

R U B R I C – W o r k s h o p & I n d i v i d u a l W o r k / P o r t i o n

Game & Simulation Programming

<i>Critical Thinking & Creativity</i>	Below Standard (2 pts)	Approaching Standard (4 pts)	At Standard (6 pts)	Above Standard ✓
<i>Launching the Project:</i> Analyze Driving Question and Begin Inquiry	<ul style="list-style-type: none"> sees only superficial aspects of, or one point of view on, the learning goal 	<ul style="list-style-type: none"> identifies some central aspects of the learning goal, but may not see complexities or consider various points of view asks some follow-up questions about the topic or the wants and needs of the audience or users of a product, but does not dig deep 	<ul style="list-style-type: none"> shows understanding (through workshop & hands on project work) of central aspects of the learning goal by identifying in detail what needs to meet it as well as individual job assignment asks follow-up questions that focus or broaden inquiry, as appropriate (CC 6-12.W.7) asks follow-up questions to gain understanding of the wants and needs of audience or product users 	
<i>Building Knowledge, Understanding, and Skills:</i> Gather and Evaluate Information	<ul style="list-style-type: none"> is unable to integrate information to address the learning goal; gathers too little, too much, or irrelevant information, or from too few sources accepts information at face value (does not evaluate its quality) 	<ul style="list-style-type: none"> attempts to integrate information to address the learning goal, but it may be too little, too much, or gathered from too few sources; some of it may not be relevant understands that the quality of information & tutorials should be considered, but does not do so thoroughly 	<ul style="list-style-type: none"> integrates relevant and sufficient information to address the learning goal, gathered from multiple and varied sources (CC 6,11-12.RI.7) thoroughly assesses the quality of information & tutorials (considers usefulness, accuracy and credibility) (CC 6-12.W.8) 	
<i>Launching the Project</i> Define the Creative Challenge	<ul style="list-style-type: none"> may just “follow directions” without understanding the purpose for innovation, creativity or considering the needs and interests of the target audience (teacher, employer, & industry professionals) 	<ul style="list-style-type: none"> understands the basic purpose for innovation but does not thoroughly consider the needs and interests of the target audience (teacher, employer, & industry professionals) 	<ul style="list-style-type: none"> understands the purpose driving the process of innovation and creativity develops insight about the particular needs and interests of the target audience (peers, teacher, employer, & industry professionals) 	
<i>Developing and Revising Ideas and Products</i> Generate and Select Ideas.	<ul style="list-style-type: none"> stays within existing frameworks; does not think outside the box or use creativity. selects one idea/product without evaluating the quality of ideas reproduces existing idea/products; does not imagine new ones does not consider or use feedback and critique to revise product 	<ul style="list-style-type: none"> develops some original ideas for product(s), but could develop more. evaluates idea/product, but not thoroughly before selecting one shows some imagination when shaping ideas into a product, but may stay within conventional boundaries considers and may use some feedback and critique to revise a product, but does not seek it out by asking peers, teacher or others for feedback. 	<ul style="list-style-type: none"> uses idea-generating techniques to develop several original ideas for product(s) carefully evaluates the quality of ideas and selects the best one to shape into a product asks new questions, takes different perspectives to elaborate and improve on the selected idea uses ingenuity and imagination, going outside conventional boundaries, when shaping ideas into a product seeks out and uses feedback and critique to revise product to better meet the needs of the intended audience 	

