This might help you with this week:

Multiplication Square

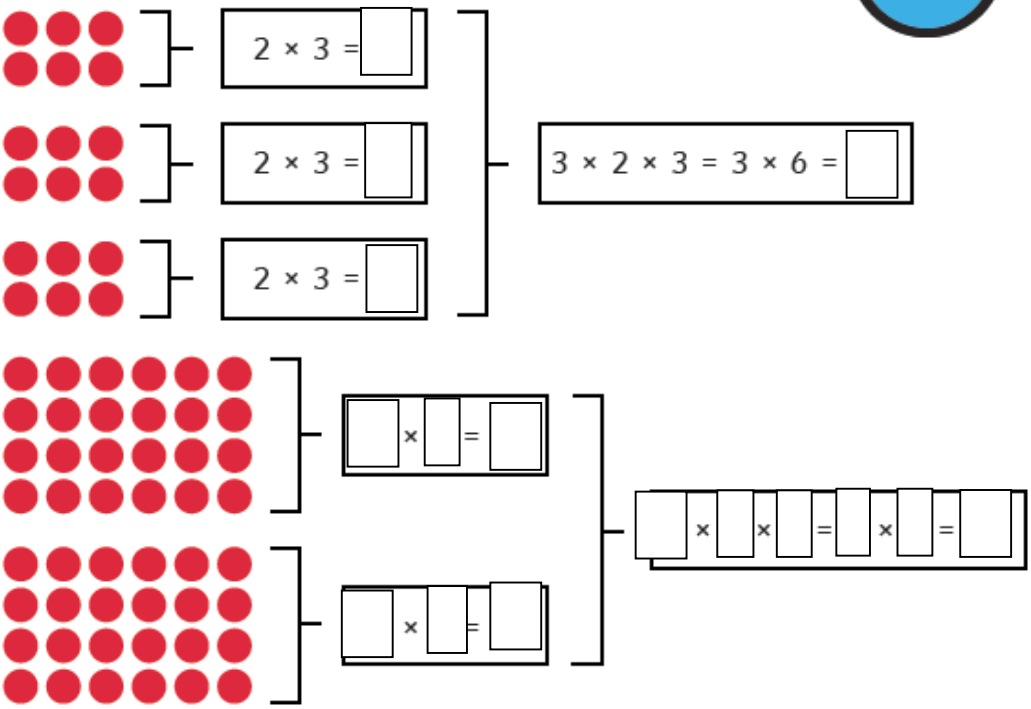
x	1	2	3	4	5	6	7	8	9	10	11	12
1	1	2	3	4	5	6	7	8	9	10	11	12
2	2	4	6	8	10	12	14	16	18	20	22	24
3	3	6	9	12	15	18	21	24	27	30	33	36
4	4	8	12	16	20	24	28	32	36	40	44	48
5	5	10	15	20	25	30	35	40	45	50	55	60
6	6	12	18	24	30	36	42	48	54	60	66	72
7	7	14	21	28	35	42	49	56	63	70	77	84
8	8	16	24	32	40	48	56	64	72	80	88	96
9	9	18	27	36	45	54	63	72	81	90	99	108
10	10	20	30	40	50	60	70	80	90	100	110	120
11	11	22	33	44	55	66	77	88	99	110	121	132
12	12	24	36	48	60	72	84	96	108	120	132	144

Lesson 1:

Practise Questions

Practise 1

1) Complete the calculations to match the arrays.



Practise 2

1 Tommy is making arrays using counters.

a) Complete the multiplications.

2 × 5 = ☐ 2 × 5 = ☐ 2 × 5 = ☐

b) Use your answer to part a) to complete the multiplication.

3 × 2 × 5 = ☐ × 5 = ☐

Practise 3

3) Solve this word problem. Draw a picture and write a multiplication calculation to match it.

Amal bought 5 boxes of eggs. Each box of eggs was organised into 2 rows of 6. How many eggs did Amal have altogether?

Draw It!	Record It!

