**Middle School (Grades 7 – 8) Digital Media**

**Curriculum Guide (2022 Revision)**

**LINDEN PUBLIC SCHOOLS**

**LINDEN, NEW JERSEY**

**DR. ROCCO G. TOMAZIC**

**SUPERINTENDENT**

**ATIYA PERKINS**

**ASSISTANT SUPERINTENDENT**

**PAUL OLIVEIRA**

**ASSISTANT SUPERINTENDENT**

**JOSEPH SCALDINO**

**SUPERVISOR OF TECHNOLOGY**

The Linden Board of Education adopted the revised curriculum guide on:

Date: \_\_\_September 1, 2022\_\_

**EDUCATION EQUITY:** The Linden Public School District guarantees each student equal educational opportunity regardless of age, race, color, creed, religion, gender, language, affectional or sexual orientation, ancestry, national origin, marital or economic status. For information, contact District Educational Equity Officer at (908) 486-2800 x 8307.

**NONDISCRIMINATION:** The Linden Public School District does not discriminate against handicapped persons in admission or access to treatment or employment in its programs, activities, and vocational opportunities. For information contact District Public 504 Officer at (908) 486-2800 x 8025.

**This page has been left intentionally blank.**

Table of Contents

[Table of Contents 3](#_Toc124781747)

[Acknowledgements 8](#_Toc124781748)

[Stage 1: Desired Results 9](#_Toc124781749)

[Drawing 9](#_Toc124781750)

[2020 NEW JERSEY STUDENT LEARNING STANDARDS – COMPUTER SCIENCE AND DESIGN THINKING – 8.2 Design Thinking 9](#_Toc124781751)

[Interaction of Technology and Humans 9](#_Toc124781752)

[Nature of Technology 9](#_Toc124781753)

[Effects of Technology on the Natural World 9](#_Toc124781754)

[Ethics & Culture 9](#_Toc124781755)

[ISTE Standards for Students 10](#_Toc124781756)

[1.1 Empowered Learner 10](#_Toc124781757)

[1.2 Digital Citizen 10](#_Toc124781758)

[1.4 Innovative Designer 10](#_Toc124781759)

[1.5 Computational Thinker 10](#_Toc124781760)

[1.6 Creative Communicator 11](#_Toc124781761)

[1.7 Global Collaborator 11](#_Toc124781762)

[9.3 – Career & Technical Education (CTE) 11](#_Toc124781763)

[A/V Technology & Film (AR‐AV) 11](#_Toc124781764)

[Journalism & Broadcasting (AR‐JB) 11](#_Toc124781765)

[Performing Arts (AR‐PRF) 12](#_Toc124781766)

[2020 NEW JERSEY STUDENT LEARNING STANDARDS – Career Readiness, Life Literacies, and Key Skills – Personal Finance Literacy 12](#_Toc124781767)

[Civic Financial Responsibility 12](#_Toc124781768)

[Financial Psychology 12](#_Toc124781769)

[2020 NEW JERSEY STUDENT LEARNING STANDARDS – Career Readiness, Life Literacies, and Key Skills – Career Awareness, Exploration, Preparation, and Training 12](#_Toc124781770)

[Career Awareness and Planning 12](#_Toc124781771)

[2020 NEW JERSEY STUDENT LEARNING STANDARDS – Career Readiness, Life Literacies, and Key Skills – Life Literacies and Key Skills 13](#_Toc124781772)

[Creativity and Innovation 13](#_Toc124781773)

[Digital Citizenship 13](#_Toc124781774)

[Global and Cultural Awareness 13](#_Toc124781775)

[Information and Media Literacy 13](#_Toc124781776)

[ESSENTIAL QUESTIONS 13](#_Toc124781777)

[ENDURING UNDERSTANDING 14](#_Toc124781778)

[STUDENTS WILL KNOW 14](#_Toc124781779)

[STUDENTS WILL BE ABLE TO 15](#_Toc124781780)

[Photo 17](#_Toc124781781)

[2020 NEW JERSEY STUDENT LEARNING STANDARDS – COMPUTER SCIENCE AND DESIGN THINKING – 8.2 Design Thinking 17](#_Toc124781782)

[Interaction of Technology and Humans 17](#_Toc124781783)

[Nature of Technology 17](#_Toc124781784)

[Effects of Technology on the Natural World 17](#_Toc124781785)

[Ethics & Culture 17](#_Toc124781786)

[ISTE Standards for Students 18](#_Toc124781787)

[1.1 Empowered Learner 18](#_Toc124781788)

[1.2 Digital Citizen 18](#_Toc124781789)

[1.4 Innovative Designer 18](#_Toc124781790)

[1.5 Computational Thinker 19](#_Toc124781791)

[1.6 Creative Communicator 19](#_Toc124781792)

[1.7 Global Collaborator 19](#_Toc124781793)

[9.3 – CAREER & TECHNICAL EDUCATION (CTE) 19](#_Toc124781794)

[A/V Technology & Film (AR‐AV) 19](#_Toc124781795)

[Journalism & Broadcasting (AR‐JB) 20](#_Toc124781796)

[Performing Arts (AR‐PRF) 20](#_Toc124781797)

[2020 NEW JERSEY STUDENT LEARNING STANDARDS – Career Readiness, Life Literacies, and Key Skills – Personal Finance Literacy 20](#_Toc124781798)

[Civic Financial Responsibility 20](#_Toc124781799)

[Financial Psychology 20](#_Toc124781800)

[2020 NEW JERSEY STUDENT LEARNING STANDARDS – Career Readiness, Life Literacies, and Key Skills – Career Awareness, Exploration, Preparation, and Training 21](#_Toc124781801)

[Career Awareness and Planning 21](#_Toc124781802)

[2020 NEW JERSEY STUDENT LEARNING STANDARDS – Career Readiness, Life Literacies, and Key Skills – Life Literacies and Key Skills 21](#_Toc124781803)

[Creativity and Innovation 21](#_Toc124781804)

[Digital Citizenship 21](#_Toc124781805)

[Global and Cultural Awareness 21](#_Toc124781806)

[Information and Media Literacy 22](#_Toc124781807)

[ESSENTIAL QUESTIONS 22](#_Toc124781808)

[ENDURING UNDERSTANDING 22](#_Toc124781809)

[STUDENTS WILL KNOW 23](#_Toc124781810)

[STUDENTS WILL BE ABLE TO 23](#_Toc124781811)

[Video 25](#_Toc124781812)

[2020 NEW JERSEY STUDENT LEARNING STANDARDS – COMPUTER SCIENCE AND DESIGN THINKING – 8.2 Design Thinking 25](#_Toc124781813)

[Interaction of Technology and Humans 25](#_Toc124781814)

[Nature of Technology 25](#_Toc124781815)

[Effects of Technology on the Natural World 25](#_Toc124781816)

[Ethics & Culture 25](#_Toc124781817)

[ISTE Standards for Students 26](#_Toc124781818)

[1.1 Empowered Learner 26](#_Toc124781819)

[1.2 Digital Citizen 26](#_Toc124781820)

[1.4 Innovative Designer 26](#_Toc124781821)

[1.5 Computational Thinker 26](#_Toc124781822)

[1.6 Creative Communicator 27](#_Toc124781823)

[1.7 Global Collaborator 27](#_Toc124781824)

[9.3 – CAREER & TECHNICAL EDUCATION (CTE) 27](#_Toc124781825)

[A/V Technology & Film (AR‐AV) 27](#_Toc124781826)

[Journalism & Broadcasting (AR‐JB) 27](#_Toc124781827)

[Performing Arts (AR‐PRF) 28](#_Toc124781828)

[2020 NEW JERSEY STUDENT LEARNING STANDARDS – Career Readiness, Life Literacies, and Key Skills – Personal Finance Literacy 28](#_Toc124781829)

[Civic Financial Responsibility 28](#_Toc124781830)

[Financial Psychology 28](#_Toc124781831)

[2020 NEW JERSEY STUDENT LEARNING STANDARDS – Career Readiness, Life Literacies, and Key Skills – Career Awareness, Exploration, Preparation, and Training 28](#_Toc124781832)

[Career Awareness and Planning 28](#_Toc124781833)

[2020 NEW JERSEY STUDENT LEARNING STANDARDS – Career Readiness, Life Literacies, and Key Skills – Life Literacies and Key Skills 29](#_Toc124781834)

[Creativity and Innovation 29](#_Toc124781835)

[Digital Citizenship 29](#_Toc124781836)

[Global and Cultural Awareness 29](#_Toc124781837)

[Information and Media Literacy 29](#_Toc124781838)

[ESSENTIAL QUESTIONS 29](#_Toc124781839)

[ENDURING UNDERSTANDING 30](#_Toc124781840)

[STUDENTS WILL KNOW 30](#_Toc124781841)

[STUDENTS WILL BE ABLE TO 31](#_Toc124781842)

[Music 33](#_Toc124781843)

[2020 NEW JERSEY STUDENT LEARNING STANDARDS – COMPUTER SCIENCE AND DESIGN THINKING – 8.2 Design Thinking 33](#_Toc124781844)

[Interaction of Technology and Humans 33](#_Toc124781845)

[Nature of Technology 33](#_Toc124781846)

[Effects of Technology on the Natural World 33](#_Toc124781847)

[Ethics & Culture 33](#_Toc124781848)

[ISTE Standards for Students 34](#_Toc124781849)

[1.1 Empowered Learner 34](#_Toc124781850)

[1.2 Digital Citizen 34](#_Toc124781851)

[1.4 Innovative Designer 34](#_Toc124781852)

[1.5 Computational Thinker 34](#_Toc124781853)

[1.6 Creative Communicator 35](#_Toc124781854)

[1.7 Global Collaborator 35](#_Toc124781855)

[9.3 – CAREER & TECHNICAL EDUCATION (CTE) 35](#_Toc124781856)

[A/V Technology & Film (AR‐AV) 35](#_Toc124781857)

[Journalism & Broadcasting (AR‐JB) 35](#_Toc124781858)

[Performing Arts (AR‐PRF) 36](#_Toc124781859)

[2020 NEW JERSEY STUDENT LEARNING STANDARDS – Career Readiness, Life Literacies, and Key Skills – Personal Finance Literacy 36](#_Toc124781860)

[Civic Financial Responsibility 36](#_Toc124781861)

[Financial Psychology 36](#_Toc124781862)

[2020 NEW JERSEY STUDENT LEARNING STANDARDS – Career Readiness, Life Literacies, and Key Skills – Career Awareness, Exploration, Preparation, and Training 36](#_Toc124781863)

[Career Awareness and Planning 36](#_Toc124781864)

[2020 NEW JERSEY STUDENT LEARNING STANDARDS – Career Readiness, Life Literacies, and Key Skills – Life Literacies and Key Skills 37](#_Toc124781865)

[Creativity and Innovation 37](#_Toc124781866)

[Digital Citizenship 37](#_Toc124781867)

[Global and Cultural Awareness 37](#_Toc124781868)

[Information and Media Literacy 37](#_Toc124781869)

[ESSENTIAL QUESTIONS 37](#_Toc124781870)

[ENDURING UNDERSTANDING 38](#_Toc124781871)

[STUDENTS WILL KNOW 38](#_Toc124781872)

[STUDENTS WILL BE ABLE TO 38](#_Toc124781873)

[Stage 2 – Evidence of Learning 40](#_Toc124781874)

[Apple Everyone Can Create 40](#_Toc124781875)

[Formative Assessment Suggestions 40](#_Toc124781876)

[Authentic Drawing Assessment Suggestions 40](#_Toc124781877)

[Authentic Photo Assessment Suggestions 41](#_Toc124781878)

[Authentic Video Assessment Suggestions 41](#_Toc124781879)

[Authentic Music Assessment Suggestions 41](#_Toc124781880)

[Benchmark Assessment Suggestions 42](#_Toc124781881)

[Stage 3 – Learning Plan 43](#_Toc124781882)

[Instructional Map 43](#_Toc124781883)

[Marking Period 1 43](#_Toc124781884)

[Marking Period 2 43](#_Toc124781885)

[Marking Period 3 43](#_Toc124781886)

[Marking Period 4 43](#_Toc124781887)

[Modifications/ Differentiation of Instruction 44](#_Toc124781888)

[Modification Strategies 44](#_Toc124781889)

[High Preparation Differentiation 44](#_Toc124781890)

[Low Preparation Differentiation 45](#_Toc124781891)

[Horizontal Integration – Interdisciplinary Connections 47](#_Toc124781892)

[Math - Drawing 47](#_Toc124781893)

[Math - Photo 49](#_Toc124781894)

[Math - Video 51](#_Toc124781895)

[Math – Music 52](#_Toc124781896)

[Language Arts - Drawing 54](#_Toc124781897)

[Language Arts - Photo 56](#_Toc124781898)

[Language Arts - Video 57](#_Toc124781899)

[Language Arts - Music 59](#_Toc124781900)

[Science - Drawing 61](#_Toc124781901)

[Science - Photo 63](#_Toc124781902)

[Science - Video 65](#_Toc124781903)

[Science - Music 66](#_Toc124781904)

[History and Social Studies - Drawing 68](#_Toc124781905)

[History and Social Studies - Photo 70](#_Toc124781906)

[History and Social Studies - Video 72](#_Toc124781907)

[History and Social Studies - Music 74](#_Toc124781908)

[Vertical Integration – Discipline Mapping 76](#_Toc124781909)

[Additional Materials 77](#_Toc124781910)

Acknowledgements

This curriculum guide was first written by Russell Marchica and Durell Burress in 2017 under the approval of Michael Walters, former Director of Technology for Linden Public Schools. This 2022 curriculum revision has been completed by Durell Burress under the approval of Joseph Scaldino, Supervisor of Instructional Technology for Linden Public Schools, based on current research and the data, experiences, feedback, and information retrieved from LPS stakeholders.

