Lesson Plan #1

Introduction to Multiplication-Equal Groups (groups of)

Performance Objective: Using 5 pictures of equal groups objects, students will be able to write 4 out of 5 repeated addition sentences.

Resources or Materials Needed:

- Pencil

- White board

- Dry erase marker

- 20 red/white counters

- Glue

- Construction paper

- 3 different pieces of colored paper

- Assessment handout

- Chromebook-Google Slides

Time: 90 minutes

Step 1: Pre-Instructional Activities:

- Students will need to log onto Quizizz to do a quick quiz on equal groups as well as repeated addition as a pre-assessment. Teacher access:

  https://quizizz.com/admin/quiz/5d8ccbe01ad97e001a223fce

- Each student will be given 20 red/white counters

- Students asked to take 2 minutes to make however many equal groups they can make with 20 counters.

- Students will share with their partner/group how many equal groups they created and how many is inside each group.

Step 2: Content Presentation:

- Have the students count to 20 forwards and backwards as a class. This will reinforce repeated addition and skip counting that was taught in the 2nd grade. After counting to 20, have students count again forward and backwards while whisper the odd numbers while students say the even numbers in a regular voice. In our last count to 20 as a class, we will be counting to 20 forward and backwards while only saying the even numbers. The teacher will ask the following:
    - What did we just do in the end? (skip count)
    - What did we just skip count by? (2's)
- Present the class 5 multiplication problems (1x1, 2x1, 2x2, 2x3, and 4x4) and explain to the students that multiplication is just a set of equal groups. Starting with 1x1, the teacher will draw a one circle on the board with one star inside the circle. Explain that this is one equal group of one. Next to the equal group on the board, the equation 1x1 will be written. Explain that 1x1 is just one group of one.
    - Repeat with 2x1 and continue with 2x2, 2x3, and 4x4 with students writing their responses on whiteboards and displaying them to the teacher to make sure of comprehension. More multiplication problems can be used if students are struggling.
- Students will need to take 12 counters and create equal groups of two. Student will be prompted to show on their white boards how many groups there were and the size of each group (6 equal groups of 2). Student will then be prompted to write a repeated addition

sentence that relates to six equal groups of two. On the front white board, the teacher will write "6 groups of 2=12". Students will then be shown the multiplication sentence that relates to six groups of two by writing "6x2=12".

- Students will be asked to use only 19 counters to create equal groups. Student attempt to create equal groups that total 19. Students will begin to find that they cannot create equal groups. Students will be asked the following:
  - What do I need to add/take away to create equal groups?

Step 3: Learner Participation:

- Students will begin to work on an activity that will require them to create equal groups using pieces of colored paper that they cut.
- Students will write the repeated addition sentence under their equal groups that they created.
- Students will need to create:
  - 3 sections on their construction paper
  - Each section will have a variety of equal groups
  - Each section will include a repeated addition sentence

Step 4: Assessment:

Students will be assessed with a handout that shows five pictures of equal groups of objects from which students will be able to write 4 out of 5 repeated addition sentences.

Step 5: Follow-Through Activities:

- Students will discuss with their group how repeated addition, skip counting and equal groups all relate to multiplication. They will talk about the importance of equal groups in multiplication.

- Students will log onto Google Classroom and work on digital task cards titled "Ways to Show Multiplication". Students will work on the first 8 slides as these digital task cards are through Google Slides. Google Slides will be shared as well as provided as a PDF. Sharable link:

  https://docs.google.com/presentation/d/1tyn4E4EreCMS75tCIZC4uP9Eg1xBcSXqaMzT YJtZ9U0/edit?usp=sharing

Lesson Plan Summary: This is an introductory lesson to multiplication geared to get the students to relate past learning experiences to current information being taught (Ertmer, P.A., & Newby, T.J., 2013). Students are revisiting repeated addition and equal groups that tie into multiplication. The assessment of the lesson will allow the teacher to see whether the student is struggling. During small groups, the assessments are to be used to reteach those who are struggling with repeated addition and equal groups.

Quizizz Pre-Assessment
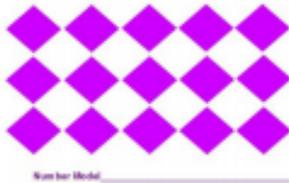
QUIZIZZ

Equal Groups and Arrays

12 Questions

NAME : _____

CLASS : _____

DATE : _____

1.

Number Model_____

Select the correct number model with the rectangular array

☐ a) 5+5+5=15

☐ b) 3+3+3=9

☐ c) 3+3+3+3+3=15

☐ d) 5+5+5+5+5=30

2.

Number Model_____
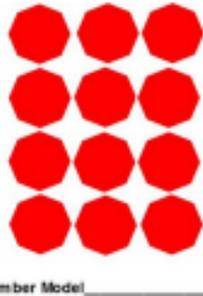
Select the multiplication equation to match the array.

