Welcome!!

While you are waiting……..

Have a look through your pack -

- Read the ‘100 square race’ game instructions
- Have a look through the 100 square ideas booklet and make a note of activities your child might like to try at home.
- Read the ‘how to make a spinner’ instructions *(but wait to do this with your child)*

The '100 Square Race' game.

The aim of the game is to get to 100 (or to 1 if you are going backwards) before your opponent.

What you need:

1. Two or more players. Coloured counters.
2. A 100 square
3. A spinner 1-6 or 0-9 (or dice)

Rules

1. Choose a coloured counter for each player.
2. Decide whether you want to go forwards (put your counters on '1') or backwards (put your counters on '100')
3. Spin the spinner, the highest scorer goes first.
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5. The next player takes their turn.
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7. Your counter can jump on a square with a counter to get past it.
8. Make it trickier…….
   Spin a 1-6 (0-9) spinner **twice** & add scores together to work out how many to move.

100 IDEAS FOR USING A HUNDRED SQUARE

- *These ideas are in no particular order and can be adapted to any age range or ability.*
- *The objectives are for children to learn to recognise numbers, understand numbers and find different ways of working with numbers to improve their understanding.*
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- *These activities can also be completed with a 200 square etc.*
- *As an extra challenge or for a bit of fun, make up your own challenges. Can you think of 10 more to make 110 activities?*

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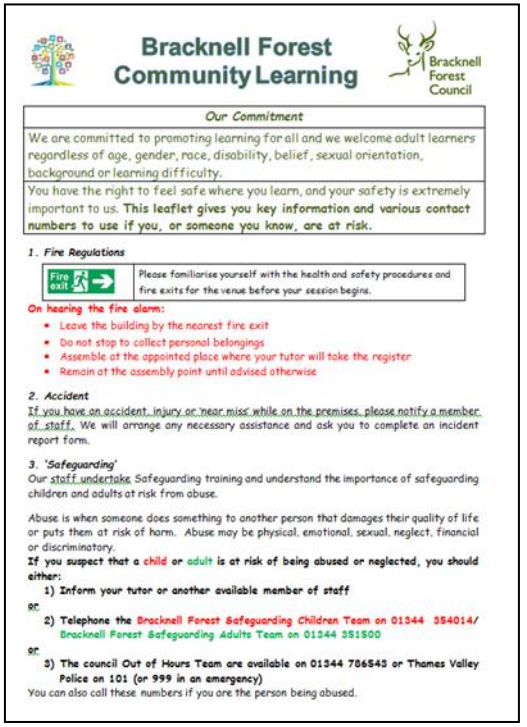
6. Pick 10 numbers and treble them.
7. Make a Lucas Sequence, e.g. 1.3.4.7.11.18
8. Find all the cubic numbers.
9. Investigate all the numbers and find the numbers where the digits add up to 9.
10. Pick a number between 1 and 9 and keep adding 10 until you get to the end of the number square.
11. Find all the numbers whose digits add up to 11.
12. Make your own 100 square.
13. Choose 10 numbers from the square and subtract them from 100.
14. Find two consecutive numbers which add up to a square number, e.g. 12 and 13 = 25.
15. Pick numbers and reverse the digits and add them together, is the answer different from adding the digits without reversing.
16. Find all the numbers containing the digit 1.

Bracknell Forest Community Learning Team

Bringing learning to life

Heather Williams

Heather-L.Williams@bracknell-forest.gov.uk



Bracknell Forest Community Learning

Bracknell Forest Council

Our Commitment
We are committed to promoting learning for all and we welcome adult learners regardless of age, gender, race, disability, belief, sexual orientation, background or learning difficulty.
You have the right to feel safe where you learn, and your safety is extremely important to us. **This leaflet gives you key information and various contact numbers to use if you, or someone you know, are at risk.**

1. Fire Regulations

Fire exit — Please familiarise yourself with the health and safety procedures and fire exits for the venue before your session begins.

On hearing the fire alarm:

- Leave the building by the nearest fire exit
- Do not stop to collect personal belongings
- Assemble at the appointed place where your tutor will take the register
- Remain at the assembly point until advised otherwise

2. Accident

If you have an accident, injury or 'near miss' while on the premises, please notify a member of staff. We will arrange any necessary assistance and ask you to complete an incident report form.

3. 'Safeguarding'

Our staff undertake Safeguarding training and understand the importance of safeguarding children and adults at risk from abuse.

Abuse is when someone does something to another person that damages their quality of life or puts them at risk of harm. Abuse may be physical, emotional, sexual, neglect, financial or discriminatory.

If you suspect that a child or adult is at risk of being abused or neglected, you should either:

1) Inform your tutor or another available member of staff

or

2) Telephone the Bracknell Forest Safeguarding Children Team on 01344 354014/ Bracknell Forest Safeguarding Adults Team on 01344 351500

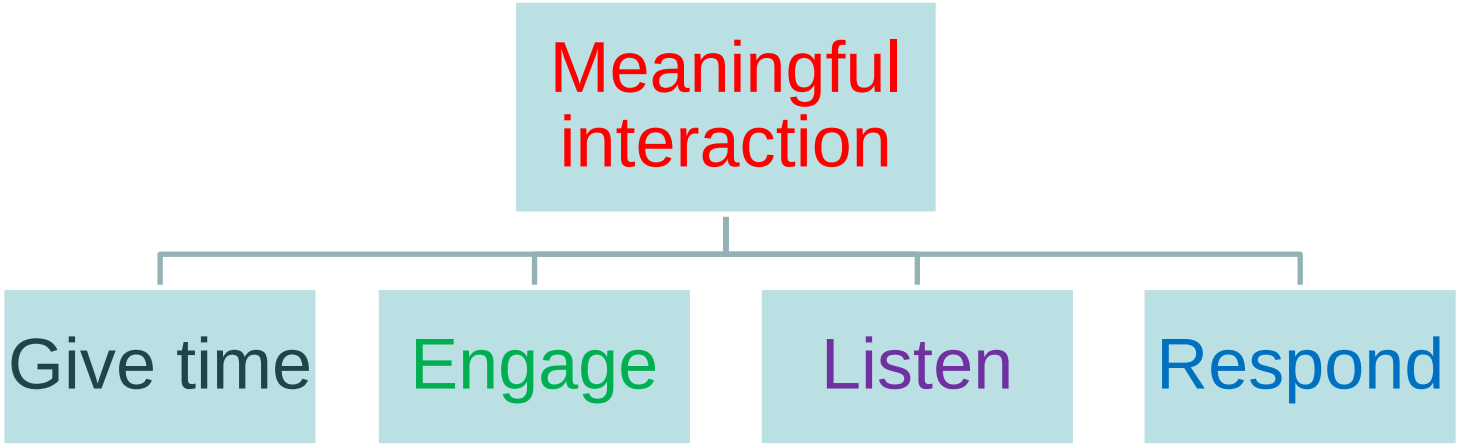
or

3) The council Out of Hours Team are available on 01344 786543 or Thames Valley Police on 101 (or 999 in an emergency)

You can also call these numbers if you are the person being abused.

