

BPM2- Technology Integration Project Task 3

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Unit Overview

Instructional Goal

Students will be able to master their 3, 6, and 9 multiplication tables by passing their quiz with an 80% or higher.

Audience

The instructional setting will take place at an elementary school located in Kanawha County, West Virginia. The instruction will take place in a third-grade classroom with twenty students. There are 11 boys and 10 girls in my class room. Six of those students have an IEP (Individualized Education Plan) and those six have 45 minutes of intervention time with the reading resource teacher. Then there are 3 of the same students that have 45 minutes of intervention math time with the math intervention teacher. To help us, the classroom is equipped with a one to one iPad ratio. The iPads may be taken anywhere around the room so when they are doing their work, they have enough space to work. The room is set up in team tables to build relationships with their peers and to help build social skills. There is lots of room to work in our color creative classroom. The classroom has a library for students inventory list, bright colors to engage their learning, work stations for math and reading, and much more. The simplicity in the room creates a safe and fun learning environment so these students can learn how to use technology safely and ethically.

Length and Delivery Approach of Instructional Unit

This unit will be over a 3-4 day period just depending on how the assessments go. I plan on using a day each for each set of multiplication tables that I am wanting them to memorize from their memory. I plan on using different hands-on activities and manipulatives to achieve

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this goal. I will be focusing on how to break down these facts so they can actually understand what multiplication means. This will also help them in the next chapter, division.

I will spend a total of about 120 minutes for each day. This will include our math core time and our math guided time. These days will consist of intensive instruction on the skills in our MyMath workbook (ebook) and the McGraw-Hill website for our math program. I will use counters, counting cubes, whiteboards and dry erase markers, my actual whiteboard in front of my classroom, multiplication fact charts, the website itself and the slides that come with the program, multiplication flashcards and fact family charts to help with instruction. I will use whole group and small group instructional strategies. I will always model everything beforehand for them as well. I will be using equal groups as a strategy a lot because it will help them represent as see these facts be represented. They will see that addition and multiplication are related.

I will use the workbook pages for assessments that come with the book. I will use quizzes that I have created to help them memorize and know their multiplication facts. These tests will not be timed. They will be allowed to use scrap paper to help them figure these out. The goal is for them to know them and receive an 80%, not to be timed. That will happen in fourth grade. I will see through these workbook pages that they are understanding these strategies they will use to show them how to get the product of their multiplication sentence.

Materials

- Pencils
- iPads
- Teach MacBook

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- MyMath Workbook
- Whiteboard App Ipevo on iPad
- Whiteboards
- Dry Erase markers/erasers
- Counters
- Ebook of MyMath
- Schoology app on iPad
- Multiplication charts
- Multiplication Flashcards
- Counting cubes
- Fact family charts
- Scrap paper
- MyMath website
- Classroom app for teacher use
- Internet
- Youtube

Instructional and Lesson Overview

The theory I used when I was planning this instruction was cognitivism. It is aligned with my performance objectives because it I link prior knowledge to the lesson objective. I present the objective to them before starting the lesson and it gets their attention. Before every lesson, I use a problem of the day after they know the lesson objective, to get their brains firing. Tapping into the prior knowledge requires the students to access their memory and their knowledge of the

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subject. By presenting the instruction builds on their memory and by providing practice with guidance the teacher, myself, helps implant this information in the students' memory. This will help them recall from their rote memory for their quizzes at the end of the unit.

After instruction has been done, I break them into guided math groups for small instruction with a Title One math interventionist and myself. By doing this helps the information get embedded into their brain and helps prepare them for the end of this unit. By using this theory, it helps the students use problem solving skills and also to use their strategies they have been learning in this unit to receive an 80% or higher on their quiz.

This type of instruction and theory helps the students organize, rehearse, store, and then later retrieve the information for these multiplication facts. The pre-instructional problems that are given to the students are to grab their attention to get their brains firing before the lesson begins. This gets the students thinking based on prior knowledge from previous math lessons throughout the year. Then we as a group will go through example problems as a class. There are several example problems in the MyMath from McGraw-Hill to use. This allows me to walk them through step by step then they complete problems on their own after I do guided practice problems with them as well. This shows different strategies as well as how to solve the problem. The assessment will be a summative assessment on all 3 multiplication facts tables of 3, 6, and 9.

Lesson Plans for Unit of Instruction

Lesson Plans

Materials needed: Apple TV, MacBook (for teacher use), my math workbook, iPads, pencils, counters

Lesson Plan 1: Multiplication by 3

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Time: 9:45 a.m. - 12:00 p.m.

Step 1: Pre Instructional activities

Students will do problem of the day to get their brains going on what multiplication is. (repeated addition.) They will work this out on their Whiteboard app on their iPad.

Step 2: Instruction

Follow Presentation on Chapter 7 Lesson 1 on how to multiply by 3.

Slides 16-28.

Step 3: Independent Practice

Students will complete independent practice numbers 3-12.

Step 4: Students will turn in independent practice when finished and will be used as an assessment to see if they are ready to move on.

Step 5: Guided Math 10:30 - 12:00

Students will be divided into 2 groups with Title I Math interventionist and myself. We will be in groups for 45 minutes then switch. We will be working on our 3's facts.