The source material serving as the foundation for this curriculum is from Apple’s Everyone Can Create:

Everyone Can Create Teacher Guide

Apple Education

https://books.apple.com/us/book/everyone-can-create-teacher-guide/id1357353934

Stage 1: Desired Results

# Drawing

## 2020 NEW JERSEY STUDENT LEARNING STANDARDS – COMPUTER SCIENCE AND DESIGN THINKING – 8.2 Design Thinking

### Interaction of Technology and Humans

* 8.2.8.ITH.1: Explain how the development and use of technology influences economic, political, social, and cultural issues.

### Nature of Technology

* 8.2.8.NT.1: Examine a malfunctioning tool, product, or system and propose solutions to the problem.
* 8.2.8.NT.2: Analyze an existing technological product that has been repurposed for a different function.
* 8.2.8.NT.3: Examine a system, consider how each part relates to other parts, and redesign it for another purpose.
* 8.2.8.NT.4: Explain how a product designed for a specific demand was modified to meet a new demand and led to a new product.

### Effects of Technology on the Natural World

* 8.2.8.ETW.2: Analyze the impact of modifying resources in a product or system (e.g., materials, energy, information, time, tools, people, capital).

### Ethics & Culture

* 8.2.8.EC.1: Explain ethical issues that may arise from the use of new technologies.
* 8.2.8.EC.2: Examine the effects of ethical and unethical practices in product design and development.

## ISTE Standards for Students

### 1.1 Empowered Learner

* 1.1.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.
* 1.1.c: Students use technology to seek feedback that informs and improves their practice and to demonstrate their learning in a variety of ways.
* 1.1.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.

## 1.2 Digital Citizen

* 1.2.c: Students demonstrate an understanding of and respect for the rights and obligations of using and sharing intellectual property.
* 1.2.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.

### 1.4 Innovative Designer

* 1.4.a: Students know and use a deliberate design process for generating ideas, testing theories, creating innovative artifacts or solving authentic problems.
* 1.4.b: Students select and use digital tools to plan and manage a design process that considers design constraints and calculated risks.
* 1.4.c: Students develop, test and refine prototypes as part of a cyclical design process.
* 1.4.d: Students exhibit a tolerance for ambiguity, perseverance and the capacity to work with open-ended problems.

### 1.5 Computational Thinker

* 1.5.c: Students break problems into component parts, extract key information, and develop descriptive models to understand complex systems or facilitate problem-solving.

### 1.6 Creative Communicator

* 1.6.a: Students choose the appropriate platforms and tools for meeting the desired objectives of their creation or communication.
* 1.6.b: Students create original works or responsibly repurpose or remix digital resources into new creations.
* 1.6.c: Students communicate complex ideas clearly and effectively by creating or using a variety of digital objects such as visualizations, models, or simulations.
* 1.6.d: Students publish or present content that customizes the message and medium for their intended audiences.

### 1.7 Global Collaborator

* 1.7.c: Students contribute constructively to project teams, assuming various roles and responsibilities to work effectively toward a common goal.

### 9.3 – Career & Technical Education (CTE)

### A/V Technology & Film (AR‐AV)

* 9.3.12.AR‐AV.1: Describe the history, terminology, occupations and value of audio, video and film technology.
* 9.3.12.AR‐AV.2: Demonstrate the use of basic tools and equipment used in audio, video and film production.
* 9.3.12.AR‐AV.3: Demonstrate technical support skills for audio, video and/or film productions.
* 9.3.12.AR‐AV.4: Design an audio, video and/or film production.

### Journalism & Broadcasting (AR‐JB)

* 9.3.12.AR‐JB.3: Plan and deliver a media production (e.g., broadcast, video, Internet and mobile).
* 9.3.12.AR‐JB.4: Demonstrate technical support related to media production (e.g., broadcast, video, Internet, mobile).

### Performing Arts (AR‐PRF)

* 9.3.12.AR‐PRF.6: Create stage, film, television or electronic media scripts in a variety of traditional and current formats.
* 9.3.12.AR‐PRF.7: Describe how technology and technical support enhance performing arts productions.
* 9.3.12.AR‐VIS.2: Analyze how the application of visual arts elements and principles of design communicate and express ideas.
* 9.3.12.AR‐VIS.3: Analyze and create two and three‐dimensional visual art forms using various media.

## 2020 NEW JERSEY STUDENT LEARNING STANDARDS – Career Readiness, Life Literacies, and Key Skills – Personal Finance Literacy

### Civic Financial Responsibility

* 9.1.8.CR.2: Compare various ways to give back through strengths, passions, goals, and other personal factors.

### Financial Psychology

* 9.1.8.FP.6: Compare and contrast advertising messages to understand what they are trying to accomplish.
* 9.1.8.FP.7: Identify the techniques and effects of deceptive advertising.

## 2020 NEW JERSEY STUDENT LEARNING STANDARDS – Career Readiness, Life Literacies, and Key Skills – Career Awareness, Exploration, Preparation, and Training

### Career Awareness and Planning

* 9.2.8.CAP.1: Identify offerings such as high school and county career and technical school courses, apprenticeships, military programs, and dual enrollment courses that support career or occupational areas of interest.
* 9.2.8.CAP.15: Present how the demand for certain skills, the job market, and credentials can determine an individual’s earning power.

## 2020 NEW JERSEY STUDENT LEARNING STANDARDS – Career Readiness, Life Literacies, and Key Skills – Life Literacies and Key Skills

### Creativity and Innovation

* 9.4.8.CI.2: Repurpose an existing resource in an innovative way (e.g., 8.2.8.NT.3).
* 9.4.8.CI.4: Explore the role of creativity and innovation in career pathways and industries

### Digital Citizenship

* 9.4.8.DC.1: Analyze the resource citations in online materials for proper use.
* 9.4.8.DC.2: Provide appropriate citation and attribution elements when creating media products (e.g., W.6.8).
* 9.4.8.DC.7: Collaborate within a digital community to create a digital artifact using strategies such as crowdsourcing or digital surveys.

### Global and Cultural Awareness

* 9.4.8.GCA.1: Model how to navigate cultural differences with sensitivity and respect (e.g., 1.5.8.C1a).
* 9.4.8.GCA.2: Demonstrate openness to diverse ideas and perspectives through active discussions to achieve a group goal.

### Information and Media Literacy

* 9.4.8.IML.9: Distinguish between ethical and unethical uses of information and media (e.g., 1.5.8.CR3b, 8.2.8.EC.2).
* 9.4.8.IML.10: Examine the consequences of the uses of media (e.g., RI.8.7).

## ESSENTIAL QUESTIONS

* How can ideas be expressed through word art?
* How can doodle art help conceptualize ideas?
* How can what is seen be drawn?
* What are depth, perspective, and point of view?
* How does portrait drawing help understanding facial proportion and composition?
* What details of an object can be used to animate a still life composition?
* How can color combination, lettering, and good design be used to create unique logos?
* How can data be interpreted and synthesized into an infographic?
* How can a motion graphic be used to convey an interesting fact, convey an emotion, or teach a concept?
* How are the most important moments determined for a book design?

## ENDURING UNDERSTANDING

* Drawing helps to develop observation skills, look at things from multiple perspectives, and engage in the creative process
* Drawing helps to visually make sense of thoughts and what is being learned

## STUDENTS WILL KNOW

* Word art allows the expression of ideas or emotions that go beyond words alone
* Developing basic sketching skills offers new ways of expression
* Doodle drawing can help think about information more visually and conceptually, increasing the memory of core concepts
* Objects can be seen as a combination of simple lines and shapes to simplify the drawing process
* The concepts of depth, perspective, and point of view can be applied to landscapes
* Portrait art can capture a person’s likeness or personality
* Objects have details such as shape, pattern, proportion, color, texture, perspective, light, and shadow
* A company’s logo captures and defines the values, emotion, meaning, and message behind the brand identity
* Infographics can be used to bring data to life
* Motion graphics, such as animation, helps capture attention and communicate in ways that are not possible using traditional drawing methods
* Book design captures the most important moments in a story

## STUDENTS WILL BE ABLE TO

* Understand lines, the basis of drawing
* Make patterns and lines that represent emotions
* Use a variety of strategies to draw block letters
* Create word art that expresses meaning
* Express thoughts and ideas with simple sketches or doodles
* Create a personal collection of common objects and doodles to visualize concepts
* Use words, doodles, icons, and images to create a sketchnote that visually expresses their thinking
* Find lines and basic shapes in everyday objects
* Use observational skills to sketch an object
* Add value to objects with simple shading techniques
* Sketch a landscape
* Add depth through perspective
* Apply point of view
* Sketch a variety of portrait styles
* Use tracing to improve sketching accuracy
* Understand facial proportion and composition
* Add sharing and texture to a sketch
* Compose, capture, and sketch a still life
* Animate a still-life sketch
* Brainstorm, research, and sketch ideas for a logo
* Use color, hand lettering, and sketches to convey emotion and communicate a message
* Create a unique hand-drawn logo
* Define a topic, conduct research, and choose a layout that tells a story
* Represent data with color, shapes, charts, and sketches
* Create a hand-drawn infographic
* Rearrange and combine shapes to create new illustrations
* Communicate ideas by transforming shapes with transitions
* Add motion to shapes to create meaning and impact
* Illustrate a scene from a story
* Use storyboarding to plan and illustrate a story
* Publish a book

# Photo

## 2020 NEW JERSEY STUDENT LEARNING STANDARDS – COMPUTER SCIENCE AND DESIGN THINKING – 8.2 Design Thinking

### Interaction of Technology and Humans

* 8.2.8.ITH.1: Explain how the development and use of technology influences economic, political, social, and cultural issues.

### Nature of Technology

* 8.2.8.NT.1: Examine a malfunctioning tool, product, or system and propose solutions to the problem.
* 8.2.8.NT.2: Analyze an existing technological product that has been repurposed for a different function.
* 8.2.8.NT.3: Examine a system, consider how each part relates to other parts, and redesign it for another purpose.
* 8.2.8.NT.4: Explain how a product designed for a specific demand was modified to meet a new demand and led to a new product.

### Effects of Technology on the Natural World

* 8.2.8.ETW.2: Analyze the impact of modifying resources in a product or system (e.g., materials, energy, information, time, tools, people, capital).

### Ethics & Culture

* 8.2.8.EC.1: Explain ethical issues that may arise from the use of new technologies.
* 8.2.8.EC.2: Examine the effects of ethical and unethical practices in product design and development.

## ISTE Standards for Students

### 1.1 Empowered Learner

* 1.1.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.
* 1.1.c: Students use technology to seek feedback that informs and improves their practice and to demonstrate their learning in a variety of ways.
* 1.1.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.

## 1.2 Digital Citizen

* 1.2.c: Students demonstrate an understanding of and respect for the rights and obligations of using and sharing intellectual property.
* 1.2.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.

### 1.4 Innovative Designer

* 1.4.a: Students know and use a deliberate design process for generating ideas, testing theories, creating innovative artifacts or solving authentic problems.
* 1.4.b: Students select and use digital tools to plan and manage a design process that considers design constraints and calculated risks.
* 1.4.c: Students develop, test and refine prototypes as part of a cyclical design process.
* 1.4.d: Students exhibit a tolerance for ambiguity, perseverance and the capacity to work with open-ended problems.

### 1.5 Computational Thinker

* 1.5.c: Students break problems into component parts, extract key information, and develop descriptive models to understand complex systems or facilitate problem-solving.

