicators:

- Investigate a teacher assigned topic and make informed decisions using appropriate digital tools and resources.

## Grade 6

### Technology

Competency: Demonstrate appropriate use of hardware, software applications, and digital tools.

Indicators

- Apply hardware operations including peripherals, and use of applications including word processing, spreadsheets, presentation, email and graphics software.
- Demonstrate keyboarding skills at least 20 words per minute with proper posture and finger placement.

### Research

Competency: Apply digital tools and strategies to gather, evaluate, and utilize information.

Indicators

- Identify basic URL components (including, http, https, www., .gov., .com, .edu) in order to select appropriate sites to locate information.
- Cite references when using information from a digital resource (at least 1 in an appropriate citation style).

### Digital Citizenship

Competency: Demonstrate social, ethical, and legal responsibility when using digital tools.

Indicators

- Demonstrate proper Internet/digital etiquette and safety when navigating digital environments.
- Demonstrate safe and lawful use of technology with an introduction to citing resources.

### Communication and Collaboration

Competency: Communicate and interact with others using a variety of tools and digital environments.

Indicators:

- Compare and contrast ways that technology, including the internet, connects them to the world.
- Publish multiple digital projects.
- Collaborate appropriately.
- Apply appropriate digital technology vocabulary.

### Creativity and Innovation

Competency: Develop an authentic project using available digital tools.

Indicators:

- Create various original works using digital tools.

## **Critical Thinking**

Competency: Apply effective decision-making/evaluation skills using digital tools.

Indicators:

- Identify authentic questions for investigation using appropriate digital resources.
- Collect and analyze data using appropriate digital tools.
- Compare and contrast search engine features to filter information.

## Grade 7

### Technology

Competency: Demonstrate appropriate use of hardware, software applications, and digital tools.

Indicators

- Demonstrate independent hardware operations including peripherals (such as digital cameras, tablets, and the use of printer options).
- Demonstrate use of advanced tool features of applications to create various multimedia projects.
- Apply keyboarding skills in order to accurately and efficiently create a first/only draft.

### Research

Competency: Apply digital tools and strategies to gather, evaluate, and utilize information.

Indicators:

- Explain whether a resource is reliable or unreliable.
- Apply internet search skills and utilize search engine features to identify multiple sources of information.
- Cite multiple references in an appropriate citation style.

### Digital Citizenship

Competency: Demonstrate social, ethical, and legal responsibility when using digital tools.

Indicators:

- Demonstrate proper Internet/digital etiquette and safety when navigating digital environments.
- Demonstrate lawful use of technology (e.g., copyright/plagiarism).
- Identify factors that contribute to unlawful and unethical behavior involving technology, including social media (e.g., bullying).

### Communication and Collaboration

Competency: Communicate and interact with others using a variety of tools and digital environments.

Indicators:

- Publish a variety of digital projects.
- Apply appropriate digital technology vocabulary.
- Collaborate appropriately.

### Creativity and Innovation

Competency: Develop an authentic project using available digital tools.

Indicator: Create various original works using multiple digital tools.

## **Critical Thinking**

Competency: Apply effective decision-making/evaluation skills using digital tools.

Indicators:

- Solve problems and make informed decisions using appropriate digital tools.
- Collect and analyze data using appropriate digital tools and resources.
- Compare and contrast advanced search engine features to filter information.

## Grade 8

### Technology

Competency: Demonstrate appropriate use of hardware, software applications, and digital tools.

Indicators

- Apply skills associated with the advanced tool features of applications.
- Create various multimedia projects.

### Research

Competency: Apply digital tools and strategies to gather, evaluate, and utilize information.

Indicators:

- Self-assess resources that are reliable and/or unreliable.
- Apply internet search skills to identify multiple reliable resources.
- Apply basic digital tools to format a research paper, including to cite references in an appropriate citation style.

### Digital Citizenship

Competency: Demonstrate social, ethical, and legal responsibility when using digital tools.

Indicators:

- Demonstrate proper Internet/digital etiquette and safety when navigating digital environments.
- Demonstrate lawful use of technology (e.g., copyright/plagiarism).

### Communication and Collaboration

Competency: Communicate and interact with others using a variety of tools and digital environments.

Indicators:

- Publish digital projects.
- Apply appropriate digital technology vocabulary.
- Collaborate appropriately.

### Creativity and Innovation

Competency: Develop an authentic project using available digital tools.

Indicators:

- Create various original works using multiple digital tools.

## **Critical Thinking**

Competency: Apply effective decision-making/evaluation skills using digital tools.

Indicators:

- Identify authentic questions for investigation using appropriate digital resources.
- Collect and analyze information/data using appropriate digital tools and resources.



## Grade 9 – 12 Framework

### Technology

Competency: Demonstrate appropriate use of hardware, software applications, and digital tools.

Indicators

- Justify choices of technology tools/delivery systems to complete a specific task or project.
- Troubleshoot applications.
- Troubleshoot basic hardware.
- Identify a wide range of technology types (including apps, software, websites).

### Research

Competency: Apply digital tools and strategies to gather, evaluate, and utilize information.

Indicators:

- Evaluate and apply appropriate strategies to gather information/data from a variety of sources and media.
- Apply advanced digital tools to format a research paper.
- Evaluate appropriate sources for the topic of inquiry.

