

Year 2 Maths Activities - Week Beginning 4.5.20.

Dear Parents and Carers,

In Year 2, we have now covered all of the Maths topics. They are as follows;

- Place Value,
- Addition and Subtraction,
- Multiplication and Division,
- Fractions,
- Statistics,
- Capacity and Volume,
- Mass (weight),
- Time,
- Shape,
- Position and Direction.

The topics that we have asked you to cover through your home learning are;

- Temperature,
- Length and Height,
- Money.

Just because we have covered everything, certainly does not mean that there is nothing left for children to do! They will all need to consolidate, especially since some of these topics were covered way back at the beginning of the year. Some children may not have fully understood a concept the first time around or may have trouble remembering it. Other children may have done well, but need to deepen their learning by applying it to new challenges and problem solving activities.

Normally at this point in the year, we would be revising for the SATs tests and then actually doing the tests themselves. After that, there would be time for further consolidation and applying our learning to problem solving activities. As you know, the SATs are no longer going ahead, but this time of revision and consolidation is still extremely valuable.

You will soon receive your child's Annual School Report and the report will make clear the areas that your child needs to work on specifically. Tasks will then be posted on the website that should help to address the areas we have signposted. In the meantime, the activities will focus on Place Value, since this will be useful for all children and can help their learning across many other areas of Maths.

Hopefully you will already have some idea of the level your child is currently working at in maths, based on conversations that you have had with your child's teacher over the course of the year. Most children will be 'Working At the Expected Standard'. Some children may be working at a lower level and this will be described as 'Working Towards the Expected Standard'. Some children might be working at a higher level and will be

described as 'Working At Greater Depth'. The activities below have been organised into these three levels, so that you can choose which activities are most suitable for your child. You do not have to complete all of them, but you may wish to. Even a child who is Working At Greater Depth could use some of the easier activities as a 'brain warm-up' before completing the more challenging tasks.

There are only four days worth of work below, rather than five. This is taking into account the Bank Holiday on Friday 8th May.

Activity

1

Objective: To count objects to 100.

- Children need to be able to count objects to 100. They should not just count in ones and should recognise when it might be more efficient to group objects to count them, for example, by grouping into tens.
- Children need to be able to write numbers in both numerals and in words, paying attention to correct spelling when writing in words.

Working Towards the Expected Standard

Start by using a 100 square (see resources).

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

- Ask your child to count from 1 to 100, touching each number as they say the number name. Do this several times and also count backwards from 100 back down to 1.
- Talk to your child about how the numbers are organised on the square. For example, that the numbers in the top row are all single digit numbers, except for the number 10. The numbers in the second row all start with a 1 and are called 'teen numbers', they all have 1 ten. The numbers in the third row begin with a 2, they are the twenties, they all have 2 tens. Look at the columns, the numbers in the right hand column all end with a 0, they are the numbers we say in the ten times table. If we look at the column with the number 3 at the top, then look down that column, all of the numbers end in 3, they all have 3 ones, but they have one more ten each time. Can your child spot the patterns? Can they count up and down the columns as well as counting along the rows?
- Say random numbers and ask your child to place their finger on them. Can they find the number you have asked for quickly? Can they explain how

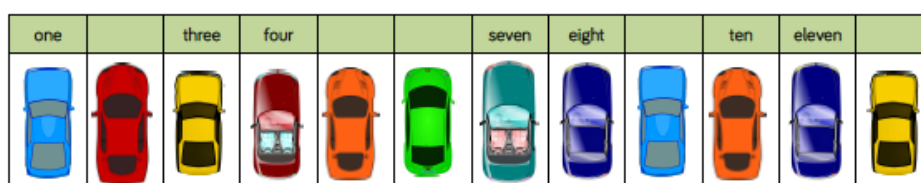
they did it? For example, when looking for the number 68, did they look for the row of sixties first?

- Activities like this need lots of repetition. Your child may not grasp the concepts the first time. Repeat this activity daily as a warm-up before moving on to another activity.

