

Tier 3 Intervention Lessons

3.OA.7a

Learning Target: I will multiply numbers from 1 to 10

Readiness for 4.NBT.5: Multiply a four-digit number by a one-digit number

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Tier 3 Intervention Planning Guide

Learning Target: I will multiply numbers from 1 to 10

Readiness for multiplying a four-digit number by a one-digit number

	Recommended Actions
Beginning (5 min.)	 Review the learning target with the whole group Ask each student to set a goal for the day based on their previous Quick Check Score Have each student use a highlighter to plot their goal for the day
Middle (15 min.)	 Model solving a word problem – "I do" (Sessions 1, 3 and 6 only) Guided Practice – "We do" Sessions 1 and 2: Multiply numbers to 5 using counters. Sessions 3, 4 and 5: Multiply numbers to 10 using area and the "make a 5" strategy. Sessions 6, 7 and 8: Multiply numbers using known facts to 5.
End (10 min.)	 Bring the students back together. Ask students to reflect on their progress towards the learning target What did I learn today about multiplying numbers from 1 to 10? How confident do you feel about multiplying numbers from 1 to 10 on my own?
After Session 6	 Differentiation Options: Allow students who met the learning goal to work independently while others do the guided practice during the next session Exit students who met the learning goal for a third time Problem solve with a team to plan additional support for students who do not meet the learning goal within 8 sessions



Session 1: Modeling (I Do)

Learning Target: I will multiply numbers from 1 to 10

Readiness for multiplying a four-digit number by a one-digit number

Elias has a vegetable garden with 3 rows of tomato plants. If each row had 4 tomato plants, how many total are there in his garden?



Session 1: Modeling (I Do - Teacher Notes)

Learning Target: I will multiply numbers from 1 to 10

Readiness for multiplying a four-digit number by a one-digit number

Elias has a vegetable garden with 3 rows of tomato plants. If each row had 4 tomato plants, how many total tomato plants are there in his garden?

I am going to think aloud to model solving this problem.

Your job is to watch, listen, think and ask questions.

First, it is important to know what the problem is about.

This problem is about Elias' vegetable garden.

Second, I need to determine what I need to find.

I need to find the total number of tomato plants in the garden.

Third, I need to determine what I know.

I know there are 3 rows of tomato plants and each row has 4 plants.

Fourth, I need to figure out what I can try.

I am going to try modeling the situation using counters.

(Place the equation card above the multiplication grid.)

I will place 3 rows of 4 counters on the multiplication grid.

(Place the counters red-side up.)

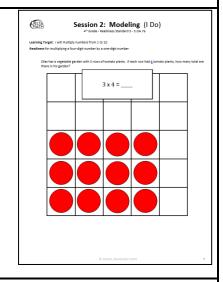
Next, I need to find the total number of counters.

There are a few different ways I can find the total.

I can count by 3's...3...6...9...12. (Point to each row as you count.)

Or, I can count by 4's...4...8...12. (Point to each column as you count.)

There are 12 tomato plants in the vegetable garden.



Last, I need to make sure that my answer makes sense.

I found there are 12 tomato plants in the vegetable garden. It makes sense because I knew there were 3 rows and each row had 4 plants in it. And, I modeled the problem by making 3 rows of 4 and that helped me skip count to find the total.



Multiplication Mat

Modeling & Guided Practice Cards

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Use for Problem 2

$$4 \times 4 =$$

Use for Problem 3

Use for Problem 4

$$3 \times 5 =$$

Use for Problem 5

Use for Problem 6

Use for Problem 7

Use for Problem 8

$$2 \times 5 =$$

Use for Problem 9

Use for Problem 10

Use for Modelling



Name _____ Date ____

Learning Target: I will multiply numbers from 1 to 10

Session 1: Guided Practice (We Do)

Materials:

- > 2-colored counters (20 per student)
- Multiplication mat (1 per student)
- Guided Practice Cards (1 set per student)

We Do Together: (Teacher Actions)

- > Say the multiplication problem and write the answer if you know it.
- > Use counters, a multiplication mat and equation cards to find or check your answer.

$$2 \times 5 =$$

$$4 \times 4 =$$

$$3 \times 5 =$$

$$5 \times 5 =$$



Name _____ Date ____

Learning Target: I will multiply numbers from 1 to 10

Session 1: Guided Practice (We Do - Continued)

You Do Together: (As a class, or in small groups)

> Students take turns leading to multiply numbers using counters and a break-apart strategy.