### Digital Citizenship

Competency: Demonstrate social, ethical, and legal responsibility when using digital tools.

Indicators:

- Demonstrate safe, legal, and responsible use of information and technology, including social media and copyright laws (plagiarism).

### Communication and Collaboration

Competency: Communicate and interact with others using a variety of tools and digital environments.

Indicators:

- Publish information and ideas effectively for multiple audiences using a variety of media and formats.
- Solve problems or produce authentic works using digital collaboration tools.
- Collaborate appropriately.

### Creativity and Innovation

Competency: Develop an authentic project using available digital tools.

Indicators:

- Create various original works using multiple digital tools.
- Identify trends and forecast possibilities using digital tools.

## **Critical Thinking**

Competency: Apply effective decision-making/evaluation skills using digital tools.

Indicators:

- Identify and define authentic practical applications for investigation using appropriate digital resources.
- Collect and analyze data to identify solutions and/or make informed decisions.
- Use multiple digital tools and diverse perspectives to explore alternative solutions.

## **COURSES:**

## **ICT Pathways course**

**Description:** This Information Communication Technologies (ICT) course builds upon K-8 experiences as an exploratory experience of wider computer technologies within the Campbell curriculum. The course is segmented into six modules:

### ***Computer Programming***

#### **Critical Thinking**

Competency: Apply effective decision-making/evaluation skills using digital tools.

Indicators:

- Identify a variety of programming concepts using an appropriate program language.
- Collect and analyze data to identify solutions and make informed decisions.

#### **Communication and Collaboration**

Competency: Communicate and interact with others using a variety of tools and digital environments.

Indicators:

- Solve problems or produce authentic works using digital collaboration tools.
- Collaborate appropriately.
- Communicate results.

### ***Digital Multimedia***

#### **Technology**

Competency: Demonstrate appropriate use of hardware, software applications, and digital tools.

Indicators

- Justify choices of technology tools/delivery systems to complete a specific task or project.
- Troubleshoot applications.
- Troubleshoot basic hardware.
- Identify a wide range of technology types (including apps, software, websites).

#### **Communication and Collaboration**

Competency: Communicate and interact with others using a variety of tools and digital environments.

Indicators:

- Publish information and ideas effectively for multiple audiences using a variety of media and formats.

- Solve problems or produce authentic works using digital collaboration tools.
- Collaborate appropriately.

### **Creativity and Innovation**

Competency: Develop an authentic project using available digital tools.

Indicators:

- Apply current knowledge and formulate new ideas, products or processes. (interdisciplinary project)
- Design an original work through either personal or group expression.
- Develop innovative products and processes using exemplars.

### *Graphic Design*

#### **Technology**

Competency: Demonstrate appropriate use of hardware, software applications, and digital tools.

Indicators

- Justify choices of technology tools/delivery systems to complete a specific task or project.
- Troubleshoot applications.
- Troubleshoot basic hardware.
- Identify a wide range of technology types (including apps, software, websites).

#### **Critical Thinking**

Competency: Apply effective decision-making/evaluation skills using digital tools.

Indicators:

- Identify and define authentic practical applications for investigation using appropriate digital resources.
- Collect and analyze data to identify solutions and/or make informed decisions.
- Identify alternative solutions using multiple digital tools and diverse perspectives.

### *Technical Design Technology*

#### **Technology**

Competency: Demonstrate appropriate use of hardware, software applications, and digital tools.

Indicators:

- Justify choices of technology tools/delivery systems to complete a specific task or project.

- Troubleshoot applications.
- Troubleshoot basic hardware.
- Identify a wide range of technology types (including apps, software, websites).

### **Communication and Collaboration**

Competency: Communicate and interact with others using a variety of tools and digital environments.

Indicators:

- Publish information and ideas effectively for multiple audiences using a variety of media and formats.
- Solve problems or produce authentic works using digital collaboration tools.
- Collaborate appropriately.

### **Creativity and Innovation**

Competency: Develop an authentic project using available digital tools.

Indicators:

- Create various original works using multiple digital tools.
- Identify trends and forecast possibilities using digital tools.

### **Critical Thinking**

Competency: Apply effective decision-making/evaluation skills using digital tools.

Indicators:

- Identify and define authentic practical applications for investigation using appropriate digital resources.
- Collect and analyze data to identify solutions and make informed decisions.
- Identify alternative solutions using multiple digital tools and diverse perspectives.

## ***Computer Software Applications***

### **Creativity and Innovation**

Competency: Develop an authentic project using available digital tools.

Indicators:

- Apply existing knowledge to create an authentic product.

### **Critical Thinking**

Competency: Apply effective decision-making/evaluation skills using digital tools.

Indicators:

- Identify and define authentic practical applications for investigation using appropriate digital resources.
- Collect and analyze data to identify solutions and make informed decisions.
- Use multiple digital tools and diverse perspectives to explore alternative solutions.

### *Web Design*

#### **Creativity and Innovation**

Competency: Develop an authentic project using available digital tools.

