

## Year 5 maths – Summer 2 Week beginning: 13.7.20

Theme	CONSOLIDATION LESSON Formal methods Division	CONSOLIDATION LESSON Formal methods Multiplication and division	CONSOLIDATION LESSON Formal methods Multiplication and division	CONSOLIDATION LESSON Formal methods Addition of numbers to 10,000,000.	CONSOLIDATION LESSON Formal methods Subtraction of numbers to 10,000,000.
Factual fluency (to aid fluency)	Practise comparing numbers up to 5-digits <a href="#">Activity</a>	Practise ordering numbers to 1,000,000 <a href="#">Activity</a>	Practise the highest common factor <a href="#">Activity</a>	Practise the lowest common multiple <a href="#">Activity</a>	Practise comparing numbers using multiplication <a href="#">Activity</a>
<p><b>Problem/ activity of the day</b></p> <p><b>Remember, just like in class, you can still show the depth of your knowledge <a href="#">LINK</a></b></p>	<p><b>(Lesson 1 resources below)</b> <b>MAKING LINKS:</b> Last week, we recapped the formal methods to multiply and divide. Today we are continuing with formal division.</p> <p><b>THINK: (support below)</b> Can you help me with this problem? 250 pupils in a school took part in a treasure hunt. They were asked to form groups of 8 pupils. What is the largest number of groups they can form?</p> <p><i>If you have online parent access this lesson is based on Year 5 workbook 5A, chapter 3, review.</i></p> <p><b>SEE: (model below)</b> Check the solution below.</p> <p>If you are uncertain of division methods, watch the video from last week <a href="#">here</a>.</p> <p><b>DO:</b> Use what you have learnt today to solve: <b>PART 1:</b> Complete the questions in part 1 below.</p> <p>Check your answers below before moving on to: <b>PART 2:</b> Complete the questions in part 2 below.</p>	<p><b>(Lesson 2 resources below)</b> <b>MAKING LINKS:</b> Yesterday we practised formal division. Today we are solving division and multiplication problems.</p> <p><b>THINK: (support below)</b> Lola is saving for a toy that costs £22.36. She saves 52p every day. How much money will Lola save in 2 weeks? How many days must Lola save before she has enough money to buy the toy?</p> <p><i>If you have online parent access this lesson is based on Year 5 textbook 5A, chapter 4, lesson 3.</i></p> <p><b>SEE: (model below)</b> Check the solution below.</p> <p>A reminder of multiplication methods are on the videos from last week <a href="#">here</a> and <a href="#">here</a>. A reminder of division methods are on the video from last week <a href="#">here</a>.</p> <p><b>DO:</b> Use what you have learnt today to solve: <b>PART 1:</b> Complete the questions in part 1 below.</p> <p>Check your answers below before moving on to: <b>PART 2:</b> Complete the questions in part 2 below.</p>	<p><b>(Lesson 3 resources below)</b> <b>MAKING LINKS:</b> Yesterday we worked on problems involving division and multiplication. We will continue with that today.</p> <p><b>THINK: (support below)</b> A school bought 128 boxes of chocolate biscuits and 69 boxes of vanilla biscuits to sell at a school fair. Each box had 25 biscuits. The school then repacked all the biscuits into smaller packs of 8 to sell. How many small packs were here and how many biscuits were left over?</p> <p><i>If you have online parent access this lesson is based on Year 5 textbook 5A, chapter 4, lesson 1.</i></p> <p><b>SEE: (model below)</b> Check the solution below.</p> <p>A reminder of multiplication methods are on the videos from last week <a href="#">here</a> and <a href="#">here</a>. A reminder of division methods are on the video from last week <a href="#">here</a>.</p> <p><b>DO:</b> Use what you have learnt today to solve: <b>PART 1:</b> Complete the questions in part 1 below.</p> <p>Check your answers below before moving on to: <b>PART 2:</b> Complete the questions in part 2 below.</p>	<p><b>(Lesson 4 resources below)</b> <b>MAKING LINKS:</b> Yesterday we worked on problems involving division and multiplication. Today we are going to work on addition and subtraction of numbers to 10,000,000.</p> <p><b>THINK: (support below)</b> Which of the calculations below is easier to calculate? Why? <i>If you have online parent access this lesson is based on textbook 5A, chapter 2, lesson 9 ad uses year 6 numbers to 10,000,000.</i></p> <p><b>SEE: (model below)</b> Check the solution below.</p> <p><b>DO:</b> Use what you have learnt today to solve: <b>PART 1:</b> Complete the questions in part 1 below.</p> <p>Check your answers below before moving on to: <b>PART 2:</b> Complete the questions in part 2 below.</p>	<p><b>(Lesson 5 resources below)</b> <b>MAKING LINKS:</b> Yesterday we worked on addition and subtraction of numbers to 10,000,000. Today we are going to continue with that.</p> <p><b>THINK: (support below)</b> Which of the calculations below is easier to calculate? Why? <i>If you have online parent access this lesson is based on textbook 5A, chapter 2, lesson 9 ad uses year 6 numbers to 10,000,000.</i></p> <p><b>SEE: (model below)</b> Check the solution below.</p> <p><b>DO:</b> Use what you have learnt today to solve: <b>PART 1:</b> Complete the questions in part 1 below.</p> <p>Check your answers below before moving on to: <b>PART 2:</b> Complete the questions in part 2 below.</p>