Session 1: Self-Reflection

Learning Target: I will multiply numbers from 1 to 10

Briefly discuss student responses:

- ➤ What did I learn today about multiplying numbers from 1 to 10?
- ➤ How confident do I feel about multiplying numbers from 1 to 10? (Thumbs up, down, or sideways)

10

Quick Check - Form A

Name_____ Date____

Learning Target: I will multiply numbers from 0 to 10.

Directions: When you are told to begin, answer as many multiplication problems as you can.

(Work Time: 60 seconds)

$$6 \times 2 =$$

$$5 \times 10 =$$

$$9 \times 6 =$$

$$2 \times 4 =$$

$$7 \times 3 =$$

$$9 \times 7 =$$

$$5 \times 9 =$$

$$8 \times 6 =$$

$$7 \times 0 =$$

$$8 \times 4 = \underline{\hspace{1cm}}$$

$$4 \times 6 =$$

$$5 \times 3 =$$

$$3 \times 9 =$$

$$7 \times 7 =$$

Number Correct = _____

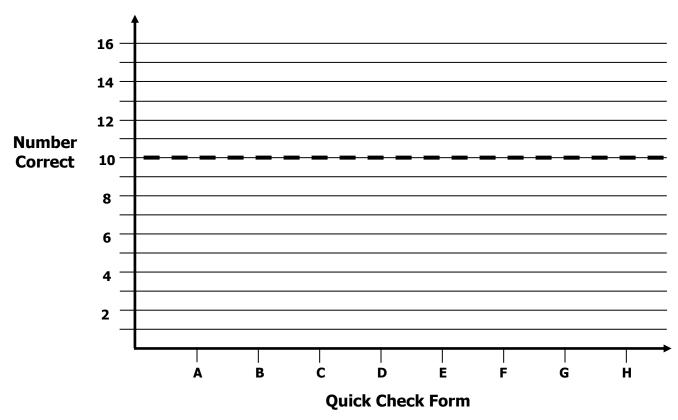


Growth Chart

Vame	Date
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Learning Target: I will multiply numbers from 0 to 10.

Goal: 10 out of 16 correct



Intervention	Date	Score
Session 1:		
Session 2:		
Session 3:		
Session 4:		
Session 5:		
Session 6:		
Session 7:		
Session 8:		



Name _____ Date ____

Learning Target: I will multiply numbers from 1 to 10

Session 2: Guided Practice (We Do)

Materials:

- > 2-colored counters (20 per student)
- Multiplication mat (1 per student)

We Do Together: (Teacher Actions)

- > Say the multiplication problem and write the answer if you know it.
- > Use counters, a multiplication mat and equation cards to find or check your answer.

$$5 \times 4 =$$

$$2 \times 5 =$$

$$5 \times 3 =$$



Name _____ Date ____

Learning Target: I will multiply numbers from 1 to 10

Session 2: Guided Practice (We Do - Continued)

You Do Together: (As a class, or in small groups)

> Students take turns leading to multiply numbers using counters and a break-apart strategy.

$$3 \times 4 =$$

$$5 \times 2 =$$

$$4 \times 4 =$$

$$3 \times 5 =$$

$$5 \times 5 =$$



Session 2: Self-Reflection

Learning Target: I will multiply numbers from 1 to 10

Briefly discuss student responses:

- ➤ What did I learn today about multiplying numbers from 1 to 10?
- ➤ How confident do I feel about multiplying numbers from 1 to 10? (Thumbs up, down, or sideways)

Quick Check - Form B

Name_____ Date____

Learning Target: I will multiply numbers from 0 to 10.

Directions: When you are told to begin, answer as many multiplication problems as you can.

