

# Game & Simulation Foundations (2024)

Identify commonly used art and animation production tools in the game design industry. CTE-

IT.912.8208110.1

**1 Identify, categorize and discuss art and animation tools commonly used in game design.** CTE-IT.912.8208110.1.1

Understand intellectual property rights, copyright laws and plagiarism as it applies to creative assets. CTE-

IT.912.8208110.2

**2 Understand intellectual property rights, copyright laws and plagiarism as it applies to creative assets.** CTE-IT.912.8208110.2

Explain the importance of employability skill and entrepreneurship skills as it relates to game/simulation development. CTE-

IT.912.8208110.3

**1 Identify and demonstrate positive work behaviors needed to be employable.** CTE-IT.912.8208110.3.1

**2 Maintain a career portfolio to document knowledge, skills, and experience.** CTE-IT.912.8208110.3.2

**3 Evaluate and compare employment opportunities that match career goals.** CTE-IT.912.8208110.3.3

**4 Identify and exhibit traits for retaining employment.** CTE-IT.912.8208110.3.4

Identify tools and software commonly used in game development. CTE-

IT.912.8208110.4

**1 Identify and discuss the popular game development tools currently used in the industry.** CTE-IT.912.8208110.4.1

**2 Identify and discuss popular gaming engines.** CTE-IT.912.8208110.4.2

**3 Identify and discuss popular world building tools.** CTE-IT.912.8208110.4.3

Investigate career opportunities in the game industry. CTE-

IT.912.8208110.5

**1 Describe job requirements for a variety of occupations within the game development industry.** CTE-IT.912.8208110.5.1

**2 Identify current employment trends and career opportunities in the game industry.** CTE-IT.912.8208110.5.2

**Demonstrate research and information fluency.** CTE-

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**1 Play games to research and collect game play data.** CTE-IT.912.8208110.6.1

**2 Evaluate, analyze and document game styles and playability.** CTE-

IT.912.8208110.6.2

**3 Determine the dramatic elements in games, including kinds of fun, player types and nonlinear storytelling.** CTE-IT.912.8208110.6.3

**Demonstrate an understanding of the techniques used to evaluate game mechanics, game play, flow, and game design.** CTE-

IT.912.8208110.7

**1 Test and analyze games to determine the quality of rules, interfaces, navigation, performance, play, artistry and longevity in design and structure.** CTE-

IT.912.8208110.7.1

**2 Research and evaluate the game analysis techniques used by the video game industry.** CTE-IT.912.8208110.7.2

**3 Identify the key elements in a game and make intelligent judgments about whether the game succeeded or failed in its objectives.** CTE-IT.912.8208110.7.3

**4 Evaluate professional reviews and write a critical analysis of a current video game.** CTE-IT.912.8208110.7.4

**Explore the methods used to create and sustain player immersion.** CTE-

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**1 Research and define the term “player immersion”.** CTE-IT.912.8208110.8.1

**2 Explore and explain the factors that create player immersion in a game.** CTE-

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**3 Examine popular games and explain the methods each game uses to increase player immersion.** CTE-IT.912.8208110.8.3

**Describe the game development life cycle.** CTE-

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**1 Identify steps in the pre-production process including the proof of concept and market research.** CTE-IT.912.8208110.9.1

**2 Describe the iterative prototyping process – Alpha, Beta, RTM.** CTE-

IT.912.8208110.9.2

**3 Determine platform, technology and scripting requirements.** CTE-

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**4 Implement techniques of scenario development, levels, and missions.** CTE-

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**5 Discuss game testing requirements and methods.** CTE-IT.912.8208110.9.5

**6 Identify and describe maintenance, upgrade and sequel issues.** CTE-

IT.912.8208110.9.6

**Demonstrate the professional level of written and oral communication required in the game development industry.** CTE-

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**1 Use listening, speaking, telecommunication and nonverbal skills and strategies to communicate effectively with supervisors, co-workers, and customers.** CTE-

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**2 Organize ideas and communicate oral and written messages appropriate for the game development industry environment.** CTE-IT.912.8208110.10.2

**Understand the core tasks and challenges that face a video game design team.** CTE-

IT.912.8208110.11

**1 Identify and define the roles and responsibilities of team members on a video game design team.** CTE-IT.912.8208110.11.1

**2 Explore and discuss methods of communications and scheduling for design teams.** CTE-IT.912.8208110.11.2

**Demonstrate leadership and teamwork skills needed, as it relates to game/simulation development, to accomplish team goals and objectives.** CTE-

IT.912.8208110.12

**1 Employ leadership skills to accomplish organizational goals and objectives.** CTE-IT.912.8208110.12.1

**2 Establish and maintain effective working relationships with others in order to accomplish objectives and tasks.** CTE-IT.912.8208110.12.2

**3 Conduct and participate in meetings to accomplish work tasks.** CTE-IT.912.8208110.12.3

**4 Employ mentoring skills to inspire and teach others.** CTE-IT.912.8208110.12.4