Digital Content Creation

G6-8

Ewing Public Schools
2099 Pennington Road
Ewing, NJ 08618

Board Approval Date: September 19, 2022 Michael Nitti, Superintendent

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In accordance with The Ewing Public Schools' Policy 2230, Course Guides, this curriculum has been reviewed and found to be in compliance with all policies and all affirmative action criteria.

Table of Contents

Course Description and Rationale

Students will learn how to apply existing knowledge to operate and manipulate new tools to efficiently and effectively produce and share content. They will demonstrate the ability to use different techniques and technical skills to create and communicate.

Computer science and design thinking education prepares students to succeed in today's knowledge-based economy by providing equitable and expanded access to high-quality, standards-based computer science and technological design education.

Students receive computer science and design thinking instruction. The study of these disciplines focuses on deep understanding of concepts that enable students to think critically and systematically about leveraging technology to solve local and global issues. Authentic learning experiences that enable students to apply content knowledge, integrate concepts across disciplines, develop computational thinking skills, acquire and incorporate varied perspectives, and communicate with diverse audiences about the use and effects of computing prepares New Jersey students for college and careers.

Students will benefit from opportunities to engage in high-quality technology programs that foster their ability to:

- Develop and apply computational and design thinking to address real-world problems and design creative solutions;
- Engage as collaborators, innovators, and entrepreneurs on a clear pathway to success through postsecondary education and careers;
- Navigate the dynamic digital landscape to become healthy, productive, 21st century global-minded individuals; and
- Participate in an inclusive and diverse computing culture that appreciates and incorporates perspectives from people of different genders, ethnicities, and abilities.

Students will be able to demonstrate the ability to create samples of digital content such as presentations, audio recordings, video and other digital tools to communicate a message. Students will have the skills to move towards becoming content creators rather than content consumers.

Unit 1: Website Building and Curating a Digital Portfolio

Why Is This Unit Important?

Students will understand the importance of organizing and sharing information digitally.

Enduring Understandings:

- Digital tools can be used to display data in various ways.
- A variety of diverse sources, contexts, disciplines, and cultures provide valuable and necessary information that can be used for different purposes.
- Information is shared or conveyed in a variety of formats and sources.
- Digital tools have a purpose.
- Different digital tools have different purposes.
- There is a need to produce and publish media that has information supported with quality evidence and is intended for authentic audiences.

Essential Questions:

- What is a website?
- What are the different purposes for creating a website?
- How do students use websites in academic and real world settings?
- What tools can be used to create a website?
- What technical skills are required to create a website?
- How will design techniques impact a website?
- What types of digital content can be used in curating a website?

Acquired Knowledge:

- Website Creation: technical skills and purpose

Acquired Skills:

- Create a website designed for a specific purpose with a variety of media

Assessments:

- Group discussion
- Group projects
- Independent activities
- Reflection

Suggested Learning Experiences and Instructional Activities:

- Students build and maintain individual class portfolio with Google Sites

Instructional Materials (including, but not limited to):

- Individual student Chromebooks
- Canvas Learning Management System
- Google Sites

Computer Science and Design Thinking - 2020 New Jersey Student Learning Standards:

8.2.8.NT.1
8.2.8.NT.2
8.2.8.NT.3
8.2.8.NT.4
9.4.8.CI.2
9.4.8.DC.7
9.4.8.IML.7
9.4.8.IML.12
9.4.8.IML.13
9.4.8.IML.14
9.4.8.IML.15

Unit 2: Power of Podcasting

Why Is This Unit Important?

As the popularity of podcasts continues to grow, students will explore its ability to generate huge amounts of trust and attention in a very short space of time.

Enduring Understandings:

- Digital communities allow for social interactions that can result in positive or negative outcomes.
- Information can be shared to convey a message with digital tools such as podcasting.
- A podcast is a digital tool that can be used to share information.

Essential Questions:

- What is a podcast?
- What are the different purposes for creating a podcast?
- How do students use podcasts in academic and real world settings?
- What tools can be used to create a podcast?
- What technical skills are required to create a podcast?
- How do I design a podcast for a specific audience or topic area?
- What types of impact can podcasts have on society?

Acquired Knowledge:

- Recording Tools
- Podcast Creation: technical skills and purpose

Acquired Skills:

- Use recording tools to create a podcast for a specific purpose

Assessments:

- Group discussion
- Group projects
- Independent activities
- Reflection

Suggested Learning Experiences and Instructional Activities:

- Students work in teams to write, edit, and produce a podcast episode.