- Please see also the number, picture and word matching activity cards. If you are able to print these and chop them up, your child could work independently to match them up. If it is too much for them to do all at once, you could just give them a random selection to match. Once matched, children could order them from smallest to largest. It is a good idea to get children to order numbers where not all numbers are given, so perhaps a selection such as, 15, 2, 9, 18, 6, would be ordered as 2, 6, 9, 15, 18.

Working At the Expected Standard

Count and write the number of cars in the car park.



There are cars in the car park.

In the above activity, can children write the missing numbers in words? Can they spell the number names correctly? Do they have to always count from 1 to find out what the missing number is or can they do it in a different way? Can they explain how they did it? *For Greater Depth, can they write a sentence or two to explain how they did it?*

Match the numerals to the words.

17

48

38

70

Thirty eight

Seventy

Forty eight

Seventeen

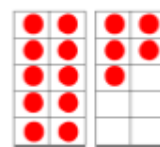
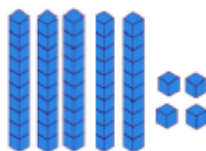
If you have a printer, use the 0-100 number cards and the 0-100 word cards. Chop them up and your child can match numbers to words. They could also order the numbers and make their own giant hundred square on the floor. Or they can order a random selection of numbers, e.g. 68, 41, 99, 67, 2, 55. *For Greater Depth, can they write a sentence or two to explain*

how they did it? For example, 'First I looked at the number of tens in each number and ordered them that way. I realised that 68 and 67 both have 6 tens, so I looked at the ones and put 67 first because 7 is less than 8'.

Children need to learn correct spelling of numbers for when they write them in words. You could work on numbers one to ten one day, the teen numbers the next day, the twenties on another day, etc.

For counting large groups of objects, children should recognise that it takes a very long time to count in ones. They should group into tens first, then count in tens and count on for the ones, e.g. for 32, they should say '10, 20, 30, 31, 32'. We use lots of different representations to illustrate this. The example below shows chalk that has been bundled into a stick of ten and then the ones separately. It also shows something called 'Diennes' ('Base Ten' is another name for this) and these come in sticks for the tens and little cubes for the ones. The last image shows some 'Tens Frames'. Children learn that there are ten spaces in the frame and when a frame is full of counters, we know there are ten without having to count them all individually.

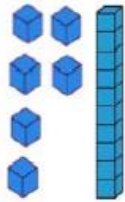
What numbers are represented below?
Write your answer in numerals and words.



Give your child objects that they can group into tens and ones in order to count them. You could use pennies, pieces of pasta, lego..... almost anything so long as it is small and you have a lot of them!!!!

Extra Activities for Children Working at Greater Depth

A big part of Working At Greater Depth is the ability to see that there are different ways of doing things and children being able to explain their reasoning and their reasons for choosing particular strategies. Children should write sentences or draw pictures to explain their thinking. If they have written an explanation of how they did something, how clear is it for another person to follow? Would somebody else be able to do it by following your child's explanation? If not, perhaps they need to be more specific?

	Tom says he has 61 Is he correct? Explain your reasoning  Each bag contains 10 cookies.  How many cookies are there altogether? Write your answers in numerals and words. What strategy did you use? Did your partner use a different method? What is the best strategy to use When everything goes back to normal and we are allowed to see our friends again, Miss Jordan would like to have a party! She has 53 friends. She wants to serve sandwiches. It takes 2 slices of bread to make one sandwich, but once the sandwiches have been made, she will cut them into 4 triangles. Each friend will get two triangles. There are 15 slices of bread in a loaf. How many bags of bread will she need to buy? Will there be any slices of bread left over? Did you need to draw or write anything to help you to work out the answer?
Activity 2	Objective: To represent numbers. - Children need to be able to represent numbers to 100 using a range of concrete materials as well as representing them on a number line. - Children should be able to state how a number is made up. For example, they can express 42 as 4 tens and 2 ones or as 42 ones. <u>Working Towards the Expected Standard</u> - Keep on counting using your 100 square and talking about the patterns you can see. - Counting objects. Use any small objects (pennies, pieces of pasta, lego.....). Show your child a number and ask them to count out objects to represent that number. You can make this super easy by using only numbers to 10 or 20 or you can make it harder by asking them to count larger quantities. Children sometimes struggle with counting accurately because they do not yet have what is called '1 to 1 correspondence'. This

means they do not say one number name for each object, they may say the numbers more quickly or slowly than their fingers move as they touch each object. Make sure your child counts accurately by perhaps moving the objects into a separate pile as they count them, or by grouping them into tens and ones for larger numbers.

