



Statewide Framework Document for: 110701

**AI Literacy for Civic Engagement**

Standards may be added to this document prior to submission but may not be removed from the framework to meet state credit equivalency requirements. Performance assessments may be developed at the local level. In order to earn state approval, performance assessments must be submitted within this framework. **This course is eligible for 1.0 third year social studies credit** **.**

The Washington State Social Studies standards performance expectations for high school students consist of Essential Academic Learning Requirements (EALRs) and Grade Level Expectations (GLEs) that describe what students should know and be able to do in social studies skills, civics, economics, geography, and history, which prepare students to enter college and workforce training programs. The focus is on results rather than means, which leaves room for teachers and evaluators to determine how the course objectives are reached and what additional topics are addressed. The details about each performance expectation can be found at ITSE Standards for Students.

The Washington Social Studies standards support students with skills of authentic inquiry and who know geography, civics, economics, and history can move forward with the confidence that they are prepared to engage with the world.  While it is vital to develop a conceptual understanding that promotes advanced digital literacy skills and concepts required for college and career readiness in multiple disciplines, teachers should focus on the application of civic and ethical responsibilities in the business and technology sectors with an emphasis on current and past policies, laws, and ways in which local, state, and federal governments enact these policies.

The Standards for Social Studies Standards develop habits of mind and are to be modeled and integrated throughout the course. The details about each Social Studies Standard can be found at Washington [Social Studies Learning Standards & Graduation Requirements](https://ospi.k12.wa.us/student-success/resources-subject-area/social-studies/social-studies-learning-standards-graduation-requirements), which establish guidelines for literacy in history/social studies, science, and technical subjects. The College and Career Readiness Anchor Standards form the backbone of the Career Technical Education standards by articulating core knowledge and skills, while grade-specific standards provide additional specificity.

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| **School District Name** | | |
| **Course Title:** AI Literacy for Civic Engagement | | **Total Framework Hours:** 180 |
| **CIP Code:** 110701 | **x** ExploratoryPreparatory | **Date Last Modified:** August 2025 |
| **Career Cluster:** Information Technology | | **Cluster Pathway:** Programming & Software Development |
| **Course Summary**: This program offers an introductory approach to computer science education as it relates to artificial intelligence literacy by blending theoretical foundations with practical applications. It covers computational science principles, digital and media literacy, programming, and diverse applications while thoughtfully integrating multiple levels of artificial intelligence application and theory. The curriculum maintains a strong connection to civic education, critical thinking, and responsible technology use, creating a balanced approach that emphasizes both technical understanding and ethical responsibility. Aligning with Washington state Civics Education standards, government and public policy, the program emphasizes digital citizenship, critical evaluation of information, problem-solving, and collaboration. Each unit addresses multiple technological standards, supporting students in developing essential digital skills while exploring AI concepts in a framework that prepares them for responsible engagement with emerging technologies.  Unit 1: Digital Citizenship Fundamentals: Navigating the Digital World Responsibly  Unit 2: Media Literacy Foundations for the AI Age  Unit 3: Constitutional Foundations and AI Civic Engagement  Unit 4: Introduction to Artificial Intelligence - Historical Development and Ethical Considerations  Unit 5: Data Classification Foundations for AI Understanding  Unit 6: Civic Data Collector  Unit 7: AI for Learning Enhancement and Civic Education  Unit 8: AI Evaluation Portfolio | | |
| **Eligible for Equivalent Credit in:** 3rd Year Social Studies | | **Total Number of Units:** 8 |
| **Course Resources:** This course aligns with the Certiport® IC3 Digital Literacy Certification and Critical Career Skills. Additional resources can be found at [Washington OER Hub | OER Commons](https://oercommons.org/hubs/washington) | | |