### 1.6 Creative Communicator

* 1.6.a: Students choose the appropriate platforms and tools for meeting the desired objectives of their creation or communication.
* 1.6.b: Students create original works or responsibly repurpose or remix digital resources into new creations.
* 1.6.c: Students communicate complex ideas clearly and effectively by creating or using a variety of digital objects such as visualizations, models, or simulations.
* 1.6.d: Students publish or present content that customizes the message and medium for their intended audiences.

### 1.7 Global Collaborator

* 1.7.c: Students contribute constructively to project teams, assuming various roles and responsibilities to work effectively toward a common goal.

### 9.3 – CAREER & TECHNICAL EDUCATION (CTE)

### A/V Technology & Film (AR‐AV)

* 9.3.12.AR‐AV.1: Describe the history, terminology, occupations and value of audio, video and film technology.
* 9.3.12.AR‐AV.2: Demonstrate the use of basic tools and equipment used in audio, video and film production.
* 9.3.12.AR‐AV.3: Demonstrate technical support skills for audio, video and/or film productions.
* 9.3.12.AR‐AV.4: Design an audio, video and/or film production.

### Journalism & Broadcasting (AR‐JB)

* 9.3.12.AR‐JB.3: Plan and deliver a media production (e.g., broadcast, video, Internet and mobile).
* 9.3.12.AR‐JB.4: Demonstrate technical support related to media production (e.g., broadcast, video, Internet, mobile).

### Performing Arts (AR‐PRF)

* 9.3.12.AR‐PRF.6: Create stage, film, television or electronic media scripts in a variety of traditional and current formats.
* 9.3.12.AR‐PRF.7: Describe how technology and technical support enhance performing arts productions.
* 9.3.12.AR‐VIS.2: Analyze how the application of visual arts elements and principles of design communicate and express ideas.
* 9.3.12.AR‐VIS.3: Analyze and create two and three‐dimensional visual art forms using various media.

## 2020 NEW JERSEY STUDENT LEARNING STANDARDS – Career Readiness, Life Literacies, and Key Skills – Personal Finance Literacy

### Civic Financial Responsibility

* 9.1.8.CR.2: Compare various ways to give back through strengths, passions, goals, and other personal factors.

### Financial Psychology

* 9.1.8.FP.6: Compare and contrast advertising messages to understand what they are trying to accomplish.
* 9.1.8.FP.7: Identify the techniques and effects of deceptive advertising.

## 2020 NEW JERSEY STUDENT LEARNING STANDARDS – Career Readiness, Life Literacies, and Key Skills – Career Awareness, Exploration, Preparation, and Training

### Career Awareness and Planning

* 9.2.8.CAP.1: Identify offerings such as high school and county career and technical school courses, apprenticeships, military programs, and dual enrollment courses that support career or occupational areas of interest.
* 9.2.8.CAP.15: Present how the demand for certain skills, the job market, and credentials can determine an individual’s earning power.

## 2020 NEW JERSEY STUDENT LEARNING STANDARDS – Career Readiness, Life Literacies, and Key Skills – Life Literacies and Key Skills

### Creativity and Innovation

* 9.4.8.CI.2: Repurpose an existing resource in an innovative way (e.g., 8.2.8.NT.3).
* 9.4.8.CI.4: Explore the role of creativity and innovation in career pathways and industries

### Digital Citizenship

* 9.4.8.DC.1: Analyze the resource citations in online materials for proper use.
* 9.4.8.DC.2: Provide appropriate citation and attribution elements when creating media products (e.g., W.6.8).
* 9.4.8.DC.7: Collaborate within a digital community to create a digital artifact using strategies such as crowdsourcing or digital surveys.

### Global and Cultural Awareness

* 9.4.8.GCA.1: Model how to navigate cultural differences with sensitivity and respect (e.g., 1.5.8.C1a).
* 9.4.8.GCA.2: Demonstrate openness to diverse ideas and perspectives through active discussions to achieve a group goal.

### Information and Media Literacy

* 9.4.8.IML.9: Distinguish between ethical and unethical uses of information and media (e.g., 1.5.8.CR3b, 8.2.8.EC.2).
* 9.4.8.IML.10: Examine the consequences of the uses of media (e.g., RI.8.7).

## ESSENTIAL QUESTIONS

* How can everyday objects be personified through photography?
* How can an emotional connection be established between the audience and the subject of a portrait?
* What are the essential elements of a scene? How can it be captured in a snapshot?
* How does capturing motion in photography add the dimension of time to still images?
* What are the different uses for photo collages?
* How can photos be used to document events?
* How are GIFs used to communicate with photography and animation?
* How do you create a digital portfolio to share your work to the world?

## ENDURING UNDERSTANDING

* Photography expands how we think and teaches us to communicate through multiple mediums, not just text.
* Photos can illustrate important concepts like equality, explain processes without words, or connect a scientific diagram to the real, living thing
* Photography can be used to tell stories creatively
* Certain elements of photography can be used to reveal the mood, interests, and personality of their subject
* The combination of setting, character, and props in a single image can tell a story or provoke emotions
* Capturing action in photography helps share moments that might otherwise be missed in a fast-paced visual story
* Photo collage compositions can be used to represent personal interests, goals, and visions
* Photography can be used to document events
* Emotion can be expressed through photography

## STUDENTS WILL KNOW

* Observational skills can be developed through photography
* Everyday objects can be seen differently through personification
* Portrait photography requires a level of empathy from the person behind the camera lens
* Panoramic photos is an alternate way to include setting, characters, and props into a single photo
* How action photography helps to add dimension and drama to photos
* How to organize a vision through a photo collage
* A cohesive story can be told through photojournalism
* The importance of being able to communicate via photography and animation in today’s world
* Digital portfolios are excellent for showcasing their best work
* A well put-together portfolio is becoming equally important as a well put-together resume

## STUDENTS WILL BE ABLE TO

* Photograph objects from multiple angles
* Create an album of related photos
* Use basic editing tools
* Get creative with your self-portraits
* Take portraits that express emotion, mood, and personality
* Maximize camera and editing tools for dramatic results
* Snap landscape photos in natural and urban environments
* Take horizontal and vertical panoramic photos
* Compose a scene that tells a story
* Capture a snapshot of a fleeting moment in time
* Animate your photos
* Add dramatic motion blur effects to photos
* Make a simple photo letter collage
* Copy, paste, rotate, and add borders to photos
* Mask, edit, and arrange photos in layers
* Build a slideshow
* Create a photo tutorial
* Turn your photos into a video
* Use transitions to transform the appearance of photos
* Use stop-motion animation techniques to tell a story
* Animate a photo with multiple builds in Keynote
* Express a particular point of view using photos and words
* Create a digital photo book
* Compile and share your best work

# Video

## 2020 NEW JERSEY STUDENT LEARNING STANDARDS – COMPUTER SCIENCE AND DESIGN THINKING – 8.2 Design Thinking

### Interaction of Technology and Humans

* 8.2.8.ITH.1: Explain how the development and use of technology influences economic, political, social, and cultural issues.

### Nature of Technology

* 8.2.8.NT.1: Examine a malfunctioning tool, product, or system and propose solutions to the problem.
* 8.2.8.NT.2: Analyze an existing technological product that has been repurposed for a different function.
* 8.2.8.NT.3: Examine a system, consider how each part relates to other parts, and redesign it for another purpose.
* 8.2.8.NT.4: Explain how a product designed for a specific demand was modified to meet a new demand and led to a new product.

### Effects of Technology on the Natural World

* 8.2.8.ETW.2: Analyze the impact of modifying resources in a product or system (e.g., materials, energy, information, time, tools, people, capital).

### Ethics & Culture

* 8.2.8.EC.1: Explain ethical issues that may arise from the use of new technologies.
* 8.2.8.EC.2: Examine the effects of ethical and unethical practices in product design and development.

## ISTE Standards for Students

### 1.1 Empowered Learner

* 1.1.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.
* 1.1.c: Students use technology to seek feedback that informs and improves their practice and to demonstrate their learning in a variety of ways.
* 1.1.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.

## 1.2 Digital Citizen

* 1.2.c: Students demonstrate an understanding of and respect for the rights and obligations of using and sharing intellectual property.
* 1.2.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.

### 1.4 Innovative Designer

* 1.4.a: Students know and use a deliberate design process for generating ideas, testing theories, creating innovative artifacts or solving authentic problems.
* 1.4.b: Students select and use digital tools to plan and manage a design process that considers design constraints and calculated risks.
* 1.4.c: Students develop, test and refine prototypes as part of a cyclical design process.
* 1.4.d: Students exhibit a tolerance for ambiguity, perseverance and the capacity to work with open-ended problems.

### 1.5 Computational Thinker

* 1.5.c: Students break problems into component parts, extract key information, and develop descriptive models to understand complex systems or facilitate problem-solving.

### 1.6 Creative Communicator

* 1.6.a: Students choose the appropriate platforms and tools for meeting the desired objectives of their creation or communication.
* 1.6.b: Students create original works or responsibly repurpose or remix digital resources into new creations.
* 1.6.c: Students communicate complex ideas clearly and effectively by creating or using a variety of digital objects such as visualizations, models, or simulations.
* 1.6.d: Students publish or present content that customizes the message and medium for their intended audiences.

### 1.7 Global Collaborator

* 1.7.c: Students contribute constructively to project teams, assuming various roles and responsibilities to work effectively toward a common goal.

### 9.3 – CAREER & TECHNICAL EDUCATION (CTE)

### A/V Technology & Film (AR‐AV)

* 9.3.12.AR‐AV.1: Describe the history, terminology, occupations and value of audio, video and film technology.
* 9.3.12.AR‐AV.2: Demonstrate the use of basic tools and equipment used in audio, video and film production.
* 9.3.12.AR‐AV.3: Demonstrate technical support skills for audio, video and/or film productions.
* 9.3.12.AR‐AV.4: Design an audio, video and/or film production.

### Journalism & Broadcasting (AR‐JB)

* 9.3.12.AR‐JB.3: Plan and deliver a media production (e.g., broadcast, video, Internet and mobile).
* 9.3.12.AR‐JB.4: Demonstrate technical support related to media production (e.g., broadcast, video, Internet, mobile).

### Performing Arts (AR‐PRF)

* 9.3.12.AR‐PRF.6: Create stage, film, television or electronic media scripts in a variety of traditional and current formats.
* 9.3.12.AR‐PRF.7: Describe how technology and technical support enhance performing arts productions.
* 9.3.12.AR‐VIS.2: Analyze how the application of visual arts elements and principles of design communicate and express ideas.
* 9.3.12.AR‐VIS.3: Analyze and create two and three‐dimensional visual art forms using various media.

## 2020 NEW JERSEY STUDENT LEARNING STANDARDS – Career Readiness, Life Literacies, and Key Skills – Personal Finance Literacy

### Civic Financial Responsibility

* 9.1.8.CR.2: Compare various ways to give back through strengths, passions, goals, and other personal factors.

### Financial Psychology

* 9.1.8.FP.6: Compare and contrast advertising messages to understand what they are trying to accomplish.
* 9.1.8.FP.7: Identify the techniques and effects of deceptive advertising.

## 2020 NEW JERSEY STUDENT LEARNING STANDARDS – Career Readiness, Life Literacies, and Key Skills – Career Awareness, Exploration, Preparation, and Training

### Career Awareness and Planning

* 9.2.8.CAP.1: Identify offerings such as high school and county career and technical school courses, apprenticeships, military programs, and dual enrollment courses that support career or occupational areas of interest.
* 9.2.8.CAP.15: Present how the demand for certain skills, the job market, and credentials can determine an individual’s earning power.

## 2020 NEW JERSEY STUDENT LEARNING STANDARDS – Career Readiness, Life Literacies, and Key Skills – Life Literacies and Key Skills

### Creativity and Innovation

* 9.4.8.CI.2: Repurpose an existing resource in an innovative way (e.g., 8.2.8.NT.3).
* 9.4.8.CI.4: Explore the role of creativity and innovation in career pathways and industries

### Digital Citizenship

* 9.4.8.DC.1: Analyze the resource citations in online materials for proper use.
* 9.4.8.DC.2: Provide appropriate citation and attribution elements when creating media products (e.g., W.6.8).
* 9.4.8.DC.7: Collaborate within a digital community to create a digital artifact using strategies such as crowdsourcing or digital surveys.

### Global and Cultural Awareness

* 9.4.8.GCA.1: Model how to navigate cultural differences with sensitivity and respect (e.g., 1.5.8.C1a).
* 9.4.8.GCA.2: Demonstrate openness to diverse ideas and perspectives through active discussions to achieve a group goal.

### Information and Media Literacy

* 9.4.8.IML.9: Distinguish between ethical and unethical uses of information and media (e.g., 1.5.8.CR3b, 8.2.8.EC.2).
* 9.4.8.IML.10: Examine the consequences of the uses of media (e.g., RI.8.7).