Indicators:

- Apply current knowledge and formulate new ideas, products or processes. (interdisciplinary project)
- Design an original work through either personal or group expression.
- Develop innovative products and processes using exemplars.
- Identify trends and forecast possibilities using digital tools

#### **Communication and Collaboration**

Competency: Communicate and interact with others using a variety of tools and digital environments.

Indicators:

- Publish information and ideas effectively for multiple audiences using a variety of media and formats.
- Solve problems or produce authentic works using digital collaboration tools.
- Collaborate appropriately.

#### **Technology**

Competency: Demonstrate appropriate use of hardware, software applications, and digital tools.

Indicators

- Justify choices of technology tools/delivery systems to complete a specific task or project.
- Troubleshoot applications.
- Identify a wide range of technology types (including apps, software, websites).

*Digital Citizenship & Research* (woven throughout each module)

**Research**

Competency: Apply digital tools and strategies to gather, evaluate, and utilize information.

Indicators:

- Evaluate and apply appropriate strategies to gather information/data from a variety of sources and media.
- Apply advanced digital tools to format a research paper.
- Evaluate appropriate sources for the topic of inquiry.

**Digital Citizenship**

Competency: Demonstrate social, ethical, and legal responsibility when using digital tools.

Indicators:

- Demonstrate safe, legal, and responsible use of information and technology, including social media and copyright laws (plagiarism).

# DIGITAL PUBLISHING AND DESIGN

## Communication and Collaboration

Competency: Communicate and interact with others using a variety of tools and digital environments.

Indicators:

- Publish information and ideas effectively for multiple audiences using a variety of media and formats.
- Solve problems or produce authentic works using digital collaboration tools.

## Critical Thinking

Competency: Apply effective decision-making/evaluation skills using digital tools.

Indicators:

- Identify and define authentic practical applications for investigation using appropriate digital resources.
- Collect and analyze data to identify solutions and/or make informed decisions.
- Apply various digital tools and diverse perspectives to develop alternative solutions.

## Research

Competency: Apply digital tools and strategies to gather, evaluate, and utilize information.

Indicators:

- Evaluate and apply appropriate strategies to gather information/data from a variety of sources and media.
- Apply information/data to a self-designed project

## Technology

Competency: Demonstrate appropriate use of hardware, software applications, and digital tools.

Indicators

- Solve a specific task using the appropriate software application.
- Justify / support the application to complete a project.
- Troubleshoot hardware and chosen applications to solve a problem.



# DIGITAL MULTIMEDIA

## Communication and Collaboration

Competency: Communicate and interact with others using a variety of tools and digital environments.

Indicators:

- Analyze the various digital platforms that support collaboration, learning, and productivity. E.g., Google Docs
- Communicate information and ideas effectively to multiple audiences using a variety of media and formats.
- Perform effectively within a team to analyze a multimedia project.

## Creativity and Innovation

Competency: Develop an authentic project using available digital tools.

Indicators:

- Apply current knowledge and formulate new ideas, products or processes. (interdisciplinary project)
- Design an original work through either personal or group expression.
- Develop innovative products and processes using digital multimedia exemplars.
- Identify trends and forecast possibilities using digital tools.

## Technology

Competency: Demonstrate appropriate use of hardware, software applications, and digital tools.

Indicators

- Identify technology systems to solve a specific task or project.
- Justify / support the application to complete a project.
- Troubleshoot hardware and applications to solve a problem.

# **PROGRAMMING 1: INTRODUCTION TO PROGRAMMING**

## **Communication and Collaboration**

Competency: Communicate and interact with others using a variety of tools and digital environments.

Indicators:

- Publish information and ideas effectively for multiple audiences using a variety of media and formats.
- Solve problems and produce authentic works using digital collaboration tools.
- Collaborate appropriately.

## **Critical Thinking**

Competency: Apply effective decision-making/evaluation skills using digital tools.

Indicators:

- Discern a variety of programming concepts
- Identify and define authentic practical applications for investigation using an appropriate programming language.
- Collect and analyze data used to identify solutions and/or make informed decisions.

## **Research**

Competency: Apply digital tools and strategies to gather, evaluate, and utilize information.

Indicators:

- Evaluate and apply appropriate strategies to gather information/data from a variety of sources and media.
- Evaluate appropriate sources for the topic of inquiry.
- Apply information / data to a case study.

# **PROGRAMMING 2: COMPUTER SCIENCE ENGINEERING**

(Project Lead the Way)

## **Communication and Collaboration**

Competency: Communicate and interact with others using a variety of tools and digital environments.

Indicators:

- Publish information and ideas effectively for multiple audiences using a variety of media and formats.
- Solve projects and problems that include app development, visualization of data, cyber security, and simulation.
- Collaborate appropriately.

## **Critical Thinking**

Competency: Apply effective decision-making/evaluation skills using digital tools.

Indicators:

- Identify professional tools that foster creativity and collaboration.
- Collect and analyze data to identify solutions and/or make informed decisions.

## **Research**

Competency: Apply digital tools and strategies to gather, evaluate, and utilize information.

Indicators:

- Evaluate and apply appropriate strategies to gather information/data from a variety of sources and media.
- Evaluate resources about career paths that utilize computing.

# WEB SITE DESIGN

## Communication and Collaboration

Competency: Communicate and interact with others using a variety of tools and digital environments.