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| **Unit 1:** Digital Citizenship Fundamentals: Navigating the Digital World Responsibly | | **Total Learning Hours for Unit:** 15 |
| **Unit Summary**: This introductory unit equips students with essential digital literacy skills needed to navigate today's technology landscape. Students will explore fundamental concepts of digital citizenship including data privacy, online safety, user agreements, digital footprints, and the civic responsibilities that accompany technology use. Through practical exercises, case studies, and collaborative activities, students will develop a critical understanding of how technology shapes their personal lives and society. This unit establishes the foundation for subsequent media literacy and AI exploration, ensuring students have the practical knowledge to engage thoughtfully with emerging technologies and become responsible digital citizens. (COPPA) | | |
| **Performance Assessments**:  **Digital Citizenship Portfolio**  Students will create a comprehensive digital citizenship portfolio that demonstrates their understanding of the unit's key concepts. The portfolio will include:   1. **Personal Data Audit**: Documentation of what personal data is being collected about them across platforms, with analysis of potential implications 2. **Agreement Analysis**: Critical analysis of a user agreement from a platform they regularly use, identifying key provisions and their implications 3. **Digital Footprint Management Plan**: Strategy document outlining steps they will take to manage their digital footprint 4. **Digital Citizenship Statement**: Personal statement articulating their rights and responsibilities as digital citizens 5. **Digital Wellness Plan**: Concrete strategies for maintaining healthy technology habits  Alternative Assessments  * **Digital Citizenship Guide**: Students create an informative guide for younger students about responsible technology use * **Case Study Analysis**: In-depth analysis of a real-world digital citizenship issue or incident * **Public Service Announcement**: Creation of a PSA addressing a digital citizenship topic * **Digital Rights Campaign**: Development of an advocacy campaign around a digital rights issue * **Technology Use Policy**: Creation of a balanced technology use policy for themselves or their family | | |
| **Leadership Alignment**:   * **4. Information Literacy** (4.A.1-2, 4.B.1-3) - Students evaluate information privacy, analyze data collection, and apply ethical understanding around information use * **5. Media Literacy** (5.A.1-3) - Students analyze how data is collected and the impact of digital media on users * **7. Flexibility and Adaptability** (7.B.3) - Students balance diverse views related to technology use * **10. Productivity and Accountability** (10.B.1.a) - Emphasis on working positively and ethically in digital spaces * **12.C Civic Literacy** (12.C.1-3) - Understanding rights, responsibilities, and civic engagement in digital contexts | | |
| **Industry Standards and/or Competencies**: **ISTE Standards for Students Website:** [**https://iste.org/**](https://iste.org/)  1.2. Digital Citizen (all sub-standards)   * 1.2.a. Managing digital identity and understanding online behaviors' impact * 1.2.b. Demonstrating empathetic online interactions * 1.2.c. Safeguarding well-being and managing screen time * 1.2.d. Protecting digital privacy and managing personal data   CTE Program Standards  Foundation 1: Students will demonstrate occupationally specific skills and competencies  Foundation 3: Students develop and apply skills for diverse society  Foundation 5: Employability skills integration  Exploratory Standard 1.1: Application of state/national core content standards  Exploratory Standard 2.2: Curriculum focused on interrelationships of family, career, and community  Exploratory Standard 4.1: Leadership and employability skill development | | |
| **Aligned Washington State Academic Standards** | | |
| **Computer Science** | **3A-CS-01**: Explain how abstractions hide implementation details of computing systems  **3A-NI-05**: Give examples of how sensitive data can be affected by malware and attacks  **3A-NI-06**: Recommend security measures based on efficiency, feasibility, and ethics  **3A-NI-07**: Compare security measures considering usability and security tradeoffs  **3A-NI-08**: Explain tradeoffs when implementing cybersecurity recommendations  **3A-IC-29**: Explain privacy concerns related to automated data collection processes  **3A-IC-30**: Evaluate social/economic implications of privacy in context of safety/ethics | |
| **Educational Technology** | **2.a:** Students cultivate and manage their digital identity and reputation and are aware of the permanence of their actions in the digital world.  **2.b:** Students engage in positive, safe, legal and ethical behavior when using technology, including social interactions online or when using networked devices.  **2.c:** Students demonstrate an understanding of and respect for the rights and obligations of using and sharing intellectual property.  **2.d:** Students manage their personal data to maintain digital privacy and security and are aware of data-collection technology used to track their navigation online. | |
| **Social Studies** | **SSS1.9-12.2:** Critique the use of reasoning, sequencing, and details supporting the claim.  **SSS1.9-12.4:** Gather relevant information from multiple sources representing a wide range of views while using the origin, authority, structure, context, and corroborative value of the sources to guide the selection.  **SSS3.9-12.4:** Analyze the impact and the appropriate roles of personal interests and perspectives on the application of civic virtues, democratic principles, constitutional rights, and human rights.  **C4.9-10.3** - Describe the impact and the appropriate roles of personal interests and perspectives on the application of civic virtues, democratic principles, constitutional rights, and human rights. | |

