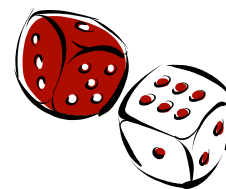


Rolling for Value!



Strand A: Number Sense, Concepts, and Operations

Benchmark MA.A.2.1.2: The student uses number patterns and the relationships among counting, grouping, and place-value strategies to demonstrate an understanding.

Grade Level Expectations: The student:

- knows place-value patterns and uses zero as a place holder
- knows the place value of a designated digit in whole numbers to 1000.

Overview:

The teacher needs to review place value up to 1000. Our number system is based on a simple pattern of tens. Each place has ten times the value of the place to its right. **Place Value** tells you the numerical quantity of each digit (e.g., 1 ten is 10 times a single one, 1 hundred is 10 times a single ten, 1 thousand is 10 times a single hundred). Zeros may stand for nothing, but they may not be left out. They keep other digits in the correct place (e.g., $103 = 1 \text{ hundred} + 0 \text{ tens} + 3 \text{ ones}$).

Materials:

- One Number Cube per 2 Students
- *Place-Value Game Chart Part 1 and Part 2 Worksheets*
- Paper and Pencil

Procedure:

1. Group students in pairs.
2. Distribute one number cube per pair of students.
3. Use the *Place-Value Game Chart* worksheet, or have students fold paper in five equal sections and label the top of the paper like the *Place-Value Game Chart*.
4. The object of the game is to create the highest or lowest number possible depending upon which *Place-Value Game Chart* is used.
5. Look at the *Place-Value Game Chart Part 1*. The students will create the highest number possible.



6. Player 1 rolls the number cube and decides where to place the number rolled on his/her paper. Once the student has written the number, he/she may not change its place. For example, if a student rolls a 3 on the first roll, he/she may place it in the hundreds, tens, or ones column.



Student Name	Hundreds	Tens	Ones	Winner
Maria		3		
Susan				

7. Player 2 rolls and follows the same procedure.
8. Players roll one number at a time, alternating with their classmate, until all three columns contain a single number.
9. Once the students have written three numbers on the *Place-Value Game Chart Part 1*, they decide who is the winner. The winner draws a happy face or writes one point in his/her row of the *Winner* column.
10. Continue playing until all rounds are complete.
11. The player with the most happy faces or points win.

Literature Connection: *The Blast-Off Kid* by Laura Driscoll (ISBN: 1-57565-130-0); *The 329th Friend* by Marjorie Weinman Sharmat (ASIN: 0-02782-259-1)

Assessment:

- Have students write a letter to a friend on the best strategy to use to win the *Place-Value Game Chart Part 1*.

Extension:

- The game can be played using place values up to 1000 or more. The *Place-Value Game Chart* can be adjusted to 1000 or more, or students can fold their paper into six equal parts and label the top with ones, tens, hundreds, and thousands.

Place-Value Game Chart Part 1

Directions: After rolling the number cube, write the number in one of the columns. Alternate with your partner. After three rounds, draw a happy face or give one point to the player with the **highest** number.

Student Name	Hundreds	Tens	Ones	Winner

Student Name	Hundreds	Tens	Ones	Winner

Student Name	Hundreds	Tens	Ones	Winner

Student Name	Hundreds	Tens	Ones	Winner

Student Name	Hundreds	Tens	Ones	Winner

Student Name	Hundreds	Tens	Ones	Winner

Student Name	Hundreds	Tens	Ones	Winner

Student Name	Hundreds	Tens	Ones	Winner

Place-Value Game Chart Part 2

Directions: After rolling the number, write the number in one of the columns. Alternate with your partner. After three rounds, draw a happy face or give one point to the player with the **lowest** number.

Student Name	Hundreds	Tens	Ones	Winner

Student Name	Hundreds	Tens	Ones	Winner

Student Name	Hundreds	Tens	Ones	Winner

Student Name	Hundreds	Tens	Ones	Winner

Student Name	Hundreds	Tens	Ones	Winner

Student Name	Hundreds	Tens	Ones	Winner

Student Name	Hundreds	Tens	Ones	Winner

Student Name	Hundreds	Tens	Ones	Winner