



EYFS and Year 1

Math Home Support Pack



Maths Home Support Pack

Dear Parents/Carers,

It is important for your child to get to grips with maths in a very practical, hands-on way. Working individually, as a class and in groups, they will be investigating, counting, playing number games and using everyday objects to help them solve problems and do simple calculations. As the children become more familiar with the language used in maths, they will be encouraged to talk about their methods for solving problems and ways of presenting their results.

Children will be given opportunities to deepen their learning by using their logic and reasoning skills in a range of real-life contexts and problems. We are very lucky to have such a wonderful group of parents at Rush Green and we know that you are always looking for ways to support your child at home. This guide has been put together to give you an idea of little games and activities that can be played at home, which will help your child develop key mathematical skills. Little and often is the best approach to delivering these activities, keeping things as fun as possible with lots of praise! The activities do not cover all areas of the curriculum but are intended to give you a good starting point.

As always, we are here to help! If you would like any additional information or support please feel free to speak to your child's class teacher by contacting them via the main school office.

Thank you for your continued support.

| 3-4 Years | Reception | Early Learning Goal |
|--|---|--|
| <ul style="list-style-type: none"> Develop fast recognition of up to 3 objects, without having to count them individually ('subitising'). Recite numbers past 5. Say one number for each item in order: 1,2,3,4,5. Know that the last number reached when counting a small set of objects tells you how many there are in total ('cardinal principle'). Show 'finger numbers' up to 5. Link numerals and amounts: for example, showing the right number of objects to match the numeral, up to 5. Experiment with their own symbols and marks as well as numerals. Solve real world mathematical problems with numbers up to 5. Compare quantities using language: 'more than', 'fewer than'. Talk about and explore 2D and 3D shapes (for example, circles, rectangles, triangles and cuboids) using informal and mathematical language: 'sides', 'corners', 'straight', 'flat', 'round'. Understand position through words alone – for example, "The bag is under the table," –with no pointing. Describe a familiar route. Discuss routes and locations, using words like 'in front of' and 'behind'. Make comparisons between objects relating to size, length, weight and capacity. Select shapes appropriately: flat surfaces for building, a triangular prism for a roof etc. Combine shapes to make new ones - an arch, a bigger triangle etc. Talk about and identify the patterns around them. For example: stripes on clothes, designs on rugs and wallpaper. Use informal language like 'pointy', 'spotty', 'blobs' etc. Extend and create ABAB patterns – stick, leaf, stick, leaf. Notice and correct an error in a repeating pattern. Begin to describe a sequence of events, real or fictional, using words such as 'first', 'then...' | <ul style="list-style-type: none"> Count objects, actions and sounds. Subitise. Link the number symbol (numeral) with its cardinal number value. Count beyond ten. Compare numbers. Understand the 'one more than/one less than' relationship between consecutive numbers. Explore the composition of numbers to 10. Automatically recall number bonds for numbers 0–10. Select, rotate and manipulate shapes in order to develop spatial reasoning skills. Compose and decompose shapes so that children recognise a shape can have other shapes <i>within</i> it, just as numbers can. Continue, copy and create repeating patterns. Compare length, weight and capacity. | <p style="text-align: center;">Number</p> <p>Have a deep understanding of number to 10, including the composition of each number; Subitise (recognise quantities without counting) up to 5; - Automatically recall (without reference to rhymes, counting or other aids) number bonds up to 5 (including subtraction facts) and some number bonds to 10, including double facts.</p> <p style="text-align: center;">Numerical Patterns</p> <p>Verbally count beyond 20, recognising the pattern of the counting system; - Compare quantities up to 10 in different contexts, recognising when one quantity is greater than, less than or the same as the other quantity; - Explore and represent patterns within numbers up to 10, including evens and odds, double facts and how quantities can be distributed equally.</p> |

Glossary

| | |
|---------------------------|--|
| Subitise | Subitising is when you are able to look at a group of objects and realise how many there are without counting. |
| Composition | Composing a number is putting together two numbers (two parts) to make a larger number (whole), like joining 2 and 4 to make 6 |
| 'Automatic Recall' | Recalling facts without use of manipulatives or rhymes |
| Number bonds | The parts that create the whole, for example the number bonds to make 4 (0+4, 1+3, 2+2, 3+1, 4+0) |
| Number pattern | Number patterns are groups of numbers that follow rules, in counting past ten the one remains in the place of the tens while the ones column continue to increase till we reach the next 10. |

Here are some quick activities that you can use at home to incorporate Maths into everyday life.



In the street

- Recognising bus numbers
- Number plate hunt. Who can find a 7? Add the numbers up.
- Comparing door numbers
- Counting – how many lampposts on the way to school?

Doing the washing

- Counting in 2s – matching shoes
- Sorting by colour and size.
- Matching/pairing up socks.
- Find four shoes that are different sizes. Can you put them in order.



Time

- What day is it yesterday, today, tomorrow?
- Use timers, phones and clocks to measure short periods of time.
- Count down 10/ 20 seconds to get to the table/ into bed etc.
- Recognising numbers on the clock. If you cover a number, what number was missing?



Food!

