| Grade: |  | Subject: |
| :--- | :--- | :--- | :--- | :--- |
| $5^{\text {th }}$ |  | Math |

## Standard (s)

5.NBT. 7 Using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction, add, subtract, multiply, and divide decimals to hundredths.

## Objective (s)

By the end of the lesson, students will gain a base understanding of multiplying decimals through instruction, practice, and demonstration.

## Bloom's Taxonomy Cognitive Level:

Remember: Students will remember their previous facts of subtracting and adding decimals.
Understand: Students will identify the rules and procedures of multiplying decimals.
Apply. Students will use their new information to solve and operate the problems that they will be given.

## Differentiation

## Below Proficiency:

Student $Z$ will be able to do this lesson. The review of subtraction and addition is what they have been practicing in advance, so this will not be a new concept. When learning about multiplying decimals, there will be visuals, explanation, walk through problems, and practicing for them. When it comes to the activity, these students will be given problems in the GREEN category. This is designed for students who have no practiced multiplying decimals and need a soft-landing.

## Above Proficiency:

Student A will be able to do this lesson as well while also be challenged. These students will know the review questions since they have been doing them in earlier math lessons. These students will understand the instruction and practice problems, as it will be a great review opportunity. For the activity, these students will be put into the RED group. The questions in the RED group will be much more challenging, as these students have already practiced them and have a good base understanding.

## Approaching/Emerging Proficiency:

Student E will be able to do this lesson well too. This student will be having a review, which it also could be a small review as it will look familiar, but it will be good practice. This student will be in group BLUE, which is for students who have a good understanding, yet need practice to challenge them to become better at the process

## Modalities/Learning Preferences:

- Visual: Students in this category will be able to do the lesson, but it can be in audio form. The directions on how to multiply decimals can be created for students to listen to while their peers are also gaining an understanding. These students also can do the problems, but it can be read out loud to them by the computer, teacher, or aid. This way, the students can still practice and understand how to do the process.
- Auditory: Students in this category will be able to do the lesson as well. The directions will all be written out and printed off for them or in the PowerPoint for the class. The students can do the problem and complete it.
- Kinesthetic: Students in this category will be able to do the lesson and will enjoy the movement that is involved.
\(\left.$$
\begin{array}{|l|l|l|}\hline\end{array}
$$ \quad \begin{array}{l}There is movement during review and for the practice <br>
problems. <br>
Tactile : These students will be working with their hands <br>

in a way or doing practice problems. They can use the\end{array}\right]\)| whiteboard as well, which can be a solution to any |
| :--- |
| movement issues. |

Give students a couple problems to do themselves.

- Have them show you their white boards before going through the problem yourself.
- Make sure to have the answers ready.
- Stop and see if they have any questions before continuing.
- I Do : Teach them how to multiply decimals by going through the problems and modeling.
- We Do: Doing problems together and having students come up and model.
- You Do: Students will go around and do problems all by themselves.
- Once the students have shown that they understand, move on to the activity!

20 Explore: (independent, concreate practice/application with relevant learning task -connections from content to real-life experiences, reflective questions- probing or clarifying questions)

- Before the activity starts, have students put their whiteboards away and sit back in their spot.
- Call on students to either come up and get their sheet, or hand them out. There are three different sheets, so make sure the correct students are getting the sheet that they need.
- Explain the rules to the students.
- 1. Students will get the chance to do problems that are located around the room.
- 2. There will be three different categories. Go Red, Go Blue, and Go Green. These are called Go Red Questions because I will say GO and they will GO around the room doing practice problems.
- $\quad 3$. There will be enough problems that there should only be one person from each group at the problem at a time. So, there should be no crowding.
- 4. When they are finished they will hand it in the tray.
- Remind the students that they cannot work with a partner, but once they finish, they could compare answers before they hand it in.
- Now let the students go through and find the problems around the room.
- Students in the Red group will be doing harder questions, for the high flyers since these students have already practiced this concept. Students in the Blue group will be doing intermediate, for the average students. Students in the Green group will be practicing the very basic to help them gain the understanding, for below proficiency students.
- Students will be given about 20 minutes to do this activity.
- Once students are done, they may work on IXL or Dream Box math problems.

Review (wrap up and transition to next activity):

- When students are done going through the problems, they may hand it in the tray and work on other work in their spots or around the classroom.
- If students do not finish, they can write down the missing problems and work on them later in the day.
- To transition, students will need to put their math away in a safe place if they haven't finished so they do not lose it.
- Students will also need to be in their desks with computers put away.


