01/27/2021

Lesson Plan Template
Date: January 27th, 2021

Grade: 5	**Subject:** Math
Materials: - White board - Marker - Pencil - (teacher computer)	**Technology Needed:** - Teacher Computer
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) **5.OA.1** Use parentheses, brackets, or braces in numerical expressions, and evaluate expressions with these symbols. **5.NBT.5** Fluently multiply multi-digit whole numbers using strategies flexibly, including the standard algorithm. **5.NBT.6** Using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division, find whole-number quotients of whole numbers with up to four-digit dividends and two-digit divisors. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models. **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. Relate the strategy to a written method and explain the reasoning used.	**Differentiation** **Below Proficiency:** Students who are in this area are still able to this lesson with ability to follow along with the group work. This lesson will be going through a review of areas that they have learned before. The students will be able to follow along, but also get the chance to ask questions. These students can also get another homework assignment with different questions. These questions can be similar, but more in their level of understanding. This can help the students to practice, but also get to try by themselves. **Above Proficiency:** The students in this area will be able to do this activity without much trouble. Some of the questions are tricky, but these students will be able to use their previous knowledge to help them. The students could also get extra problems if they finish earlier than others. These students can be pushed since they will be able to do the lesson without worry. **Approaching/Emerging Proficiency:** These students will be able to do this lesson and it will be beneficial for them since it pushes their knowledge. The students will be working as a group first, which can help them walk through problems and then practice on their own. These students can do the problems, but questions will be expected if they are stuck. These students can do these problems and the practice in the beginning will help them. **Modalities/Learning Preferences:** • **Visual:** Those who have visual impairments will be able to listen to the lesson and have an assistant help them fully understand. These students, if visually impaired to the point of not being able to see, there will be something put in place for this. These students who also just have some impairments, then they could still get small visuals, but make it very big so that they can see. • **Auditory:** Those who have auditory impairments will be able to get the directions on the PowerPoint so that they can join in. The students can also have written directions printed out so that they can follow that way too. These students can do the activity and lesson without many adjustments. • **Kinesthetic:** To make these students more able to understand, have them get up every time the finish the problem. Students could also get up and move when they do a problem. Every problem they finish, they can go give the teacher a high-five. These are simple ways to
Objective(s) By the end of the lesson, students will be able to understand the process of order of operations through whole group and independent practice and the addition of multiplication and exponent problems. **Bloom's Taxonomy Cognitive Level:** Remember: Students will remember what they have previously learned about order of operations and use it to help them solve the problems given. Understand: Students will be able to identify which process comes first through group instruction and practice. Apply: Students will use their information to help solve problems that will be given to them independently.	

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	help these learners fully understand the lesson but also does not make them want to turn away. • **Tactile :** These learners could have little things to hold while they are working to stop any fidgeting. These learners will also have visuals to see and watch that can help keep their attention. The students will have writing to do with the white boards the entire time, which will help them with the hands on part.
Classroom Management- (grouping(s), movement/transitions, etc.) Students will be at their seats when this lesson takes place. They will be transitions as 5th grade students, as it will be quiet and no interruptions to others should occur. The students will be working independently and doing their own work when doing group problems, so students should not be pairing up. Each student is expected to follow along with the lesson to fully grasp the concept.	**Behavior Expectations- (systems, strategies, procedures specific to the lesson, rules and expectations, etc.)** Students will use the same expectation that they have for other lessons. Students will be using strategies that they have learned before, but there will be a review. Students will be expected to stay on task and not disturb others. They will work through problems themselves, but will also get the answer through the teacher when we do group problems. Students will be expected to do their own work and not copy their neighbors.

Minutes	Procedures
	Set-up/Prep: - Have the problems page printed out so each student will get one. - Have a presentation with math problems ready so that students can watch them on the board. - Find a fun video to help students remember order of operations. - Understand the standards to fully teach the students.
	Engage: (opening activity/ anticipatory Set – access prior learning / stimulate interest /generate questions, etc.) - Have students at their seat. - Start the lesson by having the presentation on the board. - The presentation should include what they need, which is a white board and a marker. - Start by talking to the students and introducing the topic of math. - Begin going through the slides, which start with exponents. - Remind the students that we always need to practice and it will help us get better - Give the students time to go through their problems and then write them on the board for them to see. - Have them hold up their white boards to also see their answers. - When finished with exponents, continue to the next slide. - Have the students watch a Math Rap video on order of operations.
	Explain: (concepts, procedures, vocabulary, etc.) - When the video is done, continue to the next slide. - Have the students help you write down what P E M D A S means so that the whole class can understand. - Next, show the first problems for the students to practice. - Give students enough time to work through the problem and have them show you on their white boards when you say. - Do this until all problems of order of operations are through. - If there is time, add in surprise multiplication problems to practice! - If students have any questions this will be the time to talk about it
	Explore: (independent, concreate practice/application with relevant learning task -connections from content to real-life experiences, reflective questions- probing or clarifying questions) - Students have now practiced these problems in as a group. - Students will be able to apply their knowledge to the worksheet that will be handed out. - This will be the time to walk around and help any student who has a questions. - Remind students to focus on their own work and not look at their other peers answers. - Talk about how helpful this will be when taking their math tests and next year in middle school.
	Review (wrap up and transition to next activity): - When students are done, they may hand them in. - Students who are not finished are able to hand them in later. - Ask the students what does PEMDAS mean again and have them reply to you.

Formative Assessment: (linked to objectives, during learning)	**Summative Assessment (linked back to objectives, END of learning)**

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• **Progress monitoring throughout lesson (how can you document your student's learning?)** I will be able to see how the students are learning by having them show me their whiteboards throughout the lesson. This shows me that they are learning and also listening to the task. Some students may not actually be writing down the problems, so having students show me their answers will help me fix that problem before it arises. I am able to link the objectives well in the lesson by using large group instruction but also giving students a chance to do their work on their own as well.	The summative assessment for this lesson will be looking at the work that students hand in. Having students work in the large group instruction is important, but seeing their work individually will help. This will be a quick way to judge where the students are at and help me check in to see if I need to review another time. The students also do take math tests which will include problems like this one, so it will also show me on the math tests that they understand.

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

What went well?

- Students were very active with doing the problems that were given on the board. When I would ask them questions, they would respond and do their problem. I know that they were able to listen to be because they were watching me, talking to me, as well as answering my questions. The students also did the worksheet too. This worked well because students had the chance to work independently after practicing. I also let students come up to the board and write down what they thought the answers were, which helped everyone learn too. Cold-calling and recalling students to me went well too.

What did the students learn?

- The students were able to learn the order of operations and were focused. They learned that the steps multiply and divide go from left to right as well as subtract and divide. This would trip many students up, but they did well. I saw on their homework those who really understood the problems and those who had trouble. The students would also practice exponents and their multiplication. The students did well when having to work on their own.

How do you know?

- I know that the students learned or if they were still struggling through the worksheet that I gave them. The students have learned this lesson before, but have a refresher was needed. The students did well with their order of operations but there was sometimes small mistakes, which would change the answer fast. The students were also talking to me and using their whiteboards during my lesson.

What changes would you make?

- The changes that I would make would be maybe giving more of a deeper explanation and going through my own work on the board so students can see how I go through it. This could help me very well since the students did have trouble understanding what goes first, but that was only a few of them.