Indicators:

- Analyze various digital platforms that support collaboration, learning, and productivity, e.g., Google Docs.
- Communicate information and ideas effectively to multiple audiences using a variety of media and formats.
- Perform effectively within a team to analyze a case study.

## Creativity and Innovation

Competency: Develop an authentic project using available digital tools.

Indicators:

- Apply current knowledge and formulate new ideas, products or processes. (interdisciplinary project)
- Design an original work through either personal or group expression.
- Develop innovative products and processes using HTML scripting.
- Identify trends and forecast possibilities using digital tools.

## Research

Competency: Apply digital tools and strategies to gather, evaluate, and utilize information.

Indicators:

- Evaluate and apply appropriate strategies to gather information/data from a variety of sources and media.
- Apply information/data to a self-designed project.

## Technology

Competency: Demonstrate appropriate use of hardware, software applications, and digital tools.

Indicators

- Identify technology systems to solve a specific task or project.
- Justify / support the application to complete a project.

# ADVANCED WEB SITE DESIGN

## Communication and Collaboration

Competency: Communicate and interact with others using a variety of tools and digital environments.

Indicators:

- Analyze various digital platforms that support advanced collaboration, learning, and productivity.
- Communicate information and ideas effectively to multiple audiences using a variety of media and formats to gain the knowledge needed to create a website.
- Apply digital media and environments within a team to solve problems or produce authentic works.

## Creativity and Innovation

Competency: Develop an authentic project using available digital tools.

Indicators:

- Apply current knowledge and formulate new ideas, products or processes. (interdisciplinary project)
- Design an original work through either personal or group expression.
- Develop innovative products and processes using a development tool for creating, publishing, and managing websites and mobile content.
- Identify trends and forecast possibilities using digital tools.

## Research

Competency: Apply digital tools and strategies to gather, evaluate, and utilize information.

Indicators:

- Evaluate and apply appropriate strategies to gather information/data from a variety of sources and media.
- Utilize the information/data to create a storyboard for the website.

## Technology

Competency: Demonstrate appropriate use of hardware, software applications, and digital tools.

Indicators

- Identify technology tools to solve a specific task or project.
- Integrate digital media within a website using the appropriate development tool.

# DRAFTING

## Communication and Collaboration

Competency: Communicate and interact with others using a variety of tools and digital environments.

Indicators:

- Apply architectural vocabulary in discussions.
- Exhibit a variety of digital projects.
- Analyze and criticize one's own work and the work of others.

## Creativity and Innovation

Competency: Develop an authentic project using available digital tools.

Indicators:

- Apply the appropriate uses of tools for 2D sketching and 3D modeling of parts and assemblies that use English and Metric units.
- Construct prototypes of 3D modeling and engineering drawings
- Construct a prototype that utilizes aspects of residential architecture and planning.
- Create a residential plan utilizing CAD.

## Technology

Competency: Apply digital tools and strategies to gather, evaluate and utilize information.

Indicators:

- Analyze engineering drawings using the technical language of applications.
- Apply the appropriate uses of mechanical drawing instruments in multiple project drawings.
- Critique drawings and layouts using architectural terminology and tools that the student has learned through the Drafting course.

## Digital Citizenship

Competency: Demonstrate social, ethical and legal responsibility when using digital tools.

Indicators:

- Demonstrate safe, legal and responsible use of information and technology, including social media, and copy write laws.

# GRAPHIC DESIGN

## Communication and Collaboration

Competency: Communicate and interact with others using a variety of tools and digital environments.

Indicators:

- Apply graphic design vocabulary in discussions and writing.
- Construct new designs in collaboration with the learning community.
- Critique work and the work of others in a constructive and non-judgmental manner in both written and oral formats.

## Creativity and Innovation

Competency: Apply skills, ideas, and visual art language to create works for art using traditional and digital tools.

Indicators:

- Analyze ideas for visually communicating a message for a product or service.
- Create a visual communication using image and text.
- Construct graphic design artwork utilizing effective graphic arts tools.

## Technology

Competency: Demonstrate appropriate use of software applications and digital tools.

Indicators:

- Visually transform graphic design ideas using digital applications. (e.g., Illustrator, Photoshop)
- Apply the appropriate uses of design applications in projects.

# ADVANCED GRAPHIC DESIGN

## **Communication and Collaboration**

Competency: Communicate and interact with others using a variety of tools and digital environments.

Indicators:

- Apply graphic design vocabulary in discussions and writing.
- Construct new designs in collaboration with the learning community.
- Critique work and the work of others in a constructive and non-judgmental manner in both written and oral formats.
- Present artworks in exhibition.

## **Creativity and Innovation**

Competency: Apply skills, ideas, and visual art language to create works for art using traditional and digital tools.

Indicators:

- Analyze ideas for visually communicating a message for a product or service.
- Create a complex visual communication using image and text.
- Construct complex graphic design artwork utilizing effective advanced graphic arts tools.

## **Critical thinking and problem solving**

Competency: Critique and analyze works of their own and of others.

Indicators:

- Critique student projects.
- Solve problems using appropriate techniques and tools.
- Evaluate works utilizing critical thinking skills.

