

Middle School Information and Technology Literacy

Instructional Focus: Build new knowledge by inquiring, thinking critically, identifying problems, and developing strategies for solving problems.

I. Inquire

A. Learners display curiosity and initiative by:

| Standard | Objective | Examples |
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| I.A.1 Formulating questions about personal interest or a curricular topic. | Students will: <ul style="list-style-type: none"> Generate questions about topics for academic or personal interest. | <ul style="list-style-type: none"> Mini-lesson about writing questions and small group practice for selected topic. Essential Questions EQ <p>6/7 EQ: What requirements (educational and personal) do I need to succeed at reaching my career goal?</p> <p>8 EQ: How is every job a learning experience from which you can develop and grow?</p> <ul style="list-style-type: none"> Higher-Order Questions poster |
| I.A.2 Recalling prior and background knowledge as context for new meaning. | Students will: <ul style="list-style-type: none"> Connect prior knowledge to new learning. | Recall and assess prior and background knowledge with: <ul style="list-style-type: none"> KWL chart Online tool (e.g. Kahoot) Small group brainstorm <p>KWL on career exploration</p> |

B. Learners engage with new knowledge by following a process that includes:

| Standard | Objective | Examples |
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| I.B.1 Using evidence to investigate questions. | Students will: <ul style="list-style-type: none"> Seek answers and take notes for questions using a variety of sources. | <ul style="list-style-type: none"> Research note taking guide: NoodleTools gDoc research note taking template Career Resource with further questions. Career Onestop Newsela Articles and Lessons |
| I.B.2 Devising and implementing a plan to fill knowledge gaps. | Students will: <ul style="list-style-type: none"> Follow a process including analyzing and interpreting evidence gathered to determine new information needed. | <p>AKCIS career interest inventory (Alt resource)</p> <p>Explore AKCIS pathways based on results.</p> <p>Teaching Research Process Resources:</p> <ul style="list-style-type: none"> <i>Edutopia</i> article: Inquiry Based Learning <i>Method-Visible Thinking</i>: See Think Wonder <i>Visible Thinking</i>: Think Puzzle Explore <i>Scholastic</i>: Six Online Research Skills Your Students Need <i>Room 241</i>: Article on Research Process |
| I.B.3 Generating products that illustrate learning. | Students will: <ul style="list-style-type: none"> Share knowledge by selecting an appropriate format for presenting/sharing results. | Google slides presentation, poster, video, etc. on career or other topic. |

C. Learners adapt, communicate, and exchange learning products with others in a cycle that includes:

| Standard | Objective | Examples |
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| I.C.1 Interacting with content presented by others. | Students will: <ul style="list-style-type: none"> • Work in small groups to share presentations/product to synthesize information presented through note taking, questioning, and participating in discussion. | <ul style="list-style-type: none"> • Career, or other, presentation learning/feedback template for students. • <i>Rubric sample:</i> Presentation/product |
| I.C.2 Providing constructive feedback. | Students will: <ul style="list-style-type: none"> • Practice developing appropriate feedback that will support and inform the presenter in a positive way. | See Rubric sample above. |
| I.C.3 Acting on feedback to improve. | Students will: <ul style="list-style-type: none"> • Reflect on comments from peers relevant to presentation to understand and take actions to improve. | Write a reflection on inquiry process and revise presentation/product based on peer feedback. |
| I.C.4 Sharing products with an authentic audience. | Students will: <ul style="list-style-type: none"> • Present project/product to a relevant audience. | Career, or other, project/product presentation. |

D. Learners participate in an ongoing inquiry-based process by:

| Standard | Objective | Examples |
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| I.D.1 Continually seeking knowledge. | Students will: <ul style="list-style-type: none"> • Use library and online resources for personal growth. | <i>Passion Project Idea: Weekly class period devoted to Passion Project research and action.</i> https://www.middleweb.com/20763/students-make-a-difference-through-passion-projects/ |
| I.D.2 Engaging in sustained inquiry. | Students will: <ul style="list-style-type: none"> • Revisit learning material and generate new questions. | Continuation of weekly class to seek and follow new ideas. |
| I.D.3 Enacting new understanding through real-world connections. | Students will: <ul style="list-style-type: none"> • Connect learning with real-world application. | Passion Project leads to real action in school/community. |
| I.D.4 Using reflection to guide informed decisions. | Students will: <ul style="list-style-type: none"> • Use learning and analysis to make decisions. | Passion Project leads to future goals or recommendations to school/community. |

Instructional Focus: Demonstrate an understanding of and commitment to inclusiveness and respect for diversity in the learning community.