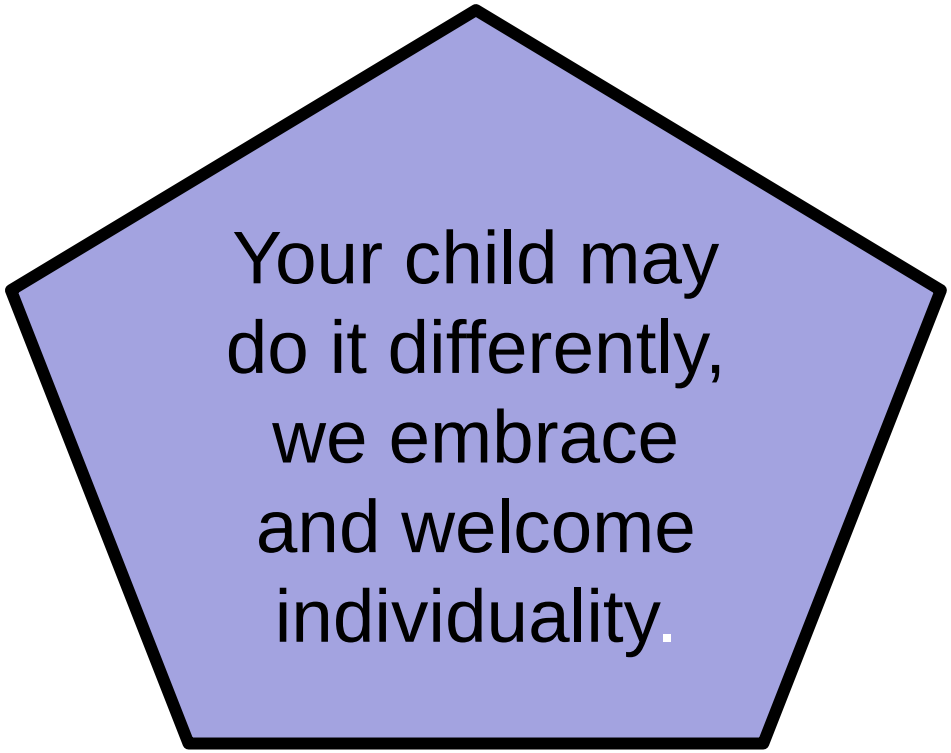
"Nothing matters more than stopping, listening and responding positively to young children"

Julie Fisher, Education Adviser, Oxford Brookes University



Interactions are profoundly important for supporting and extending children's learning. Regular meaningful interactions can help develop children's skills in thinking, reasoning, explaining, persuading and language development.

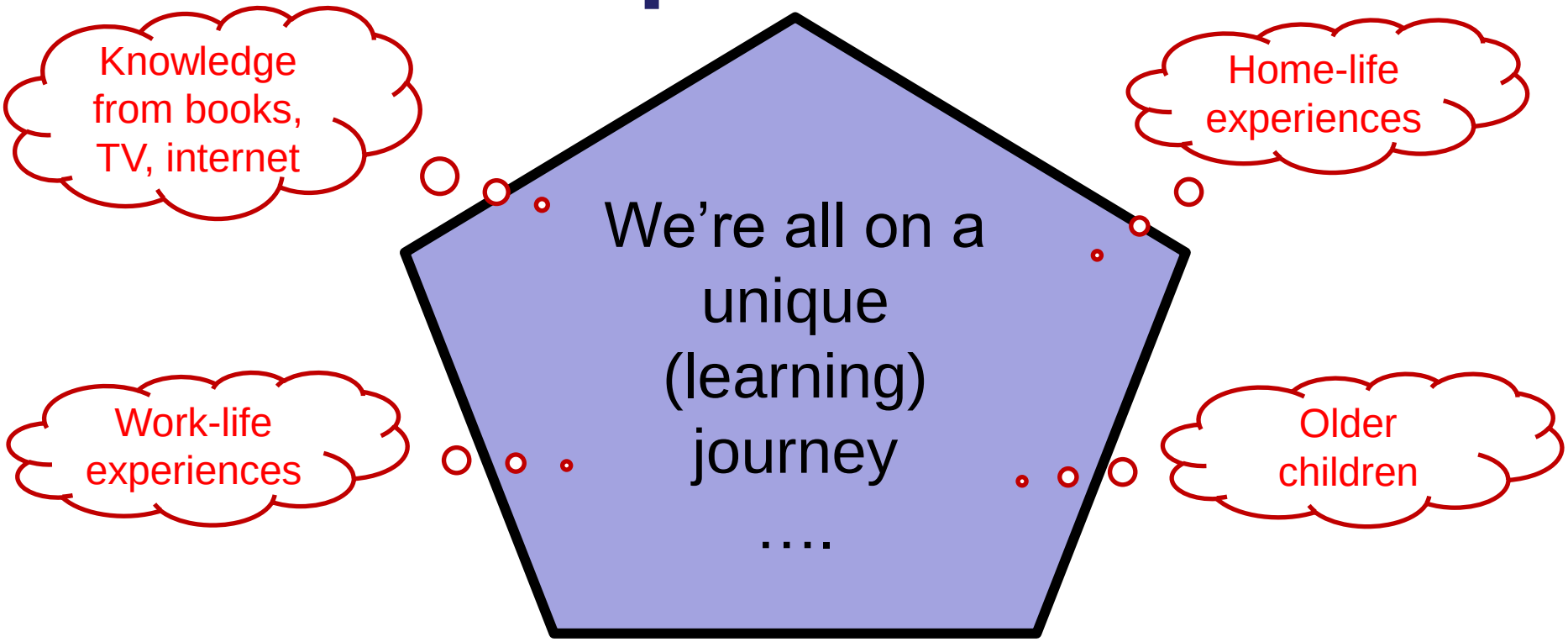
Unique Child



“ No brain is the same; no brain is the best. Each brain finds its own special way”

Psychiatrist Edward Hallowell.

