

MILLSTONE TOWNSHIP SCHOOL DISTRICT ELECTIVE CURRICULUM

GRADE: 8

(Updated May 2022)

Unit of Study: Computer Graphics	
<p>Unit Overview: Anchor Standards 1 and 2 for Media Arts:</p> <ul style="list-style-type: none"> • Students will generate and conceptualize artistic ideas and work. • Students will generate ideas, goals, and solutions for original artistic ideas and works through application of focused creative processes, such as divergent thinking and experimenting. • Artists and designers shape artistic investigations, following or breaking with traditions in pursuit of creative art making goals. 	
PACING	
1 Marking period - approximately 45 days	
Enduring Understandings:	Essential Questions:
<ul style="list-style-type: none"> • We live in a visual society. Computer generated images have become a new art form and a powerful means of visual communication. • Graphic design is more than just combining text and graphics; it is the application of art and communication skills. • It takes skill and knowledge from several disciplines to make a printed piece outstanding. • There are many types / forms of computer graphics (included in this course will be animated graphics, web images, print formats using templates, and 3D design images). • Understand the good practices and ethics when designing a new computer graphic. 	<ul style="list-style-type: none"> • What are the key components of a computer graphic? • Where can you get ideas for projects? • What tools do you need to create a computer graphic? • Where can a computer graphic designer work? • What skills are required to become a great computer graphic designer? • How does the skills you learned in art classes apply to computer graphics? • What types of computer graphics are there in the real world? • What is the “purpose” of the image and how will it be used (shared)?
Objectives/Teaching Points:	Grade Level Standards:
<ul style="list-style-type: none"> • Experiment with various templates when designing a computer graphic. 	<ul style="list-style-type: none"> • 8.2.8.ED.1: Evaluate the function, value, and aesthetics of a technological product or system,

- Design a logo and template for a school club/team or a real world purpose.
- Utilize the Internet to foster ideas and create new images from previously made ones.
- Explore software both online and computer based to create something new.
- Investigate various effects and adding them to existing computer graphics.
- Create a 3D image using the CRICUT machine experimenting with various types of mediums (such as material, vinyl, magnets etc).
- Develop an online web page that will include various types of computer graphics which demonstrate the uses of layouts / templates / text formatting / and relevant information.
- Design / draw a personal 'comic' book using several types of software.

- from the perspective of the user and the producer.
- 8.2.8.ED.2: Identify the steps in the design process that could be used to solve a problem.
 - 8.2.8.ED.3: Develop a proposal for a solution to a real-world problem that includes a model (e.g., physical prototype, graphical/technical sketch).
 - 8.2.8.ED.4: Investigate a malfunctioning system, identify its impact, and explain the step-by-step process used to troubleshoot, evaluate, and test options to repair the product in a collaborative team.
 - 8.2.8.ED.5: Explain the need for optimization in a design process.
 - 8.2.8.ED.6: Analyze how trade-offs can impact the design of a product.
 - 8.2.8.ED.7: Design a product to address a real-world problem and document the iterative design process, including decisions made as a result of specific constraints and trade-offs (e.g., annotated sketches).

2020 NJSLC Career Readiness, Life Literacies & Key Skills:

- CRP1- Act as a responsible and contributing citizen and employee.
- CRP2- Apply appropriate academic and technical skills.
- CRP4- Communicate clearly and effectively and with reason.
- CRP5- Consider the environmental, social and economic impacts of decisions.
- CRP6- Demonstrate creativity and innovation.
- CRP7- Employ valid and reliable research strategies.
- CRP8- Utilize critical thinking to make sense of problems and persevere in solving them.
- CRP9- Model integrity, ethical leadership and effective management.
- CRP11- Use technology to enhance productivity.
- CRP12- Work productively in teams while using cultural global competence.
- 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.3 Describe tradeoffs between allowing information to be public (e.g., within online games) versus keeping information private and secure.

9.4.8.DC.4 Explain how information shared digitally is public and can be searched, copied, and potentially seen by public audiences.

9.4.8.DC.5 Manage digital identity and practice positive online behavior to avoid inappropriate forms of self-disclosure

9.4.8.IML.3 Create a digital visualization that effectively communicates a data set using formatting techniques such as form, position, size, color, movement, and spatial grouping (e.g., 6.SP.B.4, 7.SP.B.8b).

Interdisciplinary Connections:

Language Arts: Students will read complex information text in order to follow directions for assignments.

NJSLSA.R10. Read and comprehend complex literary and informational texts independently and proficiently with scaffolding as needed.

