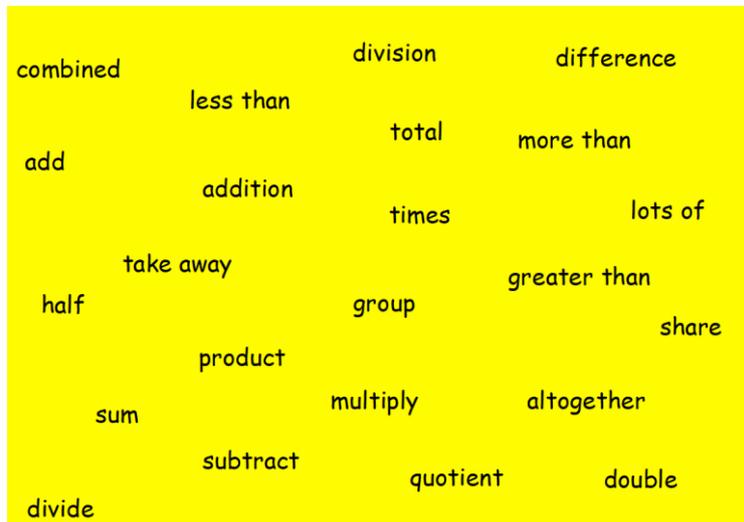# Lesson 3- Consolidation

Division

This week we will be consolidating the methods we use for the 4 operations (addition, subtraction, multiplication and division).

In today's work, you will focus on division.

Starter

Find at least 3 words that have something to do with ÷

combined   division   difference

        less than

               total   more than

add

        addition

               times   lots of

      take away

half   group   greater than

                      share

        product

sum   multiply   altogether

      subtract

               quotient   double

divide

Let's have a look at our school's calculation policy on division- This is how we should be setting it out.

Extend written approaches to the formal method of long division when dividing by two-digit numbers, illustrating this using informal methods first if required.

No remainders- Short division example using the bracket division method

3570 ÷ 5 =

How many 5's are in 3? 0
(3 needs to be carried over so that it becomes 35)
How many 5's are in 35? 7 (this is placed on top of the bracket)
How many 5's are in 7? 1 r 2 (1 is placed on top of the bracket and 2 is carried over)
How many 5's are in 20? 4

Remainder as a remainder- Short division example using the bracket division method

3572 ÷ 5 =

How many 5's are in 3? 0
(3 needs to be carried over so that it becomes 35)
How many 5's are in 35? 7 (this is placed on top of the bracket)
How many 5's are in 7? 1 r 2 (1 is placed on top of the bracket and 2 is carried over)
How many 5's are in 22? There are 4 lots of 5 in 22 and 2 as a remainder

Remainder as a decimal- Short division example using the bracket division method

3572 ÷ 5 =

How many 5's are in 3? 0
(3 needs to be carried over so that it becomes 35)
How many 5's are in 35? 7 (this is placed on top of the bracket)
How many 5's are in 7? 1 r 2 (1 is placed on top of the bracket and 2 is carried over)
How many 5's are in 22? There are 4 lots of 5 in 22 and 2 as a remainder.
Place a decimal point on top of the bracket and a 0 in the bracket. The remainder of 2 is placed on top of the 0 making it 20. How many 5's go into 20? As it is 4- this will need to go after the decimal point making it .4
Continue to do this until there are no remainders left.

Steps to success

Step 1: Write out the answers to the times tables of the number that is the divisor. IF YOU NEED TO.

Step 2: Write the calculation in the bus stop method. Put the FIRST number IN the house / bus stop.

Step 3: Say to yourself 'How many times does *** go into ***?

Step 4: Look at the times tables you wrote out. Find the number closest too, but NOT bigger than the number you are dividing into.

Step 5: Find the difference between those two numbers - this is how many you carry/regroup.

Step 6: Continue until you have no numbers left.

Task 1

1) $9888 \div 4 =$

2) $9678 \div 6 =$

3) $9947 \div 7 =$

4) $9848 \div 8 =$

5) $58972 \div 4 =$

6) $76326 \div 6 =$

Task 2

92 ÷ 4 = _____   952 ÷ 7 = _____

1480 ÷ 5 = _____   7392 ÷ 8 = _____

798 ÷ 6 = _____   4008 ÷ 3 = _____

Task 3

2. Toby has calculated 1368 ÷ 4 incorrectly.

   Can you spot his error and correct it?

$$\begin{array}{r} 8\ 4\ 2 \\ 4\ \overline{\smash{\big)}\ 1\ {}^3 3\ {}^1 6\ 8} \end{array}$$

Task 4

3. Write true or false next to each statement.

   Explain your reasons for each decision.

   - 32 x 4 gives the same answer as 4 x 32

   - Lucy says that 125 ÷ 5 is the same as 5 ÷ 125

Task 5

4. Find the missing numbers in this calculation.

$$
\begin{array}{r}
5\ \boxed{}\ 2 \\
7\ \overline{)\ 3\ {}^{3}5\ 8\ \boxed{}}
\end{array}
$$

Task 6

5. One hundred and sixty eight students go on a trip.

   There must be an adult for every eight students.

   How many adults must go on the trip?