# The Stamp Game - Addition

Materials:

- Small coloured tiles or stamps; green with 1 written on them to represent units, blue with 10 to represent tens, red with 100 to represent hundreds, green again to represent thousands. Pencil, squared paper and a ruler.

Presentation #1:

Part 1 – Introduction of Stamps

- this exercise is done with individual children
- this material gives symbol instead of quantity
- first show the child the connection between the beads (the thousands, hundreds, tens, and units) on the presentation tray and the cards, and then show the child the stamps
- bring the bead presentation tray, a box of large number cards, the box of stamps and tray with graph paper, pencil and paper to the table with the child
- remove the thousand, hundred, ten and unit from the large number cards and place upside down on the table with the unit on the top
- point to the unit on the tray and ask the child what it is, then take the unit card and place it below the tray
- repeat this procedure for the ten, hundred and thousand
- take from the stamp box a unit, a ten, a hundred, and a thousand
- tell the child that instead of using the beads and cards he will be using the stamps that have the numbers written on them
- gather up the cards replace into the box and replace on the shelf with the bead tray, place the stamps back into the box
- ask the child for various quantities from each category with the stamps (i.e. "could I please have 5 thousands"
- after the child gives you the correct amount of stamps place them back into the box and ask for another quantity from another category (6 tens,   9 units, 4 hundreds etc.)
- make sure that you ask the child for a good variety of each category
- be sure to show the child how to line up the stamps in a vertical row with each stamp in the row touching, leaving space between categories
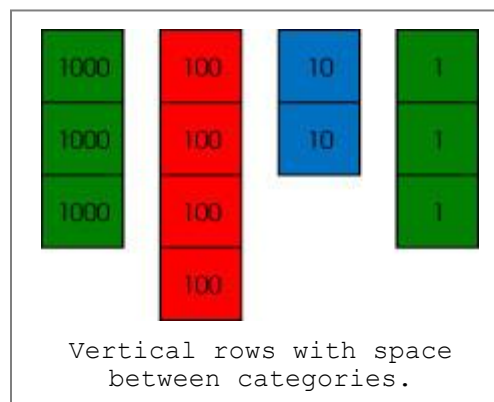
### Part 2 – Introduction to the Squared Paper

- show the child the graph paper that you will be writing on
- explain that each number is written in one square
- write a number on the paper for the child
- ask the child to make it with the stamps
- the child can lay the stamps either from units to thousands, or thousands to units
- make a number with the stamps and have the child count the stamps and write the number on the graph paper

Vertical rows with space between categories.

Part 3 – Static Addition

- tell the child that you are going to write an addition question
- write down the numbers and tell the child that they are addends, with the ruler draw a line underneath the addends

- then tell the child "So that we remember that we are adding we shall add this little sign which is called a plus or addition sign."
- ask the child to lay out the first addend
- you show the child how to lay out the second addend with a space in between the 2 addends; you can lay out 2 categories and then have the child help to lay out the remaining of the second addend
- tell the child "Let's find out how much the 2 addends add up to. Can you push up the units of the addends together, now the tens, the hundreds and thousands."
- make sure that the columns are in a straight vertical line, you can use the ruler to straighten them out
- begin counting the units
- be sure that after a stamp has been counted that you slide it down slightly on the table in order to differentiate it from the stamps that have not yet been counted; write this number under the units column on the graph paper
- have the child finish counting from the tens, hundreds and thousands making sure that he writes down the number of each category after it has been counted
- when the child has finished tell him that "This is the sum" - pointing to the answer