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| **Unit 2:** Media Literacy Foundations for the AI Age | | **Total Learning Hours for Unit:** 20 |
| **Unit Summary**: Students prepare to critically analyze and engage with artificial intelligence by building foundational media literacy skills. Students will explore the core principles of media literacy education while developing the critical thinking skills needed to navigate an increasingly AI-mediated information landscape. Through analysis of various media forms, practical applications, and reflective activities, students will gain essential skills to evaluate media messages, understand media's role in society, and become empowered, responsible media consumers and creators by learning how to assess and fact check sources. This unit serves as the necessary foundation for subsequent exploration of AI's historical development and ethical implications, equipping students with the analytical frameworks to thoughtfully examine how AI technologies transform our media ecosystem and civic institutions.  [Digital Survival Skills Module 1: My Media Environment | OER Commons](https://oercommons.org/courseware/lesson/63817/overview)  [Digital Survival Skills Module 3: Fact-Checking | OER Commons](https://oercommons.org/courseware/lesson/68159/overview) | | |
| **Performance Assessments**:  **Deliberation Exercise**: Students participate in a structured discussion about a media policy issue  **Media Literacy Guide**: Students create a guide for others about navigating media responsibly  **Media Impact Analysis**: Students analyze how a specific media trend impacts civic discourse or community values | | |
| **Leadership Alignment**:  **2. Critical Thinking and Problem Solving** (2.C.1-5) - Students analyze evidence, evaluate arguments and synthesize information  **4. Information Literacy** (4.A.2, 4.B.3) - Evaluating information critically and understanding ethical/legal issues  **5. Media Literacy** (5.A.1-3) - Core focus on understanding media construction, influence, and ethical concerns  **9. Social and Cross-Cultural** (9.A.1-2) - Knowing when to listen vs. speak, respecting different perspectives  **12.C Civic Literacy** (12.C.2-3) - Understanding civic rights and the implications of media in civic contexts | | |
| **Industry Standards and/or Competencies**: **ISTE Standards for Students Website:** [**https://iste.org/**](https://iste.org/)  1.3. Knowledge Constructor (all sub-standards)   * 1.3.b. Evaluating accuracy, validity, bias of digital content * 1.3.c. Curating information from digital resources   1.6. Creative Communicator (applicable sub-standards)  **CTE Program Standards:**  Foundation 1: Demonstrating occupationally specific skills  Foundation 3: Skills for diverse society  Foundation 5: Employability skills integration  Exploratory Standard 3.1: Knowledge of career options  Exploratory Standard 4.1: Leadership and employability skills | | |
| **Aligned Washington State Academic Standards** | | |
| **Computer Science** | **3A-DA-11**: Create interactive data visualizations to help others understand real-world phenomena  **3A-IC-24**: Evaluate how computing impacts personal, ethical, social, economic, and cultural practices  **3A-IC-25**: Test and refine computational artifacts to reduce bias and equity deficits  **3A-IC-29**: Explain privacy concerns related to automated data collection | |
| **Educational Technology** | **3.a:** Students plan and employ effective research strategies to locate information and other resources for their intellectual or creative pursuits.  **3.b:** Students evaluate the accuracy, perspective, credibility and relevance of information, media, data or other resources.  **3.c:** Students curate information from digital resources using a variety of tools and methods to create collections of artifacts that demonstrate meaningful connections or conclusions. | |
| **Social Studies** | **SSS1.9-12.1:** Critique the precision of a claim about an issue or event.  **SSS1.9-12.2:** Critique the use of reasoning, sequencing, and details supporting the claim.  **SSS1.9-12.3:** Explain points of agreement and disagreement that experts have regarding interpretations of sources.  **SSS2.9-12.2:** Evaluate the validity, reliability, and credibility of sources when researching an issue or event.  **C4.9-10.3** - Describe the impact and the appropriate roles of personal interests and perspectives on the application of civic virtues, democratic principles, constitutional rights, and human rights. **C4.9-10.2** - Analyze how governments throughout history have or have not valued individual rights over the common good. **C2.9-10.1** - Explain how citizens and institutions address social and political problems at the local, state, tribal, national, and international level **C4.9-10.1** - Use appropriate deliberative processes in multiple settings.  **C4.9-10.4** - Explain how social and political problems are addressed at the local, regional, state, tribal, national, and international level.  **H3.9-10.3:** Explain how the perspectives of people in the present shape interpretations of the past. | |