Unique Adult



It's good to share

Your well-being matters too

Session outline

Parent prep:

- Introducing the 100 square – a brilliant maths tool for Year 1 children
- Counting on and back using the 100 square
- Ideas for making maths fun – games to play that practise key skills at the same time

Activities with the children (approx. 30 mins, which is the length of an average lesson)

The children return to class

Summary and evaluation

Number – number and place value

Statutory requirements

Pupils should be taught to:

count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number

count, read and write numbers to 100 in numerals; count in multiples of twos, fives and tens

given a number, identify one more and one less

identify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than (fewer), most, least

read and write numbers from 1 to 20 in numerals and words.

Number – addition and subtraction

Statutory requirements

Pupils should be taught to:

- read, write and interpret mathematical statements involving addition (+), subtraction (–) and equals (=) signs
- represent and use number bonds and related subtraction facts within 20
- add and subtract one-digit and two-digit numbers to 20, including zero
- solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as 7 = ☐ – 9.

Year 1 Curriculum

Here are some of the counting and calculation statements your child is working on this year

More curriculum information?

https://primarysite-prod.s3.amazonaws.com/uploads/d66d612d6ee34712bc6f6572b0787afb/6edc/Parents_Complete_Guide.pdf

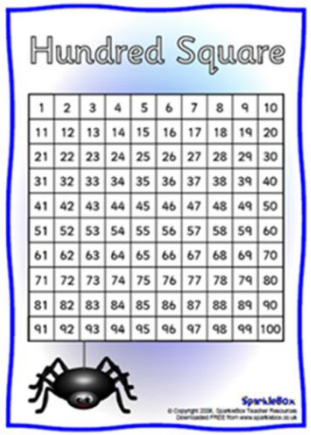
https://www.schoolguide.co.uk/blog/the-new-primary-national-curriculum-a-parents-guide

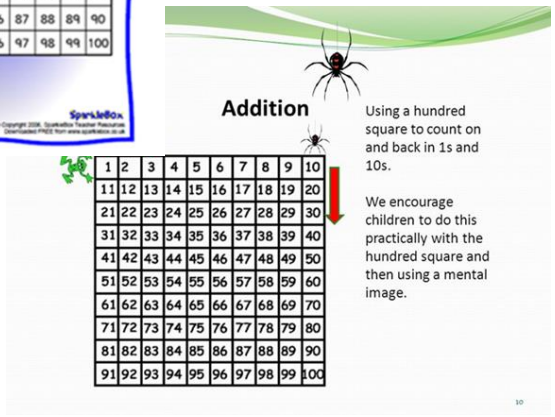
It is essential that children have lots of **PRACTICAL EXPERIENCE** using objects (such as Magic Pebbles)

& equipment (such as 100 squares)

These tools help children's learning to be deep and rich – developing their **number sense** to grow confident & competent mathematicians 👌

(Maths Mastery – find out more here)

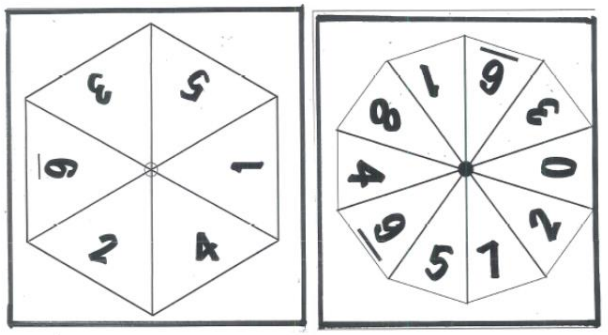




Your resource pack……

Spinners x 2

1. Ask your child to cut out both spinners along the BOLD square outlines
2. Use a pen or pencil to make a small hole in the middle of each spinner
3. Ask your child to put the split pin through one end of the paperclip and then through the hole in the spinner. Secure with tape on the back, and make sure it is loose enough to allow the paperclip to spin. *Now you are ready to play your game!*



The '100 Square Race' game.

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100 square

game instructions & ideas

100 IDEAS FOR USING A HUNDRED SQUARE

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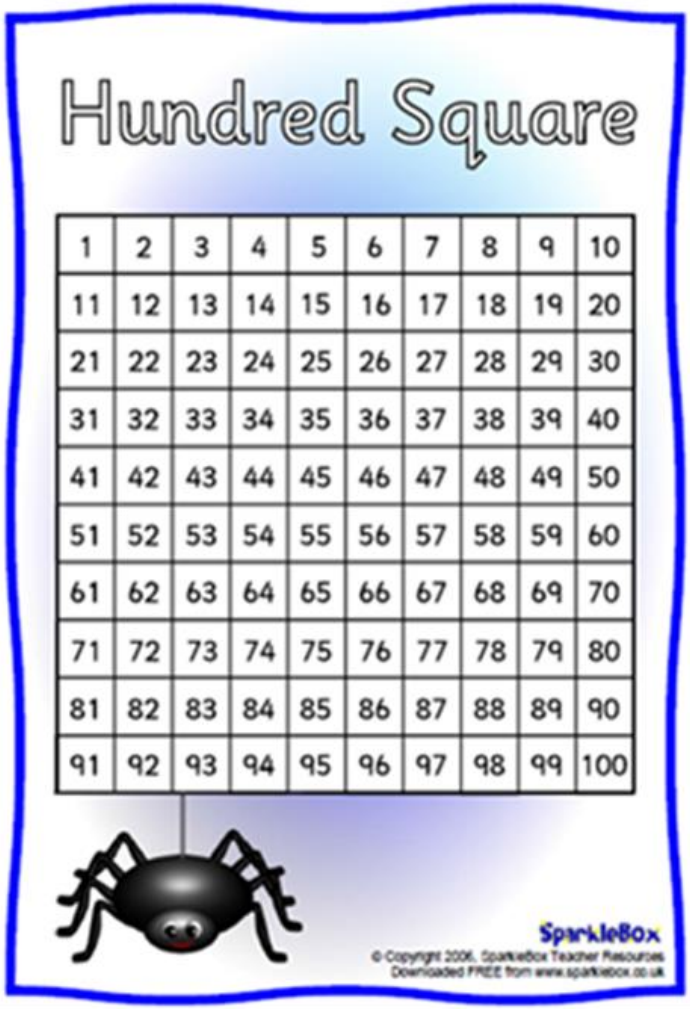
15. Pick numbers and reverse the digits and add them together, is the answer different from adding the digits without reversing.
16. Find all the numbers containing the digit 1.

