Your child will be revising work done in 2nd Class.

Adding/subtracting to 100

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

hundred square

Make a hundred square with your child as shown here. Ask your child to put counters/cubes/coins or anything that you have to hand on any number from 1–99 on the hundred square, e.g. 85, 42, 69, etc.

Now, ask him/her to put counters on the number that is 10 more/10 less/20 more/20 less than the number.

Extension 1: Ask your child to put a counter on a specific number, incorporating place value and extended numbers, e.g. *Place your counter on the number that has 5 tens and 3 units. Place your counter on the number that has 7 tens and 0 units.*

Extension 2: Do some addition sums using the hundred square as an aid, e.g. *Let's add 34 + 25 on the hundred square.* Allow your child a little time to try using different strategies to arrive at a solution. S/He may just count on 25 from 34. S/He may see 25 as 2 tens and 5 units and therefore jump 2 tens and then move on 5 units on the hundred square.
The hundred square can also be used for doing subtraction sums in a similar way.

3-D shapes

Ask your child to find something in the shape of a cone (funnel, ice cream/traffic cone), sphere (ball), cylinder (tin of beans), cube (Oxo/ice cube, dice) or cuboid (shoebox, cereal box) around the house/local environment. Talk to him/her about the number of faces, vertices (corners) or edges that are on each shape.

2-D shapes

It must be emphasised that 2-D shapes cannot be held. They are only pictures/symbols because they do not have any depth. Encourage your child to make 2-D shapes by drawing around a 3-D shape. For example, place a cube on an A4 sheet of paper and ask your child to draw around the shape to make a square.
Ask your child to find something in the shape of a square, rectangle, triangle, circle, semi-circle or oval around the house or local environment.

Money

Game 1: Shop

Ask your child to help you to make a play shop in a section of a room. Collect a number of easily-sourced items. Use sticky notes or pieces of paper as price tags. Place the price tags on/under the items. No item should cost more than €1. Ask your child to make up some questions.

Examples:

- *How much do the beans cost?*
- *Which is dearer/more expensive: the apple or the tin of peas?*
- *I have €1. Do I have enough money to buy the packet of cereal?*
- *What is the total cost of the beans, ball and cereal?*
- *What is the total cost of the lunchbox, apple and peas?*

Game 2: Coins up to €2

Ask your child to empty his/her piggy bank (if s/he has one) of coins. Ask him/her to count the value of the coins and to arrange the money into euro and cent.

Fractions

Give your child an A4 sheet of paper and cubes. Ask him/her to fold the sheet in half. Show him/her that we can find half of a number by sharing the cubes equally, e.g. Find ½ of 16.
First, ask your child to count out 16 cubes. Next, ask him/her to share the 16 cubes equally between the two halves of the sheet, and ask:

- *How many cubes are on the left half of the sheet?*
- *How many cubes are on the right half of the sheet?*
- *Did you share the cubes equally?*
- *So, what is half of 16?*

You can do the same activity with quarters by folding the sheet twice.

Extension: Ask your child to count out the value of coins of any even number up to 20c. Then, ask him/her to find half or quarter of these amounts, e.g.
Find ½ of 12, ¼ of 20, ½ of 18, ¼ of 8, ½ of 14, ¼ of 12, etc.

Rounding and problem-solving

Your child will be exploring big numbers to 999, while also learning the mental strategy of rounding to the nearest ten or hundred. Your child will need to know the language associated with these topics, such as: round up/down, to the nearest ten, nearest hundred, nearer, not as near, closer, farther away, bigger, add, smaller.

Game: Clap, tap

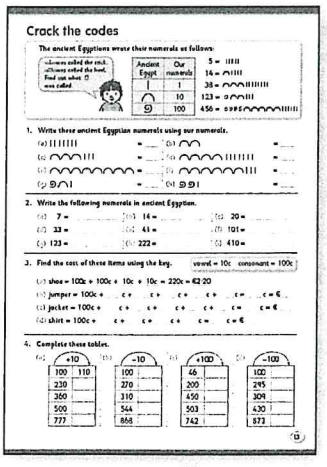
Ask your child to count in hundreds from different starting points between 0 and 999. Example: *Start counting in hundreds from 0/300/240/367*, etc. As your child says each count, s/he should alternate from clapping his/her hands to tapping his/her feet. For example: *130* (clap hands), *230* (tap feet), *330* (clap hands), *430* (tap feet), etc.
Variation: Ask your child to count backwards from different starting numbers as done above.