<i>Presenting Products and Answers to Driving Question</i> Present Work to Users/Target Audience	<ul style="list-style-type: none"> • presents ideas and products in typical ways (text-heavy PowerPoint slides, recitation of notes, no interactive features) 	<ul style="list-style-type: none"> • adds some interesting touches to presentation media • attempts to include elements in presentation that make it more lively and engaging • uses creative and/or new techniques outside the typical ways of PowerPoint, Word, etc. but execution was not visually exciting. 	<ul style="list-style-type: none"> • creates visually exciting presentation media • includes elements in presentation that are especially fun, lively, engaging, or powerful to the particular audience • uses creative and/or new techniques outside the typical ways of PowerPoint, Word, etc. (examples: sketches, posters, blog, board game, video, and more). 	
Originality & Style	<ul style="list-style-type: none"> • relies on existing models, ideas, or directions; it is not new or unique • follows rules and conventions; uses materials and ideas in typical ways • is safe, ordinary, made in a conventional style • has several elements that do not fit together; it is a mish-mash 	<ul style="list-style-type: none"> • has some new ideas or improvements, but some ideas are predictable or conventional • may show a tentative attempt to step outside rules and conventions, or find new uses for common materials or ideas • has some interesting touches, but lacks a distinct style • has some elements that may be excessive or do not fit together well 	<ul style="list-style-type: none"> • is new, unique, surprising; shows a personal touch • may successfully break rules and conventions, or use common materials or ideas in new, clever and surprising ways • is well-crafted, striking, designed with a distinct style but still appropriate for the purpose 	
Value	<ul style="list-style-type: none"> • is not useful or valuable to the intended audience/user • would not work in the real world; impractical or unfeasible • covers only partial required material, major parts left un-explained, answered, or lacking required detail 	<ul style="list-style-type: none"> • is useful and valuable to some extent; it may not solve certain aspects of the defined problem or exactly meet the identified need • unclear if product would be practical or feasible • covers the majority of required material but some information missing. 	<ul style="list-style-type: none"> • is seen as useful and valuable; it solves the defined problem or meets the identified need • is practical, feasible • covers all the required material – this varies depending on which role you chose & the job that you chose/were assigned 	
	Grading Scale Information A: 38-42 B: 34-37 C: 30-33 D:26-29 F: 25 or below	Notes/Comments:	Total Points Earned /Total Points Possible	/42

LEARNING GOAL & SCALE: Year One Students	
4	<p>Student will be successful in level 3 and:</p> <p>Provide a peer workshop showing what you learned, in detail – to the point where others could do that role themselves. Create a professional quality game.</p>
3	<p>Student will:</p> <ul style="list-style-type: none"> ➤ Demonstrate the professional level of written and oral communication required in the game development industry (Standard 24.0) <ul style="list-style-type: none"> ➤ Use listening, speaking & nonverbal skills ➤ Organize ideas & communicate oral & written information appropriately ➤ Create a working game or simulation as part of a team (Standard 27.0) <ul style="list-style-type: none"> ➤ Design & document interface, delivery choices, rules of play, navigation, scoring, media choices, start and end of play, special features, & developmental team credits ➤ Describe essential elements including plot, flow, and functions of the game ➤ Using a game development tool create a game/simulation
2	<p>Student will:</p> <p>Understand game industry roles. Define: non-verbal communication, interface, navigation, credits, plot.</p>
1	<p>With help from the teacher, the student has partial success with the current content.</p>

LEARNING GOAL & SCALE: Year Two Students	
4	<p>Student will be successful in level 3 and:</p> <p>Provide a peer workshop showing what you learned, in detail – to the point where others could do that role themselves. Create a working 3D game you can add to your digital portfolio that is industry professional quality.</p>
3	<p>Student will:</p> <ul style="list-style-type: none"> ➤ Evaluate assigned game programming tasks (Standard 46.0) <ul style="list-style-type: none"> ➤ Estimate time necessary to write a program/complete tasks ➤ Demonstrate leadership and teamwork skills needed to accomplish team goals and objectives (Standard 49.0). <ul style="list-style-type: none"> ➤ Maintain effective working relationships with others to accomplish tasks ➤ Identify & exhibit traits for retaining employment ➤ Employ leadership skills to accomplish goals ➤ Code Programs (Standard 56.0) <ul style="list-style-type: none"> ➤ If-then statements, arrays, animation, scrolling, & displaying text
2	<p>Student will:</p> <p>Define: If-then statement, array, animation, scrolling, GUI, HUD, inventory system. Understand communication basics and time management.</p>
1	<p>With help from the teacher, the student has partial success with the current content.</p>