Layout

Push Up and Count
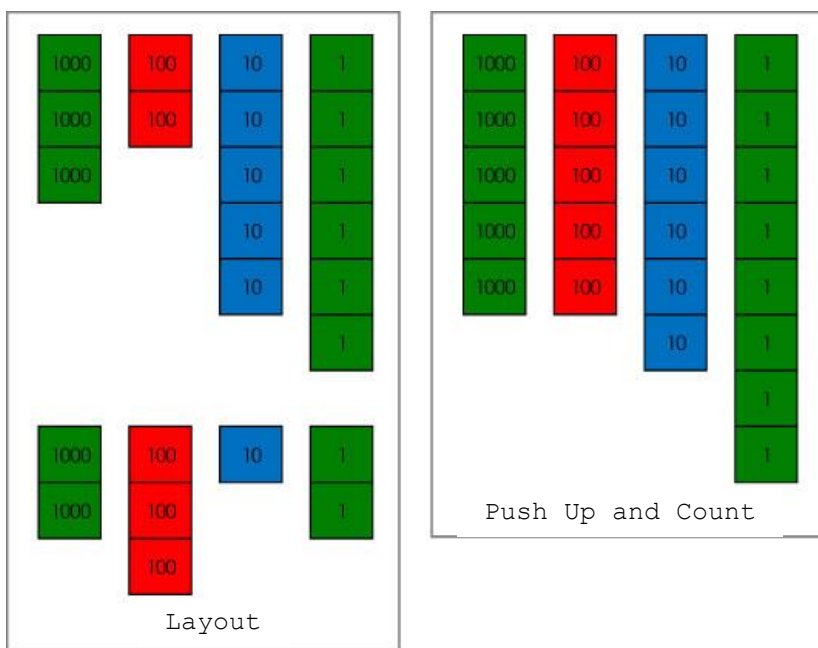
Part 4 – Dynamic Addition

- write a 3 addend addition for the child on the graph paper (make sure the sum is not over 9000)
- together with the child lay out the addends (unless the child wishes to do it on his own)
- have the child push the addends together
- ask the child to count the units; when the child counts up to ten he must change the ten units for a ten and place the ten under the tens category, the child then counts the remaining units and writes that number down on the paper
- this process of changing is repeated for the categories that have more then 10, the remaining number is then written down
- ask the child to chose a number and write it down on the paper

- have the child complete the process of laying out, changing and counting, and writing the sum down

Exercise #1:

- same as Presentation #1
- children can use Addition Command Cards to work independently
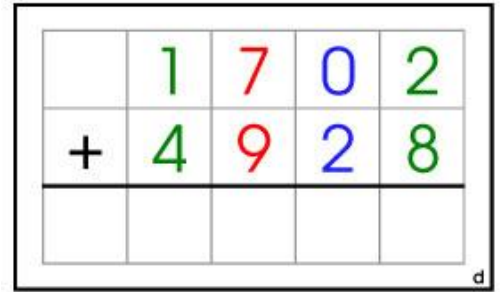
Dynamic Addition Command Card

Purpose:

Direct

- to give the child the opportunity of carrying out individual exercises; previously with the Bead Material they needed the collaboration of other children to do the calculations

Age:

- 5 – 6 years

Personal Notes:

The Stamp Game - Multiplication

Materials:
- Small coloured tiles or stamps; green with 1 written on them to represent units, blue with 10 to represent tens, red with 100 to represent hundreds, green again to represent thousands. Pencil, squared paper and a ruler.

Presentation #1:
- you do not need to start with static multiplication as it is the same process as addition
- tell the child that you are going to do multiplication
- write down a number on the paper; tell the child that "This is the multiplicand"
- write down another number; tell the child "his is the multiplier, it tell us how many times we are taking the multiplicand"
- with the ruler make a line under the multiplier, and then show the child the multiplication sign
- tell the child to lay out the stamps as many times as the multiplier tells him
- have the child continue on as in addition; push up, count, write down the number
- when each category has been totaled tell the child that the final number is the product
- have the child choose a number, write it down, and then find the product
- be sure to tell the child that if he is going to choose a higher multiplier then 2, he must not have to many thousands or he will run out of stamps

Exercise #1:
- same as Presentation #1
- children can use Multiplication Command Cards to work independently

Purpose:
Direct
- to give the child the opportunity of carrying out individual exercises; previously with the Bead Material they needed the collaboration of other children to do the calculations

Age:
- 5 – 6 years

Personal Notes:

The Stamp Game - Subtraction

Materials:

- Small coloured tiles or stamps; green with 1 written on them to represent units, blue with 10 to represent tens, red with 100 to represent hundreds, green again to represent thousands. Pencil, squared paper and a ruler.