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| **Unit 3:** Constitutional Foundations and AI Civic Engagement | | **Total Learning Hours for Unit:** 25 |
| **Unit Summary**: This unit introduces students to fundamental concepts of American democracy, constitutional principles, and federal government organization through the lens of AI-assisted exploration. Students will use generative AI tools to deepen their understanding of complex civic concepts, analyze constitutional rights, and explore government procedures. As they navigate these foundational civic topics, students will simultaneously develop critical AI prompting skills to extract accurate information, identify limitations, and verify AI-generated content about government structures and constitutional principles. Beginning with this unit, students will maintain a digital journal that documents their learning journey, AI explorations, and constitutional analyses. This journal will serve as both a learning tool and an assessment component, allowing students to practice digital citizenship while creating a personalized civic education resource. This unit bridges media literacy (Unit 2) with AI history (Unit 4) by teaching students to use common Generative AI tools while maintaining awareness of its limitations when discussing governmental systems and constitutional rights. | | |
| **Performance Assessments**:  Students will create an "AI-Assisted Civic Guide" that demonstrates their understanding of either federal government organization or constitutional rights and responsibilities. This assessment includes:   1. A research component showing AI-generated explanations of their chosen civic topic 2. Student analysis and correction of any AI misconceptions or errors 3. A final product (digital presentation, infographic, or interactive guide) that accurately explains the civic concepts 4. A reflection component documenting how AI enhanced their understanding and where human expertise was needed   For the Constitutional Rights option, students will focus on specific amendments, landmark Supreme Court cases, and modern applications.  For the Federal Government Organization option, students will explore the three branches, checks and balances, and federalism.  **Digital Journal Component:** Students will develop and maintain a structured digital journal that includes:   1. **Journal Setup and Structure:**    * Constitutional concepts    * AI exploration logs    * Civic analysis    * Reflection space 2. **Content Requirements:**    * Weekly entries documenting AI interactions and civic learning    * Embedded examples of AI-generated content with student annotations/corrections    * Media elements (images, links to relevant constitutional resources)    * Structured analysis of how AI tools enhance or sometimes misrepresent constitutional concepts 3. **Technical Requirements:**    * Proper structure with header, navigation, and content sections    * Basic styling using inline CSS    * Organized file structure    * Accessibility considerations (alternative text, readable design)  * Recommend using Markdown or HTML for the Digital Journal | | |
| **Leadership Alignment**:  **1. Creativity and Innovation** (1.C.1) - Students develop creative approaches to applying civic concepts  **2. Critical Thinking and Problem Solving** (2.C.1-5) - Analyzing constitutional principles and evaluating arguments  **3. Communication and Collaboration** (3.A.1-4) - Articulating constitutional concepts using digital journals  **6. ICT Literacy** (6.A.1-3) - Using technology to research, evaluate, and communicate civic information  **12.C Civic Literacy** (12.C.1-3) - Core focus on understanding governmental processes and civic participation | | |
| **Industry Standards and/or Competencies**: **ISTE Standards for Students Website:** [**https://iste.org/**](https://iste.org/)  1.3. Knowledge Constructor   * 1.3.d. Building knowledge by exploring real-world issues   1.6. Creative Communicator   * 1.6.c. Using digital tools to communicate complex ideas   1.7. Global Collaborator  1.7.d. Exploring local/global issues and using technology to investigate solutions  **CTE Program Standards:**  Foundation 1: Occupationally specific skills  Foundation 2: Integration with K-20 education system  Foundation 4: Leadership skills integration  Exploratory Standard 1.1: Application of content standards  Exploratory Standard 2.3: Extended learning into community | | |
| **Aligned Washington State Academic Standards** | | |
| **Computer Science** | **3A-DA-11**: Create interactive data visualizations to help others understand real-world phenomena  **3A-IC-24**: Evaluate how computing impacts personal, ethical, social, economic, and cultural practices  **3A-IC-25**: Test and refine computational artifacts to reduce bias and equity deficits  **3A-IC-29**: Explain privacy concerns related to automated data collection | |
| **Educational Technology** | **1.a:** Students articulate and set personal learning goals, develop strategies leveraging technology to achieve them and reflect on the learning process itself to improve learning outcomes.  **3.d:** Students build knowledge by actively exploring real-world issues and problems, developing ideas and theories and pursuing answers and solutions. | |
| **Social Studies** | **SSS1.9-12.3:** Explain points of agreement and disagreement that experts have regarding interpretations of sources.  **SSS2.9-12.2:** Evaluate the validity, reliability, and credibility of sources when researching an issue or event.  **SSS2.9-12.3:** Determine the kinds of sources and relevant information that are helpful, taking into consideration multiple points of view represented in the sources, the types of sources available, and the potential uses of the sources.  **SSS4.9-12.2:** Construct arguments using precise and knowledgeable claims, with evidence from multiple and reliable sources, while acknowledging counterclaims and evidentiary weaknesses.  **C2.9-10.1** - Explain how citizens and institutions address social and political problems at the local, state, tribal, national, and international level.  **C2.9-10.2** - Explain the origins, functions, and structure of government.  **C4.9-10.2** - Analyze how governments throughout history have or have not valued individual rights over the common good.  **C4.9-10.3** - Describe the impact and the appropriate roles of personal interests and perspectives on the application of civic virtues, democratic principles, constitutional rights, and human rights. | |