Working At the Expected Standard

Repeat the activity from yesterday where you gave a number and asked your child to count the corresponding number of objects (pennies, pasta, lego, etc). Make sure that they count groups of ten to make the objects easier to count.

Here is part of a bead string.



Complete the sentence.

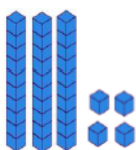
There are tens and ones.

The number is

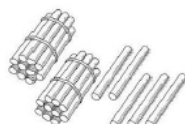
Match the number to the correct representation.



Three tens
and four ones



Twenty five



33

Can you represent the number 67 in three different ways? Using three different objects to count.

Have a look at the 'Number Lines and Missing Numbers' Activity sheets. Your child might remember that we actually did these in school. However, it was a very long time ago and at the time, many children found these activities extremely challenging. It would be beneficial to repeat these,

with the direct support of an adult. Alternatively, you could make some different ones of your own, by drawing a number line and asking your child to place particular numbers along it. Number lines don't always have to start from 0 or 1, and they don't always have to end with 10 or 100. Challenge your child to reason about numbers when there are different starting and end points!

Extra Activities for Children Working at Greater Depth

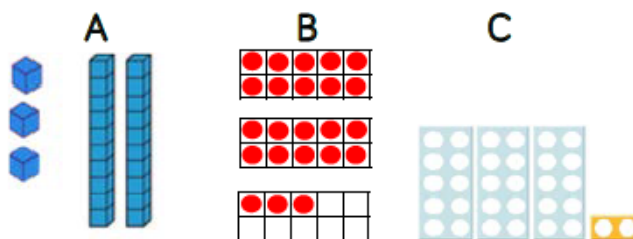
Please complete the 'Number Line and Missing Number' activity above, but can you write sentences to explain how you knew where different numbers should go? Perhaps you could make some number lines of your own with different starting and end points? Ask a grown-up or a sibling to place missing numbers on your number line. Can you give them some guidance? What should they take into consideration when placing different numbers?

Also, try out these problems below;

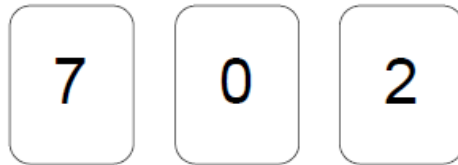
Place 36 on each of the number lines below:



One of these images does not show 23. Can you explain the mistake?



How many two digit numbers can you make using the digit cards?



What is the largest number?
Prove it by using concrete resources.

What is the smallest number?
Prove it by using concrete resources.

Why can't the 0 be used as a tens number?

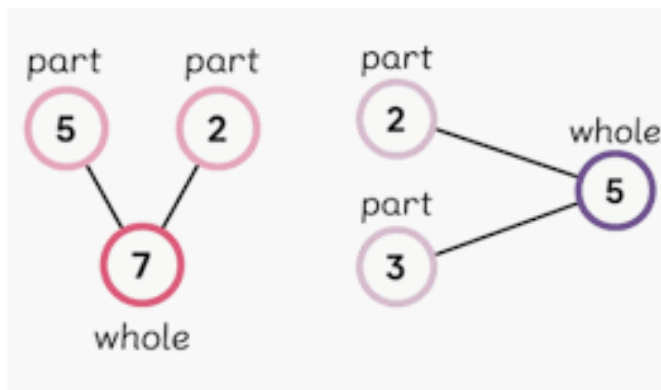
Activity
3

Objective: Tens and Ones as a Part Whole Model.

- Children need to partition numbers (split them) and have an understanding of what each digit represents.
- Children need to partition numbers in a variety of different ways, not just as tens and ones.

Working Towards the Expected Standard

These are Part Whole Models. They show that 7 can be made out of 5 and 2 and that 5 can be made out of 2 and 3.