VPA-Media Arts:

- 1.2.8.Cr1a: Generate a variety of ideas, goals, and solutions for media artworks using creative processes such as sketching, brainstorming, improvising, and prototyping with increased proficiency, divergent thinking, and opportunity for student choice.
- 1.2.8.Cr1b: Organize and design artistic ideas for media arts productions
- 1.2.8.Cr.1c: Critique plans, prototypes, and production processes considering purposeful and expressive intent.
- 1.2.8.Cr2a: Organize and design artistic ideas for media arts productions.
- 1.2.8.Cr2b: Critique plans, prototypes, and production processes considering purposeful and expressive intent.
- 1.2.8.Cr3a: Experiment with and implement multiple approaches that integrate content and stylistic conventions.
- 1.2.8.Pr4a: Experiment with and integrate multiple forms, approaches and content to coordinate, produce, and implement media artworks that convey purpose and meaning (ex: narratives, video games, interdisciplinary projects, multimedia theatre).
- 1.2.8.Pr5a: Develop and demonstrate a variety of artistic, design, technical, and soft skills (ex: Self initiative, problem solving, collaborative communication) through performing various roles in producing media artworks
- 1.2.8.Pr5c: Develop and demonstrate creativity and adaptability in standard and experimental ways, to construct, achieve assigned purpose, and communicate intent in media artworks.
- 1.2.8.Pr6a: Analyze and design various presentation formats and tasks in the presentation and/or distribution of media artworks.
- 1.2.8.Pr6b: Analyze benefits and impacts from presenting media artworks.
- 1.2.8.Re9a: Evaluate media art works and production processes at decisive stages, using identified criteria, and considering context and artistic goals.
- 1.2.8.Cn10a: Access, evaluate and use internal and external resources to inform the creation of media artworks, such as cultural and societal knowledge, research and exemplary works.

- 1.2.8.Cn10b: Explain and demonstrate how media artworks expand meaning and knowledge and create cultural experiences, such as local and global events.

Learning Experiences:	Assessments:
<p>The following learning experiences will help students explore the big ideas and essential questions:</p> <p>Computer Graphic observation and instruction:</p> <ul style="list-style-type: none"> ● Demonstration of previously made animated graphics, online websites, and 3D designed projects. ● Demonstration of techniques for creating an animated graphic, web design layouts, templates, and 3D design projects using the CRICUT machine. ● Interactions with other students designing new and creative projects. ● Viewing how to videos for new ideas and techniques. ● Worksheets/Checklists to help focus of steps needed to complete projects. <p>Computer Graphic Exploration:</p> <ul style="list-style-type: none"> ● Working with online and computer based software. ● Utilizing Cricut Design Space to create a 3D project. ● Publishing an online web page as part of the class website. ● Students sharing new design and technique ideas for projects. 	<p>Formative:</p> <ul style="list-style-type: none"> ● Teacher observation ● Exit slips ● Checklists ● Student self-assessment <p>Summative:</p> <p>Skills for Assessment</p> <ul style="list-style-type: none"> ● Grading Rubrics which include the following criteria: <ul style="list-style-type: none"> ○ Use of software tools ○ Use of text formatting ○ Layout/ Design flow ○ Creative / New idea ○ Overall Information/Purpose <p>Alternative:</p> <p>Other Evidence and Student Self-Assessment</p> <ul style="list-style-type: none"> ● Follows directions, safety concerns, and classroom procedures. ● Demonstrates creativity within projects. ● Experiments with a variety of tools available in software. ● Seeks to explore options teacher not required/demonstrated to enhance overall project. ● Creates something new from something already designed. <p>Benchmark:</p> <ul style="list-style-type: none"> ● Typing skills monthly assessment

Ideas for Differentiation

Based on the needs of the students, there may be a need for additional teaching points, extending beyond or substituting in for those outlined in the curriculum map.

English Language Learners:

- Speak and display terminology and movement
- Teacher modeling
- Peer modeling
- Develop and post routines
- Word walls

IEP/504 Learners:

- Utilize modifications and accommodations delineated in the student's IEP
- Work with paraprofessional
- Use multi-sensory teaching approaches. Provide helpful visual, auditory, and tactile reinforcement of ideas.
- Work with a partner
- Provide concrete examples and relate all new strategies to previously learned strategies.
- Solidify and refine concepts through repetition.
- Change requirements to reduce activity time
- Chunk tasks into sections to assist with organization and work completion
- Provide graphic organizers and sentence starters as needed

Students at Risk of Failure:

- Using visual demonstrations, illustrations, and models
- Give directions/instructions verbally and in simple written format.
- Chunk tasks into sections to make workload less overwhelming
- Peer Support
- Increase one on one time
- Teachers may modify instructions by modeling what the student is expected to do
- Instructions left on the board/easel for the student to see during the time of the lesson.
- Review behavior expectations and make adjustments for personal space or other behaviors as needed.
- Oral prompts can be given

Gifted and Talented Learners:

- Curriculum compacting
- Inquiry-based instruction
- Independent study
- Higher order thinking skills
- Adjusting the pace of lessons
- Interest based content
- Real world scenarios
- Student Driven Instruction
- Student choice selecting application(s) needed to complete tasks

Suggested Resources:

Student Materials:

Technology:

- Cricut Design Space and Machine
- Web site based software for animated graphics: www.gifmaker.me , www.imgflip.com, and www.heathersanimation.com
- MS Publisher templates
- Web design using www.weebly.com
- Adobe Photo Shop
- MS Paint
- Internet for images
- Google Classroom / Google Drive Shared Documents

Teaching Materials:

Worksheets/ Grading Rubrics

Direction worksheets – Tools for software

Google Classroom/ Documents