II. Include

A. Learners contribute a balanced perspective when participating in a learning community by:

| Standard | Objective | Examples |
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| II.A.1 Articulating an awareness of the contributions of a range of learners. | Students will: <ul style="list-style-type: none"> Seek information from diverse communities. Seek to understand opinions and perspectives of others. 8) Construct an opposing point of view to one presented online, in print or discussion. | <ul style="list-style-type: none"> Building a positive safe learning community through the use of cooperative learning structures (Ex. Kagan). |
| II.A.2 Adopting a discerning stance toward points of view and opinions expressed in information resources and learning products. | Students will: <ul style="list-style-type: none"> Identify and evaluate bias in a variety of resources. | 6) Fact and Opinion(CSM) <ul style="list-style-type: none"> Learn the difference between fact and opinion. When and where opinions appear. Practice three strategies for determining fact and opinion. 7) Fake News (CSM) <ul style="list-style-type: none"> Fact Check Images - PBS Learning 8) Newsela Text Set on Opinion <ul style="list-style-type: none"> Checkology (Module 1) Categorize information. Make and critique news judgments. Explore how the press and citizens can each act as watchdogs. Detect and categorize misinformation. |
| II.A.3 Describing their understanding of cultural relevancy and placement within the global learning community. | Students will: <ul style="list-style-type: none"> Listen to and contribute to a conversation within a global learning setting. | <ul style="list-style-type: none"> Google Mystery Hangouts Skype For Education Create an Edublogs Flipgrid Community Connections PenPal Schools |

B. Learners adjust their awareness of the global learning community by:

| Standard | Objective | Examples |
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| II.B.1 Interacting with learners who reflect a range of perspectives. | Students will: <ul style="list-style-type: none"> Listen to and contribute to a conversation with diverse community members. | Invite/Skype guest speakers. |
| II.B.2 Evaluating a variety of perspectives during learning activities. | Students will: <ul style="list-style-type: none"> Critique texts using vocabulary and tone to determine perspective. | <ul style="list-style-type: none"> Brainstorm keywords that indicate perspective/opinion. Read to understand tone. <i>Brain Pop:</i> Mood and tone lesson |
| II.B.3 Representing diverse perspectives | Students will: | <ul style="list-style-type: none"> Presentation, essay, paragraph, explaining various points of view on a topic. |

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| during learning activities. | <ul style="list-style-type: none"> ● Research diverse opinions/points of view to include in products/presentations. | <ul style="list-style-type: none"> ● Newsela Opinion articles and lesson |
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C. Learners exhibit empathy with and tolerance for diverse ideas by:

| Standard | Objective | Examples |
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| II.C.1 Engaging in informed conversation and active debate. | Students will: <ul style="list-style-type: none"> ● Research debate topics to enable informed defense of either side in a debate | Structured debate in class or District |
| II.C.2 Contributing to discussions in which multiple viewpoints on a topic are expressed. | Students will: <ul style="list-style-type: none"> ● Develop informed idea to share based on a common issue. | <ul style="list-style-type: none"> ● Think, pair, share ● Small group discussion ● Blog ● Book: A long Walk to Water, with Newsela lesson. |

D. Learners demonstrate empathy and equity in knowledge building within the global learning community by:

| Standard | Objective | Examples |
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| II.D.1 Seeking interactions with a range of learners. | Students will: <ul style="list-style-type: none"> ● Discover and employ ways to include others in learning. | Interest survey, Twitter, research an expert, search for a community member, Skype in the classroom , |
| II.D.2 Demonstrating interest in other perspectives during learning activities. | Students will: <ul style="list-style-type: none"> ● Compose statements to reflect understanding of presented perspectives. | Written, oral, photo, video using tools such as Padlet , Flipgrid or Vocaroo |
| II.D.3 Reflecting on their own place within the global learning community. | Students will: <ul style="list-style-type: none"> ● Synthesize examples of social aspects in different countries. | Create a presentation about the mandatory education in other countries including personal feelings about each system. |

Instructional Focus: Work effectively with other to broaden perspectives and work toward common goals.