R U B R I C – O v e r a l l G a m e P o r t i o n

Game & Simulation Programming

<i>Critical Thinking & Creativity</i>	Below Standard (1 pt)	Approaching Standard (2 pts)	At Standard (4 pts)	Above Standard
<i>Building Knowledge, Understanding, and Skills:</i> Gather and Evaluate Information	<ul style="list-style-type: none"> is unable to integrate information to address the learning goal; gathers too little, too much, or irrelevant information, or from too few sources accepts information & tutorials at face value (does not evaluate its quality) 	<ul style="list-style-type: none"> attempts to integrate information to address the learning goal, but it may be too little, too much, or gathered from too few sources; some of it may not be relevant understands that the quality of information & tutorials should be considered, but does not do so thoroughly 	<ul style="list-style-type: none"> integrates relevant and sufficient information to address the learning goal, gathered from multiple and varied sources (CC 6,11-12.RI.7) thoroughly assesses the quality of information & tutorials (considers usefulness, accuracy and credibility, ensures tutorials used work with other team members work & overall build goals) 	
<i>Launching the Project</i> Define the Creative Challenge	<ul style="list-style-type: none"> may just “follow directions” without understanding the purpose for innovation, creativity or considering the needs and interests of the target audience (teacher, employer, & industry professionals) 	<ul style="list-style-type: none"> understands the basic purpose for innovation but does not thoroughly consider the needs and interests of the target audience (teacher, employer, & industry professionals) 	<ul style="list-style-type: none"> understands the purpose driving the process of innovation and creativity develops insight about the particular needs and interests of the target audience (peers, teacher, employer, & industry professionals) 	
<i>Developing and Revising Ideas and Products</i> Generate and Select Ideas.	<ul style="list-style-type: none"> stays within existing frameworks; does not think outside the box or use creativity. selects one idea/product without evaluating the quality of ideas reproduces existing idea/products; does not imagine new ones does not consider or use feedback and critique to revise product 	<ul style="list-style-type: none"> develops some original ideas for product(s), but could develop more. evaluates idea/product, but not thoroughly before selecting one shows some imagination when shaping ideas into a product, but may stay within conventional boundaries considers and may use some feedback and critique to revise a product, but does not seek it out by asking peers, teacher or others for feedback. 	<ul style="list-style-type: none"> uses idea-generating techniques to develop several original ideas for product(s) carefully evaluates the quality of ideas and selects the best one to shape into a product asks new questions, takes different perspectives to elaborate and improve on the selected idea uses ingenuity and imagination, going outside conventional boundaries, when shaping ideas into a product seeks out and uses feedback and critique to revise product to better meet audience needs 	
Originality & Style	<ul style="list-style-type: none"> relies on existing models, ideas, or directions; it is not new or unique follows rules and conventions; uses materials and ideas in typical ways is safe, ordinary, made in a conventional style has several elements that do not fit together; it is a mish-mash 	<ul style="list-style-type: none"> has some new ideas or improvements, but some ideas are predictable or conventional may show a tentative attempt to step outside rules and conventions, or find new uses for common materials or ideas has some interesting touches, but lacks a distinct style has some elements that may be excessive or do not fit together well 	<ul style="list-style-type: none"> is new, unique, surprising; shows a personal touch may successfully break rules and conventions, or use common materials or ideas in new, clever and surprising ways is well-crafted, striking, designed with a distinct style but still appropriate for the purpose combines different elements into a coherent whole 	

Value	<ul style="list-style-type: none"> • is not useful or valuable to the intended audience/user • would not work in the real world; impractical or unfeasible • covers only partial required material, major parts left un-explained, answered, or lacking required detail 	<ul style="list-style-type: none"> • is useful and valuable to some extent; it may not solve certain aspects of the defined problem or exactly meet the identified need • unclear if product would be practical or feasible • covers the majority of required material but some information missing. 	<ul style="list-style-type: none"> • is seen as useful and valuable; it meets the identified need • covers all the required material including: <ol style="list-style-type: none"> 1. Unity with C# Scripting 2. Menu Screen 3. 10 Levels/Scenes- edges of each scene need blocked off so character knows it isn't accessible (mountains, water, walls, etc.). 4. Credit Screen 5. Player, Enemy, & Boss Animation 6. XP System 7. Inventory System 8. Lives System 9. Health System 10. Local Save/Load System 11. Ability System/Skills Tree (powers, abilities, skills) 12. Day/Night Cycle 13. At least 2 enemies with AI/Animation 14. At least 1 boss with AI/Animation 15. At least 2 NPC 16. Character dialog/text 17. Scene/Room transitions 18. Quests- Minimum of 2 (1 main – 1 side). This should be based on the overall theme of the game (example: Dragon Age you are closing Rifts as the main quest. Side quests vary by area). 19. Audio 	
	Grading Scale Information A: 18-20 B: 16-17 C: 14-15 D: 12-13 F: 11 or below	Notes/Comments:	Total Points Earned /Total Points Possible	/20