You'll wonder how you ever lived without it



Today you will use it to:

- count, read & recognise numbers (up to 100)
- order numbers (up to 100) and explore number patterns
- count on & back (up to 100)
- add & subtract (up to 20)

Counting/number recognition using the 100 square

- Your child is likely to be less comfortable using larger numbers (the EYFS curriculum covers mastery of numbers up to 10)

- The 100 square allows children to practise reading, recognising and ordering numbers beyond 10 (in Year 1 the curriculum covers numbers to 100) –

  "familiarity, confidence, competence & fluency"

- Understanding the VALUE of numbers beyond ten comes through experience – use of real objects (e.g. straws) is essential

6 mins

Step 1 - Exploring the value of double digit numbers

- Ask your child to choose a double digit number on their 100 square (e.g. can you choose a number that's more than 10 but less than 20)
- Ask them to use real objects (straws) to represent it. E.g. 25 - count out 25 single straws.
- Ask them how many bundles of 10 they can make with their (25) straws

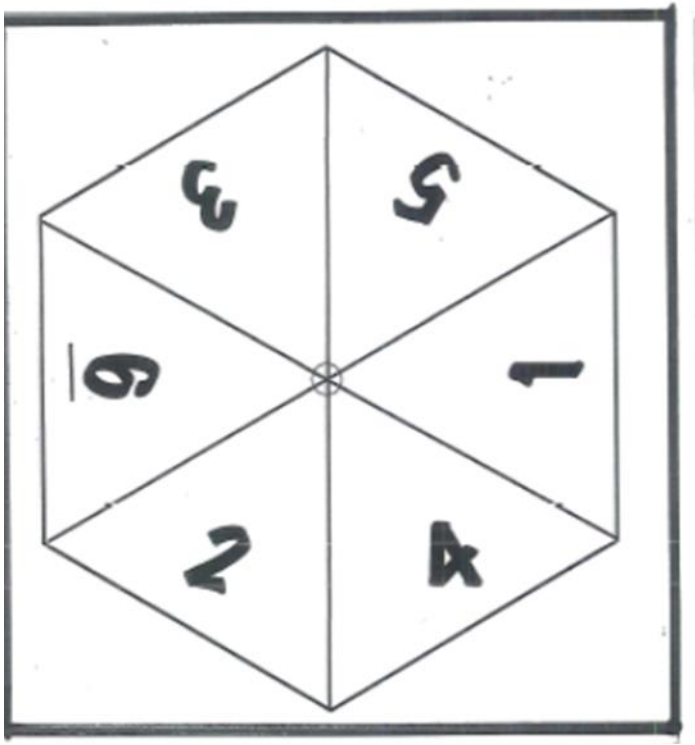
  "25 is made up of 2 tens (20) and 5 ones"
- Repeat for other numbers on the 100 square, using ready-made bundles to speed things up and practise counting in tens

How to help with place value videos (oxfordowl.co.uk)

6 mins

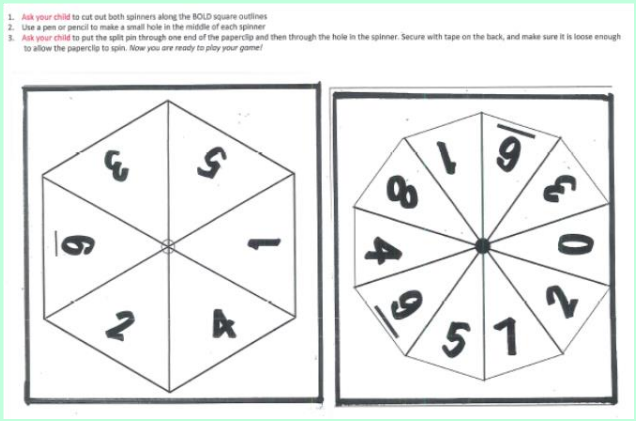
Step 2 -make your spinners

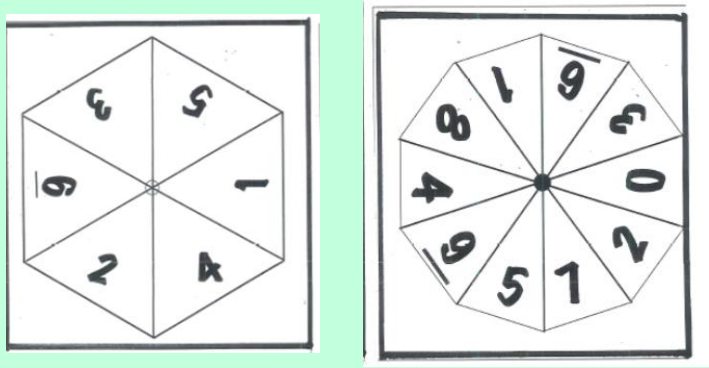
- Work with your child to assemble the 2 spinners.
- Ask your child to cut on the bold black lines
- Attach an opened paper clip loosely in the centre of each spinner using split pins
- Secure at the back using masking tape



*start with the 1-6 spinner – useful for quick turn-taking
*use the 0-9 spinner for variety/when racing to 50 or 100 (0=miss a turn)
*use both spinners together to practise mental + and – skills when racing to 50 or 100