## **Technology**

Competency: Demonstrate appropriate use of software applications and digital tools.

Indicators:

- Visually transform graphic design ideas using advanced features of digital applications.
- Apply the appropriate uses of complex design tools in projects.





STANDARDS FOR

**Literacy in  
History/Social Studies,  
Science, and Technical Subjects**

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6-12

## College and Career Readiness Anchor Standards for Reading

The grades 6–12 standards on the following pages define what students should understand and be able to do by the end of each grade span. They correspond to the College and Career Readiness (CCR) anchor standards below by number. The CCR and grade-specific standards are necessary complements—the former providing broad standards, the latter providing additional specificity—that together define the skills and understandings that all students must demonstrate.

### Key Ideas and Details

1. Read closely to determine what the text says explicitly and to make logical inferences from it; cite specific textual evidence when writing or speaking to support conclusions drawn from the text.
2. Determine central ideas or themes of a text and analyze their development; summarize the key supporting details and ideas.
3. Analyze how and why individuals, events, or ideas develop and interact over the course of a text.

### Craft and Structure

4. Interpret words and phrases as they are used in a text, including determining technical, connotative, and figurative meanings, and analyze how specific word choices shape meaning or tone.
5. Analyze the structure of texts, including how specific sentences, paragraphs, and larger portions of the text (e.g., a section, chapter, scene, or stanza) relate to each other and the whole.
6. Assess how point of view or purpose shapes the content and style of a text.

### Integration of Knowledge and Ideas

7. Integrate and evaluate content presented in diverse formats and media, including visually and quantitatively, as well as in words.\*
8. Delineate and evaluate the argument and specific claims in a text, including the validity of the reasoning as well as the relevance and sufficiency of the evidence.
9. Analyze how two or more texts address similar themes or topics in order to build knowledge or to compare the approaches the authors take.

### Range of Reading and Level of Text Complexity

10. Read and comprehend complex literary and informational texts independently and proficiently.

\*Please see “Research to Build and Present Knowledge” in Writing for additional standards relevant to gathering, assessing, and applying information from print and digital sources.

### Note on range and content of student reading

*Reading is critical to building knowledge in history/social studies as well as in science and technical subjects. College and career ready reading in these fields requires an appreciation of the norms and conventions of each discipline, such as the kinds of evidence used in history and science; an understanding of domain-specific words and phrases; an attention to precise details; and the capacity to evaluate intricate arguments, synthesize complex information, and follow detailed descriptions of events and concepts. In history/social studies, for example, students need to be able to analyze, evaluate, and differentiate primary and secondary sources. When reading scientific and technical texts, students need to be able to gain knowledge from challenging texts that often make extensive use of elaborate diagrams and data to convey information and illustrate concepts. Students must be able to read complex informational texts in these fields with independence and confidence because the vast majority of reading in college and workforce training programs will be sophisticated nonfiction. It is important to note that these Reading standards are meant to complement the specific content demands of the disciplines, not replace them.*

## Reading Standards for Literacy in History/Social Studies 6–12

RH

The standards below begin at grade 6; standards for K–5 reading in history/social studies, science, and technical subjects are integrated into the K–5 Reading standards. The CCR anchor standards and high school standards in literacy work in tandem to define college and career readiness expectations—the former providing broad standards, the latter providing additional specificity.

Grades 6–8 students:	Grades 9–10 students:	Grades 11–12 students:
<b>Key Ideas and Details</b>		
1. Cite specific textual evidence to support analysis of primary and secondary sources.	1. Cite specific textual evidence to support analysis of primary and secondary sources, attending to such features as the date and origin of the information.	1. Cite specific textual evidence to support analysis of primary and secondary sources, connecting insights gained from specific details to an understanding of the text as a whole.
2. Determine the central ideas or information of a primary or secondary source; provide an accurate summary of the source distinct from prior knowledge or opinions.	2. Determine the central ideas or information of a primary or secondary source; provide an accurate summary of how key events or ideas develop over the course of the text.	2. Determine the central ideas or information of a primary or secondary source; provide an accurate summary that makes clear the relationships among the key details and ideas.
3. Identify key steps in a text’s description of a process related to history/social studies (e.g., how a bill becomes law, how interest rates are raised or lowered).	3. Analyze in detail a series of events described in a text; determine whether earlier events caused later ones or simply preceded them.	3. Evaluate various explanations for actions or events and determine which explanation best accords with textual evidence, acknowledging where the text leaves matters uncertain.
<b>Craft and Structure</b>		
4. Determine the meaning of words and phrases as they are used in a text, including vocabulary specific to domains related to history/social studies.	4. Determine the meaning of words and phrases as they are used in a text, including vocabulary describing political, social, or economic aspects of history/social studies.	4. Determine the meaning of words and phrases as they are used in a text, including analyzing how an author uses and refines the meaning of a key term over the course of a text (e.g., how Madison defines <i>faction</i> in <i>Federalist</i> No. 10).
5. Describe how a text presents information (e.g., sequentially, comparatively, causally).	5. Analyze how a text uses structure to emphasize key points or advance an explanation or analysis.	5. Analyze in detail how a complex primary source is structured, including how key sentences, paragraphs, and larger portions of the text contribute to the whole.
6. Identify aspects of a text that reveal an author’s point of view or purpose (e.g., loaded language, inclusion or avoidance of particular facts).	6. Compare the point of view of two or more authors for how they treat the same or similar topics, including which details they include and emphasize in their respective accounts.	6. Evaluate authors’ differing points of view on the same historical event or issue by assessing the authors’ claims, reasoning, and evidence.
<b>Integration of Knowledge and Ideas</b>		
7. Integrate visual information (e.g., in charts, graphs, photographs, videos, or maps) with other information in print and digital texts.	7. Integrate quantitative or technical analysis (e.g., charts, research data) with qualitative analysis in print or digital text.	7. Integrate and evaluate multiple sources of information presented in diverse formats and media (e.g., visually, quantitatively, as well as in words) in order to address a question or solve a problem.
8. Distinguish among fact, opinion, and reasoned judgment in a text.	8. Assess the extent to which the reasoning and evidence in a text support the author’s claims.	8. Evaluate an author’s premises, claims, and evidence by corroborating or challenging them with other information.
9. Analyze the relationship between a primary and secondary source on the same topic.	9. Compare and contrast treatments of the same topic in several primary and secondary sources.	9. Integrate information from diverse sources, both primary and secondary, into a coherent understanding of an idea or event, noting discrepancies among sources.
<b>Range of Reading and Level of Text Complexity</b>		
10. By the end of grade 8, read and comprehend history/social studies texts in the grades 6–8 text complexity band independently and proficiently.	10. By the end of grade 10, read and comprehend history/social studies texts in the grades 9–10 text complexity band independently and proficiently.	10. By the end of grade 12, read and comprehend history/social studies texts in the grades 11–CCR text complexity band independently and proficiently.