(Work Time: 60 seconds)

$$4 \times 8 =$$

$$9 \times 5 =$$

$$8 \times 0 =$$

$$6 \times 2 =$$

$$7 \times 6 =$$

$$5 \times 3 =$$

$$9 \times 6 =$$

$$2 \times 4 =$$

$$7 \times 4 =$$

$$9 \times 7 =$$

$$8 \times 6 =$$

$$3 \times 9 =$$

$$8 \times 8 =$$

Number Correct = _____

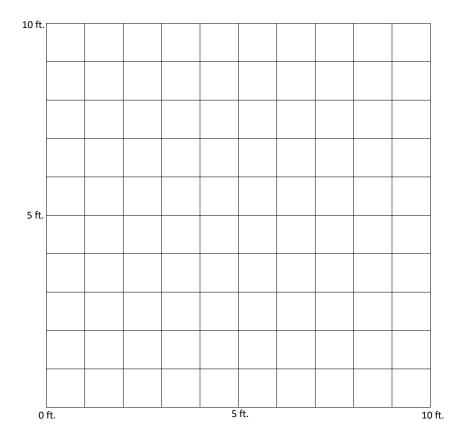


Session 3: Modeling (I Do)

Learning Target: I will multiply numbers from 1 to 10

Readiness for multiplying a four-digit number by a one-digit number

Mrs. K. created a rectangular reading area in her 4th grade classroom using 1 ft. by 1 ft. carpet squares. If the reading area is 5 ft. wide by 7 ft. long, how many carpet squares did she use?





Session 3: Modeling (I Do - Teacher Notes)

Learning Target: I will multiply numbers from 1 to 10

Readiness for multiplying a four-digit number by a one-digit number

Mrs. K. created a rectangular reading area in her 4th grade classroom using 1 ft. by 1 ft. carpet squares. If the reading area is 5 ft. wide by 7 ft. long, how many carpet squares did she use?

I am going to think aloud to model solving this problem.

Your job is to watch, listen, think and ask questions.

First, it is important to know what the problem is about.

This problem is about Mrs. K's rectangular reading area.

Second, I need to determine what I need to find.

I need to find how many carpet squares Mrs. K used.

Third, I need to determine what I know.

I know that each carpet square is 1 ft. by 1 ft. and the reading area forms a 5 ft. by 7 ft. rectangle.

Fourth, I need to figure out what I can try.

This time, I am going to try drawing the reading area on a grid.

The rectangle is 5 ft. wide...1, 2, 3, 4, 5...

(Count 5 squares up. Draw and label the width.)

And 7 long...1, 2, 3, 4, 5, 6, 7...

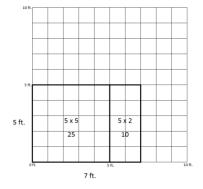
(Count 7 squares over. Draw and label the length.)

Instead of skip counting to find the total number of carpet squares, I am going to look for two simpler problems that I know their answers to help me solve 5 x 7.

I know that 5 x 5 is 25. (Draw a vertical line and write "5 x 5" and "25".)

And, 5 x 2 is 10. (Write "5 x 2" and "10" in the partial-area.)

So, 5 x 7 equals 25 + 10 which equals 35. (Write 35 on the answer line.)



5 x 7 = <u>35</u>

Last, I need to make sure that my answer makes sense.

I found that Mrs. K used 35 carpet squares for her reading area. It makes sense because I drew a picture of the entire rectangle and cut it into smaller sections with areas that I knew and added the smaller areas together to find the answer.

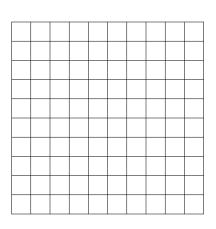
Session 3: Guided Practice (We Do)

We Do Together: (Teacher Actions)

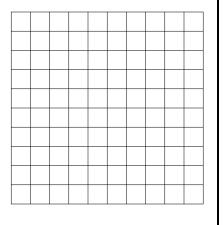
> Say the multiplication problem and write the answer if you know it.

➤ Use a break-apart drawing to find or check your answer.

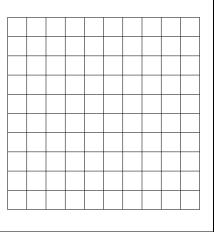
1.

