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| Lesson Information |
| Teacher’s Name: | Caitlyn Hinnerschitz |
| Grade: | Third  |
| Title: | Repeated Addition and Equal Grouping to Multiply Two Single-Digit Whole Numbers  |
| Content Area(s): | Mathematics |
| South Carolina Standards  |
| 3.ATO.1 Use concrete objects, drawings, and symbols to represent multiplication facts of two single-digit whole numbers and explain the relationship between the factors. |
| Objective(s) |
| After a brief PowerPoint presentation, the third-grade students will be able to compute multiplication facts of two single-digit whole numbers using drawings correctly two times on an exit slip. After participating in guided practice and a web-based educational game (*Prodigy*), the third-grade students will be able to illustrate a two single-digit multiplication problem using the equal grouping strategy correctly two times on an exit slip. After participating in guided practice and a web-based educational game (*Prodigy*), the third-grade students will be able to use the repeated addition strategy to correctly solve a two-digit multiplication problem two times on an exit slip. While playing the web-based educational game, the third-grade students will be able to use the equal grouping and repeated addition strategies learned by successfully completing at least two battles during gameplay. **Learning Objectives for students:*** I can use the repeated addition strategy to solve a two single-digit multiplication problem.
* I can use the equal grouping strategy to solve a two single-digit multiplication problem.
* I can explain the repeated addition and equal grouping strategies.
* I can use the two strategies learned in gameplay to win battles.
* I can level up by successfully completing at least two battles in *Prodigy*.

*All objectives align with Bloom’s apply level of cognition (i.e.: compute, illustrate, and use).*  |
| Estimated Time Required |
| One hour |
| List of Materials  |
| * Computer for teacher’s presentation
* PowerPoint presentation
* Guided notes sheet for PowerPoint
* Guided practice worksheet
* Prodigy login information cards for students
* “My Challenges” sheet to write down confusing questions in Prodigy
* Prodigy checklist (on back of challenges sheet)
* Gameplay Debrief questions for teachers to ask students
* Exit slip with three mathematical problems (3 questions- 6 parts)
* Observational Checklist
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| Instructional Procedures |
| Review * Open/focus the lesson
* Activate prior knowledge
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|  “Students, in our last unit we started learning about fractions! To review what we have learned we are going to conduct a think-pair-share about what we can remember about fractions. (Students will have one minute to think by themselves about what a fraction is, one minute to share their thinking with their shoulder partner and will then share back with the teacher). Students I am so impressed with how much you have learned!”  |
| Overview* Provide summary of lesson (Today we will...) and its importance (How does it connect with students’ lives?).
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| “Today we will be learning about a new topic: how to multiply numbers. Does any know what multiplication is? (Students’ answers will vary.) Multiplication is a fancy word for a number being added to itself a specific number of times. To help us learn this operation we will be using two strategies: repeated addition and equal groups. We will be learning these concepts through a PowerPoint presentation, guided practice with a partner, and by playing an educational game. Why do you think it is important that we know how to multiply? (Students’ answers will vary). It is important that we learn how to multiply a number because we use it every day in life! For example, to help your mom bake a cake you will need to be able to convert measurements using multiplication or if you are in a store and it is having a sale, you could use multiplication to find the new price!” |
| Presentation |
| Direct instruction: Brief PowerPoint Presentation * Students will receive a guided notes sheet that they fill out as the presentation progresses. Be sure to ask probing questions throughout.

Outline of PowerPoint Presentation:* Slide One: Cover Page
* Slide Two: Multiplication definition, introduce symbols, and list the specific operation terms. (Terms: factors, product, and times/groups of)
* Slide Three: Equal Groups
* Slide Four: Practice problems for equal groups
* Slide Five: Repeated addition
* Slide Six and Seven: Practice problems for repeated addition
* Slide Eight: Write it and hide it with one more example using both strategies
* Slide Nine: Name that strategy example

Collaborative learning: Guided practice * Students will receive a guided practice worksheet with two mathematical two single-digit multiplication problems. For each problem, students will have to use both the repeated addition and equal grouping strategy.
* Students will use their whiteboards and expo markers to complete the two math problems with a partner.
* Manipulatives will be provided to learning disabled students.
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| Exercise |
| Independent Learning: Students will then play the web-based educational game entitled *Prodigy* * Link to Prodigy: <https://play.prodigygame.com>
* Each student will be given a sheet entitled “Challenges I Faced” recording sheet. While in battles, if learners have a question that appears that is confusing, they will record it on their sheet. Students can also record any comments they have about the content of the game. Students are required to record at least three questions or comments. They will also have a checklist to complete.
* Once the allotted gameplay time concludes, the class will come back whole class to clear up any misconceptions, questions, and comments students have recorded on their “Challenges I Faced” sheet.
* The Game Debrief will then place. The teacher will ask the students the following questions:
	1. Did you like playing the game? Why or why not?
	2. What was your favorite part of the game? Why?
	3. What was your least favorite part of the game? Why?
	4. What is one improvement you would make to the game if you could? What about the lesson?
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| Summary |
| “Students today we learned about multiplication. What is multiplication in your own words? (Students answers will vary). Very good students! We also learned about two different strategies we can use to help us multiply. What were those strategies? (Students will answer repeated addition and equal grouping.) Yes, the two strategies we learned were repeated addition and equal grouping. Who can explain what repeated addition is? (Answer will vary) Who can explain what equal grouping is? (Answer will vary) Students I am so impressed with all that we learned today! Tomorrow we will practice using these strategies and use them to solve-real world problems.”  |

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| Post Unit Plan Procedures |
| Assessment |
| Students will complete a three-question exit slip. For each question, students will have to use the repeated addition and equal grouping strategy to represent the two single-digit multiplication problems. There is a total of six separate parts students have to answer. Each part is worth half of a point.  |
| Intervention/Adaptation for Special Needs |
| Reading disability:* Headphones to have text read to them during gameplay.
* Received a copy of PowerPoint slides with key information highlighted. Exit slip read aloud.

Speech disability:* Will be able to write their answers to questions during Game Debrief on their individual whiteboard.
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| Early Finishers |
| Students who finish the assessment early will be permitted to return to prodigy to continue game play.  |
| **Homework**  |
| Students will play Prodigy at home for a minimum of 15 minutes or must complete at least three battles.  |