## Reading Standards for Literacy in Science and Technical Subjects 6–12

RST

Grades 6–8 students:	Grades 9–10 students:	Grades 11–12 students:
<b>Key Ideas and Details</b>		
1. Cite specific textual evidence to support analysis of science and technical texts.	1. Cite specific textual evidence to support analysis of science and technical texts, attending to the precise details of explanations or descriptions.	1. Cite specific textual evidence to support analysis of science and technical texts, attending to important distinctions the author makes and to any gaps or inconsistencies in the account.
2. Determine the central ideas or conclusions of a text; provide an accurate summary of the text distinct from prior knowledge or opinions.	2. Determine the central ideas or conclusions of a text; trace the text's explanation or depiction of a complex process, phenomenon, or concept; provide an accurate summary of the text.	2. Determine the central ideas or conclusions of a text; summarize complex concepts, processes, or information presented in a text by paraphrasing them in simpler but still accurate terms.
3. Follow precisely a multistep procedure when carrying out experiments, taking measurements, or performing technical tasks.	3. Follow precisely a complex multistep procedure when carrying out experiments, taking measurements, or performing technical tasks, attending to special cases or exceptions defined in the text.	3. Follow precisely a complex multistep procedure when carrying out experiments, taking measurements, or performing technical tasks; analyze the specific results based on explanations in the text.
<b>Craft and Structure</b>		
4. Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to <i>grades 6–8 texts and topics</i> .	4. Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to <i>grades 9–10 texts and topics</i> .	4. Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to <i>grades 11–12 texts and topics</i> .
5. Analyze the structure an author uses to organize a text, including how the major sections contribute to the whole and to an understanding of the topic.	5. Analyze the structure of the relationships among concepts in a text, including relationships among key terms (e.g., <i>force, friction, reaction force, energy</i> ).	5. Analyze how the text structures information or ideas into categories or hierarchies, demonstrating understanding of the information or ideas.
6. Analyze the author's purpose in providing an explanation, describing a procedure, or discussing an experiment in a text.	6. Analyze the author's purpose in providing an explanation, describing a procedure, or discussing an experiment in a text, defining the question the author seeks to address.	6. Analyze the author's purpose in providing an explanation, describing a procedure, or discussing an experiment in a text, identifying important issues that remain unresolved.
<b>Integration of Knowledge and Ideas</b>		
7. Integrate quantitative or technical information expressed in words in a text with a version of that information expressed visually (e.g., in a flowchart, diagram, model, graph, or table).	7. Translate quantitative or technical information expressed in words in a text into visual form (e.g., a table or chart) and translate information expressed visually or mathematically (e.g., in an equation) into words.	7. Integrate and evaluate multiple sources of information presented in diverse formats and media (e.g., quantitative data, video, multimedia) in order to address a question or solve a problem.
8. Distinguish among facts, reasoned judgment based on research findings, and speculation in a text.	8. Assess the extent to which the reasoning and evidence in a text support the author's claim or a recommendation for solving a scientific or technical problem.	8. Evaluate the hypotheses, data, analysis, and conclusions in a science or technical text, verifying the data when possible and corroborating or challenging conclusions with other sources of information.
9. Compare and contrast the information gained from experiments, simulations, video, or multimedia sources with that gained from reading a text on the same topic.	9. Compare and contrast findings presented in a text to those from other sources (including their own experiments), noting when the findings support or contradict previous explanations or accounts.	9. Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon, or concept, resolving conflicting information when possible.
<b>Range of Reading and Level of Text Complexity</b>		
10. By the end of grade 8, read and comprehend science/technical texts in the grades 6–8 text complexity band independently and proficiently.	10. By the end of grade 10, read and comprehend science/technical texts in the grades 9–10 text complexity band independently and proficiently.	10. By the end of grade 12, read and comprehend science/technical texts in the grades 11–CCR text complexity band independently and proficiently.

