Technology, Library Media Curriculum Maps

Philosophy

District 39 believes in equitable access to information and information technology to learn effectively and live productively in an increasingly global and digital society. We strive to empower students and teachers to become critical consumers and creative producers of information in our global society. We teach our students to become enthusiastic readers, skillful researchers, and ethical users of information by incorporating innovative technologies that promote learning through collaboration, creativity, communication, and critical thinking.

Characteristics of Successful Learners

- Transfers knowledge to new situations
- Thinks flexibly
- Is a self-directed learner
- Thinks reflectively
- Listens actively
- Demonstrates perseverance
- Strives for personal best
- Takes responsible risks
- Acts responsibly
- Responds effectively
- Maintains focus
- Thinks interdependently
- Self-advocates

21st Century Student Outcomes

4Cs

- Critical Thinking
- Communication
- Collaboration
- Creativity

Best Practices in Technology, Library Media Education

Best instructional practices in the classrooms should:

- Support and provide reliable, secure, and sustainable access to resources that promote student learning
- Adapt to advancing educational technology resources
- Select appropriate technology tools and content for personalized learning
- Integrate appropriate technologies to achieve instructional objectives
- Collaborate to explore and share new tools and learning approaches
- Develop critical thinking skills and promote information literacy
- Empower students with opportunities to explore creative solutions
- Instill the practices of responsible digital citizenship
- Encourage a love of reading
- Develop effective consumers of technology, information, and ideas
- Foster students who are effective producers of information

ISTE Standards

Standard 1: EMPOWERED LEARNER

Students leverage technology to take an active role in choosing, achieving and demonstrating competency in their learning goals, informed by the learning sciences. Students:
a. Articulate and set personal learning goals, develop strategies leveraging technology to achieve them and reflect on the learning process itself to improve learning outcomes
b. Build networks and customize their learning environments in ways that support the learning process
c. Use technology to seek feedback that informs and improves their practice and to demonstrate their learning in a variety of ways
d. 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

Standard 2: DIGITAL CITIZEN

Students recognize the rights, responsibilities and opportunities of living, learning and working in an interconnected digital world, and they act and model in ways that are safe, legal and ethical. Students:
a. Cultivate and manage their digital identity and reputation and are aware of the permanence of their actions in the digital world
b. Engage in positive, safe, legal and ethical behavior when using technology, including social interactions online or when using networked devices
c. Demonstrate an understanding of and respect for the rights and obligations of using and sharing intellectual property
d. Manage their personal data to maintain digital privacy and security and are aware of data-collection technology used to track their navigation online

Standard 3: KNOWLEDGE CONSTRUCTOR

Students critically curate a variety of resources using digital tools to construct knowledge, produce creative artifacts and make meaningful learning experiences for themselves and others. Students:
a. Plan and employ effective research strategies to locate information and other resources for their intellectual or creative pursuits
b. Evaluate the accuracy, perspective, credibility and relevance of information, media, data or other resources
c. Curate information from digital resources using a variety of tools and methods to create collections of artifacts that demonstrate meaningful connections or conclusions
d. Build knowledge by actively exploring real-world issues and problems, developing ideas and theories and pursuing answers and solutions

Standard 4: INNOVATIVE DESIGNER

Students use a variety of technologies within a design process to identify and solve problems by creating new, useful or imaginative solutions. Students:
a. Know and use a deliberate design process for generating ideas, testing theories, creating innovative artifacts or solving authentic problems
b. Select and use digital tools to plan and manage a design process that considers design constraints and calculated risks
c. Develop, test and refine prototypes as part of a cyclical design process
d. Exhibit a tolerance for ambiguity, perseverance and the capacity to work with open-ended problems

Standard 5: COMPUTATIONAL THINKER

Students develop and employ strategies for understanding and solving problems in ways that leverage the power of technological methods to develop and test solutions. Students:
a. Formulate problem definitions suited for technology-assisted methods such as data analysis, abstract models and algorithmic thinking in exploring and finding solutions
b. 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
c. Break problems into component parts, extract key information, and develop descriptive models to understand complex systems or facilitate problem-solving
d. Understand how automation works and use algorithmic thinking to develop a sequence of steps to create and test automated solutions

Standard 6: CREATIVE COMMUNICATOR

Students communicate clearly and express themselves creatively for a variety of purposes using the platforms, tools, styles, formats and digital media appropriate to their goals. Students:
a. Choose the appropriate platforms and tools for meeting the desired objectives of their creation or communication
b. Create original works or responsibly repurpose or remix digital resources into new creations
c. Communicate complex ideas clearly and effectively by creating or using a variety of digital objects such as visualizations, models or simulations
d. Publish or present content that customizes the message and medium for their intended audiences

Standard 7: GLOBAL COLLABORATOR

Students use digital tools to broaden their perspectives and enrich their learning by collaborating with others and working effectively in teams locally and globally. Students:
a. Use digital tools to connect with learners from a variety of backgrounds and cultures, engaging with them in ways that broaden mutual understanding and learning
b. Use collaborative technologies to work with others, including peers, experts or community members, to examine issues and problems from multiple viewpoints
c. Contribute constructively to project teams, assuming various roles and responsibilities to work effectively toward a common goal
d. Explore local and global issues and use collaborative technologies to work with others to investigate solutions

ISAIL Standards

Standard 1:

