Curriculum Area: Maths		Year Group: 3	Term: Spring 1	

Key Areas of Learning:	Around the home activities	Your Challenge
- Division	- Use different objects around the house to make arrays	Five children are playing a game. They score 4 points for every bucket they knock down.
Key Questions -What do you notice? - How do you know? - How can you prove your thinking?	- Practise your x3 table by grouping toys into equal groups of 3 and counting them. Can you count forwards and backwards? -Use times tables rock stars to practice your 4 and 8 times tables.	

Five children are playing a game.

They score 4 points for every bucket they knock down.

Mo	16
Eva	28
Tommy	12
Amir	32
Dora	8

How many buckets did they knock down each?
How many buckets did they knock down altogether?
How many more buckets did Eva knock down than Mo?

Suggested Learning Activities	Resources	Desired Outcome
Each activity is either activity A or activity B. Activity A will include a Year 2 recap video to refresh the children's memories of what has been taught last year plus activities to complete. Activity B will link to the objective of activity A but will be pitched at a Year 3 level. These sessions do not have supporting videos but are explained below.		
Activity A – To use the division symbol when sharing. Click the link here → and follow along with the lesson. In this lesson you will be introduced to division as sharing a number of items equally between a number of groups. You will also practise writing division equations.	https://classroom.thenational.academy/lessons/using-the-division-symbol-when-sharing-60tkct Pencil + Paper	

Activity B – To understand division as sharing into equal groups (Recapping from previous lesson)

Begin by collecting 12 objects. (objects of the same size). Write 12 ÷ 3 on the board and solve this problem.

(Children should share them out equally into 3 piles as they were taught this last lesson.)

We are going to share the objects equally into 3 groups. The answer is how many are in one group.
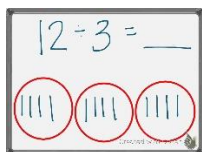
There are 4 in each group so 12 ÷ 3 = 4

Go through the following examples. 15 ÷ 3 =   16 ÷ 4 =   24 ÷ 8 =

Now that we have done a few of them, instead of drawing circles and sharing out we can draw bars – a bar model.

12 ÷ 3 =   We are going to share into 3 groups so we need to draw 3 equal bars (Draw the same size bars). Put the whole on the top and then share it equally

12

12
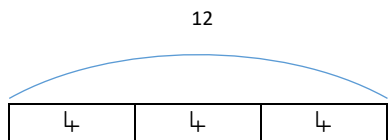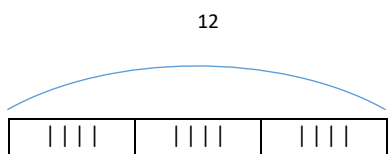
Go through the following calculations to practise more.
36 ÷ 4 =   24÷ 3 =   16÷ 8 =
Ensure that you are sharing into equal groups.

Pencil + Paper

12 X 12 Multiplication Table													
X	0	1	2	3	4	5	6	7	8	9	10	11	12
0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0	1	2	3	4	5	6	7	8	9	10	11	12
2	0	2	4	6	8	10	12	14	16	18	20	22	24
3	0	3	6	9	12	15	18	21	24	27	30	33	36
4	0	4	8	12	16	20	24	28	32	36	40	44	48
5	0	5	10	15	20	25	30	35	40	45	50	55	60
6	0	6	12	18	24	30	36	42	48	54	60	66	72
7	0	7	14	21	28	35	42	49	56	63	70	77	84
8	0	8	16	24	32	40	48	56	64	72	80	88	96
9	0	9	18	27	36	45	54	63	72	81	90	99	108
10	0	10	20	30	40	50	60	70	80	90	100	110	120
11	0	11	22	33	44	55	66	77	88	99	110	121	132
12	0	12	24	36	48	60	72	84	96	108	120	132	144

Remember multiplication is the inverse to division (the opposite) so you can use this grid as a reminder.

Challenge:

Tommy and Annie have some counters.

Tommy shares his counters into 2 equal groups.
He has 15 in each group.

Annie groups her counters in twos.
She has 19 groups.

Who has more counters and by how many?
How did you work it out?

Activity A – Solving division problems when sharing..
Click the link here → and follow along with the lesson.

In this lesson you will solve sharing division problems using bar models.

https://classroom.thenational.academy/lessons/solving-division-problems-when-sharing-69j64c
Pencil + Paper

Activity B - To understand division by grouping.

Let's check! – based on yesterday's lesson

There are 12 pieces of fruit. They are shared equally between 3 bowls. How many pieces of fruit are in each bowl?
Use cubes/counters to represent fruit and share between 3 circles.

Look at the calculation - 12÷4. Can you solve this using objects? This week we have been dividing by sharing but there is another way to divide and that is by grouping. Divide 12 by putting it into groups of 4. Every time you make a group you will have less object as we are putting them into equal groups.

Pencil + Paper

Example: 12÷4 =

We have 12 cubes altogether. We are now going to group into groups of 4.

1 group
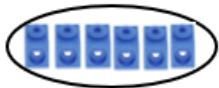
2 groups

3 groups

We have now grouped all of the cubes

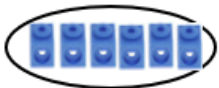The answer is how many groups you have altogether. Therefore, 12÷4 = 3

Example 2: 12÷6 =

Example: 12÷6 = |

We have 12 cubes altogether. We are now going to group into groups of 6.

1 group

2 groups

The answer is how many groups you have altogether. Therefore, 12÷6 = 2

Now solve the following calculations using this methods. 15÷3 =   24÷4.=   16÷8 =

Share 33 cubes between 3 groups.