Summary: During the instructional time I will be using the MyMath ebook to guide students through the math lesson they will be learning different strategies to be able to memorize their multiplication facts on our 3 times tables. They will work through example problems and guided practice with me and then they will complete independent practice on their own. I will help assist them if need be. I will walk around and monitor and answer questions if needed. When students are finished with their worksheet, they will turn it into the complete work basket and then I will assess them based on their worksheet. This will tell me if they are understanding how multiplication is repeated addition and they will be using the strategies in this to be able to

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memorize their multiplication facts by practicing these in guided math. One thing we worked on in guided math with myself is skip count by 3s to be able to know their times tables. Then we worked on drawing arrays to get the answer as well because I have visual learners in my group. In Title one group, they used counters to model repeated addition to get their answer. Some of my kids really liked that because they thought it was easy. After guided math was over we evaluated on which strategies they liked the most and I used their input.

Lesson Plan 2: Multiplication by 6

Materials needed: Apple TV, MacBook (for teacher use), my math workbook, iPads, pencils, counters

Time: 9:45 a.m. - 12:00 p.m.

Step 1: Pre Instructional activities

Students will do problem of the day to get their brains going on their whiteboard app. (What strategies can you use to multiply by 6?) Review skip counting play youtube video

<https://www.youtube.com/watch?v=MWxPKnLtus>

Step 2: Instruction

Follow Presentation on Chapter 8 Lesson 1 on how to multiply by 6.

Slides 16-25.

Step 3: Independent Practice

Students will complete independent practice numbers 2-15. They have until 10:30 or longer depending on each individual it can be modified to make longer.

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Step 4: Students will turn in independent practice when finished and will be used as an assessment to see if they are ready to move on.

Step 5: Guided Math 10:30 - 12:00

Students will be divided into 2 groups with Title I Math interventionist and myself. We will be in groups for 45 minutes then switch. We will be working on our 6's facts.

Summary: During the instructional time I will be using the MyMath ebook to guide students through the math lesson they will be learning different strategies to be able to memorize their multiplication facts on our 6 times tables. They will work through example problems and guided practice with me and then they will complete independent practice on their own. I will help assist them if need be. I will walk around and monitor and answer questions if needed. When students are finished with their worksheet, they will turn it into the complete work basket and then I will assess them based on their worksheet. This will tell me if they are understanding how multiplication is repeated addition and they will be using the strategies in this to be able to memorize their multiplication facts by practicing these in guided math. One thing we worked on in guided math with myself is working on drawing arrays to show the grouping. We also drew circles for how many numbers groups they have in for example 6×6 , so we drew 6 circles and put 6 dots in each circle to get our answer. In Title one group, they used counters to model repeated addition to get their answer and they also tried higher level thinking of doubling their multiplication facts for their 3s since 6 is double of 3. Some of my kids thought it was really hard and they didn't like it but I told them that they didn't have to use that strategy. They use repeated addition a lot as well as the circle distribution.. After guided math was over we evaluated on

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which strategies they liked the most and I used their input for feedback. We had some extra time so we played around the world with multiplication math facts. They loved this.

Lesson Plan 2: Multiplication by 9

Materials needed: Apple TV, MacBook (for teacher use), my math workbook, iPads, pencils, counters

Time: 9:45 a.m. - 12:00 p.m.

Step 1: Pre Instructional activities

Students will do problem of the day to get their brains going on their whiteboard app. Play video for them. <https://www.youtube.com/watch?v=SmRr86Y188w> after they solve the problem of the day.

Step 2: Instruction

Follow Presentation on Chapter 8 Lesson 5 on how to multiply by 9.

Slides 16-27.

Step 3: Independent Practice

Students will complete independent practice numbers 5-15. They have until 10:30 or longer depending on each individual it can be modified to make longer.

Step 4: Students will turn in independent practice when finished and will be used as an assessment to see if they are ready to move on.

Step 5: Guided Math 10:30 - 12:00

Students will be divided into 2 groups with Title I Math interventionist and myself. We will be in groups for 45 minutes then switch. We will be working on our 9's facts.

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Summary: During the instructional time I will be using the MyMath ebook to guide students through the math lesson they will be learning different strategies to be able to memorize their multiplication facts on our 9 times tables. They will work through example problems and guided practice with me and then they will complete independent practice on their own. I will help assist them if need be. I will walk around and monitor and answer questions if needed. When students are finished with their worksheet, they will turn it into the complete work basket and then I will assess them based on their worksheet. This will tell me if they are understanding how multiplication is repeated addition and they will be using the strategies in this to be able to memorize their multiplication facts by practicing these in guided math. One thing we worked on in guided math with myself is working on drawing arrays to show the grouping. We did the distribution with the circles again and then I showed them the nines finger trick and then we played with multiplication flashcards because they enjoyed that. In Title one group, they used counters to model repeated addition to get their answer. Then she showed them that if you write 0-9 down where the product goes you will be able to write 0-9 starting from the bottom and go up where the product goes you will have the product for each multiplication fact starting with zero. It is a very neat trick. They use repeated addition a lot as well as the circle distribution and the finger trick for their 9s I noticed. After guided math was over we evaluated on which strategies they liked the most and I used their input for feedback. We had some extra time so we played around the world with multiplication math facts, which they enjoy a lot. We did this whole group.