

Course: Digital Animation
Unit 3:- Interactivity and Advanced Techniques

Year of Implementation: 2023-2024

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Stage One - Desired Results

Link(s) to New Jersey Student Learning Standards for this course:

{provide all applicable links to standards here}

<https://www.state.nj.us/education/cccs/2020/>

- **Unit Standards:**

- **Content Standards**

- 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.Pr4a: *Experiment with and integrate multiple forms, approaches and content to coordinate, produce and implement media artworks that convey purpose and meaning (e.g., narratives, video games, interdisciplinary projects, multimedia theater).*
- 1.2.8.Pr5a: *Develop and demonstrate a variety of artistic, design, technical, and soft skills (e.g., self initiative, problem solving, collaborative communication) through performing various roles in producing media artworks.*
- 1.2.8.Pr5b: *Develop and demonstrate creativity and adaptability, through processes such as testing constraints and divergent solutions, within and through media arts productions.*

- **21st Century Life & Career Standards**

- 9.2.12.CAP.2: *Develop college and career readiness skills by participating in opportunities such as structured learning experiences, apprenticeships, and dual enrollment programs.*
- 9.2.12.CAP.3: *Investigate how continuing education contributes to one's career and personal growth.*
- 9.4.2.IML.2: *Represent data in a visual format to tell a story about the data*
- 9.4.5.CT.1: *Identify and gather relevant data that will aid in the problem-solving process*
- 9.4.2.CI.2: *Demonstrate originality and inventiveness in work*
- 9.4.2.CT.3: *Use a variety of types of thinking to solve problems*

- 9.4.12.CI.1: Demonstrate the ability to reflect, analyze, and use creative skills and ideas

Transfer Goal: Students will be able to independently use their learning to create animations, troubleshoot bugs, and adapt and apply new technologies.

As aligned with LRHSD Long Term Learning Goal(s): <https://www.lrhhsd.org/Page/6163>

- Utilize and integrate essential communication and technical skills significant to 21st century life, work, and community
- Apply information technology to achieve an organization's business goal
- Create authentic learning experiences to successfully transfer knowledge into real-world experiences preparing them for life and career
- Use technology to extend creativity and/or improve problem solving ability

Enduring Understandings

Students will understand that . . .

EU 1

- *button symbols are essential to creating interactive animations.*
- *interactivity is produced via coding.*

EU 2

- *character rigging makes animation designs realistic.*
- *there are several methods to rigging a character.*

EU 3

- *knowledge and utilization of interactive tools allows for professional animations.*

Essential Questions

EU 1

- *Why do we use buttons in animation design? ctivity?*
- *How can interactivity be integrated into animations?*
- *What types of code can we utilize to make our animations interactive for the view?*

EU 2

- *Why is it important to use character rigging?*
- *How does character rigging work?*
- *What strategies can be utilized to rig a character?*
- *What are the benefits to knowing & using different types of warping tools?*

EU 3

- *Why is it important to include interactivity in animation?*
- *What benefits do interactive tools bring to animation?*

Knowledge

Students will know . . .

Skills

Students will be able to . . .

EU 1

- how to create a button Symbol and the states of a button. (1.2.2.Cr1b; 1.2.2.Pr5a)
- how to use a button symbol to control your animation. (1.2.2.Cr1b; 1.2.2.Pr5a)

EU 2

- why character rigging is essential to creating professional animations. (8.1.2.AP.1; 1.2.2.Pr5a;1.2.2.Cr1b)
- the different tools they can use to rig a character.(8.1.2.AP.1; 1.2.2.Pr5a; 1.2.2.Cr1b)
- when to utilize different warping tools to create a desired effect. (8.1.2.AP.1; 1.2.2.Pr5a; 1.2.2.Cr1b)

EU 3

- the various techniques to incorporate interactivity.(8.1.2.AP.1; 1.2.8.Pr5a;1.2.2.Pr5a)
- how to create professional animation utilizing a variety of tools and techniques.(8.1.2.AP.1; 1.2.8.Pr5a; 1.2.2.Pr5a)

