



Interpretation of Columns on EbD™ STEM Course Blueprints*

No.	Heading	Column information
1	STL Standard/ Benchmark	The standard and benchmark addressed from <i>Standards for Technological Literacy</i> (e.g., 1A). The primary source is the appropriate column in the <i>Standards Responsibility Matrix</i> .
2	STL Depth of Coverage	This will be a number from 1-4, with 4 representing the greatest depth of coverage, a benchmark that is addressed to sufficient depth that it must be assessed. The primary source is the appropriate column in the <i>Standards Responsibility Matrix</i> . In the instance of additional benchmarks that are not represented in the <i>Standards Responsibility Matrix</i> , authors should indicate the appropriate depth number based upon how the course is written.
3	NCTM Standard/ Enabling Statement	The MS NCTM Standard/Enabling Statement designation is derived from <i>Principles and Standards for School Mathematics</i> (NCTM, 2000). It will be a combination of numbers and letters (e.g., 1A) from the Mathematics Standards Matrix .
4	NCTM Depth of Coverage	This will be a number from 1-4, with 4 representing the greatest depth of coverage, a benchmark that is addressed to sufficient depth that it must be assessed. Mathematics. Authors should indicate the appropriate depth number based upon how the course is written.
5	AAAS Standard	The MS NCTM Standard/Enabling Statement designation is derived from <i>Principles and Standards for School Mathematics</i> (NCTM, 2000). It will be a combination of numbers and letters (e.g., 1A) from the Science Standards Matrix .
6	AAAS Depth of Coverage	This will be a number from 1-4, with 4 representing the greatest depth of coverage, a benchmark that is addressed to sufficient depth that it must be assessed. Mathematics. Authors should indicate the appropriate depth number based upon how the course is written.
7	Unit Titles and Objective Statements	Statements of unit titles and specific objective. Each objective begins with an action verb and makes a complete sentence when combined with the stem "Students will learn to. . ." (The stem appears once in Column 7.) Outcome behavior in each objective statement is denoted by the verb plus its object.
8	Course Weight	Shows the relative importance of each objective and unit. Course weight is used to help determine the percentage of total class time that is spent on each objective.
9	RBT Designation	Classification of outcome behavior in competency and objective statements in Dimensions according to the Revised Bloom's Taxonomy. (Cognitive Process Dimension: 1 Remember, 2 Understand, 3 Apply, 4 Analyze, 5 Evaluate, 6 Create) (Knowledge Dimension: A Factual Knowledge, B Conceptual Knowledge, C Procedural Knowledge)

*This blueprint adapted with permission from the North Carolina Department of Public Instruction.

STEM COURSE BLUEPRINT for: **Game Art and Design**

Recommended Hours of Instruction: **180 (160 after testing)**

STL		NCTM		AAAS		Unit Titles and Objective Statements (Students will learn to :)	Course Weight (Total = 100%)	RBT Designation
STL Standard/Benchmark	STL Depth of Coverage	NCTM Standard/Enabling Statement	NCTM Depth of Coverage	AAAS Chapter/Section/Grade	AAAS Depth of Coverage			
1	2	3	4	5	6	7	8	9
						Unit 1: (Understand) History and ethics of game design (11.5 hrs.)	7%	
1K 4J 6J	4	N/A	N/A	1,3A/H2 3B/H2 3C/H1 7A/H1,2 12D/H6	4	1. (Recall) Ancient games (2 hr.)	1%	A1
						2. (Recall) History of electronic games (2 hr.)	1%	A1
						3. (Summarize) Trends (1.5 hr.)	1%	B2
						4. (Explain) Game Ratings and Ethics (2 hr.)	1%	B2
						5. (Recall) History of cards (4 hr.)	3%	A1
						Unit 2: (Analyze) Job readiness and career exploration (9 hrs.)	5%	
3J 12L 2EE	4	A.CED. 2.3	4	2B/H6 7B/H2 9A/H4 9B/H4 11C/H4	4	1. (Recognize) Skills in the game industry (5 hrs.)	3%	A1
						2. Execute the documents necessary to enter the game industry (4 hrs.)	2%	B4/C3
						Unit 3: (Apply) Game design culture and play (37 hrs.)	23%	
6J 17L 17N 17Q	4	G.C.5	4	3C/H1 7A/H2 7A/H4 7B/H2 7F/H1,3 7F/H4 12D/H6	4	1. (Recognize) Social game interaction and player patterns (3 hrs.)	1%	A1
		G.MG. 1.3				2. Summarize formal game elements: Objectives (4 hrs.)	2%	B2
		S.CP.1. 2.6				3. Summarize formal game elements: Procedures and rules (3 hrs.)	2%	B2
		S.MD.1 .4.5.6.7				4. Summarize formal game elements: Probability (8 hrs.)	5%	B2
						5. Summarize formal game elements: Resources and boundaries (3 hrs.)	2%	B2
						6. Categorize game theory (5 hrs.)	3%	B2
						7. Categorize game genres (11 hrs.)	8%	B2

						Unit 4: (Create) Game prototype production (20 hrs.)	13%	
8H 12L 11Q 11R	4	N/A	N/A	2B/H1 3A/H1 3B/H1- 3,4,5,6 3C/H6** (BSL)	4	1. <i>(Execute) Game conceptualization (8 hrs.)</i>	5%	B4
						2. <i>(Create) Prototype production (12 hrs.)</i>	8%	C5/6
						Unit 5: Create 3D assets used in games (36 hrs.)	22%	
11O 11Q	4	N/A	N/A	8E/H1 8E/H2 8E/H3 11B/H2	4	1. <i>Execute 3D modeling and texturing (24 hrs.)</i>	15%	C2/3
						2. <i>Produce 3D animation and characters (12 hrs.)</i>	7%	C6
						Unit 6: Apply 2D game design (29 hrs.)	18%	
11P	4	N.Q.1.2 .3	4	1A/H3bc 2A/H1 3A/H3b 3A/H4 8E/H1	4	1. <i>Illustrate Basic 2D game engine design, engine components, and genres. (29 hrs.)</i>	18%	B2
						Unit 7: 2D Game production (19 hrs.)	12%	
8H 12L 11Q 11R	4	Standards 4.6 N.Q.1.2 .3	4	2B/H1 3A/H1 3B/H1- 3,4,5,6 3C/H6** (BSL) 2B/H1	4	1. <i>Creating a 2D game (19 hrs.)</i>	12%	C 5/6