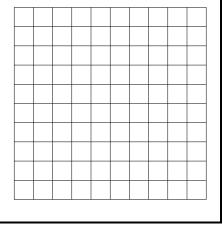


2.



3.



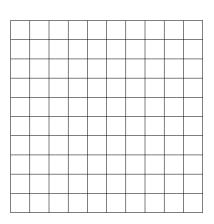


Session 3: Guided Practice (We Do - Continued)

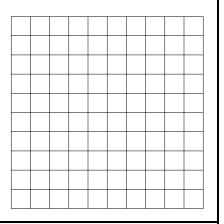
You Do Together: (As a class, or in small groups)

> Students take turns leading to multiply numbers using a break-apart drawing.

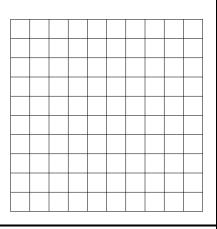
5.



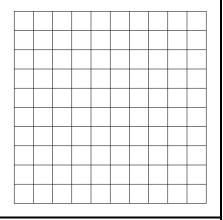
6.



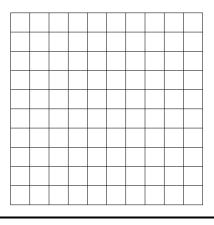
7.

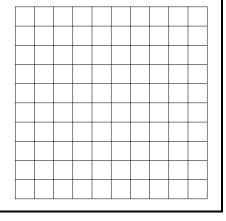


8.



9.





Session 3: Guided Practice (We Do – Teacher Notes)

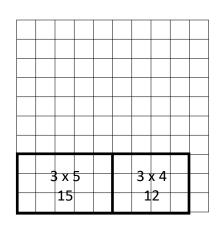
We Do Together: (Teacher Actions)

> Say the multiplication problem and write the answer if you know it.

➤ Use a break-apart drawing to find or check your answer.

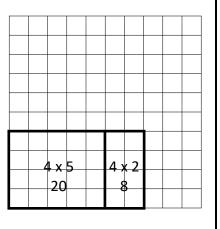
1.

$$3 \times 9 = 27$$



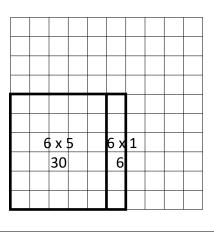
2.

$$4 \times 7 = 28$$

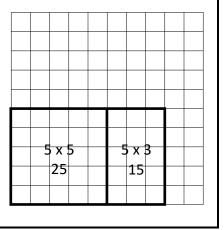


3.

$$6 \times 6 = 36$$



$$5 \times 8 = 40$$





Session 3: Self-Reflection

Learning Target: I will multiply numbers from 1 to 10

Briefly discuss student responses:

- ➤ What did I learn today about multiplying numbers from 1 to 10?
- ➤ How confident do I feel about multiplying numbers from 1 to 10? (Thumbs up, down, or sideways)

Quick Check - Form C

Name_____ Date____

Learning Target: I will multiply numbers from 0 to 10.

Directions: When you are told to begin, answer as many multiplication problems as you can.

(Work Time: 60 seconds)

$$6 \times 2 =$$

$$9 \times 6 =$$

$$2 \times 8 =$$

$$8 \times 4 =$$

$$4 \times 6 =$$

$$5 \times 3 =$$

$$9 \times 7 =$$

$$5 \times 9 =$$

$$8 \times 6 =$$

$$6 \times 0 =$$

$$3 \times 9 =$$

$$9 \times 9 =$$

$$2 \times 4 = \underline{\hspace{1cm}}$$

$$7 \times 3 =$$

Number Correct = _____

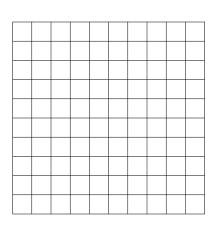
Session 4: Guided Practice (We Do)

We Do Together: (Teacher Actions)

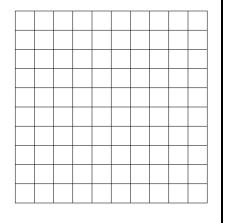
> Say the multiplication problem and write the answer if you know it.

