Region 14 Schools
Inspiring Excellence

Content Area: Technology	Grade: 9-12
Course Name: Computer Animation	**R14 The Seven Cs of Learning**

Unit Titles	Length of Unit/Contact Hours
● Unit 1 Adobe Illustrator	2 weeks (Quarter)
● Unit 2 Adobe Animate CC	2 weeks (Quarter)
● Unit 3 Video Editing	2 weeks (Quarter)
● Unit 4 Audio Recording	1 week
● Unit 6 Adobe Photoshop & Fastdraw	2 weeks

● Unit 5 Armature Animations	3 weeks	
● Unit 7 Frame by Frame Animation	2 weeks	
● Unit 8 Digital Asset Management	2 weeks	

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Strands	Grade Level Expectations
DVP.01	
DVP.05	
DVP.05	
DVP.06	
DVP.07	

Unit Title	Adobe Illustrator	Length of Unit	2 weeks and continues through duration of course.

Inquiry Questions (Engaging-Debatable):	What is a vector image? How can you create images using computer software? How can you create good animations without being a fine artist?
Unit Strands and Standards	DVP.06.01 Create graphics and titles appropriate to the project.*(F22) GDT.10.03 Incorporate the use of image manipulation and illustration software into final products. GDT.10.04 Apply nondestructive image editing techniques such as layering and masking. GDT.10.05 Practice using different selection tools and techniques to manipulate images
Concepts	
Key Vocabulary	Vector, canvas size, pixels, toolbar, symbols, layers, paint brush, line tools, transform, rotation,

Unit Title	Adobe Illustrator	Length of Unit	2 week and continues through duration of course.

Critical Content: My students will Know…	Key Skills: My students will be able to (Do)…
● What digital tools to use in Adobe Illustrator to create images on a digital canvas	● Use Adobe illustrator to create characters, backgrounds, and objects for animation.

Assessments:	Self Assessment of video footage Teacher Assessment of camera technique Project Rubrics
Teacher Resources:	Adobe Creative Cloud Video Samples

	Class Tutorial Videos

Unit Title	Adobe Animate CC	**Length of Unit**	2 weeks and continues through duration of course.

Inquiry Questions (Engaging- Debatable):	What software tools make images turn into animation. What type of motion is appropriate to add to an object? What makes an animation interesting to watch?
Unit Strands and Standards	DVP.06.01 Create graphics and titles appropriate to the project.*(F22) GDT.10.03 Incorporate the use of image manipulation and illustration software into final products. GDT.10.04 Apply nondestructive image editing techniques such as layering and masking. GDT.10.05 Practice using different selection tools and techniques to manipulate images
Concepts	
Key Vocabulary	

Unit Title	Adobe Animate CC	**Length of Unit**	2 weeks and continues through duration of course.

Unit Title	Photoshop and fast draw	**Length of Unit**	2 week

Inquiry Questions (Engaging- Debatable):	- How can still images be used in an animation
Unit Strands and Standards	
Concepts	Students will practice using adobe photoshop and apply fastdraw technique
Key Vocabulary	pixel . pencil tool, paint bucket, layers, rasterize, shape tool, merge layer, file history, screen recording, Qucktime, reverse clip, speed enhance, erase tool

Critical Content: My students will Know…	Key Skills: My students will be able to (Do)…
● How to use photoshop, quicktime, and finalcut to create a fastdraw animation	● Students will create a fastdraw video that utilizes fast speed and narration for playback that delivers message to viewer

Assessments:	Formative assessment of students using editing software. Terminology assessment. Summative assessment of final video edits.
Teacher Resources:	Photoshop software, Quicktime, Finalcut Pro,

Unit Title	Video Editing Software	Length of Unit	2 weeks

Inquiry Questions (Engaging- Debatable):	- How do you combine audio, animated video, and text to create a complete visual product?
Unit Strands and Standards	DVP.06.01 Create graphics and titles appropriate to the project.*(F22) GDT.10.03 Incorporate the use of image manipulation and illustration software into final products. GDT.10.04 Apply nondestructive image editing techniques such as layering and masking. GDT.10.05 Practice using different selection tools and techniques to manipulate images
Concepts	
Key Vocabulary	Timeline, key frame, scale, title tool, voice over, narration, script, usb microphone, frame size, playback, playhead, keyer, keyer, transitions, dissolves, transform tool

Unit Title	Video Editing Software	Length of Unit	2 weeks

Critical Content: My students will **Know**…	Key Skills: My students will be able to **(Do)**…
● How to integrate audio and animation files into a unified file for playback	● Create an animation that will be played back on Computer/TV screen with all components of a televisual product including audio, video, and graphical text