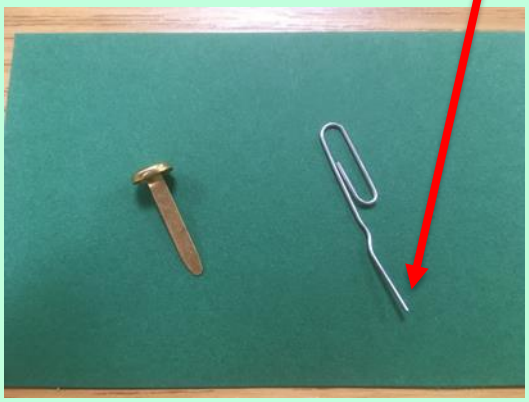
Spinner instructions– work with your child to…

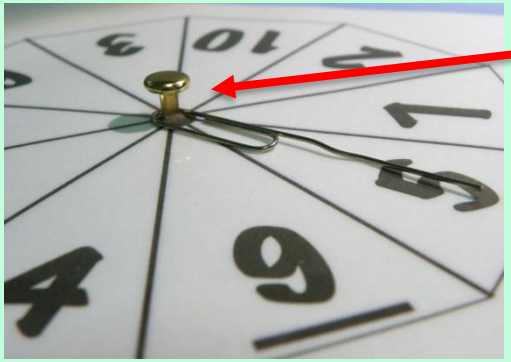




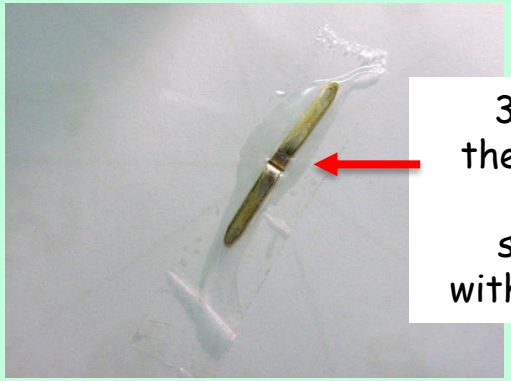
Help your child to cut out the 2 spinners LEAVING A SQUARE BORDER

1. open one end of the paperclip to make a 'pointer'

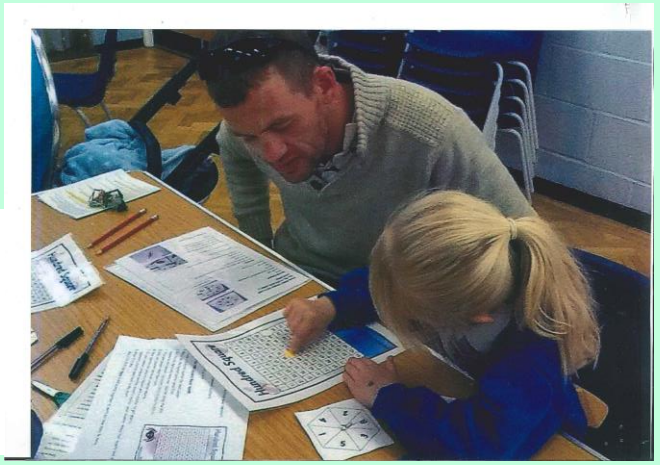




2. Thread the other end of the paperclip onto the split pin, then post the 'legs' of the split pin through the hole you made



3. split the 'legs' and secure with tape



Counting on (and back) using the 100 square

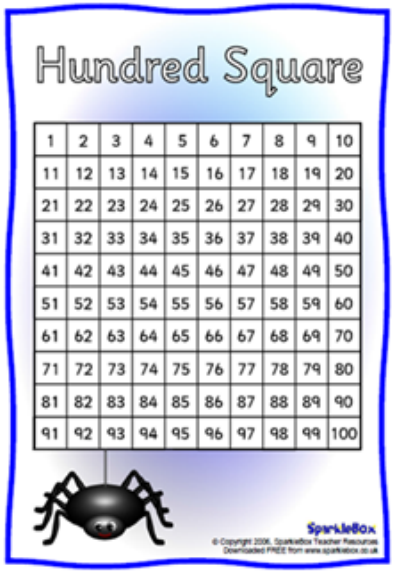
Demonstration of the counting on technique here

Demonstration of counting back technique here

The 100 Square Race game gives children the chance to practise counting on and back in a fun way

The '100 Square Race' game.

The aim of the game is to get to 100 (or to 1 if you are going backwards) before your opponent.



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8. Make it trickier…….
   Spin a 1-6 (0-9) spinner **twice** & add scores together to work out how many to move.

*Adapt the game to suit your child's ability

6 mins

Step 3 – counting on (forwards)

- Get your child to show you how they can 'count on' using the 100 square **watch out for what happens at the end of a row……..*

- Read the 'race to 100' game instructions **with your child**, so that they know how to play

- Play the game, starting on number 1

  First to 20 (50) (100) wins

The '100 Square Race' game.

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What you need:

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8. Make it trickier…….
   Spin a 1-6 (0-9) spinner **twice** & add scores together to work out how many to move.

6 mins

Step 4 – counting back (reverse reverse!!)

Play the game starting on number 20 (50) (100) – get your child to show how good they are at 'counting back'. First to get back to number 1 wins

You're having fun, and getting beaten…….probably 😊

- *Watch carefully to see how far they can count and which numbers they recognise*
- *Check for accurate counting on/back*

Play again if you still have their attention (race to/from a higher number, best of 3?)

6 mins

Step 5 – DIY addition/subtraction

Start by using numbers to 20, as this will build confidence & competence.

- **Make some addition sums using your 100 square.**

Choose a starting number, then spin the spinner & count on in ones.

e.g. start on 11, spin a 6, count on 6 times

- **Make some subtraction sums using your 100 square.**

Repeat the addition idea, but this time counting back

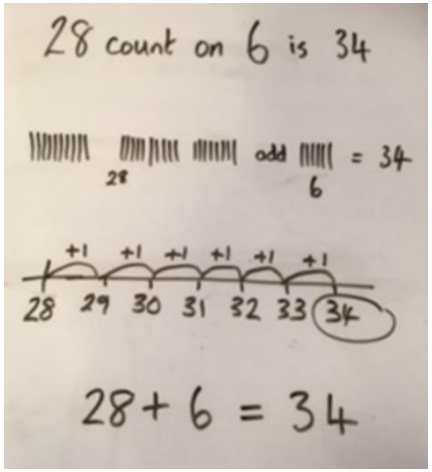
e.g. start on 14, spin a 5, count back 5 times….