Students access information efficiently and effectively to inquire, think critically, and gain knowledge. Students:

- Recognize the need for information
- Formulate questions based on information needs
- Identify various potential sources of information
- Develop and use successful strategies for locating information
- Seek information from diverse sources
- Recognize that the librarian can help find information

Standard 2:

Students evaluate information critically and competently. Students:

- Determine accuracy, relevance, and comprehensiveness of information
- Distinguish among fact, point of view, and opinion
- Identify inaccurate and misleading information

Standard 3:

Students use information accurately, creatively, and ethically to share knowledge and to participate collaboratively and productively as a member of a democratic society. Students:

- Organize information for practical application
- Integrate new information into own schema
- Produce and communicate information and ideas in appropriate formats
- Use problem-solving techniques to devise strategies for improving process or product
- Practice ethical behavior when using print and digital resources (including freedom of speech, intellectual freedom, copyright, and plagiarism)

Standard 4:

Students appreciate literature and other creative expressions of thoughts and ideas and pursue knowledge related to personal interests and aesthetic growth. Students:

- Cultivate a love of reading and become self-motivated readers
- Develop a knowledge of genres and literary elements
- Derive meaning from informational texts in various formats

Standard 5:

Students understand and practice Internet safety when using any electronic media for educational, social, or recreational purposes. Students:

- Practice strategies that promote personal safety and protect online and offline reputation
- Recognize that networked environments are public places governed by codes of ethical behavior
- Practice positive digital citizenship
- Distinguish website authority, validity, and purpose
- Understand the need for protecting personal privacy when using public access to digital sources
- Protect personal information and electronic devices in an online environment

Technology, Library Media
First Grade Curriculum Map

Technology Learning Targets

Using Devices and Digital Tools:
Students will operate and maintain equipment as directed. (ISTE 1)
- Login & logout of the computer/iPad
- Turn off/on of the computer/iPad
- Plug in headphones to computer/iPad
- Control device cursor
- Launch & close apps on computer/iPad with support
- Recognize when an application or device is not working properly
- Save work, locate and open saved files with guidance
- Print with assistance

Students will become familiar with and locate keys on the keyboard. (ISTE 1)
- Use capitalization, punctuation & grammar (appropriate to 1st grade ELA curriculum)
- Use a keyboard/on screen keyboard with support
    - Know location of the letters, numbers, symbols, and command keys

Innovation and Production:
Students will be able to explore a program they have not used before without being given instructions. (ISTE 1)

Students will demonstrate knowledge of drawing tools to create an original drawing. (ISTE 4, 5)
- Represent the image(s) with realistic qualities
- Choose the appropriate drawing tools

Students will produce a new document with text and pictures. (ISTE 1, 7)
- Use text that enhances pictures
- Change font, size, color, style, and alignment of text
- Use shift key, space bar, delete key, return key with support

Students will create a multimedia project with images and audio. (ISTE 6, 7)
- Use technology tools to capture images (video and photos)
- Record voice loudly and clearly

Students will apply skills to demonstrate real world connections. (ISTE 3, 4)
- Create artifacts or solve authentic problems
- STEM/STEAM

Computational Thinking:
Students will be introduced to programming topics and vocabulary. (ISTE 5)
- Participate in Hour of Code
- Create computer programs that will help them learn to collaborate with others, develop problem-solving skills, and persist through difficult tasks
- Use logical thinking to predict and plan the behavior of a simple device (robotics)

Library Media Learning Targets

Students will use the Learning Commons efficiently. (ISAIL 1, 2)
- Understand basic organizational pattern of library
- Locate specific collections
- Follow library procedures
- Select appropriate books with guidance (ex: topic, just right fit, interests)
- Demonstrate appropriate book care
- Recognize that the librarian can help find information

Students will access sources of information. (ISAIL 1)
- Identify parts of a book including: title page, cover, spine, and spine label
- Identify title, author, and illustrator
- Identify table of contents, glossary, and index
- Recognize call numbers
- Introduce non-fiction groupings by subject
- Learn the difference between fact and fiction
- Use a variety of information sources with guidance (ex: print, pictures, objects, websites, online sources, books, and databases)

Students will critically evaluate information. (ISAIL 2)
- Introduce research (Independent Investigation Method: IIM)
    - Answer research questions by taking notefacts with guidance
- Identify nonfiction text features to determine relevance of a source (ex. table of contents, glossary, and index)
- Make meaning from information sources with guidance (Use books, pictures, and objects to find facts; visual literacy and primary sources)

Students will collaborate to use information accurately and creatively. (ISAIL 3)
- Present, perform, share, and evaluate the results of research in a variety of ways
- Connect literature to real world problems (ex: Novel engineering, problem solving, and The 4 C's)
- Recognize and share different points of view and opinions

Students will use information ethically. (ISAIL 3)
- Cite sources used for research (ex: title and author)

Students will appreciate literature. (ISAIL 4)
- Engage in literature (ex: multicultural, author studies, award-winning books, and various genres)
- Read for pleasure and to find answers to questions with guidance
- Listen to or read traditional folklore
- Listen to or read various types and formats of fiction and nonfiction and respond appropriately
- Identify literary elements with guidance (ex: plot, point of view, and main idea)

Digital Citizenship

Students will act in a safe and responsible manner. (ISTE 2)
Students will practice Internet safety (ISAIL 5)
New Trier Township Digital Citizenship Curriculum Map