PLACE VALUE OF DECIMAL NUMBERS

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Subject

Mathematics

Prepared By

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Grade Level

5

Overview

This lesson plan covers teaching content for;

1. Place value in decimal numbers.
2. Read and write decimals using tenths, hundredths, and thousandths.
3. Compare decimals using greater-than and less-than notation.

Objectives

Students should be able to;

1. Show understanding of place value in decimal numbers.

Activity Starter/Instruction

1. Start by reviewing whole number place values. Write down whole numbers and explain that each number stands for a place value. Show your students which place stands for ones, tens, and hundreds. For instance, write down 382. Tell students that 2, stands for ones, 8, 3, is hundreds.
2. Explain that like whole numbers, there are place values to the right of a decimal point. Show them how that tenths are always immediately to the right, followed by hundredths and thousandths.
3. Tell pupils that fractions can be turned into a decimal that stands for the same number. Draw a rectangle on the board, then add lines to divide it into 10 equal box. Shade a box, then explain that the box is 1/10 of the rectangle. Tell them that 0.1 is another way of saying 1/10 or one-tenth.

Guided Practice

Day 2/ Lesson 2: 15 Mins

1. Write down a series of mixed decimal numbers and read them out loud. Teach

Teacher Guide

Day 1/ Lesson 1: 20Mins

1. Put students into pairs. Hand out paper and have kids divide their sheet into two rows of five equal rectangles. Explain that all 10 rectangles together represent the number 1, and the first student in each pair to color in the whole sheet will win “the race to one.”
2. Have students take turns rolling the dice and multiplying the two numbers rolled (for example, 6 × 1/100 = 6/100). They should convert their fractions to decimals, which in this case would be .06, and record their answers in their book.
3. Next, they should color in the corresponding number of parts on their rectangle sheets. So, for example, if they roll a 1 and a 1/10 (.1), they color in one of their 10 rectangles. If hundredths are rolled, the student may use a pencil and ruler to divide one of the tenths boxes into 10 equal parts and color in the number of hundredths rolled. If thousandths are rolled, the student may divide one of the hundredths boxes into 10 parts and color in the numbers of thousandths rolled.
4. When the last number needed to complete one whole is rolled, the entire piece of drawing paper should be colored in. To

Materials Required

- Set of two dice per pair of students—one standard die with two sides each showing the following: 1/10, 1/100, 1/1000

-White board

-Marker

Additional Resources

- https://www.homeschoolmath.net/teaching/d/tenths value.php
- https://nzmaths.co.nz/resource/place-value-whole-nu and-decimals
- http://www.teachingwithamountainview.com/2015/0 place-value-resources-teaching.html
- https://www.teachervision.com/decimals/understand decimal-place-value
- http://mathwire.com/numbersense/morepv.html
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Additional Notes

your pupils to use the correct place values instead of reading 1.5 as “one point five.

2. Write down 25.45 and read it out loud as “twenty-five and forty-five hundredths.” Write 54.035 and read it as “fifty-four and thirty-five thousandths.”
3. After demonstrating how to read decimals, write down several examples and have them read the numbers out loud. If necessary, correct them gently and say, “That’s a great try, but remember this number means thousandths. Give it another shot!”

check their work, students will add the decimals recorded in their book to make sure that the answer equals 1.

Guided Practice

Day 3/ Lesson 3: 15mins

1. Describe how place values in whole numbers and decimals differ. Explain that, while hundreds are greater than tens, tenths are greater than hundredths. Line up 2 decimal numbers on top of each other to demonstrate how to find out which one is bigger.
2. For instance, write:
   3.535
   3.353
   Explain that they need to look at the tenths place first to find the bigger number. Since 5 is greater than 3, 3.535 is greater than 3.353**.**
3. It might be tough for pupils to compare numbers such as 3.5 and 3.350, since 350 looks like it's bigger than 5. Tell your pupils that they can add zeroes to the right of a decimal to fill in place values. Mention that adding zeroes to the right doesn't change the number's value.
4. They might have an easier time seeing that 3.500 is greater than 3.350. Adding zeroes to decimals will also come in handy when it's time to teach addition and subtraction.

Assessment Activity

Assess if pupils can

1. Determine the place value of each digit
2. Read and write decimals using tenths, hundredths, and thousandths.
3. Compare decimals using greater-than and less-than notation

Summary

1. Teacher asks pupils randomly to share their answer with the class.