Complete:
There are 3 groups with _____ cubes in each group.
33 ÷ 3 = _____

Put 33 cubes into groups of 3

Complete:
There are _____ groups with 3 cubes in each group.
33 ÷ 3 = _____

What is the same about these two divisions?
What is different?

Reasoning sentences starters which you could use are:
- I have noticed that…
- I already know that… so I know…
- This is true/false because…

Activity A – Solving division problems when grouping.

Click the link here → and follow along with the lesson.

In this lesson you will solve grouping division problems using bar models.

https://classroom.thenational.academy/lessons/solving-division-problems-when-grouping-ccvp6r
Pencil + Paper

Activity B – To understand division through grouping

Last lesson we solved division through grouping objects. Look at the calculation – 32÷4 =

Can you solve this division by grouping, use the examples that we went through last week to remind you. Remember each time we are putting them into groups of 4.
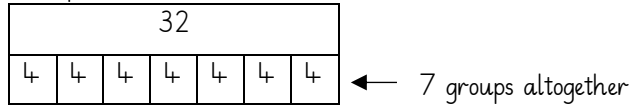
'Let's Check!'

Circle the buttons in groups of 4.

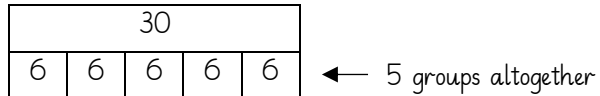We can represent this calculation as a bar model. Remember - 'We have 7 equal groups with 4 in each group'

Example 1:

32						
4	4	4	4	4	4	4

←— 7 groups altogether

↑
4 in each group

Example 2:

30÷6 = 5

30				
6	6	6	6	6

←— 5 groups altogether

↑
6 in each group

Solve the following calculations by first using the grouping method and then represent them with a bar model.

36÷4 =   21÷3=   32÷8 =

Pencil + Paper

Jack has 15 stickers.

He sorts his stickers into equal groups but has some stickers remaining.
How many stickers could be in each group and how many stickers would be remaining?

Activity A – To find related multiplication and division facts.
Click the link here → and follow along with the lesson.

In this lesson you will explore the relationship between multiplication and division to identify related facts.

https://classroom.thenational.academy/lessons/finding-related-multiplication-and-division-facts-cdj6cc

Pencil and Paper

Activity B – To use the less than and greater than symbol to compare division calculations.

Today we are going to look at the greater than, less than and the equals to symbol. Let's remind ourselves.

>Greater than
< less than
= equals to

Now lets look at the first statement and make it correct.

6÷3=   ◯   8÷8 =

In this circle, we are either going to write >, < or =

Before we can add in the correct symbol we need to work the calculation out. We will do this by using the grouping method.
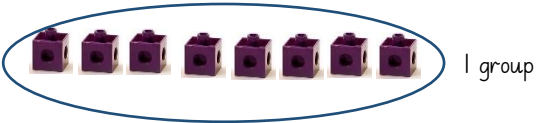
6÷3=

We have 6 altogether.

1 group

2 groups

We have now shared the cubes into equal groups. The answer is how many groups we have altogether. Therefore the answer is 2.

Now we are going to solve 8÷8 =

1 group

We have now shared the cubes into equal groups. The answer is how many groups we have altogether. Therefore the answer is 1.

We now know that,   6÷3= 2   8÷8 = 1

2 is 1 more than 1. Therefore 6÷3= is greater than 8÷8 =
We can now add in the correct symbol to complete the sentence.

6÷3=   (>) 8÷8 =
  2   1

Remember: the '=' symbol means the that both the calculations equal the same answer.

For example:
I worked out 15÷3 = 5 and 40 ÷8 = 5 earlier. Both of these calculations have the same answer.
So I would write the equals sign in to complete the sentence.

15÷3=   (=)   40÷8 =
  5   5

Jack has 18 seeds.

He plants 3 seeds in each pot.

Which bar model matches the problem?

A

18		
6	6	6

B

18					
3	3	3	3	3	3

Explain your choice.

Activity A – To solve multiplication and division facts.

Click the link here → and follow along with the lesson.

https://classroom.thenational.academy/lessons/solving-multiplication-and-division-problems-69h66d?activity=intro_quiz&step=1

Pencil + Paper

Activity B – To show multiplication and division through visual representations.
Today we are going to look at stem sentences based on the visual representations.

From this visual representation we can say the following..

I have **6** cubes altogether.
There are **2** in each group.
There are **3** groups.

We can now use the stem sentences to create our calculations.

Remember – For division it is the total amount divided by how many is in each group. We have 6 altogether and 2 in each group. So the division would $6 \div 2 = 3$

Remember – For multiplication it is number of groups x group size. We have 3 groups with 2 in each group. So the multiplication would be: $3 \times 2 = 6$

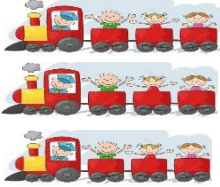Try the following on your own. First write out the stem sentences and the write the calculations.

I have _____ cans altogether.

There are _____ in each group.

There are _____ groups.

_____ x _____ =   _____ ÷ _____ =

I have _____ cans altogether.

There are _____ in each group.

There are _____ groups.

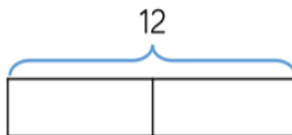_____ x _____ =   _____ ÷ _____

Challenge

Mo and Tommy have 12 sweets between them. They share them equally. How many sweets does each child get?

There are ___ sweets altogether.
There are ___ groups.
There are ___ in each group.

12

Complete the bar model and write a calculation to match.