**See below for resources to support you to THINK-SEE-DO**

## DAY 1 RESOURCES:

**THINK:** 250 pupils in a school took part in a treasure hunt. They were asked to form groups of 8 pupils.

What is the largest number of groups they can form?

**If you have online parent access this lesson is based on Year 5 workbook 5A, chapter 3, review.**

**DO:** Use what you have learnt today to solve:

Part 1: complete the questions below:

1.) A factory produced four hundred and twenty sandwiches last week. How many sandwiches on average were sold each day?

**Divide the number of sandwiches by the number of days in a week.**

2.) Alyssa was at the beach and found 314 seashells. She plans to give all of her seashells equally to her six friends. How many seashells will each friend get? **Divide the number of seashells by the number of friends she shared between.**

Check your answers before moving onto:

Part 2:

1.) Sam has £345 in five pound notes that he saved over a 2 month period. How many five pound notes does Sam have? **Divide the amount Sam saved by the value of each note.**

2.) Fred, the clown, has 194 yellow balloons. He wants to give his six friends the same number of yellow balloons. How many will each friend get? **Divide the balloons by the six friends.**

4.) Nancy goes out to lunch with Joan and Keith. The total bill came to £219. They decided to equally split up the bill, how much will each person have to pay? **Divide the bill between the three friends.**

**SEE:** If you are uncertain of division methods, watch the video from last week [here](#).

Before we move onto division remind yourself of the language we use in division. We learnt this in year 4 and year 5:

$$\begin{array}{r} \text{quotient} \rightarrow 5 \\ \text{divisor} \rightarrow 3 \overline{) 16} \\ \text{dividend} \nearrow 15 \\ \text{remainder} \rightarrow 1 \end{array}$$

### **Remember your steps for division:**

Write down the multiples of the **divisor** so that we can easily recognise how many we have in the **dividend**.

In this division problem we need to find **how many groups of 8** there are in **250** so we jot down the multiples of 8 to make it easier to spot groups of 8 in the dividend:

8, 16, 24, 32, 40, 48,...

Now I could partition the dividend into multiples of 8.

I can see 24 is a multiple of 8 so 240 will be too!

240 is 30 groups of 8

$$(30 \times 8)$$

$$(240 \div 8 = 30)$$

If I subtract 240 from 250, that leaves 10.

I can find another multiple of 8 in 10.

$$(1 \times 8 = 8)$$

$$(8 \div 8 = 1)$$

8  
16  
**24**  
32  
40  
48  
56  
64  
72  
80  
88

$$\begin{array}{r} \text{H T O} \\ 3 \ 1 \ \text{remainder } 2 \\ 8 \overline{) 250} \\ - 240 \leftarrow (30 \times 8 = 240) \\ \quad \quad \quad (240 \div 8 = 30) \\ \quad \quad \quad \underline{\quad} \\ \quad \quad \quad 10 \\ \quad \quad \quad - 8 \leftarrow (1 \times 8 = 8) \\ \quad \quad \quad \quad \quad \quad (8 \div 8 = 1) \\ \quad \quad \quad \quad \quad \quad \underline{\quad} \\ \quad \quad \quad \quad \quad \quad 2 \end{array}$$

That leaves 2 remaining. I cannot subtract any more multiples of 8.