Use a break-apart drawing to find or check your answer.

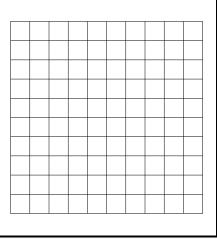
1.

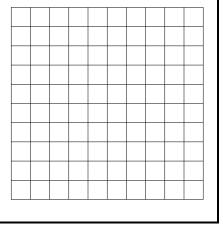


2.



3.



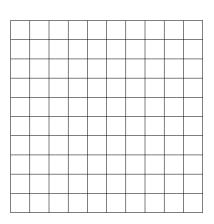


Session 4: Guided Practice (We Do - Continued)

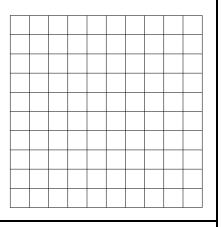
You Do Together: (As a class, or in small groups)

> Students take turns leading to multiply numbers using a break-apart drawing.

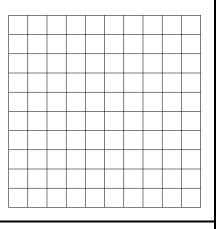
5.



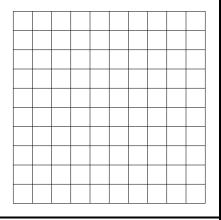
6.



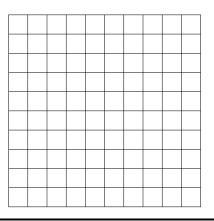
7.

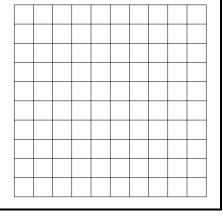


8.



9.







Session 4: Self-Reflection

Learning Target: I will multiply numbers from 1 to 10

Briefly discuss student responses:

- ➤ What did I learn today about multiplying numbers from 1 to 10?
- ➤ How confident do I feel about multiplying numbers from 1 to 10? (Thumbs up, down, or sideways)

26

Quick Check - Form D

Name_____ Date____

Learning Target: I will multiply numbers from 0 to 10.

Directions: When you are told to begin, answer as many multiplication problems as you can.

(Work Time: 60 seconds)

$$6 \times 2 =$$

$$9 \times 6 =$$

$$2 \times 4 =$$

$$7 \times 3 =$$

$$9 \times 7 =$$

$$5 \times 9 =$$

$$8 \times 6 =$$

$$9 \times 0 =$$

$$2 \times 8 =$$

$$8 \times 4 = \underline{\hspace{1cm}}$$

$$4 \times 6 =$$

$$5 \times 3 =$$

$$3 \times 9 =$$

$$7 \times 7 =$$

Number Correct = _____

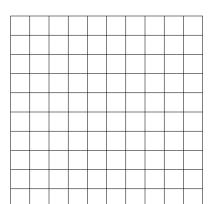
Session 5: Guided Practice (We Do)

We Do Together: (Teacher Actions)

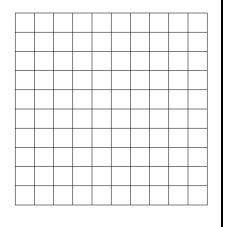
> Say the multiplication problem and write the answer if you know it.

Use a break-apart drawing to find or check your answer.

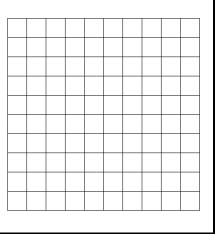
1.

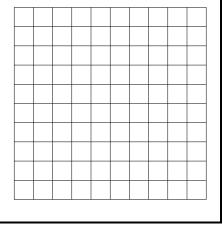


2



3.



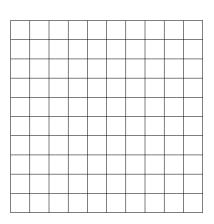


Session 5: Guided Practice (We Do - Continued)

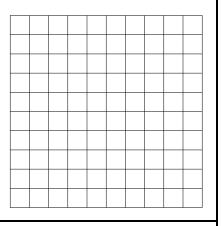
You Do Together: (As a class, or in small groups)

> Students take turns leading to multiply numbers using a break-apart drawing.