EU 1

- *Explain the states of a button and why buttons are important.*(1.2.2.Cr1b; 1.2.2.Pr5a)
- *Design a button and add appropriate scripts to make it functional.*(1.2.2.Cr1b; 1.2.2.Pr5a)

EU 2

- Explain why character rigging improves animation.(8.1.2.AP.1; 1.2.2.Pr5a; 1.2.2.Cr1b)
- Utilize different Warping tools and features and explain the pros and cons of each tool.(8.1.2.AP.1; 1.2.2.Pr5a; 1.2.2.Cr1b)
(ex: Warping Assesst Tool, Bone Tool, Parenting layers)
- Demonstrate when to utilize specific tools to create a desired effect.(8.1.2.AP.1; 1.2.2.Pr5a; 1.2.2.Cr1b)

EU 3

- Demonstrate their knowledge of skills and techniques when creating an interactive animation.(8.1.2.AP.1; 1.2.8.Pr5a;1.2.2.Pr5a)
- Combine different warping tools & interactivity techniques to create a professional animation.(8.1.2.AP.1; 1.2.8.Pr5a;1.2.2.Pr5a)

Stage Two - Assessment

Stage Three - Instruction

Learning Plan: Suggested Learning Activities to Include Differentiated Instruction and Interdisciplinary Connections: Each learning activity listed must be accompanied by a learning goal of **A= Acquiring basic knowledge and skills, M= Making meaning and/or a T= Transfer.** {place A, M and/or T along with the applicable EU number in parentheses after each statement} All knowledge and skills must be addressed in this section with a corresponding lesson/activity which teaches each concept. The following color codes are used to notate activities that correspond with interdisciplinary connections and 21st Century Life & Career Connections (which involves Technology Literacy): **Red = Interdisciplinary Connection; Purple = 21st Century Life & Career Connection**

For example:

- *Exemplify button symbol creation (A, EU1)*
- *Defining vocabulary terms (A, EU1 & EU2)*
- *Character rigging tutorials (A, EU2)*
- *Interactivity tutorials (A, EU1)*
- *Teacher observations on animation (M, T, EU1, EU2, & EU3)*
- *Teacher guided lessons (A, EU1 & EU2)*
- *Self-assess completed projects (T, EU3)*
- *Problem solving and trouble shooting (T, EU3)*

Pacing Guide

Unit 3		Approximate # of teaching days
1	Interactivity and Advanced techniques	45 days
2		
3		
4		

Instructional Materials

{Provide a list of all instructional materials used for this curriculum here. Items such as chromebooks and teaching tools such as Peardeck, EdPuzzle, etc... should NOT be listed.}

- **Computer lab for students-**
 - Wish list- Microsoft Surfaces or other laptop with the ability to utilize a drawing pen, keyboard and large screen hardwired into network
 - If not possible- Students will need a powerful desktop to accommodate the software
 - Solid state drives (SSD) are a possible solution for the first year the course runs.
 - New computers are recommended.
 - If desktop computers- drawing tablets needed
 - Software to be downloaded:
 - Adobe Animate- updated version
- **Teacher Laptop loaded with Adobe Animate software**
 - Provided by district
 - Teachers for this course will need a laptop to be able to create lesson and grade assignments for this

course.

■ *This cannot currently be done with district-provided, teacher chromebooks.*

- *Smart TV/Board*
 - *Lenape Business Education classes currently have one.*
- *Colored Printer*
- *Teacher Copy of the following books:*
 - *Adobe Animate Classroom in a Book (2022 release)*

Accommodations

Special Education: The curriculum will be modified as per the Individualized Education Plan (IEP). Students will be accommodated based on specific accommodations listed in the IEP.

Students with 504 Plans: Students will be accommodated based on specific accommodations listed in the 504 Plan.

English Language Learners: Students will be accommodated based on individual need and in consultation with the ELL teacher.

Students at Risk of School Failure: Students will be accommodated based on individual need and provided various structural supports through their school.

Gifted and Talented Students: Students will be challenged to enhance their knowledge and skills through acceleration and additional independent research on the subject matter.