
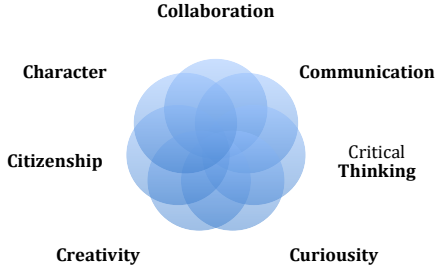


Content Area: Technology	Grade: 9-12
Course Name: Video Game Design 	R14 The Seven Cs of Learning 
Unit Titles	Length of Unit/Contact Hours
<ul style="list-style-type: none"> Unit 1 rpg platform game 	4 weeks (Quarter)
<ul style="list-style-type: none"> Unit 2 side scrolling game 	4 weeks (Quarter)
<ul style="list-style-type: none"> Unit 3 App style game 	2 weeks (Quarter)
<ul style="list-style-type: none"> Unit 4 Block Puzzle Game 	2 week
<ul style="list-style-type: none"> Unit 5 Game Flow and Reward system 	2 weeks
<ul style="list-style-type: none"> Unit 6 Variable within Game 	2 weeks



Unit Title	RPG Game	Length of Unit	4 weeks and continues through the duration of course.
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Inquiry Questions (Engaging-Debatable):	<p>What engages a player while playing a video game? What standard forms do video games use to engage players?</p>		
Unit Strands and Standards	<p><u>DVP.06.01 Create graphics and titles appropriate to the project.*(F22)</u> <u>GDT.10.03 Incorporate the use of image manipulation and illustration software into final products.</u> <u>P6.2 Identify and fix errors using a systematic process.</u> <u>P5.1 Plan the development of a computational artifact using an iterative process that includes reflection on and modification of the plan, taking into account key features, time and resource constraints, and user expectations.</u></p>		
Concepts	<p>Building code for standard RPG game functions. Provide framework to create RPG game and allow for customization through custom codes with specific functions.</p>		
Key Vocabulary	<p>Game Attribute, x coordinate, y coordinate, collision box, text box, character properties, image size, pixels, PNG, keyboard input, when updating event, when created event, time event,</p>		

Unit Title	RPG Game	Length of Unit	4 week and continues through duration of course.
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Critical Content: My students will Know...	Key Skills: My students will be able to (Do)...
<ul style="list-style-type: none"> How to use Stencyl software to create a playable RPG video game. 	<ul style="list-style-type: none"> Build code so their game functions properly as an RPG game that is playable on a computer.

Assessments:	Teacher assessment of game functionality Peer-to-peer assessment of games Project Rubrics
Teacher Resources:	Stencyl Software Stencyl Website Tutorials and manuals

Unit Title	Side Scrolling Game	Length of Unit	4 weeks and continues through duration of course.
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Inquiry Questions (Engaging- Debatable):	What makes a side-scrolling game different from an RPG Game? How do game physics affect the performance of a game? What are some popular side scrolling games that can serve as a good model?
Unit Strands and Standards	<u>P5.3 Modify an existing artifact to improve or customize it.</u> <u>P5.1 Plan the development of a computational artifact using an iterative process that includes reflection on and modification of the plan, taking into account key features, time and resource constraints, and user expectations.</u>
Concepts	Build code to create a side-scrolling video game. Students will provide code that is common in many games to use and adapt for their own customization to fit their particular characters and game set.

Key Vocabulary	Vertical gravity, horizontal gravity, attribute, physics, bounciness, material, linear dampening, collision box, side-scrolling, background scroll, parallax scrolling, repeat background, pixels, negative integer, positive interger,
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Critical Content: My students will Know...	Key Skills: My students will be able to (Do)...
<ul style="list-style-type: none"> How to use Stencyl software to create a playable side scrolling video game. 	<ul style="list-style-type: none"> Build code so their game functions properly as a side scrolling game that is playable on a computer.

Assessments:	Teacher assessment of game functionality Peer-to-peer assessment of games Project Rubrics
Teacher Resources:	Stencyl Software Stencyl Website Tutorials and manuals

Unit Title	App Style Game	Length of Unit	3 weeks and continues through duration of course.
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Inquiry Questions (Engaging- Debatable):	What makes an app-style game successful? What qualities to popular app-games share?
Unit Strands and Standards	<u>P5.3 Modify an existing artifact to improve or customize it.</u>

	<p><u>P5.1 Plan the development of a computational artifact using an iterative process that includes reflection on and modification of the plan, taking into account key features, time and resource constraints, and user expectations.</u></p> <p><u>DVP.06.01 Create graphics and titles appropriate to the project.*(F22)</u></p> <p><u>GDT.10.03 Incorporate the use of image manipulation and illustration software into final products.</u></p>
Concepts	Students will build code for an app-style game such as flappy bird. Students will examine the difference in objective as app games are more focused on repetitive tasks and points than on a story or level objective.
Key Vocabulary	Background scroll, parallax scrolling, repeat background, single screen, character spawn, game objective, Game Attribute, collision box, text box, character properties, image size, pixels, keyboard input, when updating event, when created event, time event,

Unit Title	App Style Game	Length of Unit	3 week
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Critical Content: My students will Know...	Key Skills: My students will be able to (Do)...
<ul style="list-style-type: none"> How to use Stencyl software to create a playable App style video game. 	<ul style="list-style-type: none"> Build code so their game functions properly as an app-style game that is playable on a computer.