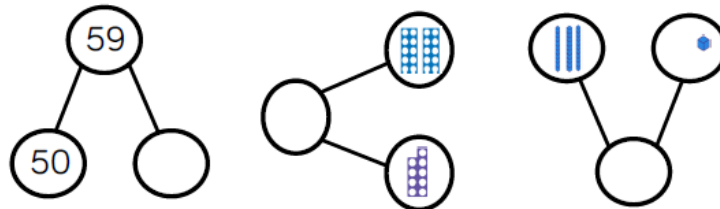


Make some Part Whole Models with your child. You might want to start with something they already know, such as different ways of making ten, e.g. 10 can be 9 and 1, or 8 and 2, or 7 and 3, etc. Don't just stick with ten though, try some other numbers too. How many different ways are there

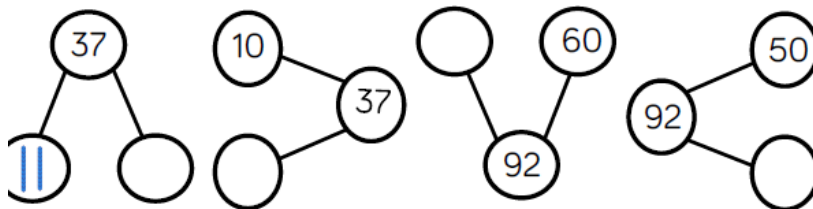
to make the same number? Use small objects (pennies, pasta, lego, etc) and count out the starting number, then try splitting it in different ways, e.g. 7 can be split into 4 and 3. Show how the reverse is true too, so if I started with 4 and 3, I would have 7 altogether.

Working At the Expected Standard

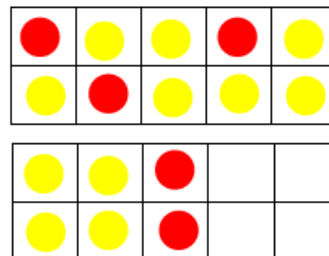
Complete the part whole models.



Complete the part whole models.



The ten frames represent lemon and strawberry cupcakes.
Draw a part whole model to show how many cupcakes there are altogether.

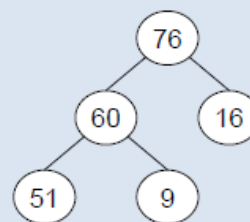
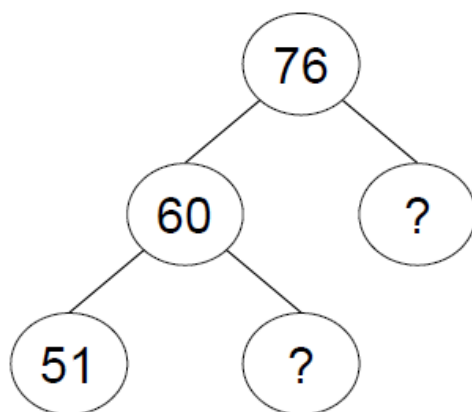


Looking at the cupcake activity above, how did you count how many cupcakes there were altogether? Did you count every single cupcake one at a time or was there a faster way to count?

Challenge! Can you make the number 75 in different ways? It could be made out of 7 tens and 5 ones, but how else could it be made? Is there a way of doing this so that you would find every different possible combination?

Extra Activities for Children Working at Greater Depth

Complete the extended part whole model:



Look at the Extended Part Whole Model above. The solution has been given to you so that you can see how to do it. Can you make your own Extended Part Whole Models? Perhaps you could make some for a grown-up or a sibling to complete. Can you give them any top tips for how to complete them?

Have a think about your number knowledge. You know all sorts of things. You know;

- CLIC Learn-its
- Number bonds to ten, twenty or even 100,
- Times Tables,
- Doubles and Halves, or even other fractions, for example you might know that a third of 21 is 7.

Can any of these things help you to do Part Whole Models?

How do they help? Can you give an example that shows how these things might help?

Activity
4

Objective: Tens and ones for addition.