☐ a) 3+3+3+3=12

☐ b) 4+4+4=12

☐ c) 4 x 3 = 12

☐ d) 4+4+4+4=16

3.
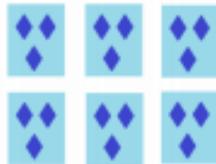
Select the multiplication sentence for the follow example:

☐ a) 3 x 8 = 24

☐ b) 6 x 5 = 30

☐ c) 2 x 9 = 18

☐ d) 6 x 3= 18

4.   What is another way of saying 4 + 4 + 4?

☐ a) 3 groups of 4   ☐ b) 4 groups of 4
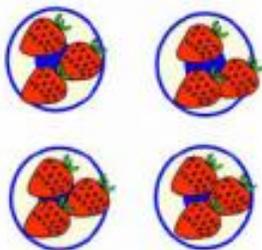
5.   What is the repeated addition sentence?

☐ a) 3+3+3+3=12   ☐ b) 4+4+4=12

6.   What multiplication sentence matches the picture?

☐ a) 5 x 5 = 15   ☐ b) 5 x 3 = 15

☐ c) 3 x 5 = 15   ☐ d) 3 x 3 = 9

7.   Choose the repeated addition number sentence with the correct answer to match the equal groups.

☐ a) 6 + 6 + 6 = 20   ☐ b) 6 x 6 = 36

☐ c) 6 + 6 + 6 = 18   ☐ d) 3 + 3 + 3 + 3 + 3 + 3 = 18
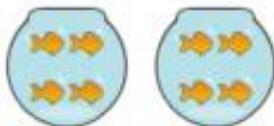
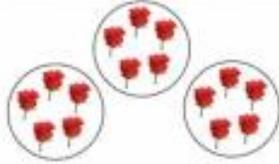8.   What multiplication equation matches the picture?

☐ a) 4 x 2 = 8   ☐ b) 4 x 4 = 8

☐ c) 2 x 4 = 8   ☐ d) 2 x 2 = 8

9.

What multiplication equation matches the picture?

☐ a) 3 x 5 = 10

☐ b) 3 x 5 = 15

☐ c) 5 x 3 = 15

☐ d) 5 x 5 = 15

10.

Which equation matches this array?

☐ a) 5 x 3 = 15

☐ b) 3 x 5 = 15

☐ c) 4 x 3 = 12

☐ d) 3 x 4 = 12

11.

Which equation matches this array?

☐ a) 4 x 7 = 28

☐ b) 7 x 4 = 28

☐ c) 4 x 8 = 32

☐ d) 8 x 4 = 32

12. An array is...

☐ a) A group of shapes put into rows and columns.

☐ b) A flower

☐ c) A pony

☐ d) A unicorn

Answer Key

1.	a	4.	a	7.	c	10.	a
2.	c	5.	a	8.	c	11.	a
3.	d	6.	c	9.	b	12.	a

Arrays Assessment

Name:_____

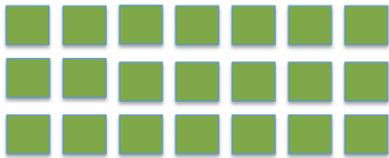Directions: Write a multiplication sentence that represents the follow arrays.
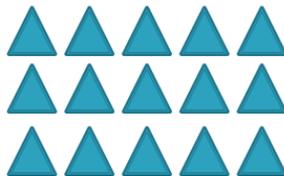
1.

_____X_____=_____

2.

_____X_____=_____

3.

_____X_____=_____

4.

_____X_____=_____

5.

_____X_____=_____

Total Correct:_____/5

Directions: Write a multiplication sentence that represents the follow arrays.

1.	2.
___2__X__6__=__8___	___2__X__4__=___8___

3.

____3____X____7____=____21____

4.

____3____X____4____=____12____

5.
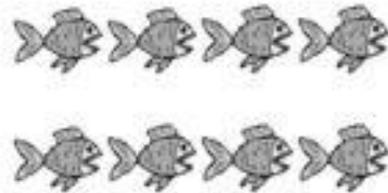
____3____X____5____=____15____

Total Correct:_____/5

4+/5=Proficient

Ways to Show Multiplication Google Slide

1

1.) Complete the multiplication equation.

____ x ____ = ____

2

2.) Complete the multiplication equation.

____ x ____ = ____

3

3.) Complete the multiplication equation.

____ x ____ = ____

4

4.) Complete the multiplication equation.

____ x ____ = ____

5

5.) Complete the multiplication equation.

____ x ____ = ____

6

6.) Complete the multiplication equation.

____ x ____ = ____

7

7.) Complete the multiplication equation.

____ x ____ = ____

8

8.) Complete the multiplication equation.

____ x ____ = ____