Calculator fun

Ask your child to enter 10 + into a calculator. If s/he keeps pressing the equals sign, the display on the calculator will count up in tens.
Variation 1: Enter any number, e.g. 76. Ask your child to enter +10 into the calculator. If s/he keeps pressing the equals sign, the display on the calculator will count up in tens, e.g. 86, 96, 106, etc. Next, ask your child to enter 100 + into the calculator. If s/he keeps pressing the equals sign, the display on the calculator will count up in hundreds.
Variation 2: Ask your child to press 990 – 10 on the calculator. If s/he continues pressing = = =, the calculator will display counting back in tens from 990 down to zero.
Variation 3: Ask your child to press 990 – 100 on the calculator. If s/he continues pressing = = =, the calculator will display counting back in hundreds from 990.

Ancient Egyptian numerals

Introduce your child to the symbols that the Ancient Egyptians used as numbers on **page 13** of *Busy at Maths 3*.


Crack the codes

page 13

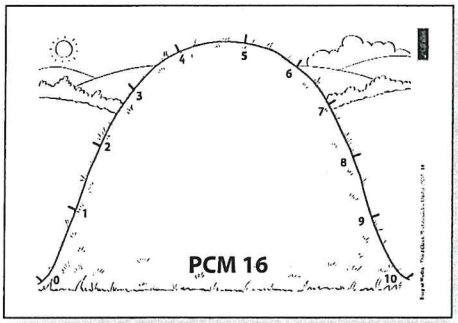
Teach your child the names: 1 – stick or stroke, 10 – heel (as in a heel bone), 100 – coil (as in a coil of rope).
Display various numbers from 1–999 (e.g. 347) in the Ancient Egyptian style and invite your child to work out what number from our system they represent.
Next, display a number from our number system and invite your child to write it in the Ancient Egyptian style.

Rounding definition

To round numbers means to change the numbers to the nearest ten or hundred so as to make them easier to work with mentally.

Rounding rhyme:
1 to 4 – stay on the floor!
5 to 9 – climb the vine!

Roll up, roll down



Draw a picture of a hill and insert numbers as it is done on **PCM 16**. Place a toy car at number 3 on the hill. Ask questions, such as: *If the car stopped working now, would it roll up or down the hill? It would roll down to 0.* (Hence, we round number 3 down to 0.)
If the car were to stop at number 8, what would it happen? It would roll down to 10. (Hence, we round 8 up to 10 and so on.)

Rounding on a number line

Make a number line showing 0–30. Put a counter on number 24 and ask your child to decide if we should round up to 30 or down to 20.
Make a rough number line showing 100–200. Place a counter on different numbers, e.g. 246, 250, 287. Ask your child to round each number to the nearest hundred. It is important that your child knows that 150 is halfway between 100 and 200 and that it rounds up to 200.
Your child could also round these numbers to the nearest ten.

Multiplication 2 – By 3, 6 and 9

Your child will be learning about multiplication by 3, 6 and 9 over the coming days. S/He needs to know some of the language associated with multiplication: multiply, product, multiplication symbol (x), multiple/multiples, double, near double, bigger/greater than, repeated addition, addition/multiplication sentence, pattern, set, group, list, grid.

Listen and count

Ask your child to count silently in 3s in his/her head as you drop a number of 1c coins in groups of three into a tin/box. **Example:** Drop eight sets of three 1c coins into the tin. Your child should listen and count in 3s as each set of coins is dropped in. Then, invite your child to say what number s/he is at. S/He should be at the number 24 in this example. This activity can also be done for sets of six and nine 1c coins.