## ESSENTIAL QUESTIONS

* How can video be used to visually communicate?
* What are the methods and skills of an effective moviemaker?
* How can I make a more effective instructional video?
* How can videography be used to address issues within the community?
* What types of shots makes the moviemaking process more effective?
* How can a storyboard be used to develop an idea into a treatment?
* What components are essential to make a tutorial video?
* How can documentaries be used to create an immediate call to action to resolve an issue within the community?
* How can a live event be covered in video?
* How do special effects help improve student communication and media literacy?
* How can video production enhance the emotion of a story?
* How can film production be enhanced to effectively engage an audience?

## ENDURING UNDERSTANDING

* Movies can be a great medium for telling stories.
* Documenting and sharing learning stories helps learners construct meaning from their experiences.
* Various apps can be used to create imaginative, narrative, and inspiring videos that document all types of learning experiences.

## STUDENTS WILL KNOW

* Learning the skills of recording and editing video clips gives students the foundation for visual communication.
* Using the graphic features in Clips teaches students how to expressively emphasize content and visual elements.
* Knowing different types of shots enhances student video literacy and helps them be more effective moviemakers.
* The basic rules of video shot composition—such as head room, nose room, and the rule of thirds—enable students to design effective and engaging visual stories.
* Completing the outline built into the Trailer feature in iMovie helps students understand how video shots interact and support story structure.
* Designing and animating storyboards gives students an organized approach to story design and production.
* Students improve their speaking skills by using a teleprompter when ​ performing on camera.
* When students plan their workflow ahead of time and use a variety of ​ shot types, they produce more effective instructional videos.
* The skills needed to create on-camera interviews improve student proficiency in research, analysis, and communication.
* Technical competence in camera controls—combined with facility in trimming video clips and adding cutaways, transitions, and titles—aids students in creating effective documentary stories.
* Capturing a live event with video requires students to engage their planning, critical-thinking, and time-management skills.
* By learning to use speed and motion effects in video clips ​ and photos, students improve viewer focus and a video’s ​ dramatic appeal.
* Experimenting with image adjustments like color saturation, contrast, and vignette improves student efficacy of nuanced and custom visual effects.
* Practicing and applying advanced image manipulation skills improves student communication and media literacy.
* Writing a screenplay reinforces composition skills through character and plot development and articulating scene enactments in floor plan designs.
* Integrating appropriate sound effects and music helps students learn how to enhance the emotion of a story and more effectively engage an audience.

## STUDENTS WILL BE ABLE TO

* Record and edit video clips.
* Establish setting and mood.
* Tell a story with engaging videos.
* Properly frame a shot.
* Identify and capture multiple shot types.
* Use the rule of thirds to improve composition”
* Develop a story idea into a treatment.
* Edit a trailer.
* Create and animate a storyboard
* Use iPad as a teleprompter.
* Record creative shots from different angles.
* Use tools to correct a shot’s composition, exposure, and color
* Use your camera’s manual controls to change focus and exposure.
* Conduct an on-camera interview.
* Create a rough cut with iMovie.
* Cover a live event.
* Arrange clips to enhance your story.
* Add movement to still photos.
* Create illusions with simple editing techniques.
* Adjust the color of clips to create custom looks.
* Design and create clips using the green-screen effect.
* Write a screenplay.
* Create a floor plan for camera placement.
* Edit, layer, and mix sound effects and music.

# Music

## 2020 NEW JERSEY STUDENT LEARNING STANDARDS – COMPUTER SCIENCE AND DESIGN THINKING – 8.2 Design Thinking

### Interaction of Technology and Humans

* 8.2.8.ITH.1: Explain how the development and use of technology influences economic, political, social, and cultural issues.

### Nature of Technology

* 8.2.8.NT.1: Examine a malfunctioning tool, product, or system and propose solutions to the problem.
* 8.2.8.NT.2: Analyze an existing technological product that has been repurposed for a different function.
* 8.2.8.NT.3: Examine a system, consider how each part relates to other parts, and redesign it for another purpose.
* 8.2.8.NT.4: Explain how a product designed for a specific demand was modified to meet a new demand and led to a new product.

### Effects of Technology on the Natural World

* 8.2.8.ETW.2: Analyze the impact of modifying resources in a product or system (e.g., materials, energy, information, time, tools, people, capital).

### Ethics & Culture

* 8.2.8.EC.1: Explain ethical issues that may arise from the use of new technologies.
* 8.2.8.EC.2: Examine the effects of ethical and unethical practices in product design and development.

## ISTE Standards for Students

### 1.1 Empowered Learner

* 1.1.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.
* 1.1.c: Students use technology to seek feedback that informs and improves their practice and to demonstrate their learning in a variety of ways.
* 1.1.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.

## 1.2 Digital Citizen

* 1.2.c: Students demonstrate an understanding of and respect for the rights and obligations of using and sharing intellectual property.
* 1.2.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.

### 1.4 Innovative Designer

* 1.4.a: Students know and use a deliberate design process for generating ideas, testing theories, creating innovative artifacts or solving authentic problems.
* 1.4.b: Students select and use digital tools to plan and manage a design process that considers design constraints and calculated risks.
* 1.4.c: Students develop, test and refine prototypes as part of a cyclical design process.
* 1.4.d: Students exhibit a tolerance for ambiguity, perseverance and the capacity to work with open-ended problems.

### 1.5 Computational Thinker

* 1.5.c: Students break problems into component parts, extract key information, and develop descriptive models to understand complex systems or facilitate problem-solving.

### 1.6 Creative Communicator

* 1.6.a: Students choose the appropriate platforms and tools for meeting the desired objectives of their creation or communication.
* 1.6.b: Students create original works or responsibly repurpose or remix digital resources into new creations.
* 1.6.c: Students communicate complex ideas clearly and effectively by creating or using a variety of digital objects such as visualizations, models, or simulations.
* 1.6.d: Students publish or present content that customizes the message and medium for their intended audiences.

### 1.7 Global Collaborator

* 1.7.c: Students contribute constructively to project teams, assuming various roles and responsibilities to work effectively toward a common goal.

### 9.3 – CAREER & TECHNICAL EDUCATION (CTE)

### A/V Technology & Film (AR‐AV)

* 9.3.12.AR‐AV.1: Describe the history, terminology, occupations and value of audio, video and film technology.
* 9.3.12.AR‐AV.2: Demonstrate the use of basic tools and equipment used in audio, video and film production.
* 9.3.12.AR‐AV.3: Demonstrate technical support skills for audio, video and/or film productions.
* 9.3.12.AR‐AV.4: Design an audio, video and/or film production.

### Journalism & Broadcasting (AR‐JB)

* 9.3.12.AR‐JB.3: Plan and deliver a media production (e.g., broadcast, video, Internet and mobile).
* 9.3.12.AR‐JB.4: Demonstrate technical support related to media production (e.g., broadcast, video, Internet, mobile).

### Performing Arts (AR‐PRF)

* 9.3.12.AR‐PRF.6: Create stage, film, television or electronic media scripts in a variety of traditional and current formats.
* 9.3.12.AR‐PRF.7: Describe how technology and technical support enhance performing arts productions.
* 9.3.12.AR‐VIS.2: Analyze how the application of visual arts elements and principles of design communicate and express ideas.
* 9.3.12.AR‐VIS.3: Analyze and create two and three‐dimensional visual art forms using various media.

## 2020 NEW JERSEY STUDENT LEARNING STANDARDS – Career Readiness, Life Literacies, and Key Skills – Personal Finance Literacy

### Civic Financial Responsibility

* 9.1.8.CR.2: Compare various ways to give back through strengths, passions, goals, and other personal factors.

### Financial Psychology

* 9.1.8.FP.6: Compare and contrast advertising messages to understand what they are trying to accomplish.
* 9.1.8.FP.7: Identify the techniques and effects of deceptive advertising.

## 2020 NEW JERSEY STUDENT LEARNING STANDARDS – Career Readiness, Life Literacies, and Key Skills – Career Awareness, Exploration, Preparation, and Training

### Career Awareness and Planning

* 9.2.8.CAP.1: Identify offerings such as high school and county career and technical school courses, apprenticeships, military programs, and dual enrollment courses that support career or occupational areas of interest.
* 9.2.8.CAP.15: Present how the demand for certain skills, the job market, and credentials can determine an individual’s earning power.

## 2020 NEW JERSEY STUDENT LEARNING STANDARDS – Career Readiness, Life Literacies, and Key Skills – Life Literacies and Key Skills

### Creativity and Innovation

* 9.4.8.CI.2: Repurpose an existing resource in an innovative way (e.g., 8.2.8.NT.3).
* 9.4.8.CI.4: Explore the role of creativity and innovation in career pathways and industries

### Digital Citizenship

* 9.4.8.DC.1: Analyze the resource citations in online materials for proper use.
* 9.4.8.DC.2: Provide appropriate citation and attribution elements when creating media products (e.g., W.6.8).
* 9.4.8.DC.7: Collaborate within a digital community to create a digital artifact using strategies such as crowdsourcing or digital surveys.

### Global and Cultural Awareness

* 9.4.8.GCA.1: Model how to navigate cultural differences with sensitivity and respect (e.g., 1.5.8.C1a).
* 9.4.8.GCA.2: Demonstrate openness to diverse ideas and perspectives through active discussions to achieve a group goal.

### Information and Media Literacy

* 9.4.8.IML.9: Distinguish between ethical and unethical uses of information and media (e.g., 1.5.8.CR3b, 8.2.8.EC.2).
* 9.4.8.IML.10: Examine the consequences of the uses of media (e.g., RI.8.7).

## ESSENTIAL QUESTIONS

* How can a podcast be used to develop voice around a well-researched topic?
* What components to a song can be deconstructed to identify rhythmic patterns?
* How can chords and melodies be used to make patterns that create music?
* How do loops make it easier to create musical arrangements?
* What is the importance of developing effective and pleasing audio communication?

## ENDURING UNDERSTANDING

* Music speaks to people in a language that words and images sometimes cannot
* Creating and playing music can help express emotion, communicate ideas, tell stories, and connect with others

## STUDENTS WILL KNOW

* Podcasting helps students develop their voice by practicing and editing their recordings.
* By researching a topic to build a podcast around, students develop skills they’ll use for the rest of their lives.
* Deconstructing a song’s measures and beats helps ​students identify the recurring rhythm patterns of a song.
* Understanding rhythm and beat making allows students ​​ to develop an essential layer of music composition.
* Recognizing and constructing a basic chord progression allows students ​ to create simple musical compositions ​through pattern use.
* Using specific melodic instruments can help students ​reinforce mood ​and communicate emotion in a song.
* Live Loops makes it easy for students to create original ​music ​by arranging loops.
* By arranging loops and adjusting tempo, students learn to reinforce mood and emotion through music.
* Editing the final mix of a song helps students develop skills ​in designing effective and pleasing audio communication.
* The process of leveling and fine-tuning audio requires that students engage in purposeful listening and reflective ​evaluation of the recording’s quality.

## STUDENTS WILL BE ABLE TO

* Record a story with the Audio Recorder and change your voice ​​using effects.
* Preview and select audio loops to enhance the mood of the story.
* Edit audio recordings to create polished interviews and stories.
* “Customize a virtual drummer’s performance using Drummer.
* Recognize note lengths and common percussion instruments.
* Program drum sounds to create a drumbeat using ​the Beat Sequencer.
* “Understand basic chord structures and progressions.
* Play and record chords and melodies using Touch Instruments.
* Layer multiple instruments with drums to create full songs.
* Arrange loops in a Live Loops template to build and ​ record music.
* Record your own remix in the Live Loops grid.
* Capture your own Touch Instrument performances in ​​Live Loops cells.
* Adjust track volumes to balance how they sound together.
* Use automation to adjust volume levels over time.
* Add reverb to increase the fullness of recordings.