## College and Career Readiness Anchor Standards for Writing

The grades 6–12 standards on the following pages define what students should understand and be able to do by the end of each grade span. They correspond to the College and Career Readiness (CCR) anchor standards below by number. The CCR and grade-specific standards are necessary complements—the former providing broad standards, the latter providing additional specificity—that together define the skills and understandings that all students must demonstrate.

### Text Types and Purposes\*

1. Write arguments to support claims in an analysis of substantive topics or texts using valid reasoning and relevant and sufficient evidence.
2. Write informative/explanatory texts to examine and convey complex ideas and information clearly and accurately through the effective selection, organization, and analysis of content.
3. Write narratives to develop real or imagined experiences or events using effective technique, well-chosen details and well-structured event sequences.

### Production and Distribution of Writing

4. Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.
5. Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach.
6. Use technology, including the Internet, to produce and publish writing and to interact and collaborate with others.

### Research to Build and Present Knowledge

7. Conduct short as well as more sustained research projects based on focused questions, demonstrating understanding of the subject under investigation.
8. Gather relevant information from multiple print and digital sources, assess the credibility and accuracy of each source, and integrate the information while avoiding plagiarism.
9. Draw evidence from literary or informational texts to support analysis, reflection, and research.

### Range of Writing

10. Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of tasks, purposes, and audiences.

\*These broad types of writing include many subgenres. See Appendix A for definitions of key writing types.

### Note on range and content of student writing

*For students, writing is a key means of asserting and defending claims, showing what they know about a subject, and conveying what they have experienced, imagined, thought, and felt. To be college and career ready writers, students must take task, purpose, and audience into careful consideration, choosing words, information, structures, and formats deliberately. They need to be able to use technology strategically when creating, refining, and collaborating on writing. They have to become adept at gathering information, evaluating sources, and citing material accurately, reporting findings from their research and analysis of sources in a clear and cogent manner. They must have the flexibility, concentration, and fluency to produce high-quality first-draft text under a tight deadline and the capacity to revisit and make improvements to a piece of writing over multiple drafts when circumstances encourage or require it. To meet these goals, students must devote significant time and effort to writing, producing numerous pieces over short and long time frames throughout the year.*

## Writing Standards for Literacy in History/Social Studies, Science, and Technical Subjects 6–12



The standards below begin at grade 6; standards for K–5 writing in history/social studies, science, and technical subjects are integrated into the K–5 Writing standards. The CCR anchor standards and high school standards in literacy work in tandem to define college and career readiness expectations—the former providing broad standards, the latter providing additional specificity.

Grades 6–8 students:	Grades 9–10 students:	Grades 11–12 students:
<b>Text Types and Purposes</b>		
<ol style="list-style-type: none"> <li>1. Write arguments focused on <i>discipline-specific content</i>.               <ol style="list-style-type: none"> <li>a. Introduce claim(s) about a topic or issue, acknowledge and distinguish the claim(s) from alternate or opposing claims, and organize the reasons and evidence logically.</li> <li>b. Support claim(s) with logical reasoning and relevant, accurate data and evidence that demonstrate an understanding of the topic or text, using credible sources.</li> <li>c. Use words, phrases, and clauses to create cohesion and clarify the relationships among claim(s), counterclaims, reasons, and evidence.</li> <li>d. Establish and maintain a formal style.</li> <li>e. Provide a concluding statement or section that follows from and supports the argument presented.</li> </ol> </li> </ol>	<ol style="list-style-type: none"> <li>1. Write arguments focused on <i>discipline-specific content</i>.               <ol style="list-style-type: none"> <li>a. Introduce precise claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that establishes clear relationships among the claim(s), counterclaims, reasons, and evidence.</li> <li>b. Develop claim(s) and counterclaims fairly, supplying data and evidence for each while pointing out the strengths and limitations of both claim(s) and counterclaims in a discipline-appropriate form and in a manner that anticipates the audience's knowledge level and concerns.</li> <li>c. Use words, phrases, and clauses to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons, between reasons and evidence, and between claim(s) and counterclaims.</li> <li>d. Establish and maintain a formal style and objective tone while attending to the norms and conventions of the discipline in which they are writing.</li> <li>e. Provide a concluding statement or section that follows from or supports the argument presented.</li> </ol> </li> </ol>	<ol style="list-style-type: none"> <li>1. Write arguments focused on <i>discipline-specific content</i>.               <ol style="list-style-type: none"> <li>a. Introduce precise, knowledgeable claim(s), establish the significance of the claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that logically sequences the claim(s), counterclaims, reasons, and evidence.</li> <li>b. Develop claim(s) and counterclaims fairly and thoroughly, supplying the most relevant data and evidence for each while pointing out the strengths and limitations of both claim(s) and counterclaims in a discipline-appropriate form that anticipates the audience's knowledge level, concerns, values, and possible biases.</li> <li>c. Use words, phrases, and clauses as well as varied syntax to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons, between reasons and evidence, and between claim(s) and counterclaims.</li> <li>d. Establish and maintain a formal style and objective tone while attending to the norms and conventions of the discipline in which they are writing.</li> <li>e. Provide a concluding statement or section that follows from or supports the argument presented.</li> </ol> </li> </ol>