## Formative Assessment: (linked to objectives, during learning)

## - Progress monitoring throughout lesson (how can you document

 your student's learning?)The formative assessment that I can use during the teaching is whiteboards. I can watch to see what they know and who is struggling. This can be quick and simple, but effective. Second, students will be handing in their questions I the tray. I can then look these over, see which students understood the concept, and which students need more help and practice. I will most likely be seeing some mistakes here and there, which is normal as this is a new concept for some students. Knowing this, I can see that students are getting their base understanding of how to multiply decimals, but also are trying their best to get the right answer through practice.

Summative Assessment (linked back to objectives, END of learning) The summative assessment that is linked to this lesson is the quiz that is at the end of the week, the unit test after students learn about dividing decimals, and the MAP tests that $5^{\text {th }}$ grade students will be doing. The students will be assessed on multiplying decimals through those assessments. I will be giving them a short quiz at the end of the week to see if they really do have a base understanding.

Reflection (What went well? What did the students learn? How do you know? What changes would you make?):

## What went well?

- The students were engaged in the lesson.
- The students seemed to follow along with the lesson and how we walked through the problem together.
- Students worked on their questions so well. It was super quiet while students were working, there were no issues.
- Students would ask me questions when they needed, which helped a lot.

What did the students learn?

- The students learned how to multiply decimals. They learned how to set up the problem, how to help them with the steps, how to
estimate or multiply the numbers by 10 in order to help them understand better, and moving the decimals for their answer.
- The activity, students did their practice problems that also worked very well and students were able to put what they learned to work.

How do you know?

- I know that the lesson went well because students were able to understand the process.
- The students who were confused and needed help would come to me with questions. This helped me see that students understood the basic concept, just needed a little bit more explanation.
- I also was able to see what the students learned by their answers from their math worksheet. This was nice to see what they knew because they had to show their work.
What changes would I make?
- I would change how the questions were already picked out for students. I would have just three sets of questions that students could do so then if they needed to challenge themselves but also practice in the beginning, they could. Some of the students that I grouped up should have been in a different group, or had different options to pick.
- I would also have the questions that the students would complete already put on the board, to save time and transition time.


## Questions:

Red:

1. $9.0042 \times 0.041$
a. 0.3691722
2. $3.072 \times 0.269$
a. 0.826368
3. $10.259 \times 0.13332$
a. 1.36772988
4. $33.6 \times 7.245$
a. 243.432
5. $0.8831 \times 3.75$
a. 3.311625
6. $90.899 \times 0.125$
a. 11.362375
7. $0.3333 \times 0.9527$
a. 0.31753491
8. $1.234567890 \times 0.99$
a. 1.2222222111

Blue

1. $7.5 \times 6$
a. 45
2. 30.4 xx 2
a. 60.8
3. $12.8 \times 3.2$
a. 40.96
4. $0.193 \times 1.2$
a. 0.2316
5. $8.6 \times 0.413$
a. 3.5518
6. $0.086 \times 1000$
a. 86
7. $83.01 \times 6.002$
a. 498.22602
8. $0.648 \times 103.2$
a. 66.8736

Green:

1. $0.12 \times 3$
a. 0.375
2. $1.5 \times 0.25$
a. 0.36
3. $3.1 \times 4.0$
a. 12.4
4. $5.3 \times 2.0$
a. 10.6
5. $0.045 \times 4$
a. 0.18
6. $14.2 \times 5.5$
a. 78.1
7. $1.63 \times 100$
a. 163
8. $0.4 \times 0.36$
a. 0.144
$\qquad$


Find the questions around the room that are RED. Answer them to your best ability. Show your work in the space below.

1. $\qquad$
2. $\qquad$ 4. $\qquad$

Date:
5. $\qquad$ _
6.
8. $\qquad$
$\qquad$


Find the questions around the room that are GREEN. Answer them to your best ability. Show your work in the space below.
2. $\qquad$ 2. $\qquad$
4. $\qquad$ 4. $\qquad$

# Lesson Plan Template 

Date:
6.
7. $\qquad$
6.
8.
$\qquad$


Find the questions around the room that are GREEN. Answer them to your best ability. Show your work in the space below.
3. $\qquad$ -
5. $\qquad$ -
2.
4. $\qquad$
7.
7.