Stage 2 – Evidence of Learning

# Apple Everyone Can Create

## Formative Assessment Suggestions

* Question and Answer
* Class Discussion
* Online Discussions (Canvas, FlipGrid, Padlet, Cloud-Shared Documents)
* Journals (Written, Audio, Video)
* Small Group Discussion
* Quizzes/Tests
* Trivia Games (Kahoot!, Gimkit, Blooket, Quizziz)

## Authentic Drawing Assessment Suggestions

* Expressive Word Art
* Sketchnote
* Object Sketch
* Favorite Landscape Sketch
* Portrait Sketch
* Still-Life Sketch
* Logo Design
* Infographic
* Motion Graphic
* Book Art

## Authentic Photo Assessment Suggestions

* Personified Photos
* Portrait from the Past
* Single Photo Story
* Moment in Action
* Personalized Collage
* Photo Documentary
* Reaction GIF

## Authentic Video Assessment Suggestions

* Introduction Video
* Silent Film
* Movie Pitch
* Teaching Show (Tutorial or How-To)
* Documentary
* Live Event Reporting
* Special Effects Sequence
* Stop-Animation

## Authentic Music Assessment Suggestions

* Podcast
* Two-Part Drum Groove
* Instrumental Music
* Short Musical Piece with Loops

## Benchmark Assessment Suggestions

* Photography Portfolio (Keynote)
* Digital Sketchbook (Keynote or Pages)
* Short Film (iMovie)
* Original Song or Cover (GarageBand)

Stage 3 – Learning Plan

# Instructional Map

## Marking Period 1

* Photography (Photo)

## Marking Period 2

* Digital Art (Drawing)

## Marking Period 3

* Music

## Marking Period 4

* Videography (Video)

# Modifications/ Differentiation of Instruction

## Modification Strategies

* Extended Time
* Frequent Breaks
* Highlighted Text
* Interactive Notebook
* Modified Test
* Oral Directions
* Peer Tutoring
* Preferential Seating
* Re-Direct
* Repeated Drill/ Practice
* Shortened Assignments
* Teacher Notes
* Tutorials
* Use of Additional Reference Material
* Use of Audio Resources
* Language Translator Tools or Translated Documents

## High Preparation Differentiation

* Alternative Assessments
* Choice Boards
* Games and Tournaments
* Group Investigations
* Guided Reading
* Independent Research/ Project
* Interest Groups
* Passion Hour
* Learning Contracts
* Leveled Rubrics
* Media Circles
* Menu Assignments
* Multiple Intelligence Options
* Multiple Texts
* Personal Agendas
* Project Based Learning
* Stations/ Centers
* Think-Tac-Toe
* Tiered Activities/ Assignments
* Varying Graphic Organizers

## Low Preparation Differentiation

* Choice of Book/ Activity
* Cubing Activities
* Exploration by Interest (using interest inventories)
* Flexible Grouping
* Goal Setting with Student
* Homework Options
* Jigsaw
* Mini Workshops to Extend Skills
* Mini Workshops to Re-teach
* Open-ended Activities
* Think-Pair-Share by Learning Style
* Think-Pair-Share by Readiness
* Use of Collaboration
* Varied Journal Prompts
* Varied Product Choice
* Varied Supplemental Materials
* Work Alone/ Partner/ Group
* Alternate Materials for Accessibility

# Horizontal Integration – Interdisciplinary Connections

## Math - Drawing

* Artistic Math
  + Introduce a new mathematical concept, such as polynomials. Start by drawing large block letters that spell out the concept word. Create word art by sketching problem solutions in the outline of the word using a variety of lines and styles.
* Geometry and Engineering
  + Create word art that introduces the interconnectedness of geometry and engineering. Choose a structure word such as bridge. Draw large block letters that spell out the word and fill the letters with a variety of lines and geometric shapes.
* Visual Solutions
  + Visualize and remember common ​ math concepts over the course of​ a unit or chapter. Sketchnote a collection of meaningful symbols and doodles that you can use as a reference during lectures or assessment.
* Math in Our World
  + Diagram the solution to a real-world math question. Illustrate the steps it will take to solve that problem. Use words, symbols, and icons to represent how math impacts the world around us.
* Geometric Objects
  + Connect geometric concepts by sketching everyday objects. Find objects made up of circles, squares, and triangles. Sketch the examples ​ and organize them in a journal.
* Parallels and Lines
  + Illustrate examples of parallel and intersecting lines by sketching an everyday object. Locate examples and sketch them using lines and shapes. Add shading to create depth and dimension.
* Land to Scale
  + Demonstrate understanding of scale by drawing a landscape scene. Determine actual distance between points of interest, then calculate the scale for your drawing against the real object. Include a measurement key at the bottom of the drawing.
* Horizontal Lines
  + Demonstrate understanding of proportions by drawing a landscape scene. Select two distinct features on ​ a horizon and estimate their height ​ and width. Calculate a comparison ​ of proportion and include it as a ​ feature label.
* Famous Mathematicians
  + Draw a portrait that celebrates a famous person who used math to ​ make an impact on the world. Include elements that were influenced by ​ the person’s knowledge and ability ​ to solve challenges. Focus on facial proportion and composition.
* Tools of Math
  + Introduce others to a famous mathematician by drawing a portrait. Include tools that helped this person ​ in their work, such as the slide rule, calculator, or abacus. Make the portrait realistic or cartoon-like to exaggerate facial proportion and composition.
* Objects in 3D
  + Capture three-dimensional objects by creating a still life. Find objects like cones, spheres, or boxes. Arrange them and provide lighting that enhances shadows. Create a proportional sketch.
* Tools from the Past
  + Capture the tools used by mathematicians in the past. Create ​ a still life by arranging an odd number of devices that mathematicians ​ used to solve equations. Adjust lighting to add interesting perspective and draw a proportional sketch using the rule of thirds.
* Math Concepts
  + Create a logo to represent advanced mathematical concepts. Use examples of algebra, geometry, and physics. Connect ideas through color, shapes, and other graphic designs.
* Math 123
  + Create a logo to represent the power of basic mathematical understanding. Use examples of addition, subtraction, and multiplication. Connect ideas through color, shapes, and other graphic designs.
* Seeing Is Believing
  + Visualize specific statistics and data with an infographic. Perform research and data collection around a topic of interest. Analyze your findings and present them in tables and charts. Add images and sketches to enhance data points of high interest.
* Working 9 to 5
  + Create an infographic to show occupations that require math and computational thinking skills. Present trends in job growth or decline over the past 50 years, as well as predictions for the future.
* Motion Graphics Ratios
  + Use motion graphics to demonstrate understanding of ratios. Illustrate contrasts in size or scale using Keynote shapes that grow, shrink, or multiply in number.
* Rotational Symmetry
  + Design a new shape that has rotational symmetry. Animate one or more partial turns of the shape to demonstrate this concept before exporting it as a GIF.”
* Functions
  + Create a book to help others understand mathematical functions. Provide pages for function types and function rules. Start with an outline, then create illustrations and write supporting text. Include diﬀerent drawing types, such ​ as word art, still life, and doodles.
* Math Man
  + Create an illustrated book about a superhero who uses math in everyday life. Sketch characters who encounter challenges in which they need to use math to solve a problem. Have the superhero enter the scene and use math to save the day!

## Math - Photo

* Word Problems​
  + Photograph objects to illustrate a ​word problem. Use Camera to capture objects from diﬀerent angles and locations. Create an album for the objects and use Markup to identify ​ the significance of the objects to ​ the problem.
* Shape Shifter​
  + Demonstrate understanding of geometric terms with photography. Identify shapes within objects using Markup. Move the camera to diﬀerent angles to show how the shape flips, slides, turns, or changes with proximity. Use Markup to annotate the shape and its transformation.
* The Shapes of Faces​
  + Augment the study of shapes by taking portrait selfies. Identify geometric shapes in the photo. In Markup, outline shapes to show the geometry in a face.
* Symmetry through Portraits​
  + Demonstrate symmetry in math through portrait photography. Take selfies using lighting and imaging techniques. Crop the photos at the middle point to combine left and ​ right images. Use Markup to identify similarities and symmetry.
* City Math​
  + Photograph an urban landscape to determine what mathematics were used in the engineering of its buildings. Take horizontal and linear photographs to get a full view of buildings.
* An Eye for Shapes​
  + Explore geometry in nature. Photograph landscapes and natural objects. Use Markup to identify shapes and patterns.
* Motion Math​
  + Determine speed through photography. Capture a person running using Burst mode in Camera. Calculate the time interval between photographs and measure the distance covered.
* Parabola​
  + Use Burst mode in Camera to determine the parabola of a basketball being thrown into a hoop. Select photos from key points in the action. Use Markup to determine the path.
* Word Problem Collage​
  + Create a word problem using a photo collage. Photograph the steps in the problem using props and actors. Visually represent the problem using Photos to enhance the images and Keynote to arrange them into a collage.
* Math Principles
  + Demonstrate mathematical principles through photography. Use nature ​ and object photography to capture a principle. Arrange the photographs in a collage to create a visual demonstration of the math.
* Photographing a Tutorial​
  + Document the solution to a mathematical problem by creating a step-by-step tutorial. Draw each step to the solution on a whiteboard. Take ​a photo of each step. Create a video using the photos in sequence.
* Math in Me​
  + Celebrate and encourage math learning by taking selfies next to solved math problems. Solve math problems on a whiteboard. Take selfies with the solved problem in the background. Create a photo slideshow to commemorate the accomplishment.
* Fractions in Motion​
  + Make a stop-motion GIF to demonstrate understanding of fractions. Use everyday objects such ​ as toys, food, clay, or paper in your project to show changes to parts of either a whole or a set.
* Multiplication Animation​
  + Reinforce math facts by animating ​ a simple multiplication problem and answer. Photograph everyday objects, then add the photos to Keynote and duplicate them as needed to illustrate the multiplication problem. Add motion to your objects to emphasize meaning.
* Math Journey​
  + Demonstrate understanding of mathematical progress through photography. Create a template in Pages, and add photographs and captions to show understanding ​ of the concepts. Track growth and successful completion of tasks.
* Math Everywhere​
  + Increase awareness of math in the world. Capture photos of the use and impact of math around you. Select favorite photographs and label them ​ in a photo album demonstrating a real-world math concept. Share the album with others.

## Math - Video

* Math Riddle​
  + Explain a mathematical concept or solution by making a video. Write a riddle about the concept. Record the riddle in Clips using Live Titles. Add music, filters, stickers, and text for ​ fun. Provide the answer at the end.
* I Solved It!​
  + Create a Clips video explaining the solution to a challenging math problem. Add music, filters, text, and stickers ​ for impact.
* Silent Math​
  + Demonstrate knowledge of a math solution set by creating a short silent video. Apply the concept to a problem and write a script describing the process. Illustrate the problem using Clips, and include video, filters, ​ and text.
* Math Drama​
  + Practice math problems by creating ​a silent film. Solve problems on a whiteboard and record it using Clips. Mute all audio and add background music to create mood or emotion.
* Solve a Story​
  + Explain a mathematical theory through dramatization. Create an animated storyboard that builds in a math question or problem. Use the storyboard to challenge others ​ ​to provide solutions.
* Animate Math Functions​
  + Demonstrate understanding of mathematical functions with an animated storyboard. Add movement such as ​a ball falling, flipping, rolling, and stopping. Describe the math functions that you can derive from ​ the action.
* Equations Show​
  + Demonstrate how to solve equations with a video in the style of a cooking show. Use props to represent variables and numbers. Combine it with other videos in Clips to create an equations cookbook.
* Video Mathematics​
  + Create a math concepts tutorial using video. Choose a math concept that occurs in everyday life, and explain the problem using Clips. Use text, stickers, and music for impact.
* Statistics at Its Best
  + Learn about statistical analysis by creating a documentary. Interview business and economic experts about how they use statistics. Add titles and transitions in iMovie for effect.
* Make Math Famous​
  + Learn about important math discoveries by creating a documentary. Research famous mathematicians and their contributions to our world. Interview teachers, engineers, and others about how those findings are applied in everyday life.
* Calculation Challenge​
  + Cover a live math contest as teams propose unique and varied solutions ​to mathematical problems. Capture video and audio interviews using Camera and microphones. Edit the video in iMovie, and include titles ​ and background music.
* The Mathematics of Sports​
  + Record a live sporting event as a ​math expert provides commentary, mathematically analyzing the game ​and sports statistics. Add graphics ​and sound effects for impact.
* Go Figure
  + Tell a story that shows how a math problem can be solved. Illustrate the solution by using match cuts to make items appear and disappear.
* Epic Proportions
  + Make a video that explains proportions by showing objects of different sizes ​in relation to each other. Get creative and use the green-screen feature to combine shots so that large items appear small and small items look giant.
* Famous Mathematician​
  + Document the life of a mathematical pioneer by creating a screenplay and producing a film. Capture video using Camera and edit it with iMovie. Add titles, transitions, music, and sound effects for emphasis.
* Math at Work​
  + Emphasize the importance of math skills in everyday occupations by producing a short film. Write a screenplay about using math on the job, rehearse it, and capture video using Camera. Edit with iMovie, ​then add music and sound effects ​​for impact.