6 mins

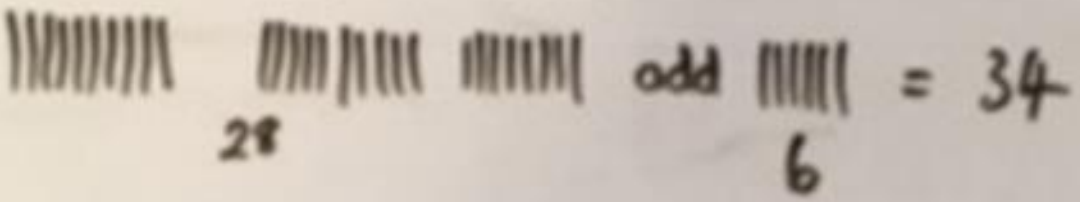
Step 6 – Recording the process

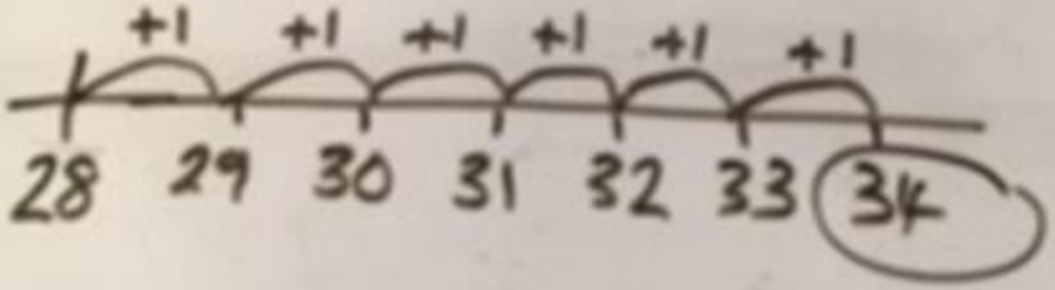
- ***Ask your child about the numbers….e.g.*** "Which number did you start on?" ……"Which number are you on now?"
- ***Summarise the process verbally.….e.g.*** "So 11 count on six makes 17"
- Use real objects to represent the sum and allow your child to check their answer

- Encourage them to draw or write the sums they make



28 count on 6 is 34





28 + 6 = 34

Alternative game? – lots of variety to suit different needs, just help yourselves/ask me to suggest something

FIRST TO 100 v1

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 WINNER

Move on to the next blue square.

Move back to the last red square.

Stuck in the mud – roll an even number to continue

You're in luck – have another turn

SALAMANDER COMBINE IT

10	20	30
40	50	60
70	80	90

1	2	3
4	5	6
7	8	9

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

Roll, Climb, Slide

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
101	102	103	104	105	106	107	108	109	110
111	112	113	114	115	116	117	118	119	120

How to play:

Choose a 'climb' picture (e.g. ladder, rope, wall, stairs, tree)

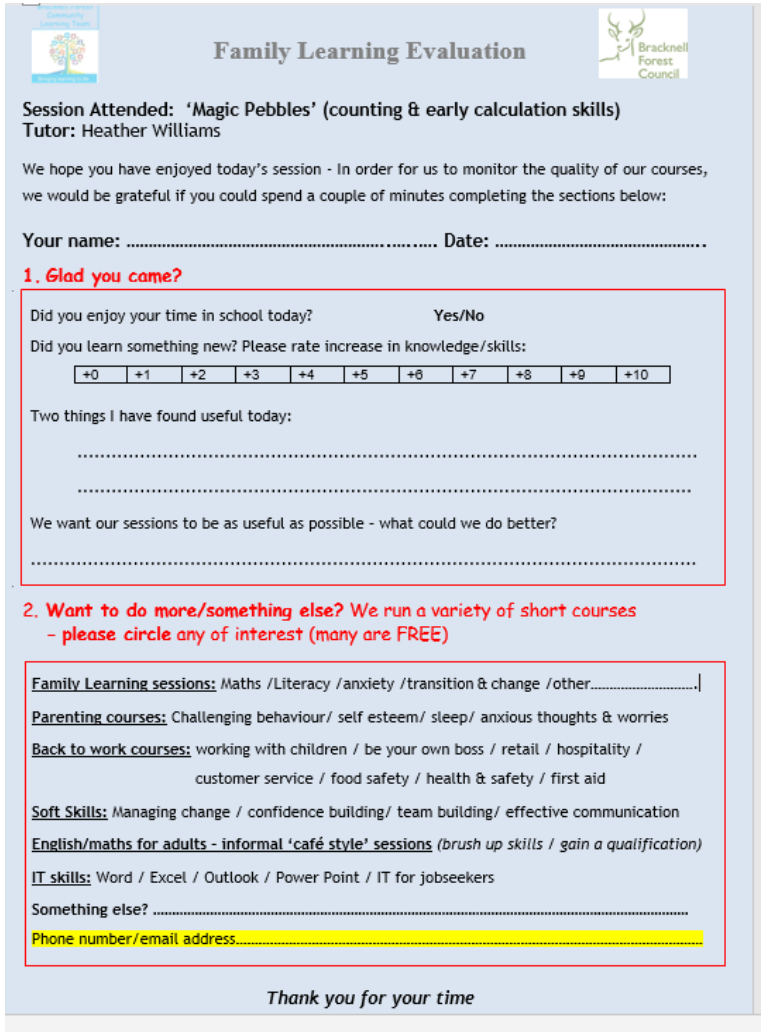
Choose a 'slide' picture (e.g. snake, candy cane, slide, rainbow, lightening)

Draw about 6 of each onto your 1-120 board – how long do you want your 'snake' or 'ladder' to be?

Get a counter for each player and a die/spinner – choose who goes first (start on number 1)

Move along the board, sliding and climbing as you go – first to 120 is the winner.