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| **Unit 4:** Introduction to Artificial Intelligence - Historical Development and Ethical Considerations | | **Total Learning Hours for Unit:** 15 |
| **Unit Summary**: This unitexamines the historical evolution of artificial intelligence and the ethical considerations that have shaped—or been neglected during—its development and implementation. Students will explore the origins of AI, trace its progression through key milestones, discover the different types of artificial intelligence technology, and analyze how various stakeholders, including governments and citizens, have addressed ethical concerns throughout this journey. The unit emphasizes the relationships between AI development and core democratic values, constitutional rights, and civic responsibilities. Students will evaluate how societal values, character traits, and governance structures have influenced AI development, while gaining understanding of how AI technologies impact civic institutions and citizen participation in democracy. | | |
| **Performance Assessments**:  Students will work in teams to create an interactive exhibition on "The Evolution of AI Ethics" that:   * Traces major developments in AI alongside the evolution of ethical considerations * Highlights the roles of different governmental bodies in shaping AI regulation * Showcases constitutional questions raised by AI applications * Demonstrates how character traits and civic values have influenced (or should have influenced) AI development * Presents alternative historical pathways AI might have taken with different ethical priorities   Students are encouraged to use AI tools in the development of the project to include research and presentation based on the teacher’s preference.  This exhibition will be presented to the class and could potentially be shared with other classes or communities.  Digital Journal Options:  **1. Historical Timeline Integration**  Students can add an interactive timeline section to their digital journals that charts key milestones in AI development alongside ethical considerations that emerged at each stage. This could include:   * Collapsible sections for different AI eras (early computing, expert systems, machine learning, deep learning revolution) * Color-coded entries that distinguish technological advancements from ethical frameworks/concerns * "Toggle view" options to filter the timeline by technology advancements, ethical considerations, or government regulations   **2. Ethical Analysis Repository**  Create a dedicated section in their journals for analyzing specific AI ethical case studies:   * Template for consistent ethical analysis including: technology involved, stakeholders affected, ethical principles at stake, government response, and student evaluation * "Ethics matrix" where students evaluate different AI applications against constitutional rights and civic values * Embed AI-generated content about ethical scenarios alongside student critiques and corrections | | |
| **Leadership Alignment**:  **2. Critical Thinking and Problem Solving** (2.A.1, 2.C.1-5) - Evaluating ethical developments in AI history  **3. Communication and Collaboration** (3.A.1, 3.B.1-3) - Collaborative creation of AI ethics exhibitions  **5. Media Literacy** (5.A.1-3) - Analyzing how AI systems influence information consumption  **11. Leadership and Responsibility** (11.A.4, 11.B.1) - Demonstrating ethical understanding of technology governance  **12.C Civic Literacy** (12.C.1-3) - Understanding regulatory frameworks across government levels | | |
| **Industry Standards and/or Competencies**: **ISTE Standards for Students Website:** [**https://iste.org/**](https://iste.org/)  1.2. Digital Citizen (ethical dimensions)  1.3. Knowledge Constructor   * 1.3.b. Evaluating accuracy, bias, validity of content   1.7. Global Collaborator  1.7.b. Using technology to examine issues from multiple viewpoints | | |
| **Aligned Washington State Academic Standards** | | |
| **Computer Science** | **3A-CS-01**: Explain how abstractions hide implementation details of computing systems  **3A-CS-02**: Compare levels of abstraction between application software, system software, and hardware  **3A-IC-24**: Evaluate how computing impacts personal, ethical, social, economic, and cultural practices  **3A-IC-25**: Test and refine computational artifacts to reduce bias and equity deficits  **3A-IC-28**: Explain beneficial/harmful effects of intellectual property laws on innovation | |
| **Educational Technology** | **1.d:** Students understand the fundamental concepts of technology operations, demonstrate the ability to choose, use and troubleshoot current technologies and are able to transfer their knowledge to explore emerging technologies.  **3.d:** Students build knowledge by actively exploring real-world issues and problems, developing ideas and theories and pursuing answers and solutions. | |
| **Social Studies** | **SSS1.9-12.4:** Gather relevant information from multiple sources representing a wide range of views while using the origin, authority, structure, context, and corroborative value of the sources to guide the selection.  **SSS1.9-12.5:** Explain the challenge and opportunities of addressing problems over place and time using disciplinary and interdisciplinary lenses.  **SSS2.9-12.1:** Create compelling and supporting questions that focus on an idea, issue, or event.  **SSS3.9-12.5:** Integrate evidence from multiple relevant historical sources and interpretations into a reasoned argument about the past and its relationship to the present.  **C3.9-10.2** - Analyze relationships among governments, civil societies, and economic markets. **C4.9-10.2** - Analyze how governments throughout history have or have not valued individual rights over the common good.  **C4.9-10.3** - Describe the impact and the appropriate roles of personal interests and perspectives on the application of civic virtues, democratic principles, constitutional rights, and human rights.  **C4.9-10.4** - Explain how social and political problems are addressed at the local, regional, state, tribal, national, and international level.  **H1.9-10.2:** Assess how historical events and developments were shaped by unique circumstances of time and place as well as broader historical contexts.  **H2.9-10.3:** Define and evaluate how technology and ideas have shaped world history (1450-present).  **E3.9-10.2:** Explain the role of government in advancing technology and investing in capital goods and human capital to increase economic growth and standards of living. | |

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| **Unit 5:** Data Classification Foundations for AI Understanding | | **Total Learning Hours for Unit:** 20 |
| **Unit Summary**: Students will explore how information is organized, categorized, and classified in both human systems (like government) and AI systems. They'll learn fundamental classification concepts, practice manual classification exercises, and examine how these principles apply to Washington state governmental structures. Through hands-on activities, students will experience classification challenges that AI systems face, gaining insight into how machines "learn" to categorize information. This understanding will prepare them for creating their own data collection and classification tools in the subsequent programming unit. | | |
| **Performance Assessments**:  **Classification System Portfolio**  Students will create a portfolio in their digital journal that includes:   1. **Washington Government Classification Analysis**: A detailed classification of a portion of Washington state government with visualizations 2. **Algorithm Simulation Documentation**: Results and reflection from the "Be the Algorithm" exercise 3. **Classification System Design**: Complete classification system for their upcoming data collection project (next unit) 4. **Ethical Analysis**: Examination of potential biases and limitations in their classification approach 5. **Technical Preparation**: Initial data structures and organization for the programming project in the next unit | | |
| **Leadership Alignment**:  **1. Creativity and Innovation** (1.A.1-3) - Designing classification systems  **2. Critical Thinking and Problem Solving** (2.B.1) - Analyzing systems thinking in classifications  **4. Information Literacy** (4.A.1-2, 4.B.1-2) - Organizing and managing information flows  **6. ICT Literacy** (6.A.1) - Using technology to organize and evaluate information  **8. Initiative and Self-Direction** (8.B.1) - Working independently to develop classification systems | | |
| **Industry Standards and/or Competencies**: **ISTE Standards for Students Website:** [**https://iste.org/**](https://iste.org/)  1.5. Computational Thinker (all sub-standards)   * 1.5.a. Formulating technology-assisted problem definitions * 1.5.b. Collecting and analyzing data * 1.5.c. Breaking problems into components   1.5.d. Understanding automation and algorithmic thinking  **CTE Program Standards:**  Foundation 1: Occupationally specific skills  Foundation 5: Employability skills integration  Exploratory Standard 2.1: Industry standards  Exploratory Standard 2.5: Safe and appropriate environments | | |
| **Aligned Washington State Academic Standards** | | |
| **Computer Science** | **3A-DA-09**: Translate between different bit representations of real-world phenomena  **3A-DA-10**: Evaluate tradeoffs in how data elements are organized and stored  **3A-DA-12**: Create computational models representing relationships among data elements  **3A-AP-14**: Use lists to simplify solutions, generalizing computational problems  **3A-IC-29**: Explain privacy concerns related to automated data collection | |
| **Educational Technology** | **5.c:** Students break problems into component parts, extract key information, and develop descriptive models to understand complex systems or facilitate problem-solving.  **3.b:** Students evaluate the accuracy, perspective, credibility and relevance of information, media, data or other resources. | |
| **Social Studies** | **SSS1.9-12.5:** Explain the challenge and opportunities of addressing problems over place and time using disciplinary and interdisciplinary lenses.  **C2.9-10.2** - Explain the origins, functions, and structure of government.  **C2.9-10.1** - Explain how citizens and institutions address social and political problems at the local, state, tribal, national, and international level.  **C4.9-10.3** - Describe the impact and the appropriate roles of personal interests and perspectives on the application of civic virtues, democratic principles, constitutional rights, and human rights. | |