Assessments:	Students will self assess the quality of audio, video, script, and production value of their work. - Teacher will assess student work against rubric for target goals.
Teacher Resources:	Finalcut Pro softare Adobe Premiere software

Unit Title	Audio recording & Edting	**Length of Unit**	1 week

Inquiry Questions (Engaging- Debatable):	- How can you record sounds and add them to video? - Where can you find music for your animation?
Unit Strands and Standards	<u>5 Edit audio for voice over, sound levels, music, and sound effects with application software.*F26)</u> <u>DVP.06.02 Describe play head, timeline, bin, multiple tracks, trimming, and edit points within nonlinear video editing.*(F23)</u>
Concepts	
Key Vocabulary	Microphone, stereo, mono, waveform. .WAV, .MP3, narration, script, dialogue, copyright, royalty free music, attribution

Unit Title	Audio Recording & Editing	Length of Unit	1 weeks

Critical Content: My students will **Know**…	Key Skills: My students will be able to **(Do)**…
● How to plug in a microphone and record audio into a computer. ● Find royalty free music and sounds for their videos	● Record themselves speaking into a microphone and use their voice as a voice for their animations

Assessments:	Peer-to-peer critiques, teacher evaluation, self reflection
Teacher Resources:	Finalcut Pro, Adobe Audition, incompetech.com,

Unit Title	Armature Animations	Length of Unit	3 week and continuous throughout course

Inquiry Questions (Engaging- Debatable):	-
Unit Strands and Standards	GDT.05.03 Incorporate color, line, shape, texture, size, and value in student-generated graphic work. GDT.10.04 Apply nondestructive image editing techniques such as layering and masking. GDT.10.05 Practice using different selection tools and techniques to manipulate images
Concepts	Students use animation tools to build more sophisticated characters that have digital skeletons (armatures). More advance motion and on-screen interaction can occur.

Key Vocabulary	Armature, bone tool, pose, copy paste, free transform, anchor point, rotation, image maske, layers, symbol, key frame, blank key frame, frame rate, canvas size

Unit Title	Armature Animations	Length of Unit	3 weeks, and continues throughout course

Critical Content: My students will **Know**…	Key Skills: My students will be able to **(Do)**…
● How to use individual shapes and combine them into an identifiable character.	● Build a character that has limbs and appendages and animate a walk-cycle and moveable character.

Assessments:	Peer-to-peer critiques, teacher evaluation, self reflection
Teacher Resources:	Adobe Animate CC software

Unit Title	Data Management	Length of Unit	2 week and continuous throughout course

Inquiry Questions (Engaging- Debatable):	- How do you get files from your computer into a format that is sharable and viewable to others?
Unit Strands and Standards	DVP.01.01 - Describe the various video production process es, when integrated together to create a successful message. *(A1)

	DVP.03 Pre-Production: Describe the process used for concept development and storyboarding as part of the pre-production process while focusing on the importance of communication, deadlines, and legal considerations
Concepts	Students will manage all their files including video, audio, and software specific extensions and export them properly so others can view their project..
Key Vocabulary	H.264, .MOV, file eport, export settings, file location, file extension, MP4, Media Encoder, bitrate, frame rate,

Unit Title	Data Management	**Length of Unit**	2 weeks, and continues throughout course

Critical Content: My students will **Know**…	**Key Skills:** My students will be able to (**Do**)…
● How to organize and format raw digital files into compressed single file for visual playback	● Share and upload animation files in a format that is viewable to others.

Assessments:	Peer-to-peer critiques, teacher evaluation, self reflection
Teacher Resources:	Final cut Pro Adobe Premiere Adobe Media Encoder

Unit Title	Frame by Frame animation	**Length of Unit**	3 weeks and continues through duration of course

Inquiry Questions (Engaging- Debatable):	- How do you apply expressions and nuances to characters in addition to applying motion only
Unit Strands and Standards	GDT.11.01 Use appropriate resolution, compression, and file formats for various media outputs including web, video, and print. GDT.12.01 Develop a workflow for a project
Concepts	Students will practice frame-by-frame animation techniques to apply detailed character expressions including blinking, eye movement, mouth movement, background or character expressions and animations that change over time.
Key Vocabulary	Frame by frame, masking, onion skin tool, loop playback, line tool, black key frame, frame rate, speed, animation instances

Unit Title	Frame by Frame Animation	Length of Unit	4 weeks

Critical Content: My students will **Know**…	Key Skills: My students will be able to **(Do)**…
● Use animation software tools to apply character expression and variable instances to create detail and changing animations.	● Use frame by frame techniques to add expression and detail to their animated character and setting.

Assessments:	Peer-to-peer critiques, teacher evaluation, self reflection,
Teacher Resources:	Adobe Animate CC Video samples