- Can you cut your toast into 4 pieces? Can you cut it into triangles?
- Setting the table. Counting the right number of plates etc. How many more do we need?
- Can you make shapes/ patterns out of the knives and forks. Can you put them in the right place in the drawers?
- Helping with the cooking by measuring and counting ingredients.
- Setting the timer.
- Positional language at dinner time: what is on the rice, where are the carrots etc?

Going shopping

- Reading price tags
- Counting items into the basket
- Finding and counting coins
- Comparing weights – which is heavier



Measuring

- Are you taller than a ...?
- Marking height on the wall.
- Cut hand shapes out of paper. How many hands long is the couch? How long is the table? Which is longer?
- Who has the biggest hands in our family?
- How many steps from the gate to the front door?

Shapes

- Cut a potato into shapes (circles, triangle etc). Use with paint to make pictures and patterns.
- Cut out shapes from coloured paper/ newspaper and arrange into pictures.
- Shape hunt: Can you find a square in your house (windows etc), a circle ...



Games

- Putting cards into piles
- Jigsaws (you can make your own by cutting up a magazine picture)
- Snap (matching pairs) or Happy Families (collect 4 of a kind)
- Snakes and ladders or other simple dice games.
- Adding numbers on two dice.
- Bingo, with numbers or shapes
- Hopscotch



Playdough

Here's a simple recipe:

- 1 cup of plain flour
- 1 cup of water
- 1 tablespoon cooking oil
- 2 teaspoons cream of tartar
- Half a cup of salt
- food colouring and essences (optional)

Put all ingredients in a large saucepan, and heat slowly, stirring all the time until it forms a ball. Keep it wrapped in clingfilm or in a covered tub to stop it drying out.



Number rhymes and songs

Eg: 5 little monkeys jumping on the bed
One fell off and bumped his head
Mummy called the doctor and the doctor said
"No more monkeys jumping on the bed!"
4 little monkeys jumping on the bed ...



Your child can teach you lots more or try this website which has the words and sings it for you:
http://www.nurseryrhymes4u.com/NURSERY_RHYMES/COUNTING.h
tml

Internet maths games:

www.mathszone.co.uk
<http://www.bbc.co.uk/bitesize/ks1/maths/>
http://www.familylearning.org.uk/online_math_games.html
www.sesamestreet.org

Then

- Make numerals and shapes
- Sort shapes into groups, or order by size
- Make long and short wiggly snakes.



Online maths games

Number bonds to 10

<https://www.youtube.com/watch?v=QS5w8LRnpQ>

<https://www.ictgames.com/saveTheWhale/index.html>

<https://www.topmarks.co.uk/maths-games/hit-the-button>

https://www.mathplayground.com/number_bonds_10.html

<http://www.snappymaths.com/addition/make10/interactive/make10s/make10s.html>

Telling the time (o'clock)

https://mathsframe.co.uk/en/resources/resource/116/telling-the-time_-_Level_1

Counting in 2s, 5s and 10s.

<https://www.youtube.com/watch?v=W8CEOLAOGas>

<https://www.studyzone.tv/game152-code7c+d9b219aeldleb339330f0d7e715c5>

https://www.topmarks.co.uk/ordering-and-sequencing/caterpillar-ordering_-_1_to_10

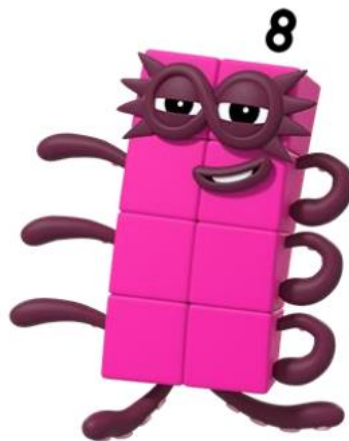
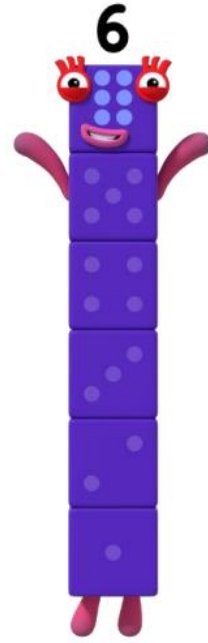
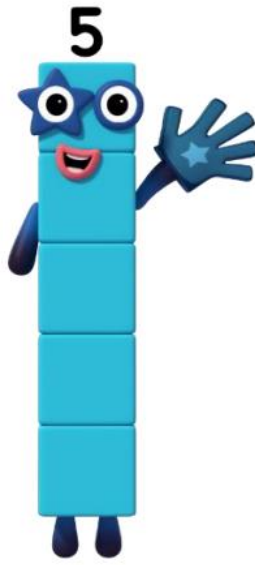
<https://www.topmarks.co.uk/ordering-and-sequencing/coconut-ordering>

<https://www.youtube.com/watch?v=JyCrOlgbYcl>

https://www.youtube.com/watch?v=Eem_jeA2Djjw

Number cards (To be cut out)

- Use as flash cards. Show your child the number and ask them to recognise it.
- Muddle the cards and ask your child to build their own number line
- Chose a card, ask your child to find the number one more and one less than the card
- Copy the cards. Use the two sets to play number snaps
- Place the cards around the room, ask your child to move to different numbers
- Hide the cards around the room and ask your child to go on a number hunt
- Choose a card and ask your child to collect that number of objects
- Make a number line leaving some numbers out. Ask your child to fill in the blanks
- Use the maths symbols to create number sentences