- Children need to know how tens and ones can be partitioned and recombined to make a total.
- Children need to understand that the = sign means 'equal to' (it doesn't mean 'this is the answer'), so it can be placed at the beginning of a number sentence, not just at the end.

Working Towards the Expected Standard

- Work with your child to add ten and a given number of ones (so all of the answers will be teen numbers). For example, $10 + 4 = 14$, $10 + 1 = 11$. Use small objects to count to begin with, so they would count out 10 objects

(pennies, pasta, lego.....) and then the other number and then count how many they have altogether.

- Once they are comfortable with this idea, can they see that we don't need to count the ten every time? We can 'put ten in our head' and then count on.

- While working, ask your child to write the number sentences, e.g. $10+4=14$. Say out loud, 'Ten add four equals fourteen. Ten and four are equal to fourteen. Having ten and four is the same as having fourteen'. Then write the sentence the other way round, $14=10+4$ and repeat that having fourteen is the same as having ten and four. We can put the equals sign at the beginning because it means 'equal to' or 'the same as'.

Working At the Expected Standard

Talk to your child about two digit numbers. Make sure that they understand that the number on the left is the tens digit and the number on the right is the ones digit. In a number like 40, the ones digit is a zero because there aren't any ones, but it needs to be there (keeping the place for the ones) because otherwise, we would think it was the number 4 instead of 40.

Match the number sentences to the correct number.

$20 + 19$

$10 + 4$

$40 + 0$

$80 + 1$

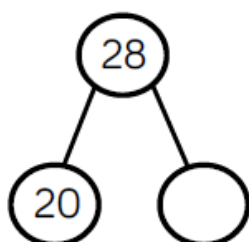
40

14

81

39

Complete the part-whole model and write four number sentences to match.



_____	+	_____	=	_____
_____	+	_____	=	_____
_____	=	_____	+	_____
_____	=	_____	+	_____

Hattie has 20 sweets and Noah has 15 sweets.
Represent the total number of sweets:

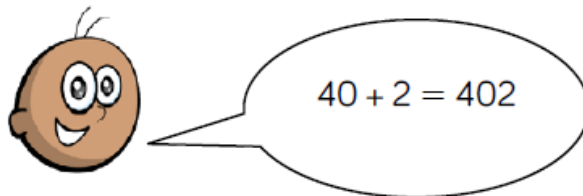
- With concrete resources
- In a part whole model
- As a number sentence

Extra Challenge!!!!

Can you explain why we can put the equals sign at the beginning of our calculations as well as at the end? Can you write some sentences to explain it? Imagine that you are explaining to somebody younger than you or to an alien from another planet. You would need to explain fully so that they understood you.

Extra Activities for Children Working at Greater Depth

Joel thinks that:



Explain the mistake he has made.

Can you show the correct answer using concrete resources?

	Are these two place value charts of equal value? A <table border="1" style="border-collapse: collapse; text-align: center;"> <thead> <tr style="background-color: #f4a460;"> <th style="padding: 5px;">Tens</th> <th style="padding: 5px;">Ones</th> </tr> </thead> <tbody> <tr> <td style="padding: 20px;">  </td> <td style="padding: 20px;">  </td> </tr> </tbody> </table> B <table border="1" style="border-collapse: collapse; text-align: center;"> <thead> <tr style="background-color: #f4a460;"> <th style="padding: 5px;">Tens</th> <th style="padding: 5px;">Ones</th> </tr> </thead> <tbody> <tr> <td style="padding: 20px;">  </td> <td style="padding: 20px;">  </td> </tr> </tbody> </table> What is the same? What is different?	Tens	Ones			Tens	Ones			Can you write all of the different number sentences to go with each Place Value Chart? You will be able to put the = sign at the beginning as well as at the end. You will be able to do subtractions as well as adds, e.g. $41 - 1 = 40$. Extra challenge!!!! Why can't this number sentence be correct? $41 = 11 - 30$
Tens	Ones									
										
Tens	Ones									
										

A Little Extra

The White Rose End of Block Assessment is also included here with the other resources. Children do one of these at the end of each maths topic, so they have already done this (a long time ago). You might want to give it to them at the end of this week to see if they can complete it independently and if there are still things they have not understood.