

YAHTZEE

1. Basic game info

- Number of players
2 and more
- Time to play
30 - 40 minutes
- Suggested ages
8 and up
- Description (goal and core mechanic in first line)
Yahtzee is a game in which players on their turn roll 5 dice up to 3 times in hope of making 1 of 13 categories. The end goal being to have the highest score at the end of thirteen rounds.

Examples of categories are 3 of a kind, 4 of a kind, straight, full house, etc. Each player tries to fill in a score for each category, but this is not always possible. When all players have entered a score or a zero for all 13 categories, the game ends and total scores are compared.

- Genre/ Platform
Dice/ Score-sheet
- Links to forums, reviews, pictures
<http://www.boardgamegeek.com/game/2243>
<http://www.eyegrid.com/yahtzee/yahtzee.htm>

2. What is the core learning activity of the game?

Players learn simple addition and probability.

3. What integrated domains does this game align with? What pedagogy does it suggest?

Integrated domain - 'Sports for the mind'

Pedagogy - 'Tinkering'

4. Does this game have a level editor?

No.

5. What kinds of social interaction does this game create? What are the qualities of that interaction?

The social interaction among players in this game is collaborative and competitive in nature. Competitive because each player is trying to score the most points and collaborative because all players are sort of helping the player who rolled the dice in making choices about which score combination to use in that turn.

6. What are the 6th grade math curriculum standards that this game aligns with? (include full path)

➤ Problem Solving

- Students will apply and adapt a variety of appropriate strategies to solve problems.
 - Students work in collaboration with others to solve problems.
(e.g. Players often help the player whose turn it is to decide which category to score under and also provide advice and help as to which die should be kept and which ones rolled again)
 - Students use trial and error and the process of elimination to solve problems.
(e.g. Sometimes players realize they may have made a wrong choice during the course of the game. These become opportunities for players to learn from for the next time the game is played)
- Students will monitor and reflect on the process of mathematical problem solving.
 - Students explain the methods and reasoning behind the problem solving strategies used.

(e.g. Students may be asked to explain after each turn, their reasons for scoring in a particular category)

➤ Reasoning and Proof

- Students will recognize reasoning and proof as fundamental aspects of mathematics.
 - Students understand that mathematical statements can be supported, using models, facts and relationships to explain their thinking.
- Students will develop and evaluate mathematical arguments and proofs.
 - Students develop and explain an argument verbally, numerically, algebraically, and/or graphically.
(e.g. Students may be asked to develop and explain the decision-making on every turn)

➤ Communications

➤ Representations

(e.g. Students may map the die roll combinations and visualize the emergent probability of the combinations via graph, diagrams or illustrations)

➤ Statistics and Probability

- Students will understand and apply concepts of probability.
 - Students list possible outcomes for compound events.
 - Students determine the probability of dependent events.
 - Students determine the number of possible outcomes for a compound event by using the fundamental counting principle; and using this to determine the probabilities of events when the outcomes have equal probability.

(e.g. Students will debate on which combination will yield better sums, and the probabilities of certain combinations working towards a higher score)

7. Is the game simulating or modeling something? (real scenario, imagined scenario, predictive scenario, system)

The game is simulating a mathematical system - probabilities of

dice rolls.

8. What are the data sets that can be gathered through play of this game?

- Numbers
- Die rolls

9. How can these data sets be analyzed and manipulated?

- **Drama quest:** goal is to enact a system or behavior.
(e.g. negative repercussions of gambling, lottery systems; probability of choices manifesting in life and strategizing after lost or gained opportunity)
- **Experiment quest:** goal is to find the results of a scientific experiment.
(e.g. count and map the die rolls to determine their probability, pattern of reappearance of certain die combinations)

10. Tags

math, addition, chance, probability, dice, meaningful play