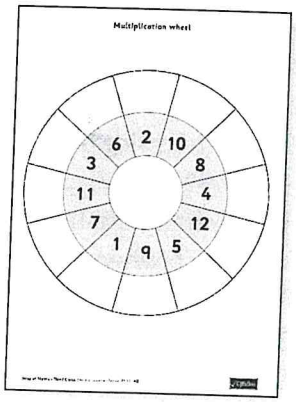
Calculator fun!

Ask your child to press 3 + = = = = = on a calculator to show counting in 3s. Your child can go up as far as s/he can within 100.
Ask your child to press 6/9 + = = = = = on a calculator to show counting in 6s and 9s.

Multiplication is repeated addition

Place five sets of 3c (2c + 1c) in a row and ask your child to add them, e.g. 3c + 3c + 3c + 3c + 3c = 15c. This is called repeated addition or an addition sentence. Explain to your child that it is easier to find out how many sets/groups of 3c there are and multiply. There are 5 sets/groups of 3c, so the multiplication sentence is: 5 x 3 = 15. Addition and multiplication sentences can also be made using 6s and 9s.

The multiplication wheel

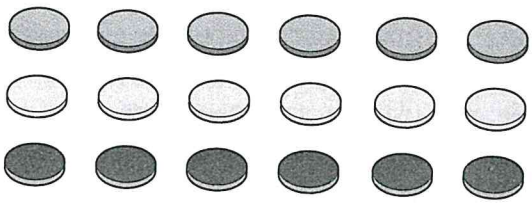


PCM 40

Make a simple multiplication wheel as shown below. Write the digits 3, 6 and 9 on sticky notes. Ask your child to write the multiplication symbol in front of the digits 3, 6 and 9. Now, ask your child to place the x3 in the centre of the multiplication wheel. Next, ask him/her to complete the outer ring by writing in the answer to the multiplication questions.

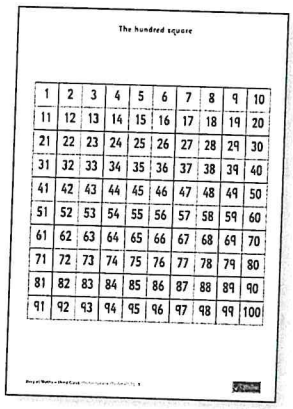
Making sets/groups of 3, 6 and 9

Give your child 18 counters or cubes of three different colours.



Ask your child to arrange the counters in sets/groups of 3, 6 or 9, in rows according to colour. Your child can count them using repeated addition.

Multiplication on the hundred square



PCM 1

Make a hundred square or ask your child to make one. Ask your child to place a counter on the number 6 and on all the multiples of 6 up to 72 (12, 18, etc.). Your child may like to continue as far as s/he can up to 100.
Variation: Ask your children to do this activity for sets/groups of 3 and 9.

Two for the price of one!

Give your child 12 counters/cubes/1c coins and ask him/her to come up with as many ways of arranging the 12 items into different sets as possible, e.g. 6 sets of 2, 2 sets of 6, 3 sets of 4, 4 sets of 3.
Variation: Ask your child to do a similar activity for 16/20/24 counters.

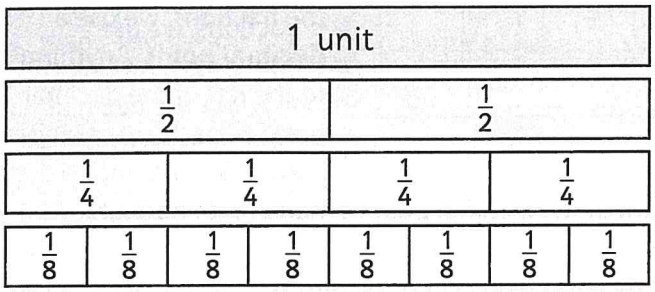
Memory – Multiplication by 3, 6 and 9

This card game may be played by two or three players. Remove all of the court (picture) cards from the deck of cards. The ace will count as 1. You or your child can keep score. Place the cards randomly face-down on the table. Player A picks two cards. If s/he can show a multiplication number sentence for 3, 6 or 9 with the two cards, then s/he gets to keep them, e.g. 2 x 3 = 6, 1 x 9 = 9, 3 x 6 =18, 10 x 6 = 60, 5 x 9 = 45, 2 x 6 = 12, etc. The player with the most cards at the end of the game wins.