Instructional Materials (including, but not limited to):

- Individual student Chromebooks
- Canvas Learning Management System
- WeVideo
- Google Workspace

Computer Science and Design Thinking - 2020 New Jersey Student Learning Standards:

8.2.8.NT.1
8.2.8.NT.2
8.2.8.NT.3
8.2.8.NT.4
9.4.8.CI.2
9.4.8.CI.3
9.4.8.IML.12
9.4.8.IML.13
9.4.8.IML.14
9.4.8.IML.15
9.4.8.TL.4
9.4.8.TL.6

Unit 3: Presentations– technical, physical, and collaborative skills

Why Is This Unit Important?

Students explore presentation styles and the power of communication and collaboration.

Enduring Understandings:

- Information can be shared to convey a message with digital tools such as presentations.
- Presentation skills and techniques have an impact on the effect of the presentation.
- Students will need collaboration skills when working with digital content creation in the real world. Collaboration can simplify the work an individual has to do and sometimes produce a better product.
- Collaborating digitally as a team can often develop a better artifact than an individual working alone
- Digital tools allow for remote collaboration and rapid sharing of ideas unrestricted by geographic location or time.

Essential Questions:

- What are the different purposes for creating presentations?
- How do students use presentations in academic and real world settings?
- What tools can be used to create a presentation?
- What skills are required to create and deliver presentations?
- How do I design a presentation for a specific audience or topic area?
- What types of digital media/content can be used when designing presentations?
- How can I collaborate with others to create digital presentations?

Acquired Knowledge:

- Technical and visual presentation skills

Acquired Skills:

- Create and deliver a presentation using a variety of tools

Assessments:

- Group discussion
- Group projects
- Independent activities
- Reflection

Suggested Learning Experiences and Instructional Activities:

- Students develop a digital presentation collaboratively

Instructional Materials (including, but not limited to):

- Individual student Chromebooks
- Canvas Learning Management System
- Google Workspace

Computer Science and Design Thinking - 2020 New Jersey Student Learning Standards:

8.2.8.NT.1
8.2.8.NT.2
8.2.8.NT.3
8.2.8.NT.4
9.4.8.CI.2

Unit 4: Impact of Expression through Blogging

Why Is This Unit Important?

Blogging and vlogging remain powerful tools for digital communication, and students will learn their impact and how and why to create their own content.

Enduring Understandings:

- Digital communities allow for social interactions that can result in positive or negative outcomes.
- Information can be shared to convey a message with digital tools such as blogs/vlogs.
- Blogs can be used to present specific information.

Essential Questions:

- What is a blog?
- What are the different purposes for creating a blogs?
- How do students use blogs in academic and real world settings?
- What tools can be used to create a blog?
- What technical skills are required to create a blog?
- How do I design a blog for a specific audience or topic area?
- What types of impact can blogs have on society?

Acquired Knowledge:

- Create blog and/ or vlog
- Understand why and how to communicate via this digital medium

Acquired Skills:

- Digital communication

Assessments:

- Group discussion
- Group projects
- Independent activities
- Reflection

Suggested Learning Experiences and Instructional Activities:

- Students create a blog or vlog with a purpose

Instructional Materials (including, but not limited to):

- Individual student Chromebooks
- Canvas Learning Management System
- Google Sites, Blogger
- WeVideo

Computer Science and Design Thinking - 2020 New Jersey Student Learning Standards:

8.2.8.NT.1
8.2.8.NT.2
8.2.8.NT.3
8.2.8.NT.4
9.4.8.CI.2
9.4.8.CI.3
9.4.8.IML.12
9.4.8.IML.13
9.4.8.IML.14
9.4.8.IML.15

Unit 5: Creating Videos for a Purpose

Why Is This Unit Important?

YouTube remains one of the top social media platforms, and additional video apps like TikTok increasingly dominate globally. Students will understand how to create and communicate with video.

Enduring Understandings:

- Information can be shared to convey a message with digital tools such as digital video recording.
- A video recording is a digital tool that can be used to share information.
- Digital content can be curated using proper tools and designing information with a specific audience in mind.

Essential Questions:

- What are the different purposes for creating digital videos?
- How do student's use video in academic and real world settings?
- What tools can be used to create a video?
- What technical skills are required to create videos?
- How do I design a video for a specific audience or topic area?
- What types of impact can digital video content have on society?

Acquired Knowledge:

- Video is a powerful tool for communication

Acquired Skills:

- Technical skills for creating, editing, and sharing video

Assessments:

- Group discussion
- Group projects
- Independent activities
- Reflection

Suggested Learning Experiences and Instructional Activities:

- Students create a video to convey a message

Instructional Materials (including, but not limited to):

- Individual student Chromebooks
- Canvas Learning Management System
- Flip
- WeVideo

Computer Science and Design Thinking - 2020 New Jersey Student Learning Standards:

8.2.8.NT.1
8.2.8.NT.2
8.2.8.NT.3
8.2.8.NT.4
9.4.8.CI.2
9.4.8.CI.3
9.4.8.IML.6
9.4.8.IML.12
9.4.8.IML.13
9.4.8.IML.14
9.4.8.IML.15

Unit 6: Copyrighting, Copywriting, Storytelling and its role in digital content creation

Why Is This Unit Important?