0

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4

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1

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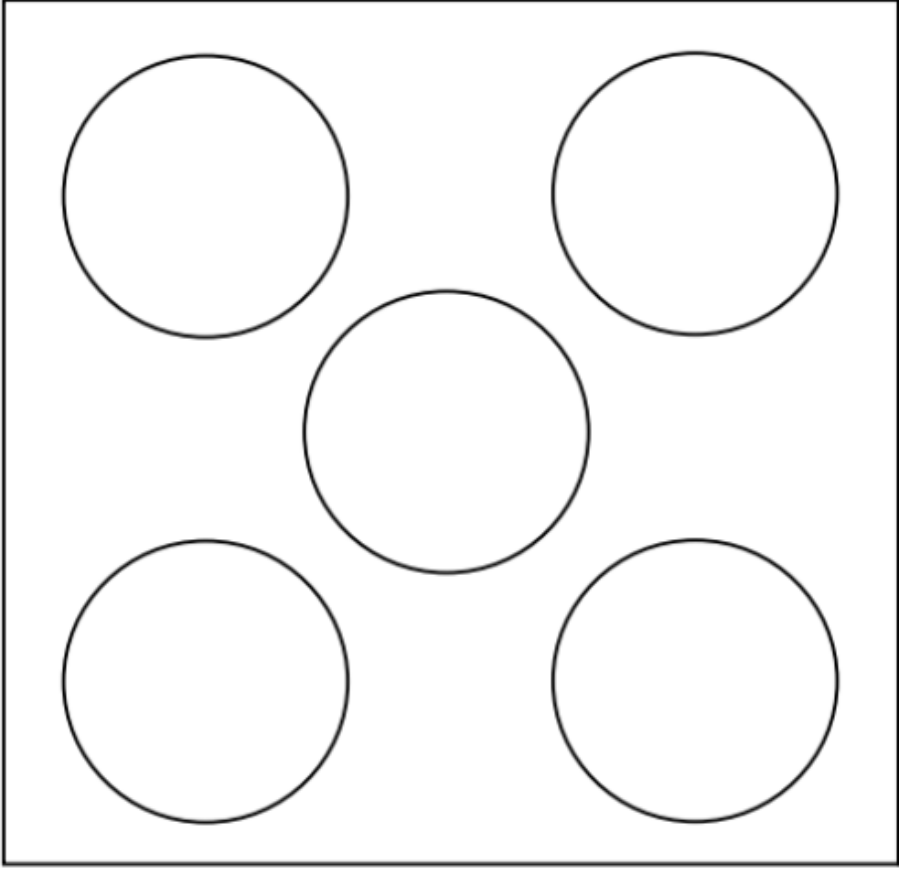
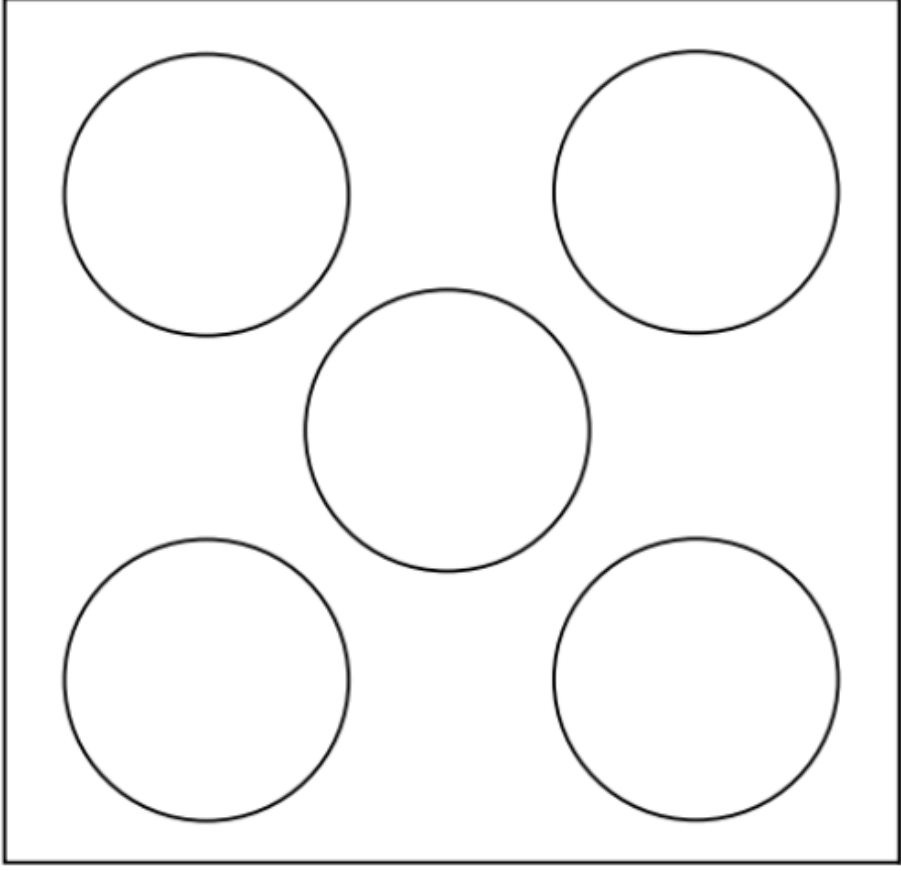
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Look at numbers 1-10. Can you use objects to make that number within this dice frame? What does it look like? What parts can you see? Can you make it in any other ways? Can you show it on your hands?

