



MISSISSIPPI
EXEMPLAR
Units & Lessons
MATHEMATICS

Grade 2

Grant funded by:



Lesson 5: Superhero Hideouts and Headquarters

Focus Standard(s): 2.NBT.1, 2.NBT.3

Additional Standard(s): 2.NBT.4, 2.RI.2

Standards for Mathematical Practice: SMP.5, SMP.7

Estimated Time: 50 minutes

Resources and Materials:

- Magnificent Math (a stuffed animal superhero used during the lesson as a motivational tool)
- Place Value Yahtzee score sheets
- 3 dice per pair of students
- Yahtzee score card https://cdn.shopify.com/s/files/1/0955/2452/files/Place_Value_Yahtzee_Score_Cards.pdf
- Playing cards
- Ones, tens, hundreds place value chart
- *Sir Cumference and the All the King's Tens* by Cindy Neuschwander
- *Earth Day Hooray!* (MathStart) by Stuart Murphy
- *Math Fables: Lessons That Count* by Greg Tang
- *Big Numbers --and-- Little Numbers* by Edward Packard
- *Zero the Hero* by Joan Holub
- *How Much How Many How Far How Heavy How Long How Tall Is 1000?* by Helen Nolan
- *Math Talk: Mathematical Ideas in Poems for Two Voices* by Theoni Pappas
- My Place: Learn why the position of a number is important:
<http://www.beaconlearningcenter.com/Weblessons/MyPlace/default.htm#page1>
- Sheppard Software: Place Value. Various place value games to include: Tutorials, Place Value Models, Expanded Form, Underlined Digit Value, Identify the Digit, Compare Numbers, Different Ways of Showing a Number:
https://www.sheppardsoftware.com/mathgames/menus/place_value.htm
- IXL Place Value. Identify numbers using models: <https://www.ixl.com/math/grade-2/place-value-models-up-to-hundreds>

- Internet2Classrooms- Place Value games:

http://www.internet4classrooms.com/skill_builders/place_value_math_third_3rd_grade.htm

Lesson Target(s):

- Students will use correct mathematical vocabulary to explain place value.
- Students will gain hands-on practice of modeling place value in centers.

Guiding Question(s):

- How are different strategies helpful when solving problems?
- How does collaboration expand the learning process?

Vocabulary

Academic Vocabulary:

- Base Ten
- Equal
- Expanded Form
- Greater Than
- Less Than
- Place Value
- Place Value Form
- Written Form

Instructional Strategies for Academic Vocabulary:

- Introduce words with student-friendly definition and pictures
- Model how to use the words in discussion
- Read and discuss the meanings of words in a mathematical context

Symbol



✓

Type of Text and Interpretation of Symbol

Instructional support and/or extension suggestions for students who are EL, have disabilities, or perform well below the grade level and/or for students who perform well above grade level

Assessment (Pre-assessment, Formative, Self, or Summative)

Instructional Plan

Understanding Lesson Purpose and Student Outcomes:

Students will be able to use place value to compare numbers with the symbols $<$, $>$, or $=$, as well as order numbers from least to greatest and greatest to least.

Anticipatory Set/Introduction to the Lesson:

Display Magnificent Math in students' view. Remind students that their mission today is to achieve today's learning goals in order to free Magnificent Math from captivity.

Activity 1: Super Heroes Centers

- ✓ Explain to students that they will rotate through center to practice place value skills already learned in this unit. Tell the students to follow these center instructions:
 - They will have approximately 10 minutes at each center.
 - Give students jobs such as leader, questioner, supply manager, and organizer. Jobs are assigned based on reading groups; which students switch between often based on their learning. The leader is usually a student in the highest reading group. This student is responsible for reading the directions and explaining the directions to the other students. They are also the student you can go to for help if needed. The questioner is the only student from the group that is allowed to ask the teacher a group question. Only if the group cannot figure the answer out on their own may the questioner come ask the teacher. The supply manager is in charge of all the supplies and distributing and handling the supplies. The organizer is in charge of group clean up, telling the group when to clean up and how the supplies, trash, etc. are to be placed. All students are to participate in cleanup that is directed by the organizer.
 - Group students and rotate centers in a way that is conducive to the most learning gains. Use heterogenous grouping with a high, low, and 2 medium ability students in each group.

Centers will include:

- Computer Center- Online Place Value games (if your district has a mandatory online math program, you can use that during this time).
- Place Value Yahtzee- The value of a digit according to its placement.
- Playing Cards Comparisons- Comparing 3-digit numbers
- Place Value Reading- Books about place value

Activity 1: Computer Center

Allow students to complete activities found on the following websites:

- [My Place Math Games](#)
- [Sheppard Software Math Games](#)
- Any online math program your school/district may use

Activity 2: The Value of a Digit

Students take turns rolling 3 dice and try to fill in the Yahtzee Score Card. The first to fill in all the blanks correctly on the score card wins. Yahtzee Score Cards can be found [here](#).

Activity 3: Playing Card Comparisons

A student draws the first 3 cards in the deck and creates the greatest number possible using all three of the cards. The next student draws three cards to create the greatest 3-digit number possible. This pattern continues until all students playing draw three cards and create the greatest number they can. The student with the greatest 3-digit number wins everybody's cards that were played that round. The student with the most cards at the end of the game wins.

Note: Remove face cards and tens from each deck. You may use 1 or 2 decks depending on the number of students in each group.

Activity 4: Place Value Literature

Provide students a variety of literature that addresses place value. You may want to have several below level books for students who are still struggling with place value prerequisites and for students who struggle reading. Have several books for students that have already mastered place value and beyond.

Reflection and Closing:

- ✓ Students explain the 5 most important new learning gains they made during today's lesson. When students finish explaining the 5 learning gains, all at once they will raise their hands in the air and lead them into shouting, "High five for learning!"

Note: If today's learning goals were successfully met, release the Magnificent Math. The MVP of today's learning goals is given Magnificent Math to protect. Magnificent Math may sit on his/her desk, He/She may take the superhero to recess, lunch, specials, etc. He/She may also take the superhero home for the night. Be sure to discuss the rules of receiving Magnificent Math. The stuffed animal may not become a distraction to others, and it must be returned the following day.

Homework

Instruct students to reflect on the lesson and write about something someone in their group taught them today.

For training or questions regarding this unit,
please contact one of the following:

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