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| **Unit 6:** Civic Data Collector | | **Total Learning Hours for Unit:** 30 |
| **Unit Summary**: Students will design, build, and deploy a simple data collection program that gathers information relevant to a civic action campaign. They'll then analyze this data to inform their campaign strategy while reflecting on the ethical implications of their collection methods. | | |
| **Performance Assessments**:  **Programming Language**: Python is ideal for this project due to its accessibility for beginners and powerful data analysis capabilities.  **Project Scope**: A basic survey/data collection tool with:   * Simple form-based input * Data storage capabilities * Basic analysis and visualization features * Privacy and consent mechanisms   **Implementation Phases**:   * Design phase: Planning data points and collection method * Development phase: Building the collection tool * Deployment phase: Gathering real data from peers/community * Analysis phase: Processing collected data * Reflection phase: Evaluating ethical implications   **Digital Journal Integration**  **The digital journal can be extended to include:**   1. **Code Documentation Section:** Where students document their programming journey 2. **Data Analysis Dashboard:** Embedding their visualizations and findings 3. **Ethical Reflection Space:** Structured analysis of the ethical dimensions of their project 4. **Project Evolution Log:** Documentation of how their collection tool developed over time | | |
| **Leadership Alignment**:  **1. Creativity and Innovation (1.A.1-3, 1.B.1-4) -** Designing innovative data collection solutions  **2. Critical Thinking and Problem Solving (2.D.1-2)** - Solving non-familiar problems with data collection  **3. Communication and Collaboration (3.B.1-3) -** Team-based development of data tools  **4. Information Literacy (4.A.1-2, 4.B.1-3) -** Core focus on information management  **6. ICT Literacy (6.A.1-3) -** Programming and implementing technology solutions  **10. Productivity and Accountability (10.A.1-2, 10.B.1) -** Managing projects and delivering results | | |
| **Industry Standards and/or Competencies**: **ISTE Standards for Students Website:** [**https://iste.org/**](https://iste.org/)  1.4. Innovative Designer (entire standard)   * 1.4.a. Using design process for creating solutions * 1.4.b. Selecting digital tools to manage design process * 1.4.c. Developing and testing prototypes * 1.4.d. Working with open-ended problems   1.5. Computational Thinker (data collection and analysis)  1.7. Global Collaborator (community-focused data collection)  **CTE Program Standards:**  Foundation 1: Occupationally specific skills  Foundation 4: Leadership skills  Foundation 10: Structure with appropriate supervision  Preparatory Standard 1.1: Industry-defined competencies  Preparatory Standard 1.7: All aspects of industry  Preparatory Standard 1.8: Work-based learning | | |
| **Aligned Washington State Academic Standards** | | |
| **Computer Science** | **3A-DA-10**: Evaluate tradeoffs in data organization and storage  **3A-DA-11**: Create interactive data visualizations to help understand real-world phenomena  **3A-DA-12**: Create computational models representing relationships in data  **3A-AP-13**: Create prototypes using algorithms to solve computational problems  **3A-AP-16**: Design and iteratively develop computational artifacts for practical intent  **3A-AP-17**: Decompose problems into smaller components through systematic analysis  **3A-AP-19**: Systematically design and develop programs for broad audiences  **3A-AP-22**: Design and develop computational artifacts using collaborative tools  **3A-AP-23**: Document design decisions using text, graphics, presentations, etc. | |
| **Educational Technology** | **4.a:** Students know and use a deliberate design process for generating ideas, testing theories, creating innovative artifacts or solving authentic problems.  **4.c:** Students develop, test and refine prototypes as part of a cyclical design process.  **5.a:** Students formulate problem definitions suited for technology-assisted methods such as data analysis, abstract models and algorithmic thinking in exploring and finding solutions.  **5.d:** Students understand how automation works and use algorithmic thinking to develop a sequence of steps to create and test automated solutions. | |
| **Social Studies** | **SSS2.9-12.1:** Create compelling and supporting questions that focus on an idea, issue, or event.  **SSS3.9-12.2:** Apply a range of deliberative and democratic strategies and procedures to make decisions and take action in their classrooms, school, or out-of-school civic context.  **SSS3.9-12.6:** Assess options for individual and collective action to address local, regional, or global problems by engaging in self-reflection, strategy identification, and complex causal reasoning.  **C2.9-10.1** - Explain how citizens and institutions address social and political problems at the local, state, tribal, national, and international level.  **C4.9-10.1** - Use appropriate deliberative processes in multiple settings.  **C4.9-10.3** - Describe the impact and the appropriate roles of personal interests and perspectives on the application of civic virtues, democratic principles, constitutional rights, and human rights. | |