Your child will be learning about fractions – halves (½), quarters (¼), eighths ($^1/_8$) and tenths ($^1/_{10}$) – over the coming days. Your child needs to know some of the mathematical language associated with fractions, such as: half, quarter, eighths, tenths, fraction, fraction wall, part, bit, piece, whole, whole amount, set, equal amounts, not equal, circle, bigger, less than, greater than, the same as, divide, cut, match, pair, colour, shapes, draw, altogether, biggest, smallest, mixed number, etc.

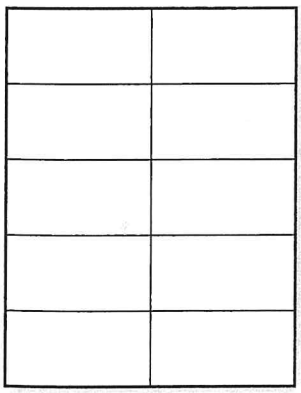
The fraction wall

Revise the work done earlier in the year using halves, quarters and eighths. Ask your child to make a copy of the fraction wall from page 73 of *Busy at Maths 3*, using an A4 sheet of paper.



Ask your child to cut out the unit, halves, quarters and eighths on the fraction wall. Ask him/her to manipulate the fractions to show equivalence (fractions that are equal) by placing them on top of each other, e.g. place two quarters over one half to show that they are equivalent/equal/the same. Place six eighths over three quarters in the same way.

Tenths of regular shapes

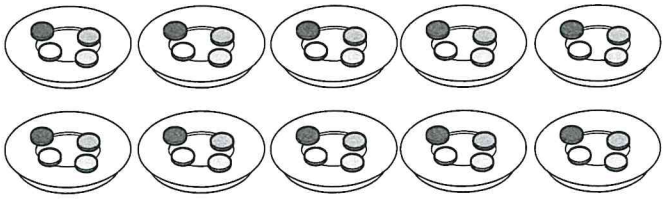


For this activity, you will need an A4 sheet of paper. Fold the sheet down the middle. Draw a line on this fold. Use a ruler to mark off five equal parts on each side of the A4 sheet. You now have 10 equal rectangles (see diagram).

Ask your child to cut out the rectangles and place them on top of each other. Ask him/her questions, such as: *What do we call each part? Yes, one tenth.* Next, ask him/her to colour half of the small rectangles and prove that they make up a half.

Sharing equally

For this activity, you will need 40 concrete items for sharing, e.g. counters/coins, and 10 saucers/bowls. Explain to your child that you have 40 counters and you want to share them equally among 10 saucers. You want to place one tenth of the counters on each saucer.



Place the 40 counters on the table. Ask your child to share out the counters one at a time among the saucers. Ask questions, such as:

- *How many counters are there on the first/second/fifth/tenth saucer?*
- *Did we share the counters equally?*
- *How many counters are there altogether?*
- *How many counters did each saucer get?*
- *So, what is $^1/_{10}$ of 40? Yes, 4.*

Finding the whole amount

For this activity, you will need an A4 sheet of paper marked with 10 small rectangles, as used in an activity before. Pose a problem, such as: *One tenth of my money is 4c. How much money do I have altogether?* Ask your child to place four 1c coins on one small rectangle. Ask him/her to come up with a strategy to find out how many cent you have altogether.

- *How many counters have we in this rectangle/tenth? Yes, 4.*
- *Now, lets place the same amount of counters in each rectangle. How many counters are there in the first/second/fourth/eighth/tenth rectangle?*
- *How many coins are there in total in the first three rectangles?*
- *How many coins are there in total in the first five rectangles?*
- *How many coins are there in total in the 10 rectangles?*

$^1/_{10}$ = 4 cubes so $^{10}/_{10}$ or the full amount = 40 cubes.