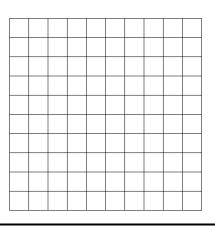
5.



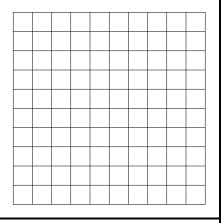
6.



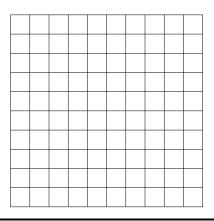
7.

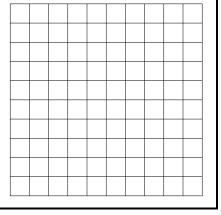


8.



9.







Session 5: Self-Reflection

Learning Target: I will multiply numbers from 1 to 10

Briefly discuss student responses:

- ➤ What did I learn today about multiplying numbers from 1 to 10?
- ➤ How confident do I feel about multiplying numbers from 1 to 10? (Thumbs up, down, or sideways)

Quick Check - Form E

Name_____ Date____

Learning Target: I will multiply numbers from 0 to 10.

Directions: When you are told to begin, answer as many multiplication problems as you can.

(Work Time: 60 seconds)

$$6 \times 2 =$$

$$5 \times 10 =$$

$$9 \times 6 =$$

$$2 \times 4 =$$

$$7 \times 3 =$$

$$9 \times 7 =$$

$$5 \times 9 =$$

$$8 \times 6 =$$

$$7 \times 0 =$$

$$8 \times 4 = \underline{\hspace{1cm}}$$

$$4 \times 6 =$$

$$5 \times 3 =$$

$$3 \times 9 =$$

$$7 \times 7 =$$

Number Correct = _____



Session 6: Modeling (I Do)

Learning Target: I will multiply numbers from 1 to 10

Readiness for multiplying a four-digit number by a one-digit number

Gianna sells cupcakes in boxes and each box holds 6 cupcakes. If she usually sells 8 boxes of cupcakes each Saturday, how many cupcakes does she usually sell on Saturdays?



Session 6: Modeling (I Do - Teacher Notes)

Learning Target: I will multiply numbers from 1 to 10

Readiness for multiplying a four-digit number by a one-digit number

Gianna sells cupcakes in boxes and each box holds 6 cupcakes. If she usually sells 8 boxes of cupcakes each Saturday, how many cupcakes does she usually sell on Saturdays?

I am going to think aloud to model solving this problem.

Your job is to watch, listen, think and ask questions.

First, it is important to know what the problem is about.

This problem is about Gianna selling cupcakes.

Second, I need to determine what I need to find.

I need to find the total number of cupcakes she usually sells on Saturdays.

Third, I need to determine what I know.

I know that each box holds 6 cupcakes and she usually sells 8 boxes of cupcakes on Saturdays.

Fourth, I need to figure out what I can try.

This time, I am going to try modeling the actions using an equation with number bonds.

On a typical Saturday, Gianna usually sells 8 boxes and each box holds 6 cupcakes...

(Write "8 boxes hold 6 cupcakes each".)

When a situation has equal groups of objects, a multiplication equation can be used to model...8 groups of 6 can be modeled with the equation $8 \times 6 =$ _____. (Write "8 $\times 6 =$ ____.".)

I don't remember what 8 x 6 is equal to, but I do remember 8 x 5 is equal to 40. So, I will make this problem a little easier by breaking the 6 into parts that will help me multiply by 8...5 and 1.

(Write two number bonds with 5 and 1 under the 6.)

8 boxes hold 6 cupcakes each

8 x 5 is equal to 40. (Write "40" on the answer line.)

And, 8 x 1 is equal to 8. (Write "8" on the answer line.)

So, 8 x 6 is equal to 40 + 8 which equals 48. (Write "= 48".)

33

Last, I need to make sure that my answer makes sense.

I found that Gianna usually sells 48 cupcakes on Saturdays. It makes sense because I modelled this "equal groups" situation with a multiplication problem. Then, I used multiplication facts that I already knew with number bonds to break the problem apart and make it easier for me.