III. Collaborate

A. Learners identify collaborative opportunities by:

| Standard | Objective | Examples |
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| III.A.1 Demonstrating their desire to broaden and deepen understandings. | Students will: <p>6/7/8) Seek other’s opinions in team.</p> <p>7/8) Identify individual strengths on team in gathering information on an issue.</p> | <p>6) Think, pair, and share on an issue. Pair on research with given resources.</p> <p>7) Team work on an issue as assigned.</p> <p>8) Team develops own plan.</p> |

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| III.A.2 Developing new understandings through engagement in a learning group. | Students will: 6) Recognize new information from group. 7/8) Analyzes findings presented by group members. | Use Jigsaw groups to create experts on topics that are then shared with individual groups. |
| III.A.3 Deciding to solve problems informed by group interactions. | Students will: ● Work in a group to solve a problem. | Practice solving simple problems/puzzles as a group and afterward reflecting on roles and strategies used by the group. Team-Problem Solving lesson ideas |
| B. Learners participate in personal, social, and intellectual networks by: | | |
| Standard | Objective | Examples |
| III.B1 Using a variety of communication tools and resources. | Students will: ● Participate in online learning platforms and related applications. | Use Bibliasium to share book reviews for others to read and comment on. |
| III.B.2 Establishing connections with other learners to build on their own prior knowledge and create new knowledge. | Students will: ● Construct new knowledge through guided interaction with other learners in the global community. | Connect with others with a Mystery Google Hangout to learn about other places and cultures. |
| C. Learners work productively with others to solve problems by: | | |
| Standard | Objective | Examples |
| III.C.1 Soliciting and responding to feedback from others. | Students will: ● Practice seeking and responding to feedback from others. | Create a feedback loop on a Google Slide/Doc for a group project by seeking and responding to peer feedback. |
| III.C.2 Involving diverse perspectives in their own inquiry processes. | Students will: ● Ask questions and involve others to gain knowledge. | Use online resources to locate and communicate with subject specialist. |
| D. Learners actively participate with others in learning situations by: | | |
| Standard | Objective | Examples |
| III.D.1 Actively contributing to group discussions. | Students will: ● Engage in peer discussion group. | <i>Using a content topic, learners hold a small group discussion using a strategy such as:</i> ● Talking Chips ● Fishbowl ● Rotating Trios |
| III.D.2 Recognizing learning as a social responsibility. | Students will: ● Actively participate in a problem solving group assuming various roles and responsibilities. | ● Be an Activist Project ● CSM ● Newsela Education topic text sets |

Instructional Focus: Make meaning for oneself and others by collecting, organizing, and sharing resources of personal relevance.

IV. Curate

A. Learners act on an information need by:

| Standard | Objective | Examples |
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| IV.A.1 Determining the need to gather information. | Students will: <ul style="list-style-type: none"> Decide what information to collect. | Use the lesson link to help students identify the purpose of their research and clarify information needs. <i>Teaching Research Process Resources:</i> <ul style="list-style-type: none"> <i>Edutopia article:</i> Inquiry Based Learning <i>Method-Visible Thinking:</i> See Think Wonder <i>Visible Thinking:</i> Think Puzzle Explore <i>Scholastic:</i> Six Online Research Skills Your Students Need <i>Room 241:</i> Article on Research Process |
| IV.A.2 Identifying possible sources of information. | Students will: <ul style="list-style-type: none"> Locate sources of information. | 7/8) Strategic Searching(CSM) <ul style="list-style-type: none"> Understand the importance of using a variety of search strategies. Master new strategies for effective and efficient online searches. Learn to create and execute a five-step plan for conducting an online search. |
| IV.A.3 Making critical choices about information sources to use. | Students will: <ul style="list-style-type: none"> Evaluate sources to choose the information source. | 7/8) Identifying High Quality Sites(CSM) <ul style="list-style-type: none"> Understand how the ease of publishing on the Internet might affect how much they can trust the content of some sites. Learn criteria that will help them evaluate websites. Apply the criteria to a site to determine how trustworthy and useful it is. |

