



Game Design Merit Badge Workbook

SCOUTMASTER BUCKY

Scouts participating in a Scoutmaster Bucky merit badge opportunity, whether online or in person, should consider using the Game Design merit badge pamphlet for discovery and knowledge, along with the class preparation pages for clarifications, insights, and expectations.

<https://scoutmasterbucky.com/merit-badges/game-design/game-design-pamphlet.pdf>

<https://scoutmasterbucky.com/merit-badges/game-design/game-design-cpp.pdf>

REQUIREMENTS 6 and 8a REQUIRE COUNSELOR APPROVAL.

REQUIREMENT 8a REQUIRES PARENT / GUARDIAN PERMISSION.

REQUIREMENT 1a: Analyze four games you have played, each from a different medium. Identify the medium, player format, objectives, rules, resources, and theme (if relevant). Discuss with your counselor the play experience, what you enjoy in each game, and what you dislike.

GAME #1:

Game Name:

Medium:

Player Format:

Objectives:



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Rules:

Resources:

Theme:

Play Experience:

Likes:

Dislikes:



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GAME #2:

Game Name:

Medium:

Player Format:

Objectives:

Rules:



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Resources:

Theme:

Play Experience:

Likes:

Dislikes:



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GAME #3:

Game Name:

Medium:

Player Format:

Objectives:

Rules:



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Resources:

Theme:

Play Experience:

Likes:

Dislikes:



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GAME #4:

Game Name:

Medium:

Player Format:

Objectives:

Rules:



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Resources:

Theme:

Play Experience:

Likes:

Dislikes:



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REQUIREMENT 1a: Make a chart to compare and contrast the games.



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REQUIREMENT 1b: Describe four types of play value and provide an example of a game built around each concept.

In game design, play value refers to the inherent qualities of a game that make it compelling, engaging, and meaningful for players, encouraging repeated, self-directed, and intrinsically rewarding experiences over time. High play value games captivate players by providing a sense of fun, challenge, and opportunities for exploration, discovery, and skill development. This can be achieved through mechanics that offer multiple uses, support social interaction, and appeal to a broad range of players and ages.

TYPE #1:

Name:

Description:

Game Example:

TYPE #2:

Name:

Description:

Game Example:



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TYPE #3:

Name:

Description:

Game Example:

TYPE #4:

Name:

Description:

Game Example:



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REQUIREMENT 1b: Discuss with your counselor other reasons people play games.

In Here are just a few example for ideas why people play games:

Relaxation – Exercise – Stimulation – Fun – Exciting – Challenge – Social Interaction – Escape – Boredom – Creativity – Weapons – Anger Release – Teaching Others – Less Lonely – Friendships – Increase Memory – Problem Solving Skills – Decision Making Skills – Curiosity – Novelty – Competency / Mastery – Exploration – Risk-Taking – Safe Place to Fail – Competition – Income – Design-Build – Measurable Progress – Teamwork – Awareness – Logic – Harmony – Taboo Actions – Role Playing.

Notes:



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REQUIREMENT 2:

Discuss with your counselor FIVE of the following 17 game design terms. For each term that you pick, describe how it relates to a specific game: story, setting, characters, play sequence, level design, interface design, difficulty, balance, depth, pace, replay value, age appropriateness, single-player vs. multiplayer, cooperative vs. competitive, turn-based vs. real-time, strategy vs. reflex vs. chance, abstract vs. thematic.

TERM #1:

Term:

Definition:

Example of Game:

TERM #2:

Term:

Definition:

Example of Game:



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TERM #3:
Term:
Definition:
Example of Game:
TERM #4:
Term:
Definition:
Example of Game:
TERM #5:
Term:
Definition:
Example of Game:



REQUIREMENT 3: Define the term intellectual property.

Notes:



REQUIREMENT 3: Describe the types of *intellectual property* associated with the game design industry.

Notes:

REQUIREMENT 3: Describe how intellectual property is protected.

Notes:

REQUIREMENT 3: Describe why intellectual property protection is necessary.

Notes:

REQUIREMENT 3: Define and give an example of a licensed property.

Notes:



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REQUIREMENT 4a: Pick a game where the players can change the rules or objectives (examples: basketball, hearts, chess, kickball).

Selected Game:

REQUIREMENT 4a: Briefly summarize the standard rules and objectives and play through the game normally.

Summary of Rules:

Summary of Objectives:

PLAY THE GAME



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REQUIREMENT 4b: Propose changes to several rules or objectives. Predict how each change will affect gameplay.

PROPOSED CHANGE #1:

Change:

Predicted Affect(s):

PROPOSED CHANGE #2:

Change:

Predicted Affect(s):



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PROPOSED CHANGE #3:

Change:

Predicted Affect(s):

PROPOSED CHANGE #4:

Change:

Predicted Affect(s):



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PROPOSED CHANGE #5:

Change:

Predicted Affect(s):

PROPOSED CHANGE #6:

Change:

Predicted Affect(s):



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REQUIREMENT 4c: Play the game with one rule or objective change, observing how the players' actions and emotional experiences are affected by the rule change. Repeat this process with two other changes.

Selected Change #1:

PLAY THE GAME

REQUIREMENT 4c: Observe how the players' actions and emotional experiences are affected by the rule change.

Observations:

REQUIREMENT 4c: Repeat this process with two other changes.

Selected Change #2:

PLAY THE GAME

Observations:



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Selected Change #3:

PLAY THE GAME

Observations:

REQUIREMENT 4d: Explain to your counselor how the changes affected the actions and experience of the players. Discuss the accuracy of your predictions.