Finally, I can see how many 8s were in 250 by counting the number of 8s I took from 250.

$$30 + 1 = 31$$

The largest number of groups they can form is **31**.

## DAY 2 RESOURCES:

**THINK:** Lola is saving for a toy that costs £22.36. She saves 52p every day.

How much money will Lola save in 2 weeks?

How many days must Lola save before she has enough money to buy the toy?

**If you have online parent access this lesson is based on Year 5 textbook 5A, chapter 4, lesson 3.**

**DO:** Part 1: complete the questions below:

1.) Sandy makes 84 muffins a day for 12 days. How many muffins does she make during that time? **Multiply the muffins by the number of days.**

2.) 21 children each have sixteen Pokemon cards. How many Pokemon cards do they have in all? **Multiply the number of cards by the number of children.**

Check your answers before moving onto:

Part 2:

1.) Melanie has saved eighteen 50 pence coins from washing cars each day. How much money does Melanie save? **Multiply the amount of coins by the value of the coin.**

2.) Mary has 26 boxes of golf balls. Each box holds 18 golf balls.  
a) How many balls does she have? **Multiply the number of boxes by the amount in each box.**

She uses 21 balls every week.

b) How many whole weeks can she play for? **Divide the number of golf balls by the amount of balls she uses each week.**

**SEE:** Watch the remainder of multiplication methods are on the videos from last week [here](#) and [here](#).

Watch the remainder of division methods are on the video from last week [here](#).

There are two questions in this problem:

1. First, work out how much money Lola saves in 2 weeks by working out 14 days of 52p.

$$14 \times 52 =$$

Multiply by the **ones**.

Then multiply by the **tens**.

$$\begin{array}{r} \text{H T O} \\ 52 \\ \times 14 \\ \hline 208 \leftarrow (4 \times 52) \\ + 520 \leftarrow (10 \times 52) \\ \hline 728 \end{array}$$

Don't forget to convert pence to £s!

$$728\text{p} = \text{£}7.28$$

Lola will save £7.28 in two weeks.

2. Second part, work out how many days, at 52p a day, it takes to reach £22.36.

$$\text{£}22.36 \div 52\text{p}$$

Convert the £22.36 to 2236p to make division by 52 easier.

**Multiples of 52:**

52  
104  
156  
208  
260  
312  
...

$$\begin{array}{r} \text{Th H T O} \\ 43 \\ 52 \overline{)2236} \\ \underline{-2080} \leftarrow (40 \times 52 = 2080) \\ \quad (2080 + 52 = 40) \\ \quad 156 \\ \underline{-156} \leftarrow (3 \times 52 = 156) \\ \quad \quad (156 \div 52 = 3) \\ \quad \quad 0 \end{array}$$

Lola must save for 43 days to buy the toy.

**DAY 3 RESOURCES:**

**THINK:** A school bought 128 boxes of chocolate biscuits and 69 boxes of vanilla biscuits to sell at a school fair. Each box had 25 biscuits. The school then repacked all the biscuits into smaller packs of 8 to sell. How many small packs were there and how many biscuits were left over?  
**If you have online parent access this lesson is based on Year 5 book 5A, chapter 4, lesson 1.**

**DO:** Use what you have learnt today to solve:  
**Part 1:** complete questions below:  
 Jason has 162 red marbles and 46 yellow marbles. **Add the amounts.**  
 He shared them between 4 children. **Divide the total between 4.**  
 Check your answers before moving onto:  
**Part 2:** complete the questions below:  
 1) Fred bought 122 boxes of strawberries and 75 boxes of raspberries to use in fruit salads. **Add the number of boxes.** Each box had 32 fruits. **Multiply the number of boxes by the number of fruits.** How many fruits did he have altogether?