How many spaces are full? How many spaces are empty?

What is 1 more? What is 1 less?

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|--|--|--|--|--|

Look at numbers 1-5.

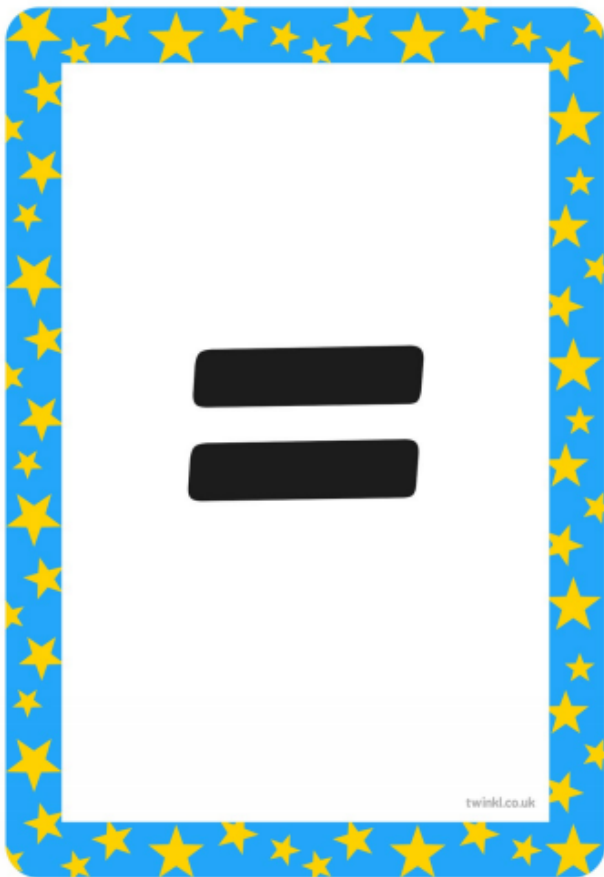
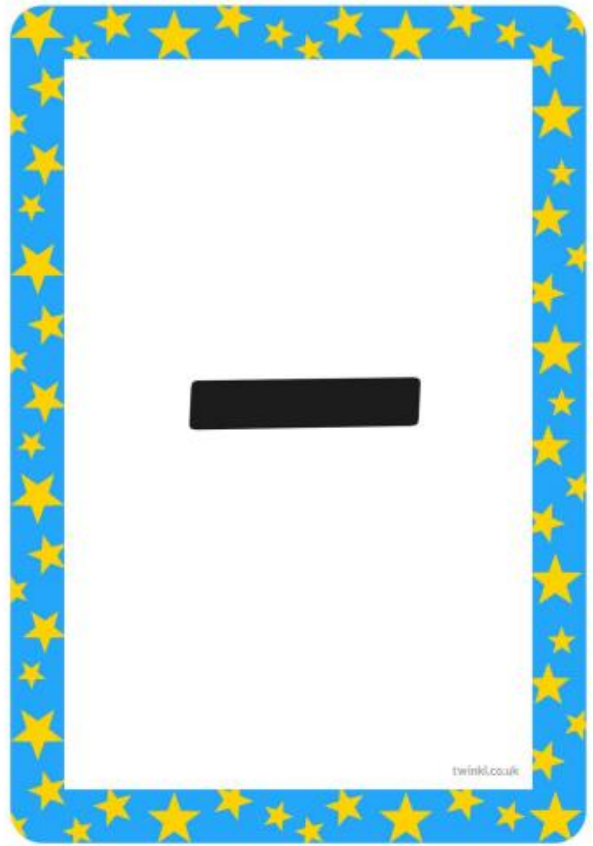
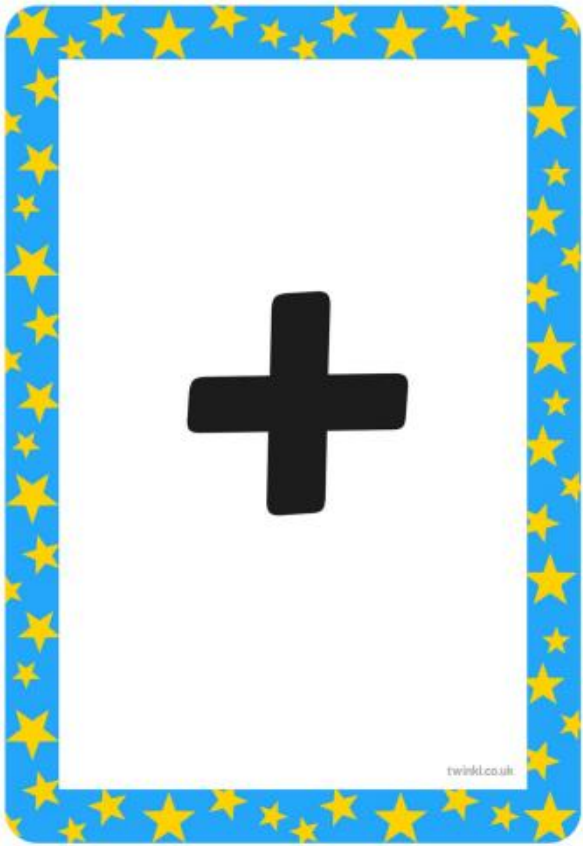
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Look at numbers 1-10.

