

Round Around

Rounding Numbers

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Grade Level	2nd Grade	**Time Frame**	2-3 class period(s)
Subject	Mathematics	**Duration**	180 minutes
Course	Elementary Mathematics		

Essential Question

Why do we round numbers?

Summary

This lesson engages students in the concept of rounding numbers. Students participate in a hands-on exploration that allows them to visualize and master the concept.

Snapshot

Engage

Students attempt to answer an example problem that uses rounding.

Explore

Students use a clothesline to visualize the concept of rounding.

Explain

Students create a chant, song, or rap to help them know why and how to round numbers.

Extend

Students solve and create real-world problems that use rounding.

Evaluate

Students revise their answers from the Engage.

Standards

Oklahoma Academic Standards for Mathematics (Grade 2)

2.N.1.5: Recognize when to round numbers to the nearest 10 and 100.

Materials

- Sticky notes
- String
- Clothespins
- Notecards
- Markers
- Student number lines

Engage

Present students with the following scenario:

Shantay's family is having a family reunion next weekend. There will be 37 people at the reunion. Shantay and her mom need to bring plates to the event, but they only come in packs of 10. How many plates will they have to buy for the meal?

Note: Scaffolding With Manipulatives

Some students would benefit from having plates or number cubes to help them think through this problem.

Ask students to think about how many plates they should buy and write their answer on a sticky note. Select a few different students to explain their thinking.

Teacher's Note: Facilitating The Conversation

Be careful to not pick on someone that has the right answer first. Choose students in an order that allows the conversation to build and develop.

Have students put the sticky note at the corner of their desk. You will come back to the problem.

Explore

Hang a string between two points in your classroom. This string will represent a number line.

Ask students, “When counting by 10s, which number comes before 37?” Mark 30 on the clothesline by hanging a "30" notecard on the string using a clothespin.

Ask students, “What 10s number comes after 37?” Mark 40 on the clothesline by hanging a "40" notecard (to the right of 30 but with space in between) on the string using a clothespin.

Ask students to tell you where they think 37 should be on the line. Place a notecard at the point where 37 would be.

Ask students, “Which number, 30 or 40, is 37 closer to?” Students should respond, "40."

Have students use the Elbow Partner strategy for working in partner pairs. Ask the pairs to use a number line to think about repeating the above task with different numbers. Have them try the following:

46 to the nearest 10; 82 to the nearest 10; 21 to the nearest 10; 3 to the nearest 10; 75 to the nearest 10.

Ask students to think about what it might look like to round numbers to the nearest hundred. Have them try the following:

337 to the nearest 100; 989 to the nearest 100; 655 to the nearest 100

In partners, have students review the answers. Ask students, “What patterns do you notice?” When describing their answers, ask students to be specific in talking about the place value."

Sample Answers:

"When the number is 4, 3, 2, or 1, it is closer to the lower number." "When it is 6, 7, 8, or 9, it is closer to the higher number." "I don’t know what to do when it is 5."

Teacher's Note: Student Conversations

Circle around listening to the discussion and make a note of any interesting ideas or common misconceptions. You will want to address these during group discussion times.

Explain

In partners, have students develop a definition of “rounding” numbers.

As a class, have students share ideas to build a class definition.

If the class hasn’t figured it out, explain what to do when rounding with 5s.

Using the Chant It, Sing It, Rap It strategy, have students create a chant/dance to help them remember why and how to round numbers.

Ask the class, "What are some situations where we might want to round numbers?"

Sample Answers:

"Figuring out how much something will cost." "Figuring out how much something weighs." "When we don’t need to know the exact amount." "Figuring out how much to buy of something."

Extend

Using the Think-Pair-Share strategy, have students solve the following problem and share their ideas.

Mr. Brown is buying snacks for his class of 22 students. The snacks come in either boxes of 12 or 30. Which box should he buy? How many boxes? Why do you think that is the best option?

Then have students create their own problems using the Think-Pair-Share strategy. In pairs, have students create a problem that would involve rounding. Then partner with another set of partners (now groups of four) to solve the problem.

Evaluate

On the sticky note from the Engage, have students add to or revise their answers based on what they learned from the lesson. When they are finished, have them place the revised sticky note on the board.

Resources

- K20 Center. (n.d.). Chant it, sing it, rap it. Strategies. https://learn.k20center.ou.edu/strategy/143
- K20 Center. (n.d.). Elbow partners. Strategies. https://learn.k20center.ou.edu/strategy/116
- K20 Center. (n.d.). Think-Pair-Share. Strategies. https://learn.k20center.ou.edu/strategy/139