

Lesson Protocol Design, EDUC 235

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4th Grade Math

The topic is rounding numbers to the nearest ten, hundred, or thousand.

Saxon Math 5/4. Hake, Stephen and Saxon, John.

Rationale

1. Why have you chosen this topic?

- I have chosen this topic of rounding because it is an important part of the Indiana Academic Standards in mathematics for a fourth grade classroom. Knowledge of rounding is essential in order to continue on to higher levels of mathematics. This topic is important to increase the knowledge of the students and to teach them how to use rounding. Rounding is a key tool in math when dealing with decimals in the higher grades of math.

2. Why is it important for students to learn/achieve the objectives in lesson?

- Without learning rounding students will not be able to further their education in mathematics. Rounding is a continuation for the many areas of mathematics. Rounding is important in high math because you will need to round your answers to the nearest spot.

3. Where does this fit in the overall school curriculum?

- This standard fits into the Indiana Academic Standards. Students studying this lesson would have to be able to use communication skills to be able to discuss this lesson. Communication will be used greatly throughout this lesson as I teach about rounding. The students should be able to use comprehension when learning multiplication. They should understand everything I am talking about and ask questions that are relevant to the lesson.

Standard 1

Number Sense

Students understand the place value of whole numbers and decimals to two decimal places and how whole numbers and decimals relate to simple fractions.*

4.1.3 Round whole numbers up to 10,000 to the nearest ten, hundred, and thousand.
Example: Is 7,683 closer to 7,600 or 7,700? Explain your answer.

Lesson Objective

Professional

After the lesson on rounding (condition), the student explain how to round a number correctly (criterion).After the lesson on rounding (condition), the student will be able to successfully complete (observable behavior) a timed one minute test and complete 60% or more of the test answered correctly (criterion).

Communication

When class starts I will get their attention. You will learn how to round all numbers to the correct place value. At the end of the 30 minute lesson the children will take and complete one timed practice test.

Motivation

The type of motivation I will use in my classroom will be simple. I will reward for good grades with candy and other prizes. I intend on using a fake money system that students can earn money to go towards a class store. I will also motivate the students by letting them know if they don't achieve a good grade in math they can not move on to higher levels. I will get the students to think about rounding by using the money system. They can say if they have eight dollars that would be rounded up to ten.

Teach new information

Rule 1 Determine what your rounding digit is and look to the right side of it. If the digit is 1,2,3 or 4 do

Not change the rounding digit. All digits that are on the right hand side of the requested rounding digit will become.

Rule 2. Determine what your rounding digit is and look to the right of it. If the digit is 5,6,7, 8 or 9,your rounding digit rounds up by one number. All digits that are on the right hand side of the requested rounding digit will become 0.

Model

I would use the dry erase board and a special cut out rectangle to model rounding. I would put the magnetic open rectangle over the numbers, and ask "is this more than 5?" When the students say yes I round the number up. In all the place values if the number is great than 5 we round up.

Modeling is very important because for those kids who don't have any idea how to do the material they watch you closely and get the ways to do problems from you. It can also further the students understanding about rounding.

Practice with guidance

The activity that will be used in practice with guidance is a worksheet. The directions will be simply to round the numbers to the nearest ten or hundred. The materials that will be used are the worksheet and a writing utensil. I expect the students to finish the short worksheet (10 problems) and let me check them. For the first 3 problems we will do it as a class as I do it on the board. Then the final seven problems will be done on their own while I walk around guiding and helping them.

It is very important to make sure the students understand fully what the lesson is supposed to teach them, and checking these worksheets will insure me they all have a good enough understanding with the material.

Questions for checking understanding

1. By looking at the collection (condition 3.00) of numbers, who can you specify (behavior 3.00) which numbers will be rounded up or down?
2. By looking at the collection (condition 3.00) of numbers, who can describe (behavior 3.00) how you know when to round up or down?
3. After the lesson (condition 3.00) of rounding, who can demonstrate (behavior 3.00) how to round a number?

These questions that are being asked will make sure the students completely understand the material. It is important to ask these questions to get an understanding of the level that the students are at. If they can answer all of these questions with relative ease they are going to be fine with this material.

Practice alone

I will pass out the practice test and have them get pencils out. Tell them to flip the test over. I'll say ready go and they will start. My expectations for this are they will at least finish 60% of the test in the allotted time. This test will not be graded and will only help me in finding out where my students are at skill wise in rounding.

Practicing alone in my mind is the most important part of lessons. Some students really have their own way of figuring out how to accomplish goals. You can teach a lesson and a student can begin doing their homework and find another way to do the problems.

Gardner's Multiple Intelligences

The primary intelligence of this lesson is to develop an understanding of how to round numbers. Some children learn best when new material is taught to them in a certain way.

Additional intelligences that could be incorporated into this lesson would be to have the children be active while learning rounding. They could each get assigned a number and I would call out two names. They would stand by each other and then the class would say if it rounds up or down, then the two students with the numbers that would make the new number would go up

Closure

For closure I will bring the class together for a group review and discussion. I will tell the students there were many things we learned during this lesson. I will have them name off rules and tips that I taught to them to help them do rounding.

Accommodations/Adaptations

Learning Disabled

A child with a learning disability has difficulty in reading, writing, speaking, and listening. I would assign a student who excelled in these areas to help the student. I would make sure the student was patient and did his best to help the child with the learning disability succeed.

Gifted and Talented

A gifted and talented student is very high performing and exceeds in almost everything. I would challenge them by giving them a more challenging worksheet. I would also have them help the other students by being tutors.

Assessment

The homework assignment I gave the students will act as the assessment tool for this lesson. If the students can complete this worksheet and problem set, they will have met the objective c. as stated above. The students will also have a timed test and a practice worksheet. The test will have 50 numbers on it rounding to the nearest ten and hundreds. These will meet the object a and b as stated above.

Rubric

	Excellent 5	Good 3	Needs Work 1
Student can round to nearest ten and hundred			
Student can describe how to round			
Student can demonstrate rounding			