Practise 4

4 Is each statement true or false?

$7 \times 8 = 7 \times 4 \times 2$

$3 \times 2 \times 8 = 5 \times 8$

$12 \times 4 = 2 \times 4 \times 6$

$2 \times 7 \times 4 = 4 \times 7 \times 2$

a)

b)

c)

d)

Lesson 2

Warm up:

3 Complete the multiplications.

a) 3 × 4 × 5

b) 2 × 3 × 8

c) 2 × 4 × 7

a)

b)

c)

d) 3 × 5 × 4

e) 3 × 6 × 10

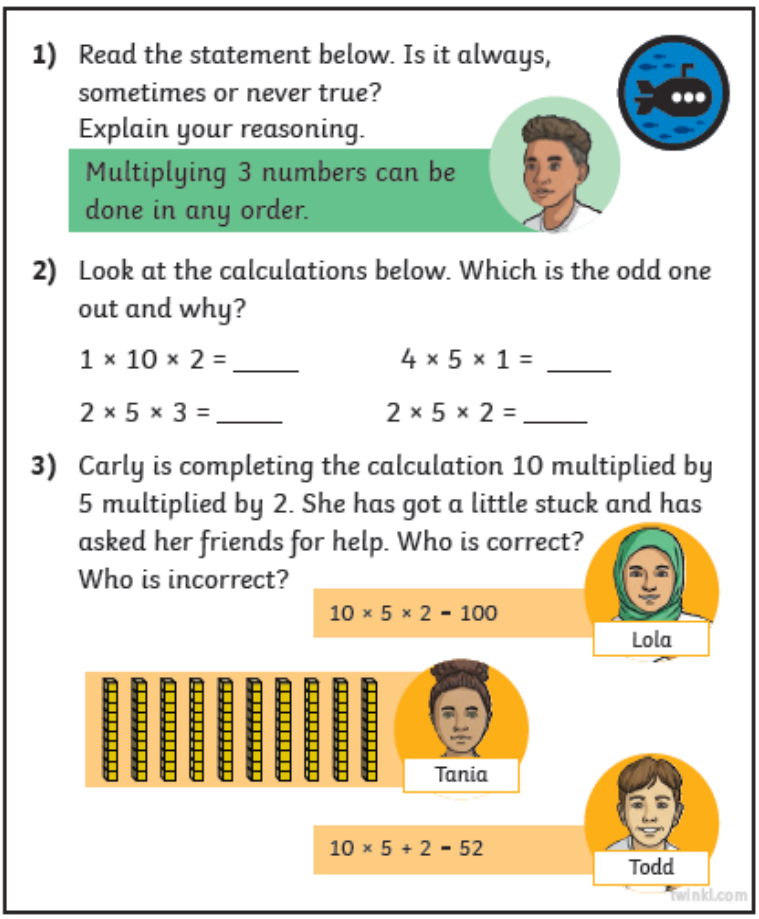
f) 2 × 5 × 12

d)

e)

f)

Prove It Questions



1)

2a)

b)

c)

d)

3)

Lesson 3:

Warm Up:

2) Use your knowledge of number facts to solve the calculations.

a) 5 × 7 × 2 = ☐

b) 10 × 3 × 1 = ☐

c) 8 × 3 × 2 = ☐

d) ☐ × 4 × 5 = 100

e) 3 × 10 × ☐ = 180

f) 2 × ☐ × 10 = 180

More Prove It Questions:

5 Here are some digit cards. 3 5 6

a) Use the digit cards to create a multiplication and work out the answer. ☐ × ☐ × ☐ = ☐

b) How many different multiplications can you create?

What do you notice about all of your answers?

6 Eggs are put in boxes in arrays of 2 × 3

Dani buys 12 boxes.

How many eggs does she buy altogether?

Dani buys 5 more boxes.

How many eggs does she have now?

7 a) Write 30 as the product of 3 numbers. ☐ × ☐ × ☐ = 30

b) How many different ways can you write the multiplication?

8 Kim rolls three 6-sided dice.

The product of her numbers is 60

a) What numbers could she have rolled?

b) How many different ways could Kim have made 60?
Talk about it with a partner.

c) Roll three dice and find the product of the numbers you roll.

9 In the library there are 5 bookcases.

Each bookcase has 4 shelves.

On each shelf there are 12 books.

How many books are there in the library?