2) Jessica has twenty-five boxes of books and a pile of 18 books that need to be put into bookcases. There are 24 books in each box. How many books does Jessica have altogether? **Multiply the number of boxes by the amount in each box. Then add the books from the pile.**

3) Josh has 28 books. Ahmed has 7 times more books than Josh. How many books do they have altogether? **Remember, Ahmed has seven times the amount of books that Josh has.**

**SEE:** A reminder of multiplication methods are on the videos from last week [here](#) and [here](#).  
 A reminder of division methods are on the video from last week [here](#).

There are three steps to solving this problem:

1. First, add the number of boxes of biscuits that the school bought to sell at the fair.

$$\begin{array}{r}
 \text{H T O} \\
 128 \\
 + 69 \\
 \hline
 197
 \end{array}$$

**Remember to rename the tens ones to 1 ten when you add the ones.**

2. Then multiply to find the number of biscuits in all the boxes.

$$\begin{array}{r}
 \text{H T O} \\
 197 \\
 \times 25 \\
 \hline
 985 \leftarrow (5 \times 197) \\
 + 3940 \leftarrow (20 \times 197) \\
 \hline
 4925
 \end{array}$$

**Remember to add the amount you have renamed.**

3. Then divide all the biscuits (4925) into smaller packs of 8.

There were 615 small packs of biscuits.

There were 5 biscuits left over.

$$\begin{array}{r}
 \text{Th H T O} \\
 615 \text{ remainder } 5 \\
 8 \overline{)4925} \\
 \underline{-4800} \leftarrow (600 \times 8 = 4800) \\
 \phantom{00}125 \\
 \underline{-80} \leftarrow (10 \times 8 = 80) \\
 \phantom{000}45 \\
 \underline{-40} \leftarrow (5 \times 8 = 40) \\
 \phantom{0000}5
 \end{array}$$

**DAY 4 RESOURCES:**

**THINK:** Which is easier to calculate and why?

$$6,291,027 - 2,531,359 \text{ or } 6,531,275 - 2,291,039$$

If you have online parent access this lesson is based on textbook 5A, chapter 2, lesson 9 and uses year 6 numbers to 10,000,000.

**DO:**

Part 1: complete the questions below:

$$\begin{array}{r} 414875 \\ + 912872 \\ \hline \end{array} \quad \begin{array}{r} 1382818 \\ + 8372611 \\ \hline \end{array} \quad \begin{array}{r} 58757 \\ + 83085 \\ \hline \end{array} \quad \begin{array}{r} 584766 \\ + 714540 \\ \hline \end{array}$$

Check your answers before moving onto:

Part 2: complete the questions below:

$$\begin{array}{r} 99619 \\ + 94403 \\ \hline \end{array} \quad \begin{array}{r} 969040 \\ + 264954 \\ \hline \end{array} \quad \begin{array}{r} 7938608 \\ + 6783376 \\ \hline \end{array} \quad \begin{array}{r} 80506 \\ + 80071 \\ \hline \end{array}$$

$$\begin{array}{r} 341719 \\ + 311447 \\ \hline \end{array} \quad \begin{array}{r} 9061050 \\ + 6816616 \\ \hline \end{array} \quad \begin{array}{r} 48627 \\ + 76851 \\ \hline \end{array} \quad \begin{array}{r} 258207 \\ + 360591 \\ \hline \end{array}$$

$$\begin{array}{r} 9027036 \\ + 2804042 \\ \hline \end{array} \quad \begin{array}{r} 21129 \\ + 50147 \\ \hline \end{array} \quad \begin{array}{r} 911024 \\ + 796362 \\ \hline \end{array} \quad \begin{array}{r} 5267890 \\ + 4914042 \\ \hline \end{array}$$

$$\begin{array}{r} 38436 \\ + 99275 \\ \hline \end{array} \quad \begin{array}{r} 969463 \\ + 362698 \\ \hline \end{array} \quad \begin{array}{r} 8265559 \\ + 1476163 \\ \hline \end{array} \quad \begin{array}{r} 55311 \\ + 48799 \\ \hline \end{array}$$