Can you use objects to make that number within this dice frame? What does it look like? What parts can you see? Can you make it in any other ways? Can you show it on your hands?

How many spaces are full? How many spaces are empty?

What is 1 more? What is 1 less?



Number bingo. Here are 2 boards. Use the number cards as call cards and use objects around the home such as Lego and dried pasta to mark off the called numbers!

11

14

17

19

13

12

18

20

15

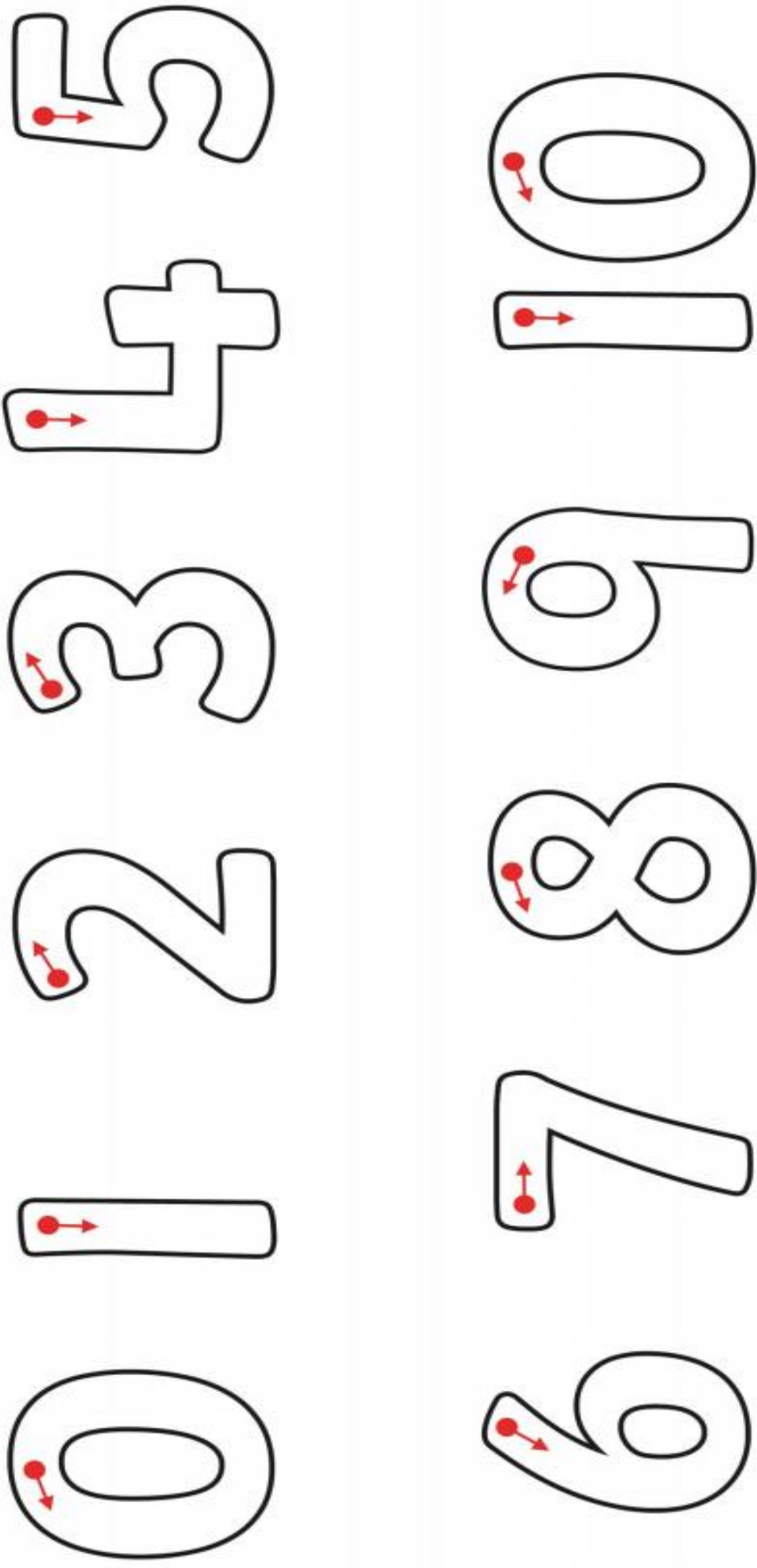
10

16

13

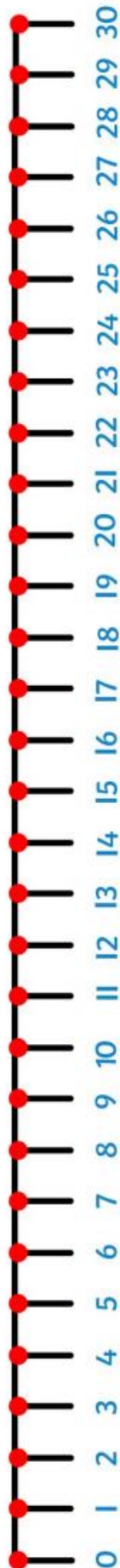
Number Formation

Can you trace the numbers?

