

High Roller

Mathematical Understanding:

- Recognizing quantities and numerals that are greater than and less than
- Meaning of multiplication and strategy application to create the largest products possible

**Children may use the calculator for support as needed.

Grade Level: 3-5

Number of Players: 2 to 4 players per group

Materials Needed:

- Two dice per group
- High Roller Recording Sheet
- Optional:
 - calculator for checking computations
 - extra dice

Object of the Game: To identify numbers that are greater than and less than and then multiply those numbers to create the greatest factor.

Directions:

Player 1 rolls 2 dice, identifies and keeps the die showing a greater value and then re-rolls the other die to find a get a new value.

Player 1 then multiplies the values of both die and records the factor's value on the recording sheet. This concludes one round of play for Player 1.

Each Player in turn repeats these steps.

Play continues until each Player has played 2 rounds.

Each Player then adds the values from both rounds. This sum is the players total score.

The winner is the player with the greatest total score after 2 rounds of play.

Optional: The game may be extended for to include more rounds.

The game can be played with three or more dice. Players roll as many times during each round as there are dice. The player may keep the highest number on each roll and on the last roll, multiply all values to create one factor.

Players may need to work together to identify the greater number on the dice, to multiply the values or to add the factors to get total scores for players.

Guiding Questions:

What do you know?

Where do you think you will begin?

Where are you stuck? What is confusing? What are you wondering about?

What are you going to try?

What did you think about to come to your answer?

Differentiation:

To keep all players involved, other players may be given the responsibility of using the calculator to confirm the calculations.

On a place value chart or similar organizer, all students can write each player's score in the box in the column for the appropriate numeral.

Game Trajectory:

Pre K-K: Players roll dice to recognize numerals, compare numbers to identify which is greater than or less than, write numerals, and determine sums.

K-2: Players roll dice to recognize numerals, identify which is greater than or less than, and determine the greatest value.

3-5: Players roll dice and use the value to create the largest factor possible. The factors are combined to create the largest sum possible.

5-6: Players roll three or more dice and multiply using three or more factors. Players may also keep and use a two-digit number to create a factor.

Clean up Checklist for Game Bag:

High Roller directions sheets

High Roller recording sheets

Dice

High Roller Recording Sheet:

Player 1

High score for round 1 _____

High score for round 2 _____

Total _____

Player 2

High score for round 1 _____

High score for round 2 _____

Total _____

Player 3

High score for round 1 _____

High score for round 2 _____

Total _____

Player 4

High score for round 1 _____

High score for round 2 _____

Total _____

High Roller Recording Sheet:

Player 1

High score for round 1 _____

High score for round 2 _____

Total _____

Player 2

High score for round 1 _____

High score for round 2 _____

Total _____

Player 3

High score for round 1 _____

High score for round 2 _____

Total _____

Player 4

High score for round 1 _____

High score for round 2 _____

Total _____