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| **Unit 7:** AI for Learning Enhancement and Civic Education | | **Total Learning Hours for Unit:** 25 |
| **Unit Summary**: The unit covers AI-powered features for summarizing materials, generating study guides, and drafting academic writing. By exploring chatbots, students will practice asking effective questions, refining responses, and integrating AI assistance into their study habits to improve comprehension and efficiency. Special attention will be given to using these tools for civic education, analyzing political information and developing skills needed to complete a naturalization test, and understanding complex government processes. Students will extend their learning to develop a personal chatbot for enhanced learning. | | |
| **Performance Assessments**:  After evaluating multiple popular chatbots, students design and develop a functional chatbot that helps a user study for the U.S. Naturalization Test. The chatbot will serve as an interactive study tool that provides accurate information about U.S. history, government structure, and civics topics covered on the official citizenship exam. | | |
| **Leadership Alignment**:  **1. Creativity and Innovation** (1.A.1-3) - Creating chatbots and learning tools  **6. ICT Literacy** (6.A.1-3) - Core focus on applying AI technologies appropriately  **8. Initiative and Self-Direction** (8.C.1-4) - Self-directed learning using AI tools  **9. Social and Cross-Cultural** (9.A.1-2) - Designing culturally responsive learning tools  **12.C Civic Literacy** (12.C.1-3) - Using AI to enhance understanding of civic concepts | | |
| **Industry Standards and/or Competencies**: **ISTE Standards for Students Website:** [**https://iste.org/**](https://iste.org/)  1.1. Empowered Learner (all sub-standards)   * 1.1.a. Setting learning goals using technology * 1.1.b. Building networks and customizing learning environments * 1.1.c. Using technology to seek feedback * 1.1.d. Understanding fundamental technology concepts   **CTE Program Standards:**  Foundation 1: Occupationally specific skills  Foundation 6: Career planning assistance  Foundation 9: Resources to connect learning  Preparatory Standard 1.1: Industry competencies  Preparatory Standard 2.1: Leadership and employability  Preparatory Standard 3.1: Employment readiness | | |
| **Aligned Washington State Academic Standards** | | |
| **Computer Science** | **3A-AP-13:** Create prototypes that use algorithms to solve computational problems  **3A-AP-16:** Design and develop computational artifacts for practical intent  **3A-AP-19:** Systematically design and develop programs incorporating user feedback  **3A-AP-21:** Evaluate and refine computational artifacts for usability and accessibility  **3A-IC-24:** Evaluate how computing impacts personal/social/cultural practices  **3A-IC-27:** Use tools for collaboration to increase connectivity across cultures | |
| **Educational Technology** | **1.a:** Students articulate and set personal learning goals, develop strategies leveraging technology to achieve them and reflect on the learning process itself to improve learning outcomes.  **1.c:** Students use technology to seek feedback that informs and improves their practice and to demonstrate their learning in a variety of ways.  **6.a:** Students choose the appropriate platforms and tools for meeting the desired objectives of their creation or communication. | |
| **Social Studies** | **SSS2.9-12.2:** Evaluate the validity, reliability, and credibility of sources when researching an issue or event.  **SSS2.9-12.4:** Explain how supporting questions contribute to an inquiry and how, through engaging source work, new compelling and supporting questions emerge.  **SSS4.9-12.3:** Present adaptations of arguments and explanations that feature evocative ideas and perspectives on issues and topics to reach a range of audiences and venues outside the classroom, using print and oral technologies and digital technologies.  **C2.9-10.1** - Explain how citizens and institutions address social and political problems at the local, state, tribal, national, and international level.  **C2.9-10.2** - Explain the origins, functions, and structure of government.  **C4.9-10.2** - Analyze how governments throughout history have or have not valued individual rights over the common good.  **C4.9-10.3** - Describe the impact and the appropriate roles of personal interests and perspectives on the application of civic virtues, democratic principles, constitutional rights, and human rights.  **H4.9-10.1:** Examine and assess how an understanding of world history can explain that earlier events may cause later ones. | |