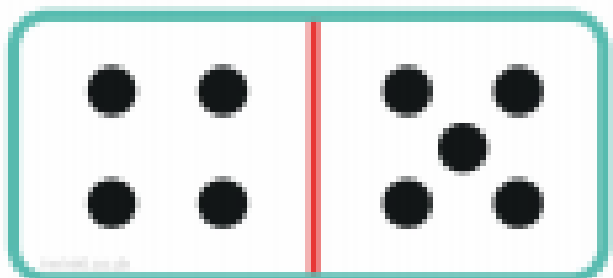
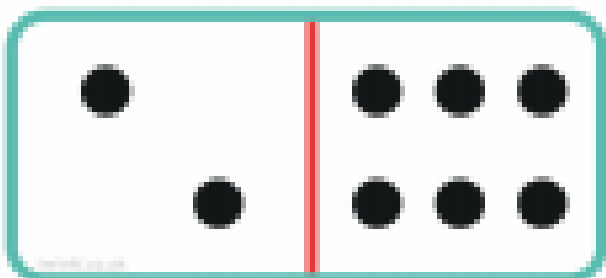
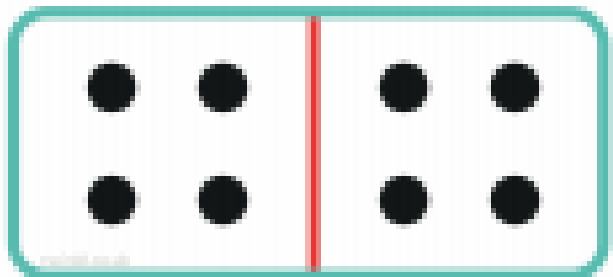
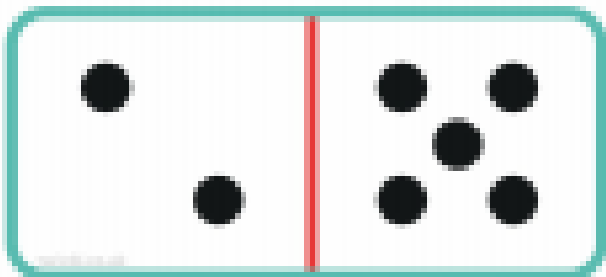
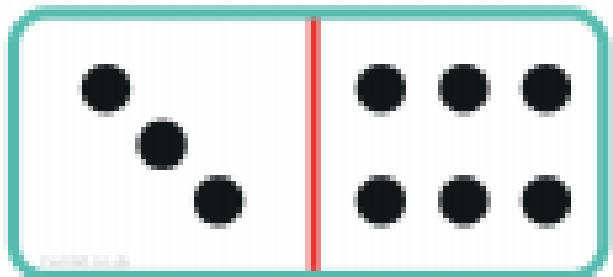
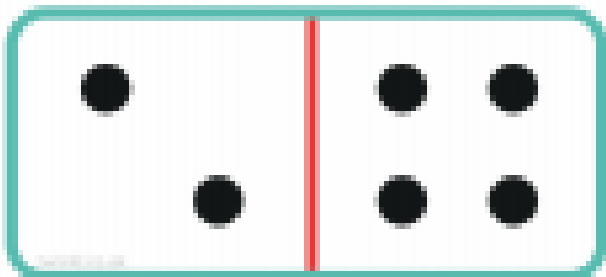
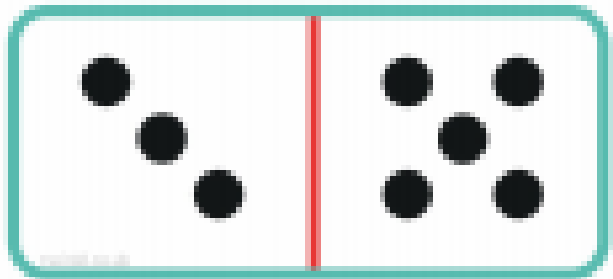
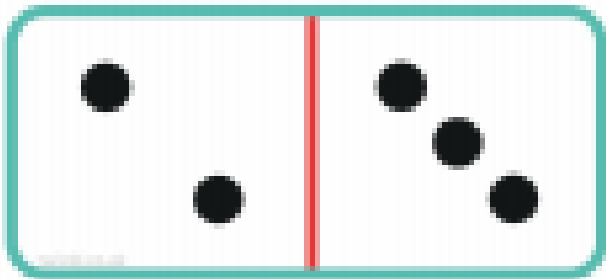
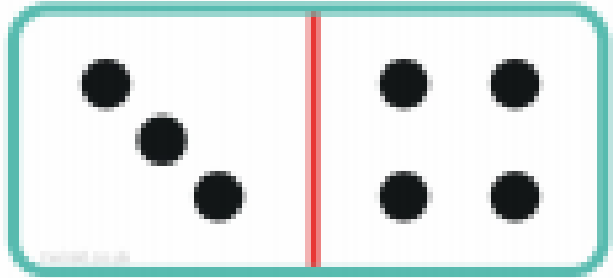
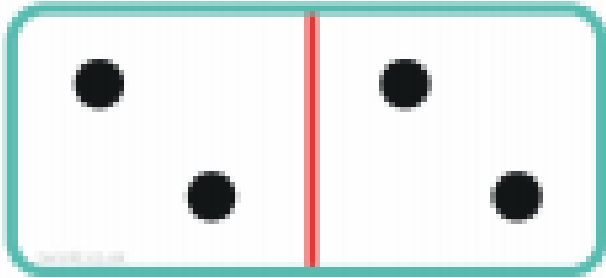
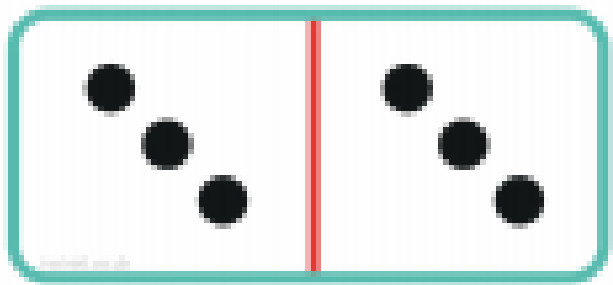
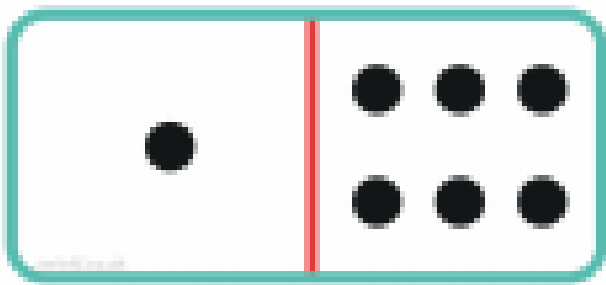