## Writing Standards for Literacy in History/Social Studies, Science, and Technical Subjects 6–12

WHST

Grades 6–8 students:	Grades 9–10 students:	Grades 11–12 students:
<b>Text Types and Purposes (continued)</b>		
<p>2. Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.</p> <ol style="list-style-type: none"> <li>Introduce a topic clearly, previewing what is to follow; organize ideas, concepts, and information into broader categories as appropriate to achieving purpose; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension.</li> <li>Develop the topic with relevant, well-chosen facts, definitions, concrete details, quotations, or other information and examples.</li> <li>Use appropriate and varied transitions to create cohesion and clarify the relationships among ideas and concepts.</li> <li>Use precise language and domain-specific vocabulary to inform about or explain the topic.</li> <li>Establish and maintain a formal style and objective tone.</li> <li>Provide a concluding statement or section that follows from and supports the information or explanation presented.</li> </ol>	<p>2. Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.</p> <ol style="list-style-type: none"> <li>Introduce a topic and organize ideas, concepts, and information to make important connections and distinctions; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension.</li> <li>Develop the topic with well-chosen, relevant, and sufficient facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic.</li> <li>Use varied transitions and sentence structures to link the major sections of the text, create cohesion, and clarify the relationships among ideas and concepts.</li> <li>Use precise language and domain-specific vocabulary to manage the complexity of the topic and convey a style appropriate to the discipline and context as well as to the expertise of likely readers.</li> <li>Establish and maintain a formal style and objective tone while attending to the norms and conventions of the discipline in which they are writing.</li> <li>Provide a concluding statement or section that follows from and supports the information or explanation presented (e.g., articulating implications or the significance of the topic).</li> </ol>	<p>2. Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.</p> <ol style="list-style-type: none"> <li>Introduce a topic and organize complex ideas, concepts, and information so that each new element builds on that which precedes it to create a unified whole; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension.</li> <li>Develop the topic thoroughly by selecting the most significant and relevant facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic.</li> <li>Use varied transitions and sentence structures to link the major sections of the text, create cohesion, and clarify the relationships among complex ideas and concepts.</li> <li>Use precise language, domain-specific vocabulary and techniques such as metaphor, simile, and analogy to manage the complexity of the topic; convey a knowledgeable stance in a style that responds to the discipline and context as well as to the expertise of likely readers.</li> <li>Provide a concluding statement or section that follows from and supports the information or explanation provided (e.g., articulating implications or the significance of the topic).</li> </ol>
3. (See note; not applicable as a separate requirement)	3. (See note; not applicable as a separate requirement)	3. (See note; not applicable as a separate requirement)

**Note:** Students' narrative skills continue to grow in these grades. The Standards require that students be able to incorporate narrative elements effectively into arguments and informative/explanatory texts. In history/social studies, students must be able to incorporate narrative accounts into their analyses of individuals or events of historical import. In science and technical subjects, students must be able to write precise enough descriptions of the step-by-step procedures they use in their investigations or technical work that others can replicate them and (possibly) reach the same results.

## Writing Standards for Literacy in History/Social Studies, Science, and Technical Subjects 6–12



Grades 6–8 students:	Grades 9–10 students:	Grades 11–12 students:
<b>Production and Distribution of Writing</b>		
4. Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.	4. Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.	4. Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.
5. With some guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on how well purpose and audience have been addressed.	5. Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on addressing what is most significant for a specific purpose and audience.	5. Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on addressing what is most significant for a specific purpose and audience.
6. Use technology, including the Internet, to produce and publish writing and present the relationships between information and ideas clearly and efficiently.	6. Use technology, including the Internet, to produce, publish, and update individual or shared writing products, taking advantage of technology's capacity to link to other information and to display information flexibly and dynamically.	6. Use technology, including the Internet, to produce, publish, and update individual or shared writing products in response to ongoing feedback, including new arguments or information.
<b>Research to Build and Present Knowledge</b>		
7. Conduct short research projects to answer a question (including a self-generated question), drawing on several sources and generating additional related, focused questions that allow for multiple avenues of exploration.	7. Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.	7. Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.
8. Gather relevant information from multiple print and digital sources, using search terms effectively; assess the credibility and accuracy of each source; and quote or paraphrase the data and conclusions of others while avoiding plagiarism and following a standard format for citation.	8. Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the usefulness of each source in answering the research question; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and following a standard format for citation.	8. Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.
9. Draw evidence from informational texts to support analysis, reflection, and research.	9. Draw evidence from informational texts to support analysis, reflection, and research.	9. Draw evidence from informational texts to support analysis, reflection, and research.
<b>Range of Writing</b>		
10. Write routinely over extended time frames (time for reflection and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.	10. Write routinely over extended time frames (time for reflection and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.	10. Write routinely over extended time frames (time for reflection and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.