B. Learners gather information appropriate to the task by:

| Standard | Objective | Examples |
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| IV.B.1 Seeking a variety of sources. | Students will: <ul style="list-style-type: none"> Discover and investigate a variety of digital and non-digital sources. | Internet, Statewide Databases (SLED), library, community |
| IV.B.2 Collecting information representing diverse perspectives. | Students will: <ul style="list-style-type: none"> Recognize multiple viewpoints when seeking information. | <i>Ideas for setting the stage for considering diverse perspective:</i> <ul style="list-style-type: none"> Simplistic lesson ideas Fundamental understanding |
| IV.B.3 Systematically questioning and assessing the validity | Students will: <ul style="list-style-type: none"> Carefully consider and evaluate the validity and accuracy of information. | 6) CSM: 5 Questions to ask about media. 7) Identifying High Quality Site 8) Fake News (CSM), <i>Eval news:</i> E.S.C.A.P.E. |

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| and accuracy of information. | | |
| IV.B.4 Organizing information by priority, topic, or other systematic scheme. | Students will: <ul style="list-style-type: none"> Organize information by priority, subject, or organized method. | <i>Links below provide ideas for the organizational process:</i> Lesson idea #1 . Lesson idea #2 |
| C. Learners exchange information resources within and beyond their learning community by: | | |
| Standard | Objective | Examples |
| IV.C.1 Accessing and evaluating collaboratively constructed information sites. | Students will: <ul style="list-style-type: none"> Retrieve and assess the collaboratively on a piece of work. | Create an annotated bibliography and then go back and check each other's information and source. |
| IV.C.2 Contributing to collaboratively constructed information sites by ethically using and reproducing others' work. | Students will: <ul style="list-style-type: none"> Collect and reproduce others' work by citing sources. | Using Easybib and/or Noodle Tools to cite sources in a final product. |
| IV.C.3 Joining with others to compare and contrast information derived from collaboratively constructed information sites. | Students will: <ul style="list-style-type: none"> Synthesize information from multiple sources to compare and contrast different viewpoints. | Debate: Year round school vs. traditional school year |
| D. Learners select and organize information for a variety of audiences by: | | |
| Standard | Objective | Examples |
| IV.D.1 Performing ongoing analysis of and reflection on the quality, usefulness and accuracy of curated resources. | Students will: <ul style="list-style-type: none"> Continue to revise their resources through detailed analysis and information accuracy. | Revise and curate their resources to identify the most relevant to their research topic. |
| IV.D.2 Integrating and depicting in a conceptual knowledge network their understanding gained from resources. | Students will: <ul style="list-style-type: none"> Synthesize the information collected their resources to demonstrate their learning. | Use the resources to create a research paper, project, presentation etc. SLED-for resources |
| IV.D.3 Openly communicating | Students will: | Annotated bibliography to share. |

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| <p>curation processes for others to use, interpret, and validate.</p> | <ul style="list-style-type: none"> ● Share their sources to explain and justify their thinking. | |
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Instructional Focus: Discover and innovate in a growth mind-set developed through experience and reflection.

E. Explore

A. Learners develop and satisfy personal curiosity by:

| Standards | Objective | Examples |
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| <p>V.A.1 Reading widely and deeply in multiple formats and write and create for a variety of purposes.</p> | <p>Students will:</p> <p>6/7) Read a variety of genres. 7) Complete a genre related writing piece. 8) Create genre themed product. 6-8) Use digital and non-digital format.</p> | <p><i>Genre lessons:</i></p> <p>6) Biography, folktale, drama, poetry, narrative, and informational 7) Myth, poetry, science fiction, informative, drama, and memoir 8) Poetry, short story, autobiography/biography, historical fiction, drama, and persuasive</p> |
| <p>V.A.2 Reflecting and questioning assumptions and possible misconceptions.</p> | <p>Students will:</p> <ul style="list-style-type: none"> ● Think about personal bias and fallacy in their learning and consumption of media. | <p>6) <i>BrainPop</i>: Fact and Opinion video. 7) <i>BrainPop Lesson Plan</i>: Media Literacy Lessons 8) QuandryGame.org - advanced version. Media Literacy Lessons</p> |
| <p>V.A.3 Engaging in inquiry-based processes for personal growth.</p> | <p>Students will:</p> <ul style="list-style-type: none"> ● Reflect on learning and improvement by investigating Growth Mindset | <p>6) Scholastic Lesson using <i>The Day the Crayons Quit</i>. 7) <i>Scholastic Lesson</i> using video: Never, Ever Give Up. Arthur's Inspirational Transformation! 8) Khan Academy Growth Mindset Lesson Plan</p> |