Number line

- Chose a number, ask your child to find the number one more and one less
- Use the number line to solve simple addition and subtraction problems (in this pack)



Can you add the two sides of the dominos and write it as a number sentence?



Addition Number Sentences to 10

$4 + 2 =$

$5 + 5 =$

$5 + 3 =$

$2 + 5 =$

$8 + 2 =$

$3 + 4 =$

$3 + 6 =$

$4 + 5 =$

$1 + 7 =$

$0 + 10 =$

$4 + 4 =$

Subtraction Number Sentences to 10

$$10 - 1 =$$

$$10 - 2 =$$

$$10 - 3 =$$

$$10 - 4 =$$

$$10 - 5 =$$

$$10 - 6 =$$

$$10 - 7 =$$

$$10 - 8 =$$

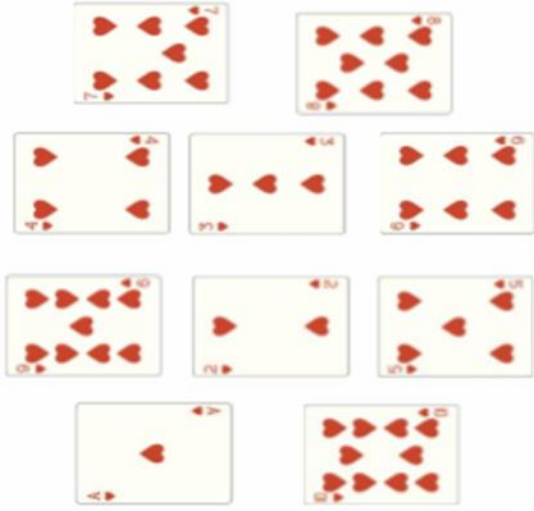
$$10 - 9 =$$

$$10 - 10 =$$

$$10 - 0 =$$

123

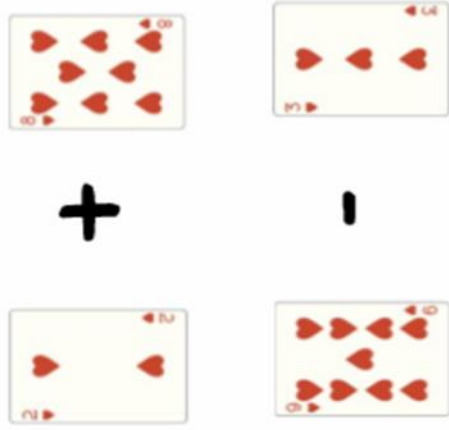
Put the cards
in order.

Classroom
secrets
LIVE

Lay out playing cards 1 to 10.
Children to put the card in order
from smallest to largest. Children
to count the number of objects on
the card, to see what comes next.

123

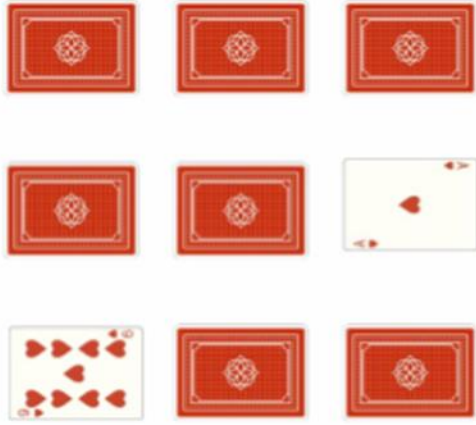
What is the
answer?