**SEE:** Remember, however many digits there are in your calculations you should follow the same pattern.

**Add the ones, then the tens, then the hundreds, then the thousands, then the ten thousands, then the hundred thousands and finally the millions!**

**Remember to include the amount you have renamed when you add the numbers in each place. Use a different colour to show the renamed amount!**

	M	HTh	TTh	Th	H	T	O
	6,	5	3	1,	2	7	5
+	2,	2	6	1,	0	3	9
<hr/>							
	8,	7	9	2	3	1	4

	M	HTh	TTh	Th	H	T	O
	3,	5	9	1,	0	6	7
+	2,	6	5	1,	9	4	3
<hr/>							
	6,	2	4	3,	0	1	0

Which calculation is harder to calculate? The second one because there is more renaming that might be missed!

**DAY 5 RESOURCES:****THINK:** Which is easier to calculate and why?

$$6,291,027 - 2,531,359 \text{ or } 6,531,275 - 2,291,039$$

If you have online parent access this lesson is based on textbook 5A, chapter 2, lesson 9 and uses year 6 numbers to 10,000,000.

**DO:**

Part 1: complete the questions below.

<u>859980</u>	<u>550019</u>	<u>930681</u>	<u>320907</u>
<u>- 313516</u>	<u>- 226702</u>	<u>- 824060</u>	<u>- 213255</u>

Check your answers before moving onto:

Part 2: Complete the questions below:

<u>830370</u>	<u>805499</u>	<u>560080</u>	<u>354010</u>
<u>- 618152</u>	<u>- 584267</u>	<u>- 421146</u>	<u>- 133909</u>

<u>450004</u>	<u>605500</u>	<u>759500</u>	<u>369004</u>
<u>- 245223</u>	<u>- 151322</u>	<u>- 212027</u>	<u>- 137830</u>

<u>620000</u>	<u>387083</u>	<u>402802</u>	<u>530400</u>
<u>- 518935</u>	<u>- 165111</u>	<u>- 181111</u>	<u>- 213142</u>

<u>745307</u>	<u>378185</u>	<u>362000</u>	<u>309740</u>
<u>- 422130</u>	<u>- 266071</u>	<u>- 251356</u>	<u>- 253514</u>

**SEE:** Compare the calculations:

Start with subtracting the ones, then the tens, hundreds, and so on. Remember, if you have a zero in the place you want to take from you must move to the next place to take and rename!

	M	HTh	TTh	Th	H	T	O
	5		8	10	9	11	
	<del>6</del>	12	<del>9</del>	<del>1</del>	<del>0</del>	<del>2</del>	17
-	2	5	3	1	3	5	9
<hr/>							
	3	7	5	9	6	6	8

	M	HTh	TTh	Th	H	T	O
	6	4	13	1	2	6	
	<del>6</del>	<del>5</del>	13	1	2	<del>7</del>	15
-	2	2	9	1	0	3	9
<hr/>							
	4	2	4	0	2	3	6

Which calculation is harder to calculate? The first one because there is more renaming that might be missed!

## ANSWERS – part 1:

<u>Day 1</u>	<u>Day 2</u>	<u>Day 3</u>	<u>Day 4</u>	<u>Day 5</u>
<p>Part 1:</p> <p>Q.1. 60 sandwiches</p> <p>Q.2. 52 seashells</p>	<p>Part 1:</p> <p>Q.1:</p> <p>a) 1,008 muffins</p> <p>Q.2:</p> <p>a) 336 cards in all</p>	<p>Part 1:</p> <p>Q.1: He has 208 marbles. Shared between 4 friends they will each get 52 marbles each.</p>	<p>Part 1:</p> $\begin{array}{r} 414875 \\ + 912872 \\ \hline 1327747 \end{array}$ $\begin{array}{r} 1382818 \\ + 8372611 \\ \hline 9755429 \end{array}$ $\begin{array}{r} 58757 \\ + 83085 \\ \hline 141842 \end{array}$ $\begin{array}{r} 584766 \\ + 714540 \\ \hline 1299306 \end{array}$	<p>Part 1:</p> $\begin{array}{r} 859980 \\ - 313516 \\ \hline 546464 \end{array}$ $\begin{array}{r} 550019 \\ - 226702 \\ \hline 323317 \end{array}$ $\begin{array}{r} 930681 \\ - 824060 \\ \hline 106621 \end{array}$ $\begin{array}{r} 320907 \\ - 213255 \\ \hline 107652 \end{array}$