Students will explore intellectual property and how we cite the work of others.

Enduring Understandings:

- Intellectual property rights exist to protect the original works of individuals. It is allowable to use other people's ideas in one's own work provided that proper credit is given to the original source.
- Detailed examples exist to illustrate crediting others when incorporating their digital artifacts in one's own work.
- The words you use to tell a story and the format and design of digital content can impact the message.

Essential Questions:

- What is the difference between copyright and copywriting?
- How does copyright impact the digital content a student creates?
- What impact does copywriting have on digital content?
- How can a student use digital media/content to tell a story or deliver a message?

Acquired Knowledge:

- Copyright Definition and Importance in Media
- Copywriting Definition and Importance in Media

Acquired Skills:

- Storytelling
- Research and referencing

Assessments:

- Group discussion
- Group projects
- Independent activities
- Reflection

Suggested Learning Experiences and Instructional Activities:

- Expand on the work of others while properly giving credit

Instructional Materials (including, but not limited to):

- Individual student Chromebooks
- Canvas Learning Management System
- Google Workspace

Computer Science and Design Thinking - 2020 New Jersey Student Learning Standards:

8.2.8.NT.1
8.2.8.NT.2
8.2.8.NT.3
8.2.8.NT.4
9.4.8.CI.2
9.4.8.CI.3
9.4.8.IML.12
9.4.8.IML.13
9.4.8.IML.14
9.4.8.IML.15

Unit 7: Digital Content and The Real World--Careers and more!

Why Is This Unit Important?

Content Creators produce entertaining or educational material and are responsible for the contribution of information to any media. They create both digital media and offline content that caters to the interests of a target audience. Students will explore the role of digital content creators and how content creation impacts and informs other career pathways.

Enduring Understandings:

- Digital communities allow for social interactions that can result in positive or negative outcomes.
- Digital tools and media resources provide access to vast stores of information, but the information can be biased or inaccurate.
- Digital content and digital media are powerful tools in connecting with the rest of the world. Gathering and evaluating knowledge and information from a variety of sources, including global perspectives, fosters creativity and innovative thinking
- The mode of information can convey a message to consumers or an audience.
- There are ethical and unethical uses of information and media.

Essential Questions:

- How does digital content creation relate to careers?
- As a student how do I experience the impact of social media in the real world and in academics?
- What types of impact does digital content have on society?
- How can digital content be used to make positive impacts on societal and local issues?
- How can learning new technologies help me become a critical thinker?
- What types of ethical issues are involved in creating digital content?

Acquired Knowledge:

- Careers and Digital Content Creation
- Content Creation and Academics
- Content Creation and Ethics

Acquired Skills:

- Make informed decisions regarding career choices involving digital content creation.
- Evaluate digital content for its use and purpose.
- Create digital content for a specific purpose.
- Examine digital content for ethical issues.

Assessments:

- Group discussion
- Group projects
- Independent activities
- Reflection

Suggested Learning Experiences and Instructional Activities:

- Create a logo and develop a basic brand strategy

Instructional Materials (including, but not limited to):

- Individual student Chromebooks
- Canvas Learning Management System
- Google Workspace
- Canva

Computer Science and Design Thinking - 2020 New Jersey Student Learning Standards:

8.1.8.IC.1
8.1.8.IC.2
8.2.8.ITH.1
8.2.8.ITH.2
8.2.8.ITH.3
8.2.8.ITH.4
8.2.8.ITH.5
8.2.8.NT.1
8.2.8.NT.2
8.2.8.NT.3
8.2.8.NT.4
8.2.8.EC.1
8.2.8.EC.2
9.4.8.CI.3
9.4.8.CI.4
9.4.8.DC.3
9.4.8.IML.9
9.4.8.IML.10
9.4.8.IML.11

Accommodations

Special Education Students

Peer to peer assistance; reduce / revise assignments as per IEP; use manipulatives; calculators; extra time to complete task; provide individual & small group help; notes, and study guides; provide background knowledge; flexible grouping; peer grouping; visual demonstration; text magnification; color coding; repetition; pre-teaching; chunking; differentiating content; preferential seating; rephrasing of directions

English Language Learners

Use consistent, simplified language; provide bilingual partner; provide cooperative learning opportunities; use modeling; use visual aids & manipulatives; scaffolding; chunking the content; subtitles for videos