Name _____ Date ____

Learning Target: I will multiply numbers from 1 to 10

Session 6: Guided Practice (We Do)

We Do Together: (Teacher Actions)

- > Say the multiplication problem and write the answer if you know it.
- > Use a break-apart strategy and number bonds to find or check your answer.

1.		2.	
	3 x 9 =		4 x 7 =
3.		4.	
	6 x 6 =		5 x 8 =

Session 6: Guided Practice (We Do - Continued)

You Do Together: (As a class, or in small groups)

> Students take turns leading to multiply the numbers from 1 to 10.



Name _____ Date ____

Learning Target: I will multiply numbers from 1 to 10

Session 6: Guided Practice (We Do - *Teacher Notes*)

We Do Together: (Teacher Actions)

- > Say the multiplication problem and write the answer if you know it.
- > Use a break-apart strategy and number bonds to find or check your answer.

1.	"3 times 5 is 15 and 3 times 4 is 12" "15 plus 12 equals 27"	2. "4 times 5 is 20 and 4 times 2 is 8" "20 plus 8 equals 28"
	$3 \times 9 = 15 + 12 = 27$ 5 4	$4 \times 7 = 20 + 8 = 28$ 5 2
3.	"6 times 5 is 30 and 6 times 1 is 6" "30 plus 6 equals 36"	4. "5 times 5 is 25 and 5 times 3 is 15" "25 plus 15 equals 40"
	$6 \times 6 = 30 + 6 = 36$ 5 1	$5 \times 8 = 25 + 15 = 40$ 5 3



Session 6: Self-Reflection

Learning Target: I will multiply numbers from 1 to 10

Briefly discuss student responses:

- ➤ What did I learn today about multiplying numbers from 1 to 10?
- ➤ How confident do I feel about multiplying numbers from 1 to 10? (Thumbs up, down, or sideways)

37

Quick Check - Form F

Name_____ Date____

Learning Target: I will multiply numbers from 0 to 10.

Directions: When you are told to begin, answer as many multiplication problems as you can.

(Work Time: 60 seconds)

$$4 \times 8 =$$

$$9 \times 5 =$$

$$8 \times 0 =$$

$$6 \times 2 =$$

$$7 \times 6 =$$

$$5 \times 3 =$$

$$9 \times 6 =$$

$$2 \times 4 =$$

$$7 \times 4 =$$

$$9 \times 7 =$$

$$8 \times 6 =$$

$$3 \times 9 =$$

$$8 \times 8 =$$

Number Correct = _____



Name _____ Date ____

Learning Target: I will multiply numbers from 1 to 10

Session 7: Guided Practice (We Do)

We Do Together: (Teacher Actions)

- > Say the multiplication problem and write the answer if you know it.
- > Use a break-apart strategy and number bonds to find or check your answer.

2.
3 x 6 =
4.
6 x 7 =

Learning Target: I will multiply numbers from 1 to 10

Session 7: Guided Practice (We Do - Continued)

You Do Together: (As a class, or in small groups)

> Students take turns leading to multiply the numbers from 1 to 10.

14.



Session 7: Self-Reflection

Learning Target: I will multiply numbers from 1 to 10

Briefly discuss student responses:

- ➤ What did I learn today about multiplying numbers from 1 to 10?
- ➤ How confident do I feel about multiplying numbers from 1 to 10? (Thumbs up, down, or sideways)

Quick Check - Form G

Name_____ Date____

Learning Target: I will multiply numbers from 0 to 10.

Directions: When you are told to begin, answer as many multiplication problems as you can.

(Work Time: 60 seconds)

$$6 \times 2 =$$

$$9 \times 6 =$$

$$2 \times 8 =$$

$$8 \times 4 =$$

$$4 \times 6 =$$

$$5 \times 3 =$$

$$9 \times 7 =$$

$$5 \times 9 =$$

$$8 \times 6 =$$

$$6 \times 0 =$$

$$3 \times 9 =$$

$$9 \times 9 =$$

$$2 \times 4 = \underline{\hspace{1cm}}$$

$$7 \times 3 =$$

Number Correct = _____



Name _____ Date ____

Learning Target: I will multiply numbers from 1 to 10

Session 8: Guided Practice (We Do)

We Do Together: (Teacher Actions)

- > Say the multiplication problem and write the answer if you know it.
- > Use a break-apart strategy and number bonds to find or check your answer.