B. Learners construct new knowledge by:

| Standards | Objective | Examples |
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| <p>V.B.1 Problem solving through cycles of design, implementation, and reflection.</p> | <p>Students will:</p> <ul style="list-style-type: none"> ● Create a solution to a problem by using the Design Thinking Process. | <p style="text-align: center;"><i>Design Thinking Process</i></p> <ul style="list-style-type: none"> ● Design Thinking Video ● Design Challenge: Create a sport using only these items (Zip file) |

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| V.B.2 Persisting through self-directed pursuits by tinkering and making. | Students will: <ul style="list-style-type: none"> • Demonstrate persistence by exploring with Makerspace/STEAM activities. | <ul style="list-style-type: none"> • ISTE Makerspace ideas • Makerspace.com |
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C. Learners engage with the learning community by:

| Standards | Objective | Examples |
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| V.C.1 Expressing curiosity about a topic of personal interest or curricular relevance. | Students will: <ul style="list-style-type: none"> • Question and engage with others on a self-selected or content topic/challenge. | 3 Design Challenge Ideas |
| V.C.2 Co-constructing innovative means of investigation. | Students will: <ul style="list-style-type: none"> • Work with partner/small group to construct a challenge. | Use technology to connect and learn about topics from a variety of perspectives. |
| V.C.3 Collaboratively identifying innovative solutions to a challenge or problem. | Students will: <ul style="list-style-type: none"> • Work with partner/small group to explore possible solutions to a challenge. | <ul style="list-style-type: none"> • Collaborative problems solving is used to share resources and strategies to reach possible solution to challenge/problem. Communication in the process can be face-to-face or virtual. Collaborative Problem Solving |

D. Learners engage with the learning community by:

| Standards | Objective | Examples |
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| V.D.1 Iteratively responding to challenges. | Students will: <ul style="list-style-type: none"> • Explain the cyclical repetition of the process of creating and constructing. | 6) Grit: Your Key to Success Youtube |

Instructional Focus: Demonstrate safe, legal and ethical creating and sharing of knowledge products independently while engaging in a community of practice and an interconnected world.

V. Engage

A. Learners follow ethical and legal guidelines for gathering and using information by:

| Standards | Objective | Examples |
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| VI.A.1 Responsibly applying information, technology, and media to learning. | Students will: <ul style="list-style-type: none"> • Ethically employ information and digital citizenship skills with respect to intellectual property. | Personal obligation and responsibility include: <ul style="list-style-type: none"> • Citing all sources • Paraphrasing/quoting • Fair Use law Copyright law video (CSM) |