Students at Risk of Failure

Foster positive relationships; use mental models; provide help formulating specific questions; scaffolding; targeted support

Gifted Students

Provide additional enrichment activity involving demonstration of knowledge, or complementary assignments; independent practice; extension activities

Suggested Pacing

Unit (topic)	Anticipated time frame (days)	Essential questions	Enduring understandings
Website Building and Curating a Digital Portfolio	15	What is a website? What are the different purposes for creating a website? How do students use websites in academic and real world settings? What tools can be used to create a website? What technical skills are required to create a website? How will design techniques impact a website? What types of digital content can be used in curating a website?	Website Building and Curating a Digital Portfolio
Power of Podcasting	5	What is a podcast? What are the different purposes for creating a podcast? How do students use podcasts in academic and real world settings? What tools can be used to create a podcast? What technical skills are required to create a podcast? How do I design a podcast for a specific audience or topic area? What types of impact can podcasts have on society?	Power of Podcasting
Presentations--technical,physical, and collaborative skills	5	What are the different purposes for creating presentations? How do students use presentations in academic and real world settings? What tools can be used to create a presentation? What skills are required to create and deliver presentations? How do I design a presentation for a specific audience or topic area? What types of digital media/content can be used when designing presentations? How can I collaborate with others to create digital presentations?	Presentations--technical, physical, and collaborative skills

Unit (topic)	Anticipated time frame (days)	Essential questions	Enduring understandings
Impact of Expression through Blogging	5	What is a blog? What are the different purposes for creating a blogs? How do students use blogs in academic and real world settings? What tools can be used to create a blog? What technical skills are required to create a blog? How do I design a blog for a specific audience or topic area? What types of impact can blogs have on society?	Impact of Expression through Blogging
Creating Videos for a Purpose	5	What are the different purposes for creating digital videos? How do student's use video in academic and real world settings? What tools can be used to create a video? What technical skills are required to create videos? How do I design a video for a specific audience or topic area? What types of impact can digital video content have on society?	Creating Videos for a Purpose
Copyrighting, Copywriting, Storytelling and its role in digital content creation	5	What is the difference between copyright and copywriting? How does copyright impact the digital content a student creates? What impact does copywriting have on digital content? How can a student use digital media/content to tell a story or deliver a message?	Copyrighting, Copywriting, Storytelling and its role in digital content creation
Digital Content and The Real World--Careers and more!	5	How does digital content creation relate to careers? As a student how do I experience the impact of social media in the real world and in academics? What types of impact does digital content have on society? How can digital content be used to make positive impacts on societal and local issues? How can learning new technologies help me become a critical thinker? What types of ethical issues are involved in creating digital content?	Digital Content and The Real World--Careers and more!

Sample Standards Integration

During this course, in addition to the New Jersey Student Learning Standards for Computer Science and Design Thinking, students will work on developing, to an age appropriate level, standards across content areas, including:

Career Readiness, Life Literacies, and Key Skills
9.4.8.CI.4: Explore the role of creativity and innovation in career pathways and industries.
Students will connect the concepts and skills in this course to potential future careers.

Social Studies
6.1.12.EconNE.16.b: Evaluate the economic, political, and social impact of new and emerging technologies on individuals and nations.
Students will discuss the positive and negative impacts of technological advancements.

Science
MS-PS1-6: Undertake a design project, engaging in the design cycle, to construct and/or implement a solution that meets specific design criteria and constraints.
Students will employ the design cycle to complete projects based on specific guidelines.

Mathematics
NJSLS-M.8.SP.A.2: Know that straight lines are widely used to model relationships between two quantitative variables. For scatter plots that suggest a linear association, informally fit a straight line, and informally assess the model fit (e.g. line of best fit) by judging the closeness of the data points to the line.
Students will interpret, analyze, and discuss data on diversity in technology careers and education.

English Language Arts
NJSLSA.W6: Use technology, including the Internet, to produce and publish writing and to interact and collaborate with others.
Students will engage in written discussion utilizing the district's digital learning environment.

Diversity, Equity & Inclusion

All students deserve equitable access (N.J.A.C. 6A:7) to a high-quality education that is inclusive and reflective of the rich diversity of our state. This curriculum will include learning activities that meet the legislative requirements of the 2019 History and Contributions of Individuals with Disabilities and LGBT (N.J.S.A. 18A:35-4.35-6) and Diversity and Inclusion statutes (N.J.S.A. 18A:35-4.36a) that may include:

- Students work in groups to develop a slide deck highlighting LGBTQ+ pioneers of computer science, such as Alan Turing, Edith Windsor, etc.
- Students will interpret, analyze, evaluate, and discuss data involving diversity in STEM fields (this may include the number of women enrolled in technology education programs, representation of people with disabilities in video games, etc.).