### Math – Music

* Math Moments
  + Create a podcast about solving a ​math problem you might encounter in an everyday situation. Introduce the concept behind the problem, and then explain the steps and skills needed to solve it.
* More or Less
  + Analyze the numbers and statistics used in a political debate or news report by creating a podcast. Use ​Apple Loops for intro, conclusion, ​and transition music.
* Math Rhyme
  + Demonstrate your understanding of ​a math concept ​by creating a rhyme about it. Create a background beat ​ for your poetry using Drummer, Beat Sequencer, or Apple Loops. Add your voice to the beat using the ​Audio Recorder.
* Fractions and Subdivisions​
  + Explore fractions and subdivisions using the Beat Sequencer. In Pattern Settings, select a step length of 1/8, 1/16, or 1/32. Create patterns using different drums and percussion instruments representing the subdivision of beats. Play and ​ record ​the pattern.
* Math Pattern
  + Share your understanding of patterns ​ in math by creating an original melodic pattern. Use the Autoplay feature in Touch Instruments such as the Smart Piano or Guitar to create sections with different chord progressions.
* Math Facts​
  + Make math facts more memorable ​by creating learning songs. Use Touch Instruments or Apple Loops to create ​ a song about the Fibonacci Sequence ​or other math facts. Share the song with others to reinforce or enhance understanding.
* Mathematical Relationships​
  + Create a mathematical relationship using Apple Loops. Use the Loop Browser and choose one loop that ​ lasts eight bars (32 counts) and one that lasts two bars (8 counts). Add both to a Live Loops template so that they play together. Calculate the number of times the short loop has to play to be the same length as the longer loop.
* Number Sequences​
  + Understand number sequences by using the World of Numbers template in Live Loops. Create a number sequence using number loops in any language and add a simple drumbeat to create rhythm. Record the performance. ”
* Math Olympics
  + Record commentary during a live Mathematical Olympiad event. Analyze the math puzzles and solutions by discussing problem-solving strategies with a cohost. After recording, enhance the commentary with sound effects and background music using Apple Loops.
* Order of Operations
  + Create an original song to help you remember the order of operations in ​ an equation. Record background tracks with drumbeats, Touch Instruments, and loops. Record lyrics and add voice presets using the ​Audio Recorder.

## Language Arts - Drawing

* Significant Vocabulary
  + Explore significant vocabulary in a ​work of literature by creating word art. Design the words using line styles, shapes, and shading that help reveal the word’s significance to the story.
* Reading Comprehension
  + Create word art to demonstrate ​reading comprehension. Choose ​ a word or short phrase in a piece ​of literature, then draw an abstract ​version of the word(s) using shape ​ and color to express the mood or ​ feel of the composition.
* Language Learning
  + Practice language skills by sketch noting. Include sketches to help build understanding of words used across multiple languages.
* Novel Notes
  + Build reading comprehension by sketch noting while reading a piece ​of literature. Visually capture the big ideas, story elements, characters, ​ and themes in the book.
* Visual Reading Summary
  + Summarize a reading section or chapter by identifying an object of interest that appears in the story. Sketch the object, highlighting lines and basic shapes. Add value to it using simple shading techniques.
* Sketch Reading Highlights
  + Demonstrate understanding of a written account by sketching an ​object described in the reading. Add value to the sketch with simple shading techniques. Highlight lines ​and basic shapes.
* Sketch a Scene
  + Illustrate a landscape scene of a physical environment described in ​a book. Add detail and color for a realistic appearance. Add depth through perspective and point of view. Add descriptive captions describing elements in the landscape.
* Story Settings Sketches
  + Capture the setting of a story by drawing a landscape scene. Add elements seen from the perspective of multiple characters. Apply point ​of view.
* Poetry Verses
  + Study a poem that describes the physical characteristics of a person. Draw a portrait of the person based on how they were described. Consider shape, tone, proportions, color, texture, form, and composition as depicted in the poem.
* Main Character
  + Draw a portrait of the main character ​in a story. Express the person’s ​likeness and personality through ​facial expression and characteristics. Add elements that make the portrait realistic, cartoon-like, or abstract.
* Story Details
  + Understand the details of a book or story through a still life. Identify an object in the story that has significant meaning. Adjust lighting to add interesting perspective.
* Compare and Contrast
  + Compare two similar objects described in a book or story through a still life sketch. Create a proportional sketch by sketching the items next to each other on a table. Adjust lighting to create interest and focus on specific features that make the items similar but unique.
* Publishing Logo
  + Create a logo for a book publishing company. Communicate the brand through color, lettering, and graphics. Integrate designs that convey specific beliefs and values of the company.
* Book Series Logo
  + Create a logo for a book series. Use hand lettering and sketches to convey understanding of the books’ genre.
* Spoken Languages Across the Globe
  + Illustrate spoken languages across the globe in the form of an Infographic. Include population numbers, countries, and the number of people speaking more than one language. Provide information on which languages are easier to learn and why.
* A Picture Is Worth a Thousand Words
  + Visually analyze the plot and characters of a story or book. Create an infographic by replacing paragraphs of text with easy-to-understand visuals. Add graphics or sketches to represent information.
* Symbolic Shapes
  + Make symbols for themes or vocabulary words from literature ​using new shapes you’ve created in Keynote. Add motion, text, or audio ​ to the shapes to create a short video explaining your symbols.
* Story Plot
  + Summarize a book or tell a story using motion graphics. Use shapes to represent the setting, characters, or other important elements of the plot.
* Book Designer
  + Design a book of sketches that convey a visual message to others. Identify the most important moments and represent each in a single scene. Plan, write, illustrate, and publish the book for an intended audience.
* Young Authors
  + Plan and publish a children’s picture book for young readers. Develop the plot and visualize how it will unfold during the story. Use age-appropriate dialogue and bring characters to life in sketches. Lay out the book, then publish it.

## Language Arts - Photo

* Personification​
  + Practice fictional writing skills by creating a story that personifies an object. Take photos of an object and use Markup to add human characteristics. Tell the story of ​the object through writing.
* Storytelling with Photos​
  + Tell a personalized story by capturing photos of everyday ​objects. Use Markup to bring the photos to life. Create an album to collect and share the story.
* Poetry of Portraits​
  + Create poetry prompts by making a portrait photo. Add expression that shows emotion and mood. Write a haiku or poem that reflects the portrait, then use Markup to write the poem on the portrait.
* Portrait Moods​
  + Use the basics of lighting to create inside and outside portraits to be included in language projects. Use techniques to reveal the ​mood, interests, and personality ​of the subject.
* Create the Scene​
  + Reenact the setting of a novel using photography. Read for detail and create the scene. Take photos using vertical, horizontal, or panoramic mode.
* Nature’s Inspiration​
  + Practice literary writing by describing a landscape photograph. Take a photograph of an inspiring place or ​ a special urban environment. Write ​ a descriptive paragraph that details the photo and the mood it creates.
* Poetry in Motion​
  + Introduce haiku with a motion photo. Capture an action shot such as a flying bird, a dog running, or leaping for joy using Live Photos. Create a haiku to add poetry to the shot. Add dramatic blur or other photo eﬀects to enhance the poetry and image impact.
* Action Photos​
  + Analyze a scene in a novel using action photography. Act out the scene and take Live Photos of the action. Add the photos to an album to create an image story of the scene.
* Poetry Collage​
  + Connect imagery and words through photography. Write a poem and take photos that support its meaning. Add impact to the meaning of the poetry through a collage that includes the poem and photographs.
* Reading Record Collage​
  + Use a photo collage to showcase a reading log. Take photos of book covers and create an album. Enhance the images and use Keynote to arrange them into a collage using Instant Alpha, masking, lettering, and drawing.
* News Reporting ​
  + Document an event through photography. Capture facts, context, and emotion to tell the story through photos. Create a video of photos to present to others.
* Vocabulary Tutorial​
  + Build vocabulary by creating a slideshow of photographs that represent learning words. Use images for retrieval practice of words and their definitions.
* Visual Poetry​
  + Animate a short poem by combining animated text and multiple images in Keynote. Include photos masked using Instant Alpha and hand-drawn doodles to visualize your poem.
* Storytelling GIF​
  + Tell a story with photos of one or more objects or people. Add photos of your subjects and mask them in Keynote using Instant Alpha. Add multiple transitions, builds, or actions to convey a message or better communicate a sequence. Add details to the story with text or doodles.
* Social Media Post​
  + Describe the journey of a character in a novel by photographing 10 places that represent the character’s travels. Post your favorite photographs to social media. Ask followers to leave comments about the mood and feeling of the locations.
* Book Stamps​
  + Create a personalized book stamp in Keynote (“This book belongs to”). Each time you read a book, take a photograph of the cover or a symbol of the story. Add the photo to the book stamp. At the end of the year, share book stamp slides with the world to demonstrate your reading accomplishments.

## Language Arts - Video

* Establishing Shots​
  + Explore setting in a short story using video. Start with an on-camera introduction by someone portraying a character in the story. Create a montage of the setting where the character grew up. Record shots from different perspectives to add variety to the montage.
* Reading Reflection​
  + Reflect on and analyze a story with video. Use Clips to record a reflection of the plot, style, characters, and setting. Add Live Titles and posters as transitions.
* Shakespeare with Titles​
  + Understand the details of Shakespearean plays by acting out scenes and recording them using Clips. Use Live Titles and read the script for each scene. Mute clips with no audio and add background music for effect.
* Six-Word Story​
  + Use creative thinking and vocabulary skills to write a story with six words. Tell the story using six unique camera shots. Add Live Titles in ​Clips for impact.
* Literary Animatic​
  + Present a scene from a novel or short story you’ve read. Design a storyboard of the scene and add animation in Keynote to create an animated storyboard.
* My Best Read​
  + Pitch an idea for a movie about a favorite novel or story using a trailer. Create a new project in iMovie, choose a trailer template that’s right for your story, then storyboard the shots you’ll need to capture. Assemble the trailer and share it for reading promotion.
* Fictional Writing​
  + Share tips about parts of speech by creating a video tutorial. Write a short fictional piece incorporating the tips and record the process with Camera. Edit with Clips using posters and text.
* Study Habits​
  + Demonstrate good reading habits ​with a video tutorial, using iPad as ​a teleprompter. Edit the video with Clips. Add text, stickers, and emoji ​to emphasize tips.
* Author, Author!​
  + Champion the writing process by creating a documentary about a story and how it came to be. Research or interview the author of a novel and others who have read it. Combine audio recordings and video clips in iMovie. Add music and transitions for effect.
* Grammar Guide​
  + Compile grammar advice by creating a documentary. Interview grammar experts about rules of grammar. Combine titles and transitions in iMovie. Include the experts’ favorite grammar faux pas as outtake footage.
* Poetry Slam​
  + Celebrate student writing with a poetry slam. Record the live event with Camera. Edit a rough cut with iMovie, add speed effects and motion to photos, then share the video with ​ the community.
* Speech Contest​
  + Build speaking and listening skills ​by recording a live speech contest. Capture photos, video, and audio using Camera. Use iMovie to edit the video and add photos.
* Frame of Mind
  + Interact with a fictional character through a magic portal. Mount a green screen in a doorway, mirror, or picture frame for the foreground shot. Capture a plate for the fictional character, then composite the shots with the green-screen effect in iMovie.
* Two-Sided Argument
  + Choose a topic and write an argument and a counterargument. Capture video of yourself presenting one side of the argument. Then set up a green screen and record yourself responding with the counterargument. Combine the shots in iMovie to make a video in which you’re debating the topic—with yourself.
* Novelette​
  + Summarize a chapter from a novel or story by adapting it into an original screenplay and creating a film. Capture video with Camera and edit it using iMovie. Add cinematic sound effects and music for impact.
* Literary Genres ​
  + Build understanding of literary genres by writing a screenplay. Choose a genre such as fiction, nonfiction, or drama. Create a script, paying attention to style, structure, subject matter, and figurative language. Create a storyboard for the film. Draw floor plans in Keynote and hold a rehearsal for actors. Capture video with Camera and edit using iMovie.

## Language Arts - Music

* Story Time
  + Record a folktale or short story from anywhere in the world using the Audio Recorder. Afterwards use Apple Loops to add music and sound effects to enrich the story.
* Book Club
  + Connect a community of readers by creating a book club podcast. Pick a book and then interview others who’ve read it. Discuss a different chapter in each podcast episode.
* Vocabulary Rap
  + Practice vocabulary by recording a rap song using the Audio Recorder. Choose from vocabulary words relating to an area of study and explain them. Enhance the rhythm by adding Apple Loops to create a background beat.
* Rhythm in Poetry​
  + Understand the rhythm of poetry by creating background beats. Create meter-matching drumbeats to play as backgrounds to classic poems, limericks, and other literary works. Change the tempo to match the ​spoken meter.
* Scene Song
  + Identify the rising action, suspense, ​and resolution of a scene in a novel or story. Build an instrumental song using Smart Strings, chords, and Autoplay. Record the song as background music for ​the scene.
* Simple Progressions​
  + Create a musical arrangement using Touch Instruments. Choose text from ​​a limerick, nursery rhyme, or silly story and record it with the Audio Recorder. Use Autoplay to arrange chords based on a simple progression. Recite the text as a live performance while the background music plays.
* Character Development​
  + Express the personality of a character in a story through music. Use a Live Loops template and Apple Loops to create music that matches the character’s traits, actions, or attitude.
* Story Moods​
  + Imagine that you’re turning a story into a movie. What would the music soundtrack be like? Choose a passage from a book, then browse through Apple Loops by descriptors and audition them to find loops that match the emotion of the passage. Record your performance.
* Language Radio
  + Partner with a student who speaks another language and create a language learning podcast. Record short phrases pronounced by the native speaker of the language, then record yourself repeating them.
* Audio Book
  + Understand the details of a play by acting out scenes and combining ​them into an audio book. Record a dialogue scene with other students, then edit the recording so each voice is on a separate track. Mix the volume levels to create balance. Use sound effects and music from ​Apple Loops ​to establish setting and mood.