Presentation #1:

Part 1 – Static Subtraction

- write down a number for the child
- introduce the child to the minuend, subtrahend, difference, and the subtraction sign
- ask the child to lay out the minuend
- ask the child what the subtrahend is (how many units he is suppose to take away?)
- have the child to take away the units, count the units remaining in the minuend and then write the number down
- ask the child to continue with the tens, hundreds and then the thousands
- tell the child that what he now has is the difference; when the subtrahend is taken away from the minuend you are left with the difference

Part 2 – Dynamic Subtraction

- choose a dynamic subtraction question and write it down (make sure that the subtrahend is large except in the thousands) i.e. 6431 – 3798
- ask the child "Can you take 8 units from 1 unit?" – "no"
- show the child how to change a ten for 10 units (take a ten and set it beside the stamp box, count out ten units and place them in line with the units set out in the question, place the ten that you had set beside the box into the box; the ten is set aside as a reminder of what you are counting out and to make sure it's removed from the question
- now take 8 away from the 11 units, count what remains (3) and write it down
- have the child continue on with the changing and counting until the difference is found

Exercise #1:

- same as Presentation #1
- children can use Subtraction Command Cards to work independently

Dynamic Subtraction
Command Card

Purpose:

Direct

- to give the child the opportunity of carrying out individual exercises; previously with the Bead Material they needed the collaboration of
  other children to do the calculations

Age:

- 5 – 6 years

Materials:

- Small coloured tiles or stamps; green with 1 written on them to represent units, blue with 10 to represent tens, red with 100 to represent hundreds, green again to represent thousands. Twenty-nine skittles one large green and nine each red and blue, 10 green. Plastic counters one red, one blue and one green. Pencil, [squared paper] and a ruler.

Presentation #1:

Part 1 – Dynamic Division

- write a number and introduce the child to the dividend, divisor, quotient, and the division sign
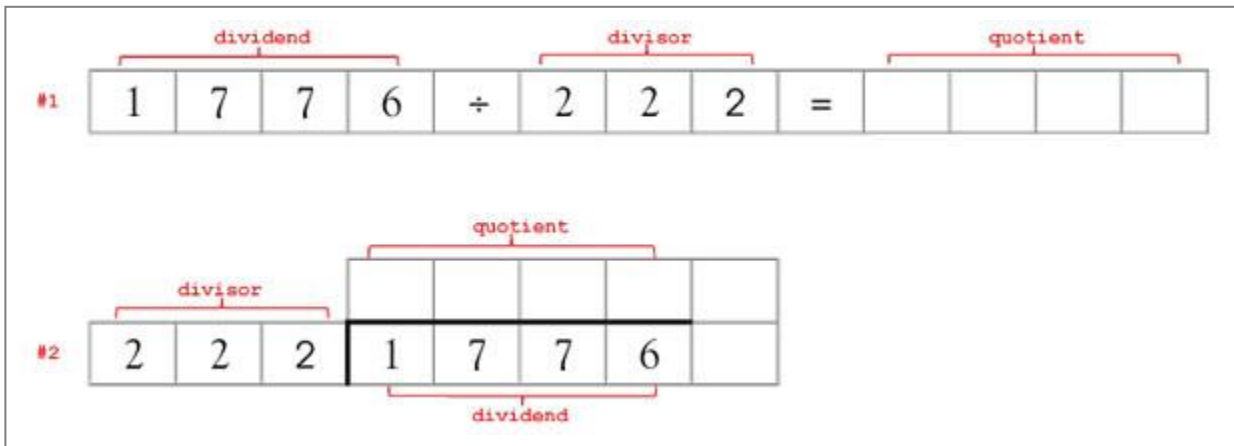
- remind the child of the Long Division with Bows (Collective Exercise, page #49); red bow got 10 times the amount of the blue bow, the blue bow got 10 times the amount of the green bow, etc
- introduce the child to the skittles; red hundred, blue ten, green unit, and the large green thousand
- explain that we use the skittles to represent the divisor
- ask the child what the divisor is – "222"
- ask the child what skittles he will need - how many hundreds (2), tens (2), and units (2)
- tell the child "Let's take out the dividend, but we aren't going to line them up, we are just going to group them together
- tell the child to share them out to the skittles and change when it is necessary; the sharing is the same process as with short division
- when the child is finished ask "Do you remember where we find the answer?" the child should answer "The green skittle".
- "The answer is what one green skittle gets - the answer is 8. We call that the quotient."

