DEMO: Introduction to Decimals

Lesson Definition

Lesson Title:	**DEMO: Introduction to Decimals**
Teacher:	**Allison Layland**
Course Title:	**Number & Operations in Base 10**
Unit Title:	**Estimation and Calculation**
Main Standard Code:	**5.NBT.3a**
Main Standard:	**Read and write decimals to thousandths using base-ten numerals, number names, and expanded form, e.g., 347.392 = 3 x 100 + 4 x 10 + 7 x 1 + 3 x (1/10) + 9 x (1/100) + 2 x (1/1000).**
Grade Level:	**5**
Subject:	**Mathematics**
Learning Objective:	**Students will be able to represent fractions and decimals to tenth, 1/10, hundredth, 1/100, and thousandth, 1/1000 using base ten blocks and 10x10 grids.**
Condition:	**Given base ten blocks and 10 x 10 grid paper**
Criteria:	**Students will demonstrate representation of different decimals (tenths, hundredths, thousandths) and explain each representation accurately.**

Lesson Detail

Instructional Modes (all that apply)	
Whole Class	
Behavior Check	
Review	
Think (Stimulate Interest):	**Post a 2 column chart labeled Everyday Uses of Fractions, Everyday Uses of Decimals. Students think about when they have seen or heard fractions or decimals in the world around them; at home, in stores, at a sports games, etc. and provide examples of a fraction or decimal and how it was used. List the examples on the chart. Explain that students will explore decimals and see the similarities and differences of fractions and decimals.**
Know (Teach):	**Teacher utilizes CHORAL RESPONSE when modeling and having students model and respond during instruction. Using base ten blocks model whole numbers: If a block equals 1, what is the value of a rod (10), of a flat (100), of a cube (1000). Ask students to use their blocks and model as teacher models and explain thinking. Continue with blocks modeling and explaining 10 units in a rod and each unit is 1/10, 100 units in flat so each unit is 1/100, 1000 units in a cube so each unit is 1/1000. Have st**
Show: (Check For Understanding)	**Students model after teacher does each time and explains reasoning. They write the fraction and decimal form of the model and explain that the fraction and decimal represent the same concept I different written forms.**
Teacher-Directed Group(s):	**Students who are not showing understanding, teacher works with small group practicing more concepts (2 rods are 2/10 of flat, 2/10 is written as .2 in decimal form.**
Student-Directed Group(s):	**Students work in pairs or trios to create models with base ten blocks and then using the 10x10 grid paper. They discuss and decide how they can represent 1 whole, 1 tenth, 1 hundredth, and 1 thousandth using the grid paper. Student groups share their work.**

Independent Practice:	**Students are asked to independently shade in 4/1000 in blue, 4/100 in red and 4/10 in yellow using grid paper.**
Homework:	**Students will complete a Venn diagram to compare fractions and decimals and create representation of a fraction and decimal they identify I their home environment.**
Resource / Material:	**base 10 blocks chart paper, 100 grids-5 pages per group and 2 pages per student (for homework), crayons, markers or colored pencils, Venn diagram**
Technology Integration:(What and How)	**grid paper and modeling will be done using the Promethean board and www.prometheanplanet.com**
Accommodations:	**enlarged grid paper, touch screen laptop for students needing to use a computer rather than paper and pencil, electronic version of Venn Diagram, completed student examples with scaffold directions for students needing more structure for practice.**
Modifications	
Accelerated:	**demonstration of models beyond thousandths, showing place value patterns on either side of the decimal point (whole number and decimals)**
Pre-Requisite:	**Students understand whole numbers and can read, write and represent fractions and compare fractions using the benchmarks of 0, 1/2 and 1.**
Teacher Reflections:	