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Lesson Plans

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Decimal and fraction conversion

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The College at Brockport

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Generic Lesson Plan Template

You should submit this form in addition to any computer generated files/documents/models to your group folder on Angel. Please create a .zip file and upload the group of files as a single archive.

Name: Pablo Lopez
Grade level(s)/Subject taught: 9 Algebra A
Objectives: Students will be able to convert decimal to fraction and vice versa.

Please provide a rich **one-page, single-spaced**, description or a *vision* of your best thinking on a way or ways you might teach the planned lesson. (approximately $\frac{1}{2}$ page for the teacher role, $\frac{1}{2}$ page for the student role). Also, construct a tentative rubric that you might use with your students (see example)

Items to include in your lesson plan: (Choose your discipline/concepts from your own area).

1. *Write the Mathematical Concept or “key idea” that modeling will be used to teach: (e.g. Students use mathematical modeling/ multiple representation to provide a means of presenting, interpreting, communicating, and connecting mathematical information and relationships)*

Students use number sense and numeration to develop and understanding of multiples use of number in the real world, the use of number to communicate mathematically, and the use of numbers in the development of mathematical idea.

and/or...

- 1b. *Write the Science Concept or “key idea” that modeling will be used to teach: (e.g. Organisms maintain a dynamic equilibrium that sustains life).*

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Materials:

Fraction Four from Project Interactivate

Computer Lab

Worksheets

Pencils and scrap paper

“...a rich **one-page, single-spaced**, description or a *vision* of your best thinking...”

Prompts:

1. How will you assess the prior knowledge of the student?
2. How will you begin the lesson?
3. What are the teacher and students doing every 5-10 minutes? (Teacher Actions and Student Actions)
4. How will you assess the learning for the lesson?

- **Using _____ Fraction Four _____ I plan on having my students...**
(software / modeling package(s))

working on warm up exercises (handout) simplifying fraction and converting decimal to fraction, this could be done in pair or individually and I'll make sure to get their prior knowledge on fractions and decimals, then I will review (model) the exercises on the overhead emphasizing the reduction of fraction because they will need to reduce when using the computer software to get the answers of certain questions.

After that I will distribute the instruction of the software usage and I will model some exercises using Fraction Four on the LCD projector and respond question related to the activity, at the same time I will ask the students to do some exercises as a practice, with this I'll make sure that all the students are in the same page and because of the nature of this activity I'll make it fair. If there are no more questions I will ask them to work in pairs at the computer stations (the nature of this software need two group or students working in pairs), also I will ask them to use the easy level of difficulty in the first session to get confident with the software as well as with the conversions.

During the activity I'll be coaching and checking for understanding, also I'll make sure that each group is working properly; also I'll be evaluating them (class work). By the second lesson, the class will be held in the classroom and I will divide the class in two groups and I the level of difficulty will be increased to medium and hard, by this time the students will be able to convert decimal to fraction and vice versa as well as to simplifying fraction, at the beginning of this lesson I will provide some real life examples where the conversion of fraction to decimal or vice versa is necessary. I will provide the students with the instructions of how to convert or simplify fraction in case that any student need them.

To check for understanding I will give them a handout with exercise that will be solved by the end of the second lesson, beside the exercises I will ask them to give three real-life examples where the conversion of fraction to decimals and vice versa is needed. The exercises will be done manually or probably using a graphing calculator as a support.

RUBRICS FOR CONVERTING FRACTION TO DECIMAL AND VICE VERSA AND THE USAGE OF FRACTION FOUR.

Subject: Algebra A

Grade: 9

Scale: 3

- 2 Student has a correct solution and use an appropriate strategy to convert fraction to decimal and vice versa, student also shown a correct usage of Fraction Four.
- 1 Student has a correct strategy to convert fraction to decimal and vice versa but a incorrect answer is given. Student also shown a correct usage of Fraction Four.
- 0 Student shown no work and use an incorrect strategy to convert fraction to decimal and vice versa leading to an incorrect answer. Student also show some problems using Fraction Four.