Notes:



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REQUIREMENT 5: Design a new game. Any game medium or combination of mediums is acceptable. Record your work in a game design notebook.

Scout's should obtain or make their own Game Design Notebook or use the [Scoutmaster Bucky Game Design Notebook](#).

REQUIREMENT 5a: Write a vision statement for your game. Identify the medium, player format, objectives, and theme of the game. If suitable, describe the setting, story, and characters.

This requirement should be documented in your Game Design Notebook.

Don't forget to bring your Game Design Notebook when meeting with your counselor.

REQUIREMENT 5b: Describe the reason that someone would want to play your game.

This requirement should be documented in your Game Design Notebook.

Don't forget to bring your Game Design Notebook when meeting with your counselor.

REQUIREMENT 5c: Make a preliminary list of the rules of the game. Define the resources.

This requirement should be documented in your Game Design Notebook.

Don't forget to bring your Game Design Notebook when meeting with your counselor.

REQUIREMENT 5d: Draw the game elements.

This requirement should be documented in your Game Design Notebook.

Don't forget to bring your Game Design Notebook when meeting with your counselor.

REQUIREMENT 6: Approval of prototype.

YOU MUST HAVE YOUR COUNSELOR'S APPROVAL OF YOUR CONCEPT BEFORE YOU BEGIN CREATING THE PROTOTYPE.

COUNSELOR APPROVAL: IS REQUIRED.

Counselor's Name

Phone or Email

Counselor's Signature

Date

☐

approved



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REQUIREMENT 6a: Prototype your game from requirement 5. If applicable, demonstrate to your counselor that you have addressed player safety through the rules and equipment. Record your work in your game design notebook.

This requirement should be documented in your Game Design Notebook.

Don't forget to bring your Game Design Notebook when meeting with your counselor.

REQUIREMENT 6b: Test your prototype with as many other people as you need to meet the player format. Compare the play experience to your descriptions from requirement 5(b). Correct unclear rules, holes in the rules, dead ends, and obvious rule exploits. Change at least one rule, mechanic, or objective from your first version of the game, and describe why you are making the change. Play the game again. Record in your game design notebook whether or not your change had the expected effect.

PLAY THE GAME

This requirement should be documented in your Game Design Notebook.

Don't forget to bring your Game Design Notebook when meeting with your counselor.

REQUIREMENT 6c: Repeat 6(b) at least two more times and record the results in your game design notebook.

PLAY THE GAME

This requirement should be documented in your Game Design Notebook.

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REQUIREMENT 7a: Write an instruction sheet that includes all of the information needed to play the game. Clearly describe how to set up the game, play the game, and end the game. List the game objectives.

Choose your own or consider the following template for completing this requirement

Game Name:

Ages and Number of Players:

Game Objective: Tell how the game “works,” including ultimate objective.

Game Contents: List ALL components and indicate if it's a deck of cards or a sheet of cards to be punched out; a free-standing game board or a game board to be punched out, a bag of tokens or a sheet of tokens to be punched out, etc....

Game Assembly: How do you assemble the game for the first time?

- Is assembly required? If yes, what?
- Are drawings required? If yes, of what parts?
- Batteries? If yes, size, number and where do they go? Back? Bottom?

Game Setup: How do you set up the game for each player?

Game Play:

- Which player goes first? How is that determined?
- Does play pass to the left? If not, what is turn order?
- Define terms (if necessary)
- Turn Sequence: On a player's turn, what is the sequence of actions?
 - 1.
 - 2.
 - 3.
 - etc....
- Special conditions: Example: What if you land on another player?
- Board Spaces: What happens on special spaces?
- Special Cards: What do they do?

Winning:

- How is the winner determined? Do you have to win by exact count?
- What if there's a tie?

Gameplay Variations:

- For a harder game
- For 2 players (or any number other than 4)

Troubleshooting and/or strategy tips

Re-storage Considerations: if any

Lost parts: Can replacement parts be purchased? Provide address or website



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Game Instruction Sheet



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REQUIREMENT 7b: Share your prototype from requirement 6 with a group of players that has not played it or witnessed a previous playtest. Provide them with your instruction sheet(s) and any physical components. Watch them play the game, but do not provide them with instruction. Record their feedback in your game design notebook.

This requirement should be documented in your Game Design Notebook.

Don't forget to bring your Game Design Notebook when meeting with your counselor.

REQUIREMENT 7c: Share your game design notebook with your counselor. Discuss the player reactions to your project and what you learned about the game design process. Based on your testing, determine what you like most about your game and suggest one or more changes.

Don't forget to bring your Game Design Notebook when meeting with your counselor

This requirement must be reviewed with your merit badge counselor.

BE PREPARED!

Notes:





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DO ONE OF THE FOLLOWING (8A or 8B) FOR REQUIREMENT 8

REQUIREMENT 8a: With your parent or guardian's permission and your counselor's approval, visit with a professional in the game development industry.

Person Visited with (include Position and Organization):

Date, Time, and Location of Visit:

PARENT/GUARDIAN PERMISSION: IS REQUIRED.

Parent's / Guardian's Name

Phone or Email

Parent's / Guardian's Signature

Date ☐ *permission*

COUNSELOR APPROVAL: IS REQUIRED.

Counselor's Name

Phone or Email

Counselor's Signature

Date ☐ *approved*

Notes:



Game Design Merit Badge Workbook

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REQUIREMENT 8a: Ask this professional in the game development industry about their job and how it fits into the overall development process.

Notes:

REQUIREMENT 8b: Meet with a professional in game development education.

Person Visited with (include Position and Organization):

Date, Time, and Location of Visit:

REQUIREMENT 8b: Discuss the skills they emphasize in the classroom.

Notes: