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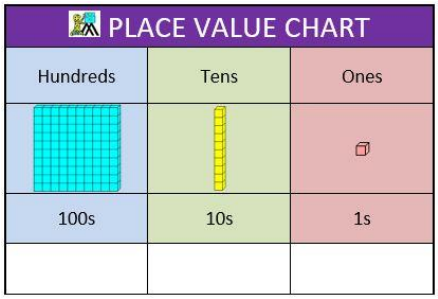
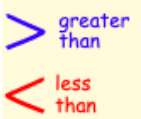
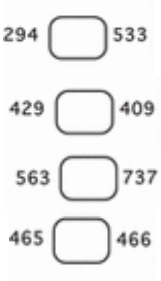
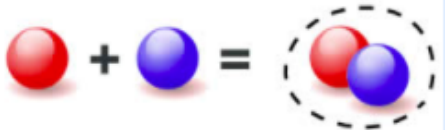
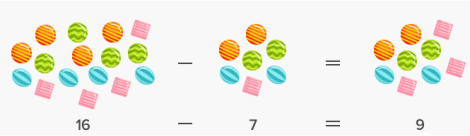
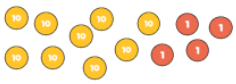
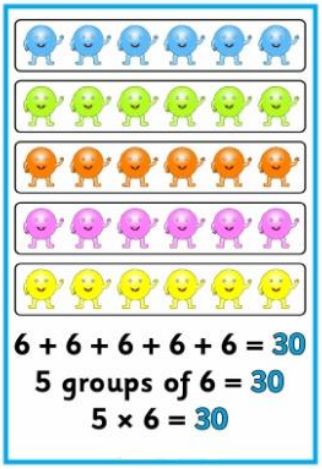
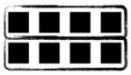
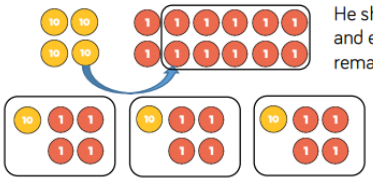
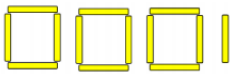
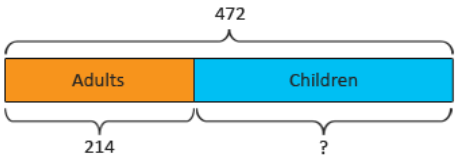
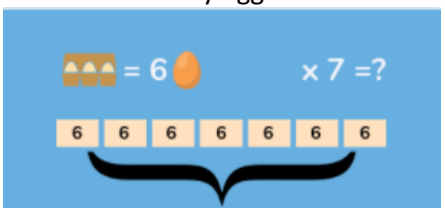
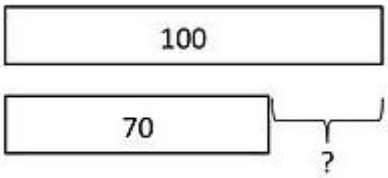
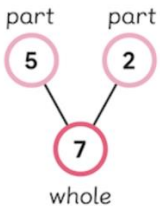
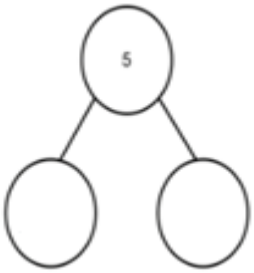
Power Maths Key Vocabulary
Year 3 – Block A

Key Vocabulary	Explanation of Terms	Example Question(s)
place value **tens** **hundreds**	A number can have many digits and each digit has a special place and value. Starting from the right the first digit will be at ones place and the second digit at tens place.  In the number 456, the digit 4 is in the hundreds place. The digit 5 is in the tens place, and the digit 6 is in the ones place.	Alex uses place value counters to help her calculate 63 ÷ 3  Alex is incorrect because she has not placed counters in the correct columns. Eva uses a place value grid and part-whole model to solve 66÷ 3  Use Eva's method to calculate: 69 ÷ 3 96 ÷ 3 86 ÷ 2
greater than (>) **less than (<)**	These symbols can be used to tell us that a number is 'greater than' or 'less than' another number.  When one value is smaller than another we use a "less than" sign (<). Example: 3 < 5 When one value is bigger than another we use a "greater than" sign (>). Example: 9 > 6.	Write the symbol which makes the problem true.  (<,>,<,<)
estimate	To find a value that is close enough to the right answer, usually without the need of a written calculation.	What numbers could be rounded to 230? (225, 226, 227, 228, 229, 231, 232, 233, 234) Estimate answers to the following questions:

		47 + 35 = **35 + 23 =** **11 + 67 =** (90, 60, 80)
add	To add is to bring two or more numbers (or things) together to make a combined total. 	Add 41 and 22. (41 + 22 = 63) Michael has 6 oranges and 89 pears, how many pieces of fruit does he have in total? (89 + 6 = 95)
subtract	To subtract is to take one number away from another.  	If I have 5 apples and then eat 2 how many would we be left with?  5 – 2 = 3 There are 100 sweets in a box – Carla eats 11 sweets, how many remain in the box? (100 – 11 = 89)
exchange	Exchange should be used when the calculation is not possible when subtracting or dividing. $^{5}\cancel{6}\ \ ^{1}3$ $-\ 2\ \ 7$ Because you do not have enough units, go to the tens column. You have 6 tens here. You must exchange one of the six tens for ten ones. Do this by scoring out the 6 and writing a small 5. Put the figure 1 (representing one ten – 10 ones) in front of the 3 ones. You therefore now have 13 ones.	Explain the mistake. H T O 2 7 × 3 6 2 1 They have not performed the exchange correctly. 6 tens and 2 tens should be added together to make 8 tens so the correct answer is 81. Use place value counters to work out 94 ÷ 4 Did you need to exchange any tens for ones? Is there a remainder?  Tens Ones
multiply	To multiply means to add equal groups. When we multiply, the number of things in the group increases. The basic idea of multiplying is repeated addition:	Calculate 6 multiplied by 9. (6 x 9 = 54) Michael needs 25 eggs for a wedding. He buys 5 boxes of 6, will this be enough? (6 x 5 = 30 – yes)

	5 multiplied by 3 is the same as 5 + 5 + 5.  	Andrew is having his friends over for game night. So he decided to prepare snacks and games. He started by making mini sandwiches. If he has 4 friends coming over and he made 3 sandwiches for each one of them, how many sandwiches did he make? (4 x 3 = 12)
divide	To divide is to separate or be separated into equal parts. Division is the act or process of dividing anything. **8 ÷ 2 = 4** 8 divided into 2 groups gives a result of 4 per group 	There are 9 chocolates, if I share these equally between 3 people, how many sweets will each person get? (9 ÷ 3 = 3) Tia shares out 28 rubies equally between 2 chests. How many rubies will be in each chest? (28 ÷ 2 = 14)
sharing	To share is to split objects into equal parts or groups.  Above the chocolates have been shared into 3 groups. Sharing can be done by dividing.	 Dora thinks that 88 sweets can be shared equally between eight people. Is she correct? Dora is correct because 88 divided by 8 is equal to 11. Ron uses place value counters to divide 42 into three equal groups.  He shares the tens first and exchanges the remaining ten for ones. Then he shares the ones. 42 ÷ 3 = 14 Use Ron's method to calculate 48 ÷ 3 , 52 ÷ 4 and 92 ÷ 8.
grouping	Division by grouping is a strategy used to introduce the concept of division. It involves collecting an amount into equal groups and counting how many groups can be made. The amount in each group is the number	How many squares can you make with 13 lollipop sticks? There are ___ lollipop sticks. There are ___ groups of 4 There is ___ lollipop stick remaining. 13 ÷ 4 = ___ remainder ___  Use this method to see how many triangles you can make with 38 lollipop sticks.

	being divided by and the number of groups that can be made is the answer to the division.	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? There are many solutions, encourage a systematic approach. e.g. 2 groups of 7, remainder 1 3 groups of 4, remainder 3 2 groups of 6, remainder 3.
bar model	A bar model is a pictorial representation of a problem or concept where bars or boxes are used to represent the known and unknown quantities.  Bar models are most often used to solve number problems with the four operations – addition, subtraction, multiplication and division.	Egg boxes can hold 6 eggs, we need to fill 7 boxes. How many eggs will we need? (42)  100 children go on a school trip. 70 children see the camels at the zoo. How many children do not see the camels?  100 – 30 = 70
part whole model	A part whole model is a concept illustrating how numbers can be split into parts. Children using this model will see the relationship between the whole number and the component parts, this helps learners make the connections between addition and subtraction.  	Using part whole models, show how 5 can be partitioned.  How many different ways could you partition 100?