## Science - Drawing

* Cell Division Word Art
  + Outline the phases of cellular division through word art. Draw block letters ​for the word mitosis or meiosis. Use shapes, lines, and shading to sketch each step inside letters.
* Habitat Word Art
  + Illustrate the diversity of habitats using word art. Draw the name of a habitat type in large block letters. Fill each letter with lines, patterns, and colors that represent physical and biological characteristics.
* Evolution of Science and Tech
  + Illustrate the evolution of a product that was developed through scientific exploration and inquiry. Combine ​ key words, arrows, and sketches to demonstrate how the product changed and improved over time.
* Prototype Your Ideas
  + Document the initial stages of an invention through a series of sketches. Create a sketch note that maps ideas as they’re planned, created, built, and tested.
* Nature’s Characteristics
  + Observe and then document defining characteristics of natural objects by sketching what you see. Use a combination of shapes, lines, and shading to create simple visual representations.
* Biomimicry
  + Identify and illustrate man-made objects that mimic characteristics of objects in nature. Use shapes, lines, and shading to sketch the objects side by side, highlighting similarities.
* Ecosystem Landscapes
  + Illustrate the diversity of ecosystems by drawing a landscape scene. Provide the perspective as if you were an animal that lived in the ecosystem. Use color and point of view to define unique elements. Include images of animals, plant life, and geography.
* Weather Phenomena
  + Sketch a landscape scene that demonstrates seasonal weather conditions and the impact on the area. Use observational skills and point of view and add detail and color for a more realistic scene.
* Beauty in Diversity
  + Celebrate and honor diversity around the world. Create a side-by-side portrait of two diﬀerent subjects, showing similarities and diﬀerences.
* Science Hero
  + Create a portrait of a scientific hero whose research and contributions have improved the world. Capture the personality of your subject in a setting related to their field of study.
* Look What’s Inside
  + Show how internal structures of organisms work by drawing a still life. Consider adaptations that allow specific functions, such as gills in fish, hollow bones in birds, or xylem​ in plants. Use the drawing tools in Keynote and animate your drawing using the Line Draw build.
* Look What We Found
  + Create a still life using a collection of objects brought back from a field trip. Arrange the objects so they document the progression of the trip or emphasize how each is related to the others.
* Visual Tech
  + Design a logo to be used by a technology company. Consider the products they build and the impact they have on our everyday lives. Pick colors, styles, and graphics that represent the company’s values and beliefs.
* Perfect Pet
  + Design a graphic logo to represent a group of animals, such as vertebrates or invertebrates. Use shapes, colors, and typographic styles to convey specific characteristics. Include hand lettering and images to create a powerful logo that demonstrates the traits of the group.
* Weather Watch
  + Create an infographic that represents weather trends for a specific area over the past 100 years. Use sketches to illustrate types of weather conditions. Show trends over time for temperature and rainfall.
* Recycle and Reuse
  + Create an infographic that shows the global impact of plastics recycling using data and visual representation. Research and collect data on the impact of plastic water bottles on the planet. Present data in charts and create drawings and animations that bring the data to life.
* Animated Infographic
  + Use motion graphics in Keynote to illustrate a scientific fact or bring an interesting statistic to life. Add motion to text, numbers, or shapes to emphasize important information.
* Laws of Motion Graphic
  + Demonstrate understanding of the laws of motion or any other physics concept by animating Keynote shapes.
* Vocabulary Dictionary
  + Create a visual vocabulary dictionary with sketches. Compile drawings and definitions into a Pages book template. Enhance pages with photos and videos of real-world examples. Export and share your vocabulary dictionary as an ePub book.
* Collision Lab Manual
  + Design and publish an interactive book or comic strip that illustrates the principle of conservation of momentum. Start with an outline, then create illustrations and write supporting text.

## Science - Photo

* Up Close​
  + Document details of rocks, plants, or insects with photography. Get in close and take photos, then use Markup to identify and label key characteristics.
* Life Labels​
  + Take photos that show the diversity ​ of local flora and fauna. Organize ​ shots into an album in Photos. Use Markup to label and identify defining characteristics of your subjects.
* Temperature of Color​
  + Explore the science of color temperature through portrait photography. Experiment with artificial lighting sources, such as incandescent, fluorescent, or LED, and observe the shift in white balance.
* Photographing Heredity​
  + Document the passage of genetic ​traits through generations with portrait photography. Identify similar traits in relatives, such as eye color in grandparents, parents, and children. Take a group portrait that shows genetic transfer from one generation ​ to the next.
* Defining Sustainability​
  + Demonstrate understanding of sustainable food systems through photography. Capture scenes of visual imagery using horizontal, vertical, and linear panoramic photos. Compose a scene that tells the story through a single photo.
* The Colors of Daylight​
  + Explore the science of color temperature through landscape photography. Compose an outdoor scene and take the same photo at diﬀerent times of the day. Compare photos and describe how outdoor variables can lead to color temperature shifts.
* Stop-Action Science​
  + Capture freeze-frame action shots from a science experiment with Burst mode in Camera. While maintaining a safe distance, snap fleeting details, such as the moment of impact or the ignition point. As variables are introduced, capture additional photos and compare the results.
* Slow Shutter Science​
  + Explore the physics of moving objects with Live Photos. Take Live Photos of a moving object. Then review the photos to analyze trajectory. Apply the Long Exposure setting for a blurred motion eﬀect and add the photo to a lab report.
* Science Scrapbook​
  + Create a photo collage that documents each step of a science experiment. Crop, edit, or markup photos, then use Keynote to combine and arrange them onto a single slide. Apply borders and masks, then add text or drawings that explain each step.
* Ecosystem Collage​
  + Create a photo collage that shows the relationship between plants and animals in a local ecosystem. Take photos of relevant flora and fauna, as well as nonliving physical elements that play a role. In Keynote, arrange photos into a balanced composition that illustrates how everything is linked together.
* Breakup to Buildup​
  + Take photos that show examples of mechanical and chemical weathering, erosion, and deposition. Create a slideshow in Photos that shows the complete weathering and erosion cycle, from breakup to transport to buildup.
* A Recycling Story​
  + Tell the story of a recyclable object in a series of photos. Take photos that show multiple phases, as well as potential recycling pitfalls. Make a Memory movie with the photos that shows the object’s entire life cycle.
* Stop-Motion Science​
  + Make a short stop-motion or animated GIF using photos to show the scientific process in a science experiment. Add doodles or text to explain each step.
* Passage of Time​
  + Take before-and-after photos or a photo sequence of an object, a place, or a person that changes over time. Choose a subject such as a blooming flower or changing sky. Photograph your subject at two or more times of the day, or over a period of weeks or months. Add a dissolve transition to the images in your GIF to better observe changes that are difficult or impossible to see in real time.
* Lab Journal​
  + Document lab procedures in a photo journal. Create a page for each experiment. Use photo galleries with captions that show materials, testing, analysis, and a conclusion for each experiment. Include a brief learning summary on each page.
* Favorite Experiments​
  + Document science experiments that lead to a learning outcome. Take and collect photographs of a process and add them to an album in Photos.

## Science - Video

* Collision Lab Video​
  + Provide a demonstration of the conservation of momentum principle using Clips. Capture the hypothesis and several trials with various conditions. Show the principle in ​ a real-world setting, adding text, stickers, and Live Titles.
* Element of Surprise​
  + Create a short video introduction of a personified element from the periodic table using Clips. Add more shots and photos for a montage of where and how the element exists in the physical world.
* Nature Film​
  + Show the power and drama of the environment by creating a silent film. Capture shots of the outdoors using Camera and combine them with Clips. Mute all audio, ​and add music ​ to emphasize ​nature’s impact.
* Environmental Changes​
  + Analyze seasonal changes in the environment by capturing a shot ​in the same location once a week. Add the shots to a Clips project, then trim clips for consistent timing to view changes over the seasons.
* Ecology Trailer​
  + Explore and research an ecological issue in a community. Create a storyboard and trailer to pitch a movie idea about ​a solution.
* Storyboard Animation​
  + Create a science experiment or an engineering challenge to explain through a video. Animate a storyboard for the challenge and share it with others for suggestions and review.
* Science Animations​
  + Explain a scientific concept with animations in Keynote. Export the presentation in movie format and add it to a new Clips project. Using iPad as a teleprompter, create a tutorial that explains the principle to others.
* Science Safety​
  + Reinforce lab safety rules by creating a series of tutorials that demonstrate best practices. Write a script that supports each rule, then record video in a new Clips project while using iPad as a teleprompter. Add text, stickers, and posters to emphasize important details.
* Facing Climate Change​
  + Explore and document the effects ​ of climate change on a local habitat. Create a documentary that includes interviews with experts. Use B-roll footage to enhance the narrative. Share it with community members to raise awareness.
* Life Cycle Story​
  + Explore the life cycle of a species by creating a documentary. Present each major phase of life along with the environmental factors that impact growth and development. Edit with iMovie and add transitions and music to enhance the story.
* Live Science​
  + Capture the action and excitement of a science demonstration with a live report. Record video and take photos from multiple angles to document the event and observers’ reactions. Highlight key moments by applying motion to photos in iMovie.
* Weather Preparedness​
  + Help the public prepare for an impending storm or another weather event by creating a live video broadcast. Use props and effects ​ to simulate weather conditions and demonstrate ways to stay safe during the event.
* The Forces of Erosion
  + Record video or take photos of an environment that shows signs of erosion. Use the green-screen effect in iMovie to place yourself in the scene as you explain how the erosion occurred.
* Journey to the Uninhabitable
  + Use the green-screen feature to take a trip to a place on Earth uninhabited by humans. Use Photos to adjust your foreground video clips to match the color and look of the environment.
* Future Science​
  + Inspire the next generation of science innovation by producing a short film that imagines future inventions. Use Keynote to create a storyboard. Rehearse the story, capture video with Camera, then edit the film with iMovie. Add music and sound effects for impact.
* Science Heroes​
  + Celebrate the contributions of scientists by producing a film about their discoveries. Write a screenplay and rehearse it, capture video with Camera, and edit with iMovie. Add visual effects and music to bring the story to life.

## Science - Music

* Science Weekly
  + Record a podcast that explores scientific questions fueled by your curiosity about your world. Interview scientists in the community about ​ how they do research and apply it in their work. Use Apple Loops to add transition music between sections of the podcast.
* Public Service Announcement
  + Record a public service announcement that encourages people to make handwashing a habit for staying healthy. Using the Audio Recorder, cover the steps for how to wash hands thoroughly, then use Apple Loops to add sound effects.
* Rhythm in Nature​
  + Create simple beat patterns that mimic events or actions in nature. Build sequences that represent the heart rates of different animals, or the walking patterns of bipeds, quadrupeds, or other multilegged creatures.
* Musical Mnemonics
  + Create a musical study guide to remember things like chemical properties or taxonomy. Use Drummer and Apple Loops to build a background track. Recite the words in a rhythmic melody.
* A Journey Through Space
  + Record background music and sound effects to accompany a photo slideshow about space exploration. Use Touch Instruments, drumbeats, and Apple Loops to set the scene. Add the soundtrack to your presentation.
* Carnival of Animals
  + Create an instrumental song in which different chord sequences represent the movement of various animals. Use Touch Instruments to convey the size, speed, and actions of each creature. Enhance the song with additional rhythms or sound effects using Apple Loops.
* Volcano Eruption
  + Create a soundscape for the different stages of a volcano erupting. Use instruments or props to record noises of steam, lava, and magmatic explosions into Live Loops cells. When playing your soundscape, trigger multiple cells simultaneously to create more complex sound effects.
* Habitat Chat​
  + Create an imaginary conversation between animals using Apple Loops. Write a narrative script about a topic that relates to the animals and their everyday behavior. Audition animal sounds from the Animal Kingdom Live Loops template and record sounds that fit the mood and tone of the conversation.
* Nature Audio Guide
  + Create an audio walking guide for a local ecosystem. Research facts and figures about the flora and animals in the habitat. Record your voice narration using the Audio Recorder. Collect nature sounds to create an original composition to use as a sound bed.
* Weather Phenomena
  + Create a soundscape that represents one of the four seasons using the Audio Recorder. Choose a season and capture different weather sounds. Mix the sounds and add music using Apple Loops.

