Lesson Plan
Date: 10/12/2022

Grade: 6th Grade	**Subject:** Math
Materials: Scrap paper, pencil,	**Technology Needed:** Computer for PowerPoint

Instructional Strategies:

- ☐ Direct instruction
- ☐ Guided practice
- ☐ Socratic Seminar
- ☐ Learning Centers
- ☐ Lecture
- ☐ Technology integration
- ☐ Other (list)
- ☐ Peer teaching/collaboration/ cooperative learning
- ☐ Visuals/Graphic organizers
- ☐ PBL
- ☐ Discussion/Debate
- ☐ Modeling

Guided Practices and Concrete Application:

- ☐ Large group activity
- ☐ Independent activity
- ☐ Pairing/collaboration
- ☐ Simulations/Scenarios
- ☐ Other (list)
- ☐ Hands-on
- ☐ Technology integration
- ☐ Imitation/Repeat/Mimic

Explain:

Standard(s)

6.NS.2: Fluently divide multi-digit numbers using the standard algorithm

Objective(s)

By the end of the lesson the students will be able to convert decimals into fractions using reading and computations.

Bloom's Taxonomy Cognitive Level:

Apply, Analyze

Differentiation

Below Proficiency:

The students who are below proficiency will only have the set of problems that they will be assigned. They also will receive a little more help when doing the problem set to get them to proficiency.

Above Proficiency:

The students who are above proficiency will have a few more problems to do if they get through the first problem set as time allows will be assigned a second. They also will help the students who are below proficiency if they need help.

Approaching/Emerging Proficiency:

The students who are approaching proficiency can ask the students who are above proficiency for help and if they still have questions they can ask me for help.

Modalities/Learning Preferences:

Existential, Verbal/Linguistic, Visual/Spatial, Bodily/Kinesthetic, & Interpersonal

Classroom Management- (grouping(s), movement/transitions, etc.)

The students have assigned seats. The seating is arranged in such a way that limits the amount of distractions for each student so that they can learn to the best of their ability. The students also know where the calculators are in the classroom so that when they need them they can quietly walk over and get one.

Behavior Expectations- (systems, strategies, procedures specific to the lesson, rules and expectations, etc.)

The students will know the classroom procedures and will know to come into class and sit down and wait till everyone is in class and then we will start. The students will also know that they must respect me and the other students at all times.

Minutes	Procedures
0	**Set-up/Prep:** I will have the PowerPoint up and running when the students get in and I will have the problem set on the board for the students so they know what they need to do. I will also have the small pre-quiz ready for the students to take.
8	**Engage: (opening activity/ anticipatory Set – access prior learning / stimulate interest /generate questions, etc.)** I will first pass out the pre-quiz for them to attempt and I will give them about 2-3 minutes to work on it and I will then collect it and see where students were really struggling at and spend more time on that part where they are struggling at. After I collect and look at the quiz I will ask the students "Where do you see decimals most often? Is there any other way that we can write decimals?"
20	**Explain: (concepts, procedures, vocabulary, etc.)** What is a terminating decimal? It is a decimal that has a last digit and ends. There are both terminating decimals and repeating decimals. What do you think a repeating decimal is and can you give an example of one? One way to convert a decimal into a fraction is to say the decimal in words. For example 0.4 is four tenths which can be written as 4/10. Likewise if we have the decimal 0.15 it is fifteen hundredths which can be written as 15/100. These both can be simplified to 2/5 and 3/20 respectively. Another way to convert decimals to fractions is by moving the decimal to the right and

	get it to a whole number, then multiply 10 with itself that many times to get the denominator. For example we have 0.2357 and we want to convert it into a fraction. We first move the decimal to the right 4 times and we multiply 10 4 times and we get 10,000 and we then write the whole number over the denominator and we get 2,357/10,000. Now do these next problems on your own: 0.5, 0.28, 0.567, and 0.7896. Answers are 5/10=1/2, 28/100=7/25, 567/1,000, 7,896/10,000=987/1250 (factor out an 8). Sometimes we have a decimal with a whole number in front of the decimal. When this happens the number out in front is the whole number of a mixed number and after the decimal is the fraction part. For example we have the number 3.25. The 3 is the whole number and the 0.25 is the fraction. With what we just learned on the previous slide the answer is 3 ¼. We will now do one word problem so we can see a real-life application. Two protected bird species are the whooping crane and the piping plover. How many times greater is the weight of the whooping crane than the weight of the piping plover? Whooping Crane: 246.25 Piping Plover: 1 7/8. For this question we need to divide the whooping crane weight by the piping plover weight. We have 246 ¼ / 1 7/8 = 985/4 / 15/8 (factor out a 5 and 4)= 394/3 = 131 1/3.
10	**Explore: (independent, concreate practice/application with relevant learning task -connections from content to real-life experiences, reflective questions- probing or clarifying questions)** The students will now work on a few problems if they have time. If they do not have time the students will work on the homework and problems tomorrow.
6	**Review (wrap up and transition to next activity):** Do you all feel a little bit more comfortable with converting decimals into fractions? You will have a small quiz at the end of class tomorrow or Friday just reviewing what we learned today. Mrs. Metzger will collect it and give it to me that way I can see the improvement from the quiz you took today.

Formative Assessment: (linked to objectives, during learning)	**Summative Assessment (linked back to objectives, END of learning)**
• **Progress monitoring throughout lesson (how can you document your student's learning?)** The students will have a pre-assessment that they will take prior to the lesson and will then also have a post-assessment a few days after the lesson to track the progress of the students.	

Reflection (What went well? What did the students learn? How do you know? What changes would you make?):
The students were eager to learn and were very engaged and wanted to answer questions. They also really wanted to come up to the board to solve some of the problems that I had for exercises. A couple of things that I will change in the future is give the students more time for the word problem at the end. The other thing that I will change is give the students the pre-assessment to the students the day before the lesson so I have time to change the lesson if needed to get all of the students engaged and be at the level they need to be at.