## ANSWERS – part 2:

<u>Day 1</u>	<u>Day 2</u>	<u>Day 3</u>	<u>Day 4</u>	<u>Day 5</u>
<p>Part 2:</p> <p>Q.1: 69 £5 notes</p> <p>Q.2: 32 balloons</p> <p>Q.3: 94 five pence coins</p> <p>Q.4: £73 each</p>	<p>Part 2:</p> <p>Q.1:</p> <p>a) 900p or £9</p> <p>Q.2:</p> <p>a) 468 golf balls</p> <p>b) 22 weeks</p>	<p>Part 2:</p> <p>Q1:</p> <p>197 boxes of fruit. 6,304 fruits</p> <p>Q.2:</p> <p>25 x 24 = 600 + 18 = 618 books altogether</p> <p>Q.3:</p> <p>7 x 28 = 196 + 28 = 224 books.</p>	<p>Part 2:</p> $\begin{array}{r} 99619 \\ + 94403 \\ \hline 194022 \end{array}$ $\begin{array}{r} 969040 \\ + 264954 \\ \hline 1233994 \end{array}$ $\begin{array}{r} 7938608 \\ + 6783376 \\ \hline 14721984 \end{array}$ $\begin{array}{r} 80506 \\ + 80071 \\ \hline 160577 \end{array}$ $\begin{array}{r} 341719 \\ + 311447 \\ \hline 653166 \end{array}$ $\begin{array}{r} 9061050 \\ + 6816616 \\ \hline 15877666 \end{array}$ $\begin{array}{r} 48627 \\ + 76851 \\ \hline 125478 \end{array}$ $\begin{array}{r} 258207 \\ + 360591 \\ \hline 618798 \end{array}$ $\begin{array}{r} 9027036 \\ + 2804042 \\ \hline 11831078 \end{array}$ $\begin{array}{r} 21129 \\ + 50147 \\ \hline 71276 \end{array}$ $\begin{array}{r} 911024 \\ + 796362 \\ \hline 1707386 \end{array}$ $\begin{array}{r} 5267890 \\ + 4914042 \\ \hline 10181932 \end{array}$ <p>137,711</p> <p>1,332,161</p> <p>9,741,722</p> <p>104,110</p>	<p>Part 2:</p> $\begin{array}{r} 830370 \\ - 618152 \\ \hline 212218 \end{array}$ $\begin{array}{r} 805499 \\ - 584267 \\ \hline 221232 \end{array}$ $\begin{array}{r} 560080 \\ - 421146 \\ \hline 138934 \end{array}$ $\begin{array}{r} 354010 \\ - 133909 \\ \hline 220101 \end{array}$ $\begin{array}{r} 450004 \\ - 245223 \\ \hline 204781 \end{array}$ $\begin{array}{r} 605500 \\ - 151322 \\ \hline 454178 \end{array}$ $\begin{array}{r} 759500 \\ - 212027 \\ \hline 547473 \end{array}$ $\begin{array}{r} 369004 \\ - 137830 \\ \hline 231174 \end{array}$ $\begin{array}{r} 620000 \\ - 518935 \\ \hline 101065 \end{array}$ $\begin{array}{r} 387083 \\ - 165111 \\ \hline 221972 \end{array}$ $\begin{array}{r} 402802 \\ - 181111 \\ \hline 221691 \end{array}$ $\begin{array}{r} 530400 \\ - 213142 \\ \hline 317258 \end{array}$ $\begin{array}{r} 745307 \\ - 422130 \\ \hline 323177 \end{array}$ $\begin{array}{r} 378185 \\ - 266071 \\ \hline 112114 \end{array}$ $\begin{array}{r} 362000 \\ - 251356 \\ \hline 110644 \end{array}$ $\begin{array}{r} 309740 \\ - 253514 \\ \hline 56226 \end{array}$