Tell us what you think ……☺



Family Learning Evaluation

Session Attended: 'Magic Pebbles' (counting & early calculation skills)
Tutor: Heather Williams

We hope you have enjoyed today's session - In order for us to monitor the quality of our courses, we would be grateful if you could spend a couple of minutes completing the sections below:

Your name: ..... **Date:** .....

1. Glad you came?

Did you enjoy your time in school today? **Yes/No**

Did you learn something new? Please rate increase in knowledge/skills:

+0	+1	+2	+3	+4	+5	+6	+7	+8	+9	+10

Two things I have found useful today:

.....

.....

We want our sessions to be as useful as possible - what could we do better?

.....

2. Want to do more/something else? We run a variety of short courses – **please circle** any of interest (many are FREE)

Family Learning sessions: Maths /Literacy /anxiety /transition & change /other.....

Parenting courses: Challenging behaviour/ self esteem/ sleep/ anxious thoughts & worries

Back to work courses: working with children / be your own boss / retail / hospitality / customer service / food safety / health & safety / first aid

Soft Skills: Managing change / confidence building/ team building/ effective communication

English/maths for adults - informal 'café style' sessions *(brush up skills / gain a qualification)*

IT skills: Word / Excel / Outlook / Power Point / IT for jobseekers

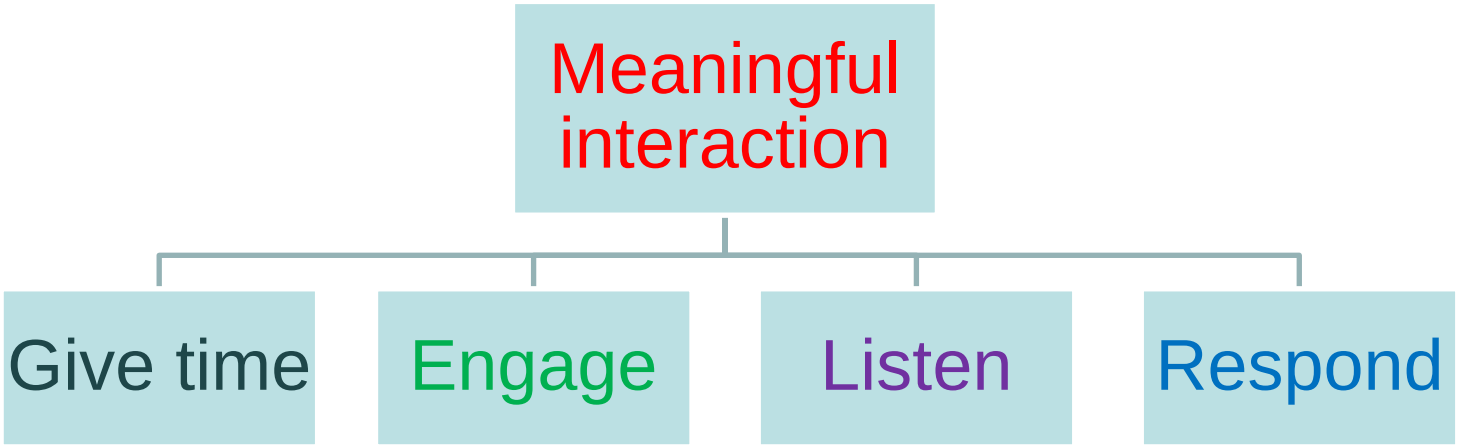
Something else? .....

Phone number/email address.....

Thank you for your time

Time for the tiddly peeps……

Remember:



Don't struggle on if concentration is wearing thin – ask me to find you another game to try ☺

Suggestions for later……

Things you can look at in more detail when you get home……

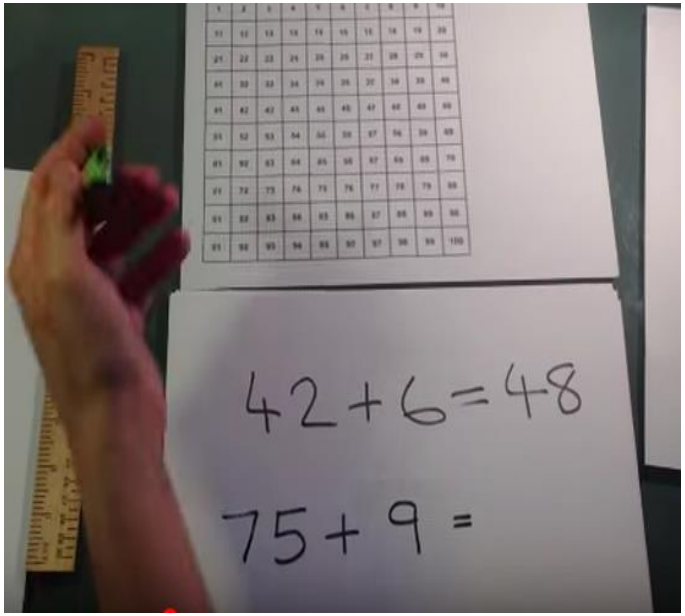
More 100 square videos

Hundred Square - YouTube

Overview of using the 100 square, counting in ones & counting in tens: Using a 100 square for addition and subtraction - Numeracy - YouTube

Addition/Subtraction Strategy 1-100'chart - YouTube

Double digit addition and subtraction using the 100 square: Adding and subtracting using a 100 square - YouTube



Other useful online resources to try ……

1. Information about reading writing & saying big numbers
http://www.englishlessonsbrighton.co.uk/saying-large-numbers-english/

2. Comparing numbers – scroll down homepage until you see
http://www.crickweb.co.uk/ks2numeracy-calculation.html

3. General calculation practice
http://www.bbc.co.uk/education/subjects/zjxhfg8
http://www.softschools.com/math/games/
http://www.coolmath-games.com/numbermonster/index.html

4. Word Problems/problem solving (stretch and challenge)
https://uk.ixl.com/math/year-1/addition-word-problems-sums-up-to-10
https://uk.ixl.com/math/year-1/subtraction-word-problems-numbers-up-to-10
https://urbrainy.com/maths/year-1-age-5-6/challenges-year-1

Odd and even

An even number is a number that can be divided into two equal groups.

An odd number is a number that cannot be divided into two equal groups.