5a)

b)

6)

7a)

b)

8a)

b)

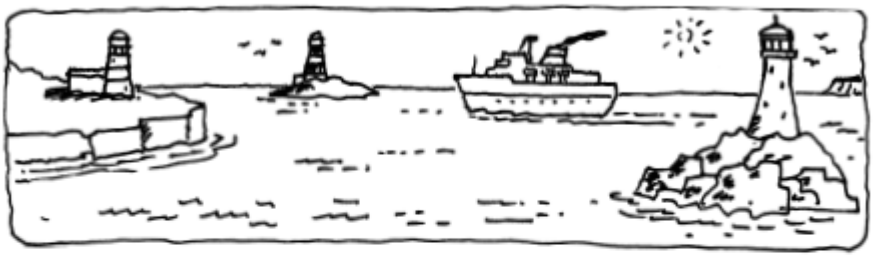
c)

9)

This week's optional problem solving challenge:

Lighthouses

On the coast there are three lighthouses.



The first light shines for 3 seconds, then is off for 3 seconds.

The second light shines for 4 seconds, then is off for 4 seconds.

The third light shines for 5 seconds, then is off for 5 seconds.

All three lights have just come on together.

When is the first time that all three lights will be off?

When is the next time that all three lights will come on at the same moment?

ANSWERS:

Lesson 1:

1) $2 \times 3 = 6$

$2 \times 3 = 6$

$2 \times 3 = 6$

$3 \times 2 \times 3 = 3 \times 6 = 18$

$4 \times 6 = 24$

$4 \times 6 = 24$

$2 \times 4 \times 6 = 2 \times 24 = 48$

1 Tommy is making arrays using counters.

a) Complete the multiplications.

$2 \times 5 =$ 10 $2 \times 5 =$ 10 $2 \times 5 =$ 10

b) Use your answer to part a) to complete the multiplication.

$3 \times 2 \times 5 =$ 6 $\times 5 =$ 30

3) Draw It!

Children will draw an image of 5 boxes of eggs with 2 rows of 6 or an image that represents 5 × 2 × 6 = 60 such as an array.

Record It!

5 × 2 × 6 = 60

4 Is each statement true or false?

Tick your answers.

	True	False
$7 \times 8 = 7 \times 4 \times 2$	☑	☐
$12 \times 4 = 2 \times 4 \times 6$	☑	☐
$3 \times 2 \times 8 = 5 \times 8$	☐	☑
$2 \times 7 \times 4 = 4 \times 7 \times 2$	☑	☐

Compare answers with a partner.

Lesson 2:

3 Complete the multiplications.

a) 3 × 4 × 5 = 60

b) 2 × 3 × 8 = 48

c) 2 × 4 × 7 = 56

d) 3 × 5 × 4 = 60

e) 3 × 6 × 10 = 180

f) 2 × 5 × 12 = 120

1) *This is always true. Multiplication is commutative. Three factors multiplied together will always give the same product, no matter which order they are multiplied in.*

2) 1 × 10 × 2 = **20** 4 × 5 × 1 = **20** 2 × 5 × 3 = **30** 2 × 5 × 2 = **20**

2 × 5 × 3 is the odd one out because it equals 30, while the other calculations equal 20.

3) *Tania and Lola are correct. One has represented the calculation with a number statement while the other has represented it using manipulatives. Both give the correct answer of 100. Todd is incorrect because he added the 2 to the product of 10 × 5 rather than multiplying it by 2, which gave him an incorrect answer of 52.*

Lesson 3:

2) 5 × 7 × 2 = **70** 10 × 3 × 1= **30** 8 × 3 × 2 = **48**

5 × 4 × 5 = 100 3 × 10 × **6** = 180 2 × **9** × 10 = 180

5 Here are some digit cards. 3 5 6

a) Use the digit cards to create a multiplication and work out the answer.

3 × 5 × 6 = 90

b) How many different multiplications can you create?

What do you notice about all of your answers?

Year 4 Maths Week Beginning 4th May

6 Eggs are put in boxes in arrays of 2 × 3

Dani buys 12 boxes.

How many eggs does she buy altogether?

72

Dani buys 5 more boxes.

How many eggs does she have now?

102

7 a) Write 30 as the product of 3 numbers.

2 × 3 × 5 = 30

b) How many different ways can you write the multiplication?

E.g. 1 × 6 × 5 = 30

3 × 1 × 10 = 30

8 Kim rolls three 6-sided dice.

The product of her numbers is 60

a) What numbers could she have rolled?

E.g. 2, 5, 6

b) How many different ways could Kim have made 60?
Talk about it with a partner.

c) Roll three dice and find the product of the numbers you roll.

9 In the library there are 5 bookcases.

Each bookcase has 4 shelves.

On each shelf there are 12 books.

How many books are there in the library?

240