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| **Unit 8:** AI Evaluation Portfolio | | **Total Learning Hours for Unit:** 30 |
| **Unit Summary**: Students explore how different AI tools are deployed across various industries and the regulatory frameworks that govern them. They will investigate industry-specific AI applications in healthcare, finance, education, transportation, manufacturing, agriculture, and public services, analyzing how these tools transform workflows, decision-making, and service delivery. Special emphasis will be placed on how government agencies regulate AI applications in different sectors, examining existing legislation, proposed regulations, and policy debates surrounding AI oversight. Students will consider the balance between innovation and responsible governance, and how regulatory approaches differ across federal, state, and local levels. This unit challenges students to critically assess the reliability and accuracy of AI outputs, particularly in civic and political contexts. Students will explore ethical considerations, data privacy concerns, and the limitations of AI in various contexts, including government decision-making and democratic processes. By comparing AI-generated content to human-generated work, they will develop a deeper understanding of when and how to rely on AI responsibly. Special attention will be given to the potential biases in AI systems and their implications for fairness, equality, and representation in democratic societies. | | |
| **Performance Assessments**:  Working individually, pairs, or teams, students will create a comprehensive "AI Evaluation Portfolio" using their digital journals. This capstone project will challenge them to conduct a rigorous assessment of specific AI tools, with particular focus on applications relevant to civic and political contexts in the regulation of AI and application of AI in select industries. The portfolio will document their analysis of AI capabilities, limitations, biases, and regulatory considerations while demonstrating their technical skills in digital format. | | |
| **Leadership Alignment**:  **2. Critical Thinking and Problem Solving** (2.C.1-5) - Evaluating AI limitations and ethical concerns  **3. Communication and Collaboration** (3.A.1-5) - Documenting findings effectively  **5. Media Literacy** (5.A.1-3) - Analyzing AI-mediated information  **7. Flexibility and Adaptability** (7.A.1-2) - Adapting to varied AI applications across sectors  **11. Leadership and Responsibility** (11.A.1-4) - Leading ethical evaluations of AI systems  **12.C Civic Literacy** (12.C.1-3) - Analyzing regulatory frameworks and civic implications | | |
| **Industry Standards and/or Competencies**: **ISTE Standards for Students Website:** [**https://iste.org/**](https://iste.org/)  1.2. Digital Citizen (ethical evaluation)  1.3. Knowledge Constructor (critical analysis)  1.5. Computational Thinker (analyzing systems)  1.6. Creative Communicator (portfolio development)  **CTE Program Standards:**  Foundation 1: Occupationally specific skills  Foundation 5: Employability skills  Foundation 12: Annual review for improvement  Preparatory Standard 1.6: Assessment of competency  Preparatory Standard 2.1: Leadership skills  Preparatory Standard 3.5: Labor market information | | |
| **Aligned Washington State Academic Standards** | | |
| **Computer Science** | **3A-NI-06**: Recommend security measures based on efficiency, feasibility, and ethics  **3A-NI-07**: Compare security measures, considering usability and security tradeoffs  **3A-AP-21**: Evaluate and refine computational artifacts for usability and accessibility  **3A-AP-23**: Document design decisions in complex programs  **3A-IC-24**: Evaluate computing's impacts on personal, ethical, social, economic practices  **3A-IC-25**: Test and refine computational artifacts to reduce bias and equity deficits  **3A-IC-30**: Evaluate social/economic implications of privacy in safety/ethics contexts | |
| **Educational Technology** | **3.d:** Students build knowledge by actively exploring real-world issues and problems, developing ideas and theories and pursuing answers and solutions.  **5.b:** Students collect data or identify relevant data sets, use digital tools to analyze them, and represent data in various ways to facilitate problem-solving and decision-making.  **7.b:** Students use collaborative technologies to work with others, including peers, experts or community members, to examine issues and problems from multiple viewpoints.  **7.d:** Students explore local and global issues and use collaborative technologies to work with others to investigate solutions. | |
| **Social Studies** | **SSS1.9-12.1:** Critique the precision of a claim about an issue or event.  **SSS1.9-12.5:** Explain the challenge and opportunities of addressing problems over place and time using disciplinary and interdisciplinary lenses.  **SSS3.9-12.1:** Evaluate one's own viewpoint and the viewpoints of others in the context of a discussion.  **SSS3.9-12.4:** Analyze the impact and the appropriate roles of personal interests and perspectives on the application of civic virtues, democratic principles, constitutional rights, and human rights**.**  **SSS4.9-12.1:** Evaluate multiple reasons or factors to develop a position paper or presentation.  **C2.9-10.1** - Explain how citizens and institutions address social and political problems at the local, state, tribal, national, and international level. **C2.9-10.2** - Explain the origins, functions, and structure of government.  **C3.9-10.1** - Analyze the impact of constitutions, laws, treaties, and international agreements on the maintenance of national and international order.  **C3.9-10.2** - Analyze relationships among governments, civil societies, and economic markets.  **C4.9-10.2** - Analyze how governments throughout history have or have not valued individual rights over the common good.  **H2.9-10.3:** Define and evaluate how technology and ideas have shaped world history (1450-present).  **H2.9-10.4:** Analyze multiple and complex causes and effects of events in world history (1450-present).  **E1.9-10.1:** Analyze how the costs and benefits of economic choices have shaped events in the world in the past and present.  **E1.9-10.2:** Analyze how choices made by individuals, firms, or governments are constrained by the resources to which they have access.  **E3.9-10.1:** Analyze the costs and benefits of government trade policies from around the world in the past and present.  **E3.9-10.2:** Explain the role of government in advancing technology and investing in capital goods and human capital to increase economic growth and standards of living. | |