Assessments:	<p>Teacher assessment of game functionality</p> <p>Peer-to-peer assessment of games</p> <p>Project Rubrics</p>
Teacher Resources:	<p>Stencyl Software</p> <p>Stencyl Website</p> <p>Tutorials and manuals</p>

Unit Title	Puzzle Game	Length of Unit	2 weeks
Inquiry Questions (Engaging- Debatable):	What are types of puzzle or problem solving games that are successful. What keeps the player engaged in successful puzzle games? What are some good examples of successful puzzle games?		
Unit Strands and Standards	<u>P6.2 Identify and fix errors using a systematic process.</u> <u>DVP.06.01 Create graphics and titles appropriate to the project.*(F22)</u> <u>P5.1 Plan the development of a computational artifact using an iterative process that includes reflection on and modification of the plan, taking into account key features, time and resource constraints, and user expectations.</u>		
Concepts	Students will examine some puzzle games and build a code for a puzzle game. Puzzle game is a generic term for games such as tetris or odd ducks where the goal is to solve a type of geometric problem on screen to advance to the next level		
Key Vocabulary	Blocks, attribute, level advance, character behavior, copy & paste, pixel size, collision box, tile set, gravity, when created, Conditional statements, boolean, number attribute,		

Unit Title	Puzzle Game	Length of Unit	2 weeks
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Critical Content: My students will Know ...	Key Skills: My students will be able to (Do) ...
<ul style="list-style-type: none"> How to use Stencyl software to create a puzzle style video game. 	<ul style="list-style-type: none"> Build code so their game functions properly as a puzzle style game that is playable on a computer.

Assessments:	<ul style="list-style-type: none"> Teacher assessment of game functionality Peer-to-peer assessment of games Project Rubrics
Teacher Resources:	<p>Stencyl Software</p> <p>Stencyl Website</p> <p>Tutorials and manuals</p>

Unit Title	Game Flow and Reward System	Length of Unit	2 week
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Inquiry Questions (Engaging- Debatable):	How will players stay engaged in the game that you have designed? What will motivate the player to want to continue playing your game? What reward systems will you have that motivate the player? How will the player understand what to do when turning on your game? Where is the line between a healthy challenge and frustration?
Unit Strands and Standards	<u>P5.3 Modify an existing artifact to improve or customize it.</u> <u>P5.1 Plan the development of a computational artifact using an iterative process that includes reflection on and modification of the plan, taking into account key features, time and resource constraints, and user expectations.</u> <u>DVP.06.01 Create graphics and titles appropriate to the project.*(F22)</u>
Concepts	Students will create a system of rewards and structure to advance through a game. It is important that a video game gives the player a sense of reward (motivation) and clarity so they will continue accomplishing tasks and overcoming obstacles.
Key Vocabulary	Health system, life system, game over screen, power-ups, velocity, speed, time event, grow self, take damage attribute, apply effect, tint, make negative, sepia, collisions,

Unit Title	Game Flow ans Reward System	Length of Unit	2 weeks
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Critical Content: My students will Know ...	Key Skills: My students will be able to (Do) ...
<ul style="list-style-type: none"> How to use Stencil software to create a reward system and structure within their video game. 	<ul style="list-style-type: none"> Use photoshop to create graphics Build code so their game functions properly as a puzzle style game that is playable on a computer.

Assessments:	Teacher assessment of game functionality Peer-to-peer assessment of games , Project Rubrics
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Teacher Resources:	Stencyl Software, Stencyl Website, Tutorials and manuals
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Unit Title	Variation Within Game	Length of Unit	2 week and continuous throughout course
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Inquiry Questions (Engaging- Debatable):	What variables make games appear different from other games? What variables motivate players to continue playing? What creates a sense of surprise?
Unit Strands and Standards	P6.2 Identify and fix errors using a systematic process. <u>P5.1 Plan the development of a computational artifact using an iterative process that includes reflection on and modification of the plan, taking into account key features, time and resource constraints, and user expectations.</u> <u>DVP.06.01 Create graphics and titles appropriate to the project.*(F22)</u>
Concepts	Students will explore custom codes that make their game unique and create variables that keep the player interested in continuing to play a video game.
Key Vocabulary	Incentive, flow, trigger, when updating, when created, “ do after” time event, make negative, sepia, change color, tint, conditional code statements, respawn, relocate, x y coordinates, health bar, random spawn, screen navigation,

Unit Title	Game Flow ans Reward System	Length of Unit	2 weeks
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Critical Content: My students will Know ...	Key Skills: My students will be able to (Do) ...
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<ul style="list-style-type: none"> • How to use Stencyl software to create variables that change in a game. 	<ul style="list-style-type: none"> • Use photoshop to create graphics • Build code that allows variables to occur including movement, item spawn, enemy spawn, and character navigation.
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Assessments:	Teacher assessment of game functionality Peer-to-peer assessment of games , Project Rubrics
Teacher Resources:	Stencyl Software, Stencyl Website, Tutorials and manuals