Grade: 7th	Subject: Math 7th Grade
Materials: notes, worksheets	**Technology Needed:**

Instructional Strategies:	Guided Practices and Concrete Application:

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)
  Explain:

- ☑ Hands-on
- ☐ Technology integration
- ☐ Imitation/Repeat/Mimic

Standard(s): 7.NS. 2 Apply and extend previous understandings of multiplication, division, and fractions to multiply and divide rational numbers.	**Differentiation** **Below Proficiency:** Provide extra guided practice while the class is working on assignment **Above Proficiency:** Help their classmates around them that are confused. **Approaching/Emerging Proficiency:** Have student work with a partner in class to continue approaching proficiency. **Modalities/Learning Preferences:**
Objective(s): The learner will be able to decimal number and apply order of operations. **Bloom's Taxonomy Cognitive Level:**	
Classroom Management- (grouping(s), movement/transitions, etc.): proximity and withitness	**Behavior Expectations- (systems, strategies, procedures specific to the lesson, rules and expectations, etc.)** Students will be engaged in taking notes and answering/asking questions.

Minutes	Procedures
	Set-up/Prep: Have notes and worksheets ready
5	**Engage: (opening activity/ anticipatory Set – access prior learning / stimulate interest /generate questions, etc.)** Have students review order of operations and multiplying fractions since it will be on their worksheet. Remind them of the rules for positive and negative signs. Example: $(-2/3)^2 - 3/4 \times (2\ 1/3) = -1\ 11/36$
10	**Explain: (concepts, procedures, vocabulary, etc.)** Model for students how to multiply decimals building off of what they know about multiplying integers. Explain how to determine how many decimal places are in the product. Also talk about order of operations when there is more than is addition/subtraction, exponents, and parentheses. Examples: $3.59 \times 7.87 = 28.2533$ $13.98 \times 0.11 = 1.5378$ $4.75 \times 11.15 = 52.9625$ $2(0.43) \times 6.67 = 5.7362$ Focusing on Order of Operations: $2.55 + 6(0.05) = 2.85$ $7.73 \times (2.2 \times 2.8) = 47.6168$ $9.45^2 + 11.71 = 101.0125$ $3(0.88 + 4.14)^2 - 2.64 = 68.9612$
20	**Explore: (independent, concreate practice/application with relevant learning task -connections from content to real-life experiences, reflective questions- probing or clarifying questions)** Have students begin working on their worksheet.
5	**Review (wrap up and transition to next activity):** Have students explain similarities and differences in multiplying fractions and decimals.

Formative Assessment: (linked to objectives)
  Progress monitoring throughout lesson- clarifying questions, check- in strategies, etc.
Walking around room while the students are doing the examples to check for understanding.
  Consideration for Back-up Plan:
If students are not ready to multiply decimals, we will continue to practice fractions or review multiplying integers.

Summative Assessment (linked back to objectives)
  End of lesson:
Worksheet

  If applicable- overall unit, chapter, concept, etc.:

Reflection (What went well? What did the students learn? How do you know? What changes would you make?):
Today was the second day of multiplying rational numbers. The students definitely are more comfortable multiplying fractions than decimals. Overall, the students did good, but they struggled with where to place the decimal at the end. I think I spent too much time of the first two examples, so I didn't get through all of the examples, and they didn't have much time to work on their worksheets. I think next time I would do an example of just multiplying integers (without decimals) before trying to do an example with decimals first. The students seemed to have needed a reminder of how to multiply without the decimals. I think this would have cleared up some the confusion in where to place the decimal at the end and would have made the other examples go a little faster.

Multiplying Rational Numbers

1. $\frac{1}{8} \times \frac{5}{6} =$

2. $\frac{3}{7} \times \frac{4}{5} =$

3. $5\frac{3}{8} \times \frac{8}{9} =$

4. $\frac{1}{2} \times 2\frac{6}{7} =$

5. $\frac{4}{5} \times 4\frac{5}{9} =$

6. $3\frac{1}{3} \times 2\frac{1}{5} =$

7. $1\frac{3}{8} \times 3\frac{1}{3} =$

8. $\left(2\frac{1}{7}\right)^2 =$

9. $-3\frac{2}{5} + \frac{2}{10} \times \frac{5}{6} =$

10. 6.4 x 5.9 =

11. 9.2 x 1.6 =

12. 4.21 x 6.1 =

13. 11.4 x 7.5 =

14. 2.6 x 3.72 =

15. 14.84 x 2.84 =

16. 9.92 x 4.54 =

17. $(-1.5)^2$

18. 3.8 x 0.65 − 1.4 =

19. A baker needs to make 8 batches of cookies for a party. If each batch requires 2 3/4 cups of flour, how many cups will he need?

20. The Science Club went to a history museum. It costs $7.25 for an admission ticket. If 90 members went to the museum, what would the total cost be?