## History and Social Studies - Drawing

* Words in the News
  + Explore current events, identifying words that appear across a variety of news sources. Create word art by drawing the words in block letters. Fill the letters with line styles, shapes, and shading that reflect the meaning and tone of each word.
* Founding Documents
  + Examine a significant historical document and explore the importance and meaning of key words. Create word art by drawing selected words in block letters and filling the letters with lines and shapes that express the meaning of those words.
* History Timeline
  + Capture the impact of a historical event through sketch noting. Watch a documentary or informational video of an event in history. Sketch note a timeline to show what happened leading up to the event and the impact after it.
* Traditions and Customs
  + Create a sketch note on a presentation of family traditions and customs. Use a combination of text and images to share what you learn about the music, food, and dance of diﬀerent cultures.
* Drawing Objects from History
  + Examine historical photos and select an object of interest to sketch. Use observational skills and sketch the object. Combine shapes like spheres, cones, cylinders, and boxes. Add value to the object with simple shading techniques.
* Clothing Styles of the Past
  + Illustrate the dress code of a diﬀerent time period by choosing an article of clothing you find interesting and creating a sketch. Break the article into smaller shapes like circles, squares, and triangles.
* Landscaping the Past
  + Create a before-and-after landscape scene depicting changes over time. Choose a historical place and create a landscape as it might appear 100 years in the future. Add detail and color for a more realistic appearance.
* History Places
  + Create a landscape scene of a place of historical significance. Include landforms, buildings, and water elements. Apply point of view and perspective.
* Political Personalities
  + Create a portrait that captures the personality of someone in a political oﬃce. Focus on the person’s facial expression and characteristics by making your drawing realistic or cartoon-like. Include elements that would reveal what part of history ​ the person is from.
* History Portrait
  + Create a portrait that is either realistic or cartoon-like in a historic location. Capture facial expression and other characteristics. Include clues that would help identify the person’s likeness and personality.
* Artifacts
  + Bring history to life by drawing a still life. Choose an odd number of items that represent a time in history or a significant historical event. Draw a proportional sketch applying the rule of thirds and adjust lighting to add interesting perspective.
* History Stills
  + Authenticate a time in history by composing a still life. Take a photo of an arrangement of historical relics and import it into a drawing program. Apply the rule of thirds while drawing. Trace the items and then remove the photo to expose your drawing.”
* Tourism Logo
  + Create a tourism logo for a community, state, or country. Include color, lettering, shapes, and sketches that identify celebrations, traditions, and history. Communicate the message with limited words.
* Family Coat of Arms
  + Design a family coat of arms. Add color, lettering, sketches, shapes, and graphics that reflect family values, heritage, stories, achievements, and traditions.
* News Illustrations
  + Illustrate a specific news headline ​ or story with an infographic. Identify stories that appear across a variety of sources. Get a clear understanding of the story and make a plan. Use charts, shapes, and sketches to communicate the message of the story visually.
* Population Trends
  + Create an infographic that illustrates the population trends of two large cities. Research population increases over the past 100 years. Visually represent the trends with charts, shapes, and sketches to simplify complex concepts and communicate the message visually.
* Historical Places
  + Re-create a scene from a time or place in history using shapes in Keynote. Customize existing shapes, if needed, to create the objects in your scene. Add motion to the scene to show change or add meaning.
* Exploration Animation
  + Illustrate a famous explorer’s journey on a map using a motion path in Keynote to show the explorer’s route. Add text, labels, drawings, or audio narrations to your scene.
* Build Your Own Learning Content
  + Empower authors to create a book about personal family history and how their story connects others around ​ the world. Create storyboards, design layout, research, write, and illustrate. Include photos and original sketches to add visual appeal.
* Historical Anthology
  + Create a children’s anthology of historical stories. Plan what part of history the book will cover. Write stories of people and what made them famous. Illustrate book pages using drawings, portraits, and sketches.

## History and Social Studies - Photo

* Cultures and Traditions​
  + Explore taking photographs of historically significant items or cultural objects. Use Markup to point out the unique features of each object. Collect photos in an album to show the diﬀerent points of view.
* Change Over Time​
  + Demonstrate the impact of change over time using photography. Take pictures of past technologies and their advancements. Use Markup to highlight significant changes.
* Election Central​
  + Demonstrate the impact of portraits in campaigns. Take portraits to create a campaign poster. Capture the unique personality of the campaigner or the mood and motto of the campaign through photography.
* Emulate a Hero​
  + Learn about historical heroes. Use primary source portraits as models ​to take similar photos of others. Determine the mood and emotion of the primary source and re-create ​the look to better understand the personality and messaging of portraits.
* Art History​
  + Connect art history with the real world by emulating a famous landscape painting through photography. Take a landscape photograph using a style and mood similar to the painted picture. Use Markup to trace distinguishing features.
* Community History​
  + Document local history by composing and capturing a compelling photograph. Express the mood or emotion of the location using filters. Share the photographic story of the place to encourage others to visit.
* Moving History​
  + Bring historic paintings and old photographs to life with action photos. Act out a history scene found in a painting or photograph. Add movement and capture with Live Photos.
* Community Service​
  + Document a community service ​or cultural event with Live Photos ​to bring the activity to life. Share the photographs to encourage ​involvement in local events.
* Community Event Collage​
  + Research and photograph a local community event or project and design a poster collage to highlight its success. Enhance the images in Photos, then arrange them into a photo collage in Keynote using Instant Alpha, masking, lettering, and drawing.
* Things of History​
  + Use photography to explore historical artifacts. Take photographs of artifacts that symbolize a specific time period or event, then arrange them in a collage for impact.
* Court Reporter​
  + Experience famous trials though mock trial simulations. Document the simulation using photography. Write a news story about the trial and augment it with photographs.
* Remember the Facts​
  + Practice retrieval of historical knowledge by creating a game. Photograph an item that represents an important moment in history. Import the photo to a Keynote slide. Create a second slide to identify the item and provide additional details. Play the slides to review.
* Cultural Symbols​
  + Use stop motion to animate a collection of artifacts to represent your culture. Choose three or more significant objects or symbols as the subjects of your GIF.
* Diversity Morph​
  + Photograph two or more faces or hands from the same angle, distance, and position. Add dissolve transitions to morph photos and highlight the beauty of diversity.
* History Artifacts​
  + Photograph artifacts that have family or community significance and create an album. Add your favorite photographs and share with others.
* Visiting History​
  + Explore local history sites, parks, and museums. Take photographs of the artifacts and displays. Add your favorite photographs to a shared album, social media site, or photo slideshow. Provide comments that explain the photos’ significance.

## History and Social Studies - Video

* Who Knew?​
  + Take on the persona of a historical figure from a specific place and moment in time. Create a 1-minute introductory video sharing five important and relevant details about the person. Begin the video with a poster clip that says, “Who knew?”
* History Lessons Speak
  + Demonstrate the influence a group of citizens has on local government. Create a 1-minute introductory video from the perspective of the group and the issues it addresses. Use Clips, and add Live Titles, posters, and music.
* Silent Communication​
  + Communicate news through a silent movie. Create a newsreel in the style of the early days of silent film. Use a variety of shot types and add music.
* Silent Mythology
  + Create a silent movie about a mythological story. Stage a pivotal scene from the story that reveals traits of all the characters. Record the scene with Clips using multiple shot types.
* Local Monument​
  + Research a local monument and tell ​its story with an animated storyboard. Share the historic event behind the monument and the decisions about ​its placement and design.
* Community Stories​
  + Explore a community by learning ​about its past. Research the history ​of the area and create an animated storyboard to pitch a movie idea ​about it.
* Family Heritage​
  + Introduce family history by creating ​a genealogy tutorial. Research family ancestry and create a video with Clips that explains the research process ​and results.
* News Analysis
  + Teach news analysis and ethical journalism through video. Research a local news story and produce a video tutorial about the topic. Share the video with others ​to create public awareness.
* Human Geography​
  + Create a cultural map of under-represented groups using video. Record traditions and celebrations, building empathy and understanding of cultural differences. Edit videos and apply themes that fit the locations.
* Review Through Interviews​
  + Use video interviewing techniques to check for understanding and to review unit material. Record interviews of others about what they learned in ​a history lecture, reading, or movie. Compile and edit interviews in iMovie for review.
* Digital Storytelling On the Go
  + Document a field excursion to a historical site through video. Conduct onsite video interviews focusing on information about the place and on what the subjects found interesting. Record B-roll to add impact.
* Live from the Past!​
  + Simulate a live news report of a ​historic event. Research the details and develop a script or storyboard. ​Re-create and capture video and photos of the event. Edit the video ​with iMovie and use slow motion and photos to add emphasis to important details as the action unfolds.
* Times Change
  + Create a special-effects video about a historical location at different moments in time. Use match cuts to “teleport” to the different moments and explain how the changes happened and what has stayed the same.
* Culture Shock
  + Teleport a character to a new environment in a video that explains and compares places and cultures. Use match cuts and the green-screen effect to create the illusion of teleportation.
* A Story Untold​
  + Create a short film to tell the untold story of a historic event. Write a screenplay, then plan and rehearse ​the story. Capture video with Camera and edit it using iMovie. Add music ​for emotional impact.
* Songs of History​
  + Document an event in history by producing a short film. Write a screenplay and create songs to tell ​the story of the event. Cast actors and plot out scenes in Keynote. Capture video with Camera and ​ edit in iMovie, adding your original music as the soundtrack.

## History and Social Studies - Music

* Innovative Invention​
  + Commemorate an important invention in history by creating a 30-second radio commercial. Describe the needs and challenges that led to the invention. Use sound effects or add a character preset to your voice to support the ad.
* Interview from the Past
  + Interview a historical figure. Start the podcast with a famous quote or speech, then have someone play the role of the person for the interview. Use Apple Loops to enhance the quote with sound effects or background music.
* Drum Roll
  + Explore the history of marching bands by creating a drum cadence for a school parade. Develop a beat pattern using the snare drum, bass drum, and ​hi-hat in the Beat Sequencer. Change the tempo to adjust the cadence of the march.
* Rhythm​ and Place
  + Compare beats from different cultures and influences by combining a variety of beat-making methods. Explore various drum kits in the Beat Sequencer to create multiple rhythmic layers. Add Apple Loops with African, Asian, or Latin influences for depth and complexity.
* Melodies from the Past​
  + Re-create music from ancient times. Choose instruments that were in use ​during a specific period in history and record an instrumental ​song using Touch Instruments.
* Musical Milestones
  + Build a song for an important milestone in your life, such as moving to a new school or joining a school team. Combine drums, bass, and keyboard to record a song that expresses your emotions during those moments.
* Remixing a Speech
  + Record yourself reciting part of a famous speech from a person in history. Bring the thoughts, ideals, and perspectives of the speech to life by remixing some passages with Apple Loops that match the mood of the message. Record and share the performance.
* International Music
  + Create and record short songs that represent cultures and traditions from around the world using Live Loops templates. Choose loops inspired by African, Asian, and Latin American roots. Change song settings to personalize your songs.
* Biographical Song​
  + Create a theme song for a famous person ​from the past using Live Loops. Choose loops that reflect the person’s status, personality, or their role in history. Record the performance and use it as opening music for an iMovie or Keynote project.
* On This Day
  + Choose an event of historical significance and brainstorm key phrases that describe it. Put the phrases in chronological order and turn them into a rap using instruments and loops to create the beat. Record your performance.

# Vertical Integration – Discipline Mapping

* This middle school digital media curriculum has been designed to strengthen the students’ 21st century skills as applied to various projects across multiple disciplines acquired from previous years and their current school year.
* This middle school digital media curriculum has been designed to build students’ interest and foundational knowledge to make an informed decision when selecting a technology course in high school such as graphics design and media broadcast.

# Additional Materials

* Apple Everyone Can Create Curriculum
* Toys, Figurines
* Movie Props
* Costumes
* DSLR Cameras
* Video Cameras
* Lighting Equipment
* Green Screens
* Microphones
* Sound Booths
* Soundproofing
* DJI Camera Drones
* iPads
* MacBooks
* GarageBand
* iMovie
* Tayasui Sketches
* Adobe Suite Mobile Apps
* Logitech Crayons