How to explain it to small people:

Get your child to take (small) sets of objects and pair them up – any sets that have 'one left over' are odd. Sets where they all 'have a friend' are even

Even numbers end in 2, 4, 6, 8 and 0 regardless of how many digits they have (we know the number 5,917,624 is even because it ends in a 4!).

Odd numbers end in 1, 3, 5, 7, 9

.....and using your hundred square....

- Spot patterns
- Use to devise and test rules e.g. all numbers ending in 1 are odd

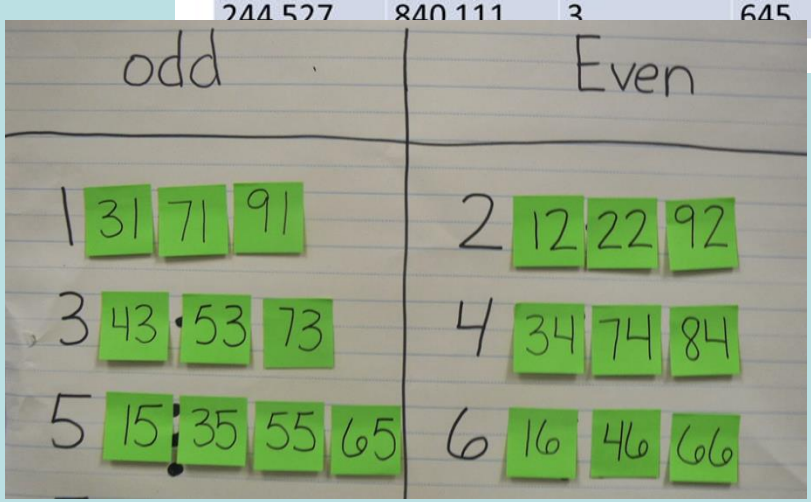
- Apply those rules to larger numbers – as big as you like!!

Odd and Even Numbers Chart

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

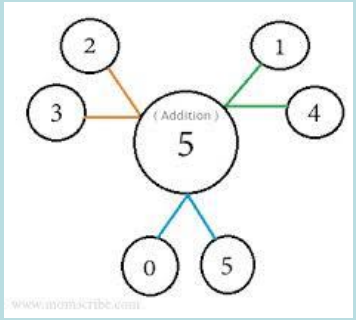
Are these odd or even?

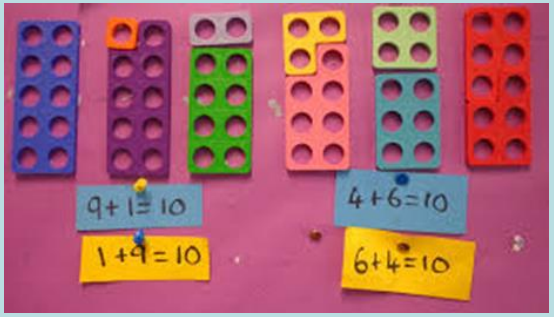
Tuesday	Wednesday	Thursday	Friday
5	8	9	36
34	15	56	587
568	333	134	22
232	89	22 589	56
11 789	91 789	15	45
232	23	329	100
555	457	4256	1582
674	276	2215	325
244 527	840 111	3	645

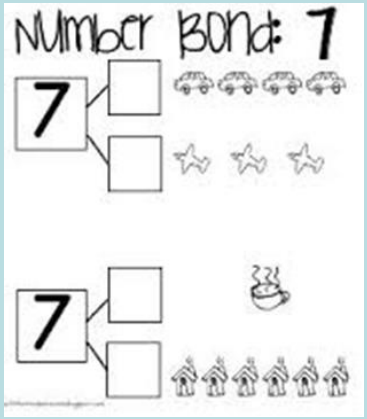


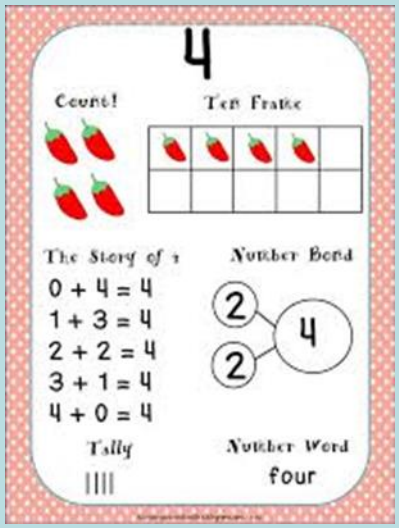
Using Number Bonds

(all those small addition/subtraction facts children need to know 'by heart')



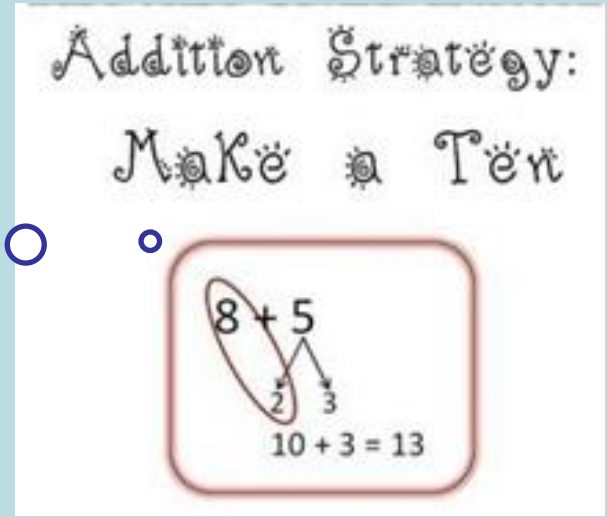






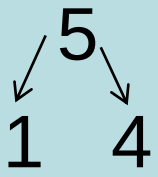
Helps build mental addition and subtraction skills

bridging through ten, twenty etc.



Example with hundred square:

- 59 count on 5
- Use knowledge of number bonds to split 5



- 59 add 1 = 60
- 60 add 4 = 64

Challenge: can they do this in their heads?

Counting in tens……

[Maths Lesson: Counting in 10s - YouTube]

Name: _____

Adding on a Hundred Chart

Shade each hundred chart to show how you would add the numbers.
Record your strategy on an open number line.

53 + 28 = _____

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