Reasoning and Problem Solving
Step 3: Multiply 2 Digits by 1 Digit 1

National Curriculum Objectives:

Mathematics Year 3: (3C6) Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables
Mathematics Year 3: (3C7) Write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods
Mathematics Year 3: (3C8) Solve problems, including missing number problems, involving multiplication and division, including positive integer scaling problems and correspondence problems in which *n* objects are connected to *m* objects

Differentiation:

Questions 1, 4 and 7 (Reasoning)
Developing Explain whether a multiplication calculation (with no exchanges) is correct by using knowledge of the 2, 3, 5 and 8 times tables. Pictorial support and scaffolding given.
Expected Explain whether a multiplication calculation (with no exchanges) is correct by using knowledge of the 2, 3, 4, 5 and 8 times tables.
Greater Depth Identify the missing number for both calculations (with no exchanges) by using knowledge of the 2, 3, 4, 5 and 8 times tables.

Questions 2, 5 and 8 (Reasoning)
Developing Identify a mystery 2-digit number when multiplying by 2, 3, 4, 5 or 8. Pictorial support and scaffolding given.
Expected Identify a mystery 2-digit number when multiplying by 2, 3, 4, 5 or 8.
Greater Depth Identify a mystery 2-digit number when multiplying by 2, 3, 4, 5 or 8. Includes two-step problems.

Questions 3, 6 and 9 (Problem Solving)
Developing Create a multiplication calculation (with no exchanges) using three digit cards where some numbers have already been completed. Children apply knowledge of 2, 3, 4, 5 and 8 times tables. Pictorial support and scaffolding given.
Expected Create a multiplication calculation (with no exchanges) using three digit cards where some numbers have already been completed. Children apply knowledge of 2, 3, 4, 5 and 8 times tables.
Greater Depth Create a multiplication calculation (with no exchanges) using five digit cards. Children apply knowledge of 2, 3, 4, 5 and 8 times tables.

More Year 3 Multiplication and Division resources.

Did you like this resource? Don't forget to review it on our website.

Multiply 2 Digits by 1 Digit 1

1a. Rehan and Destiny have solved the following multiplications.

Rehan

	T	O
	3	2
x		2
	5	4

	T	O
	2	1
x		2
	4	2

Destiny

T	O
●●●	●●
●●●	●●

T	O
●●	●
●●	●

Are they both correct?
Explain how you know.

D R

1b. Fatima and Dan have solved the following multiplications.

Fatima

	T	O
	2	2
x		2
	4	4

	T	O
	2	3
x		2
	1	2

Dan

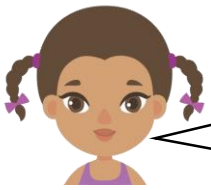
T	O
●●	●●
●●	●●

T	O
●●	●●●
●●	●●●

Are they both correct?
Explain how you know.

D R

2a. Jana is thinking of a number.



I multiplied a number by 2. The answer was 24.

0 2 4 6 8 10 12 14 16 18 20 22 24

What is Jana's number?
Explain how you know.

D R

2b. Jakub is thinking of a number.

I multiplied a number by 5. The answer was 55.

0 5 10 15 20 25 30 35 40 45 50 55 60

What is Jakub's number?
Explain how you know.

D R

3a. Create and solve a calculation using the digit cards below.

	T	O
	□	3
x		□
	□	9

●●	●●●	
●●	●●●	
●●	●●●	
●●	●●●	

2 6 3

D PS

3b. Create and solve a calculation using the digit cards below.

	T	O
	□	4
x		□
	□	8

●●●	●●●●	
●●●	●●●●	
●●●	●●●●	
●●●	●●●●	

6 2 3

D PS

Multiply 2 Digits by 1 Digit 1

4a. Brody and Rose have solved the following multiplications.

Brody

	T	O
	3	3
x		3
	9	9

	T	O
	3	2
x		3
	9	5

Rose

Are they correct?
Explain how you know, using a place value grid to show your working.

R

4b. Ian and Ellie have solved the following multiplications.

Ian

	T	O
	2	2
x		4
	8	8

	T	O
	1	1
x		8
	1	9

Ellie

Are they correct?
Explain how you know, using a place value grid to show your working.

R

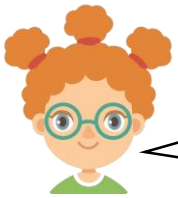
5a. Blake is thinking of a number.

I multiplied a number by 8. The answer was 88.

What is Blake's number?
Explain how you know.

R

5b. Brooke is thinking of a number.



I multiplied a number by 4. The answer was 48.

What is Brooke's number?
Explain how you know.

R

6a. Create and solve a calculation using the digit cards below.

	T	O
	□	2
x		□
	□	8

2 8 4

PS

6b. Create and solve a calculation using the digit cards below.

	T	O
	□	2
x		□
	4	□

8 1 4

PS

Multiply 2 Digits by 1 Digit 1

Multiply 2 Digits by 1 Digit 1

7a. Sara and Riley have multiplied the same number by different amounts.

Sara

	T	O
	?	?
x		2
	4	6

	T	O
	?	?
x		3
	6	9

Riley

What was their number?
Explain how you know, using a place value grid to show your working.

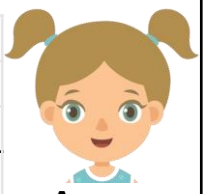
GD R

7b. Rehan and Anna have multiplied the same number by different amounts.

Rehan

	T	O
	?	?
x		4
	8	4

	T	O
	?	?
x		3
	6	3



Anna

What was their number?
Explain how you know, using a place value grid to show your working.

GD R

8a. Ben is thinking of a number.

I multiplied a number by 4. I then subtracted 5. The answer was 83.

What is Ben's number?
Explain how you know.

GD R

8b. Fatima is thinking of a number.

I multiplied a number by 3. I than added 10 and the answer was 73.

What is Fatima's number?
Explain how you know.

GD R

9a. Create and solve a calculation using all the digit cards below.

	T	O
	□	□
x		□
	□	□

3 2 9 6 3

GD PS

9b. Create and solve a calculation using all the digit cards below.

	T	O
	□	□
x		□
	□	□

4 2 1 8 4

GD PS

Reasoning and Problem Solving
Multiply 2 Digits by 1 Digit 1

Developing

1a. Destiny is correct. Rehan has added 2 to each number instead of multiplying.

2a. 12; 2 x 12 = 24

3a. 23 x 3 = 69

Expected

4a. Brody is correct. Rose has added the numbers in the ones column.

5a. 11; 8 x 11 = 88

6a. 22 x 4 = 88

Greater Depth

7a. 23

8a. 22; 83 + 5 = 88 and 4 x 22 = 88

9a. 23 x 3 = 69 or 32 x 3 = 96

Reasoning and Problem Solving
Multiply 2 Digits by 1 Digit 1

Developing

1b. Fatima is correct. Dan has taken 1 away from each digit instead of multiplying.

2b. 11; 5 x 11 = 55

3b. 34 x 2 = 68

Expected

4b. Ian is correct. Ellie has added the numbers instead of multiplying.

5b. 12; 4 x 12 = 48

6b. 12 x 4 = 48

Greater Depth

7b. 21

8b. 21; 73 – 10 = 63 and 21 x 3 = 63

9b. 21 x 4 = 84 or 12 x 4 = 48