1.	2.
3 x 7 =	4 x 8 =
3.	4.
9 x 9 =	7 x 8 =

Learning Target: I will multiply numbers from 1 to 10

Session 8: Guided Practice (We Do - Continued)

You Do Together: (As a class, or in small groups)

> Students take turns leading to multiply the numbers from 1 to 10.

14.



Session 8: Self-Reflection

Learning Target: I will multiply numbers from 1 to 10

Briefly discuss student responses:

- ➤ What did I learn today about multiplying numbers from 1 to 10?
- ➤ How confident do I feel about multiplying numbers from 1 to 10? (Thumbs up, down, or sideways)

Quick Check - Form H

Name_____ Date____

Learning Target: I will multiply numbers from 0 to 10.

Directions: When you are told to begin, answer as many multiplication problems as you can.

(Work Time: 60 seconds)

$$6 \times 2 =$$

$$9 \times 6 =$$

$$2 \times 4 =$$

$$7 \times 3 =$$

$$9 \times 7 =$$

$$5 \times 9 =$$

$$8 \times 6 =$$

$$9 \times 0 =$$

$$2 \times 8 =$$

$$8 \times 4 = \underline{\hspace{1cm}}$$

$$4 \times 6 =$$

$$5 \times 3 =$$

$$3 \times 9 =$$

$$7 \times 7 =$$

Number Correct = _____



Independent Practice (You Do)

Learning Target: I will multiply numbers from 1 to 10 **Readiness** for multiplying a four-digit by a one-digit number

Title of Game: "The Last Rectangle"

Number of Players: 2

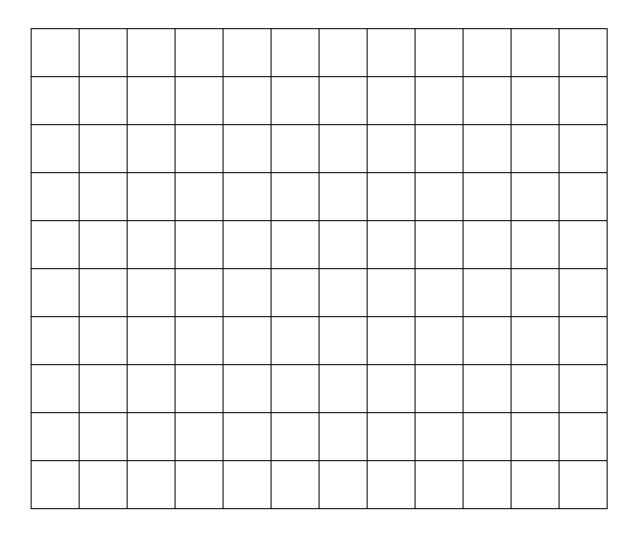
Objective: To be the player that fills in the last (possible) rectangle.

Materials:

2 Dice (Options: 6 sided traditional, 6 sided with numbers or 10 sided with numbers)

Directions:

- > Players take turns tossing the two dice and outlining a rectangle whose dimensions are determined by the roll.
 - o Each rectangle may be placed anywhere on the playing surface, within the frame of the game.
 - o Say the multiplication problem.
 - Write the multiplication problem with its answer in the outlined rectangle.
- ➤ The player filling in the last (possible) rectangle is the winner.
- A roll of "1 x 1" should be considered a "miss your turn" roll, unless it can be used to fill in the last rectangle remaining on the game board.



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Questions for Solving Word Problems

Q_1	
	What is the problem about?
Q_2	
	What do I need to find?
Q_3	
	What do I know?
Q ₄	
	What can I try?
Q_5	
	Does my answer make sense?



Steps for Solving Word Problems

Q1. 1	What is the problem about?
Q_2 .	What do I need to find?
Q3. \	What do I know?
Q4. 1	What can I try?
Q5. I	Does my answer make sense?