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| <p>VI.A.2 Understanding the ethical use of information, technology, and media.</p> | <p>Students will:</p> <ul style="list-style-type: none"> • Demonstrate appropriate use of copyright and digital etiquette. | <p>6/7) <u>A Creator's Rights</u>(CSM)</p> <ul style="list-style-type: none"> • Understand that copyright is a legal system that protects their rights to creative work. • Compare different ways people license their copyrighted work. • Create an original song, perform it in front of the class, and reflect on their copyright for the song. <p>7/8) <u>Which Me Should I Be?</u>(CMS)</p> <ul style="list-style-type: none"> • Reflect on the benefits and risks of presenting their identities in different ways online. • Evaluate—from an ethical point of view—the feelings, motivations, contexts, and possible outcomes associated with adopting different roles online. • Judge whether certain ways people present themselves online are harmless or harmful. |
| <p>VI.A.3 Evaluating information for accuracy, validity, social and cultural context, and appropriateness for need.</p> | <p>Students will:</p> <ul style="list-style-type: none"> • Use a series of strategies to evaluate content for fidelity. | <p>6/7/8) Strategic Searching (CSM) see above. 7/8) Identifying High Quality Sites(CSM) see above.</p> |
| <p>B. Learners use valid information and reasoned conclusions to make ethical decisions in the creation of knowledge by:</p> | | |
| <p>Standards</p> | <p>Objective</p> | <p>Examples</p> |
| <p>VI.B.1 Ethically using and reproducing others' work.</p> | <p>Students will:</p> <ul style="list-style-type: none"> • Understand and interpret the use copyright laws. | <p>7/8) Creators Responsibilities (CSM)</p> |
| <p>VI.B.2 Acknowledging authorship and demonstrating respect for the intellectual property of others.</p> | <p>Students will:</p> <ul style="list-style-type: none"> • Cite sources to respectfully recognize others' work. | <p>6/7) A Creator's Rights(CSM) See above. 7/8) Creators Responsibilities (CSM)</p> |
| <p>VI.B.3 Including elements in personal-knowledge products that allow others to credit content appropriately.</p> | <p>Students will:</p> <ul style="list-style-type: none"> • Explore copyright dimensions and employ some or all aspects to a created work. | <p>6/7) A Creator's Rights(CSM) 7/8) Rework, Remix, and Reuse(CSM) 7/8) Creators Responsibilities (CSM)</p> |

| C. Learners responsibly, ethically, and legally share new information with a global community by: | | |
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| Standards | Objective | Examples |
| VI.C.1 Sharing information resources in accordance with modification, reuse, and remix policies. | Students will: <ul style="list-style-type: none"> Apply fair use to rework an existing resource. | 7/8) Rework, Remix, and Reuse(CSM) |
| VI.C.2 Disseminating new knowledge through means appropriate for the intended audience. | Students will: <ul style="list-style-type: none"> Demonstrate knowledge by creating a product appropriate for the intended group. | Products may include: <ul style="list-style-type: none"> Low tech (poster, map, brochure, newspaper, diagram, timeline, article, diorama, essay etc.). High tech (video/commercial, Google slide, Prezi, PowToon, Canva, NearPod, VoiceThread etc.) |
| D. Learners engage with information to extend personal learning by: | | |
| Standards | Objective | Examples |
| VI.D.1 Personalizing their use of information and information technologies. | Students will: <ul style="list-style-type: none"> Apply their knowledge of self-awareness to reflect on their use of digital and non-digital information. | 6/7) Digital Life 101 (CSM) <ul style="list-style-type: none"> Learn about the 24/7, social nature of digital media. Explore their digital/non-digital lives. Learn that it is important to act responsibly when carrying out relationships over digital media. |
| VI.D.2 Reflecting on the process of ethical generation of knowledge. | Students will: <ul style="list-style-type: none"> Analyze their ability of responsibility creating while using a variety of resources. | 6/7/8) Rework, Remix, and Reuse (CSM) <ul style="list-style-type: none"> Identify the key points required for a creative work to fall under fair use. Judge whether or not the two case studies can be called fair use. Understand the value of fair use by reworking and remixing copyrighted material in a collage or video. |
| VI.D.3 Inspiring others to engage in safe, responsible, ethical, and legal information behaviors. | Students will: <ul style="list-style-type: none"> Advocate for legal application of information use. | 7/8) Which Me Should I Be? (CMS) <ul style="list-style-type: none"> Reflect on the benefits and risks of presenting their identities in different ways online. Evaluate—from an ethical point of view—the feelings, motivations, contexts, and possible outcomes associated with adopting different roles online. Judge whether certain ways people present themselves online are harmless or harmful. 6/7/8) Trillion Dollar Footprint (CMS) <ul style="list-style-type: none"> Learn that they have a digital footprint and that information from it can be searched; copied and passed on; seen by a large, invisible audience, and can be persistent. |

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| | | <ul style="list-style-type: none">● Recognize that people’s online information can be helpful or harmful to their reputation and image.● Consider their own digital footprints and what they want those footprints to be like in the future. |
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