- choose a question that will result in a remainder
- have the child find the quotient
- show the child how to write the remainder with an R at the end of the quotient

					4	3	(R 48)	
2	1	2	9	2	1	4		

Exercise #1:
- same as in Presentation #1

Presentation #2: – Divisor with a Zero in the Tens
- give the child a division with the divisor having a zero in the tens (203)
- have the child place the red skittles for the hundreds
- ask the child "How many tens?" - none
- take the blue counter out of the box and place it on the table to the right of the red skittles "We use this counter to place it where the tens would be."
- place the green skittles
- when sharing out; share out to the hundreds
- then ask the child "What do the tens get?" - none. "Make sure that another skittle does not get his share! The units get ten times less than the tens would get if it had been there."
- continue on the sharing out process until the quotient can be found under a green skittle

Divisor with a Zero in the Tens
9135 ÷ 203 = 45

Exercise #2:
- same as in Presentation #2

Presentation #3: – Divisor with a Zero in the Units
- give the child a division with the divisor having a zero in the units (230)
- share out everything as usual; there is no special procedure because there is nothing less than a unit to share out to
- to the child "We have no units so how can we find out what the quotient would be (there are no green skittles)?"
- if the child doesn't have an answer say to him "Let's take out 1 tens share and share it out among 10 green skittles to find the quotient."
- place the blue skittle back into the box and take out the green skittles, line them up across the table
- share out the quantity to 10 green skittles; the quotient is under 1 green skittle

Divisor with a Zero in the Units
9660 ÷ 420 = 23

Exercise #3:

- same as in Presentation #3

Purpose:

Direct

- to give the child the opportunity of carrying out individual exercises; previously with the Bead Material they needed the collaboration of other children to do the calculations

Age:

- 5 – 6 years

1	1	1	1	1	1	1
1	1	1	1	1	1	1
1	1	1	1	1	1	1
1	1	1	1	1	1	1
1	1	1	1	1	1	1
1	1	1	1	1	1	1
1	1	1	1	1	1	1
1000	1000	1000	1000	1000	1000	1000
1000	1000	1000	1000	1000	1000	1000
1000	1000	1000	1000	1000	1000	1000

10	10	10	10	10	10	10
10	10	10	10	10	10	10
10	10	10	10	10	10	10
10	10	10	10	10	10	10
10	10	10	10	10	10	10
10	10	10	10	10	10	10
10	10	10	10	10	10	10
10	10	10	10	10	10	10
10	10	10	10	10	10	10
10	10	10	10	10	10	10

100	100	100	100	100	100	100
100	100	100	100	100	100	100
100	100	100	100	100	100	100
100	100	100	100	100	100	100
100	100	100	100	100	100	100
100	100	100	100	100	100	100
100	100	100	100	100	100	100
100	100	100	100	100	100	100
100	100	100	100	100	100	100
100	100	100	100	100	100	100

1	1	1	1	1	1	1
1	1	1	1	1	1	1
1	1	1	1	1	1	1
1	1	1	1	1	1	1
1	1	1	1	1	1	1
1	1	1	1	1	1	1
1	1	1	1	1	1	1
1	1	1	1	1	1	1
1000	1000	1000	1000	1000	1000	1000
1000	1000	1000	1000	1000	1000	1000

10	10	10	10	10	10	10
10	10	10	10	10	10	10
10	10	10	10	10	10	10
10	10	10	10	10	10	10
10	10	10	10	10	10	10
10	10	10	10	10	10	10
10	10	10	10	10	10	10
10	10	10	10	10	10	10
10	10	10	10	10	10	10
10	10	10	10	10	10	10

100	100	100	100	100	100	100
100	100	100	100	100	100	100
100	100	100	100	100	100	100
100	100	100	100	100	100	100
100	100	100	100	100	100	100
100	100	100	100	100	100	100
100	100	100	100	100	100	100
100	100	100	100	100	100	100
100	100	100	100	100	100	100
100	100	100	100	100	100	100