Classroom
secrets
LIVE

Children to pick two cards. For
addition, count the total number
of objects. For subtraction, discuss
taking away the *smallest* number
from the *largest*.



Play number
bond pairs.

Classroom
secrets
LIVE

Lay out playing cards 1 to 10 (the
Joker card could be used as 0).
Play a number bond pairs game.
After each turn, count the total of
the two cards. Does it equal 10?

123

Roll a dice.



Find the number that is one more.

Classroom secrets

123

Roll a dice.



2



Show one less.

Classroom secrets

123

Roll two dice.



What is the total?

Classroom secrets

Children roll a dice and count the spots. Then identify the number that is one more and go on a 'number hunt' for that number. For example, number 6 on a clock.

Children roll a dice and count the spots. Then identify the number that is one less. Encourage children to show one less in different ways. Write it, draw it, find it and show it.

Children roll two dice and count the spots to find the total. Encourage children to write the number sentence.

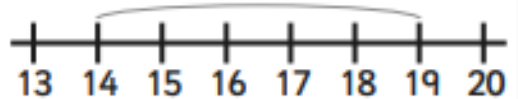
By the end of Year 1, children are expected to achieve the following:

| | |
|-----------------------------|--|
| Number and Place Value | 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 |
| | use the language of: equal to, more than, less than (fewer), most, least |
| | identify and represent numbers using objects and pictorial representations including the number line |
| | read and write numbers from 1 to 20 in numerals and words. |
| Addition and Subtraction | represent and use number bonds and related subtraction facts within 20 |
| | add and subtract one digit and two-digit numbers to 20, including zero |
| | read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs (appears also in Written Methods) |
| | read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs (appears also in Mental Calculation) |
| | solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as $7 = \square - 9$ |
| Multiplication and Division | count in multiples of twos, fives and tens |
| | solve one-step problems involving multiplication and division, by calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher |
| Fractions | recognise, find and name a half as one of two equal parts of an object, shape or quantity |
| | recognise, find and name a quarter as one of four equal parts of an object, shape or quantity |
| Algebra | <i>solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as $7 = \square - 9$ (copied from Addition and Subtraction)</i> |
| | <i>represent and use number bonds and related subtraction facts within 20 (copied from Addition and Subtraction)</i> |
| | <i>sequence events in chronological order using language such as: before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening (copied from Measurement)</i> |
| Measurement | compare, describe and solve practical problems for: <ul style="list-style-type: none"> * lengths and heights * mass/weight [e.g. heavy/light, heavier than, lighter than] * capacity and volume [e.g. full/empty, more than, less than, half, half full, quarter] time [e.g. quicker, slower, earlier, later] |
| | sequence events in chronological order using language [e.g. before and after, next, first, today, yesterday] |
| | measure and begin to record the following: lengths and heights mass/weight / capacity and volume / time (hours, minutes, seconds) |
| | recognise and know the value of different denominations of coins and notes |
| | tell the time to the hour and half past the hour and draw the hands on a clock face to show these times. |
| | recognise and use language relating to dates, including days of the week, weeks, months and years |
| Geometry Shape and Position | recognise and name common 2-D, including: rectangles, squares, circles and triangles |
| | Recognise and name: 3-D shapes: cuboids, cubes, pyramids and spheres. |
| | describe position, direction and movement, including half, quarter and three-quarter turns. |

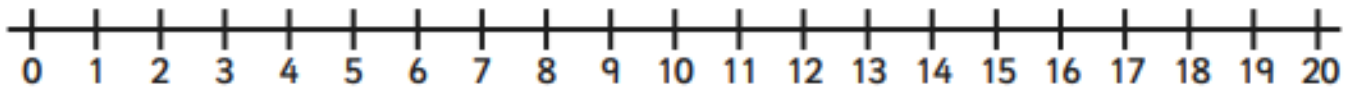
Addition to 20 with a number line

Example:

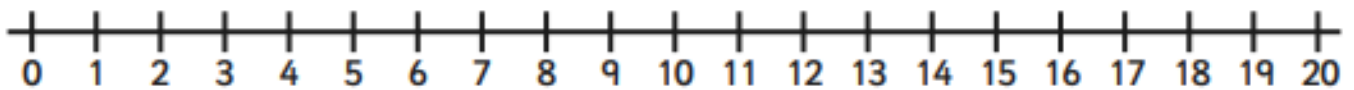
$$14 + 5 = 19$$



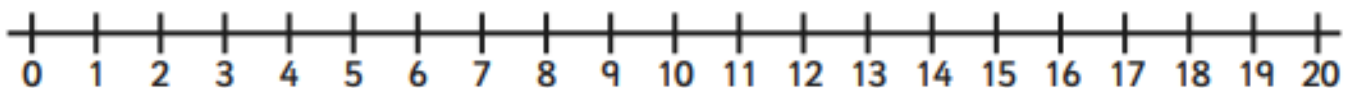
$$10 + 4 =$$



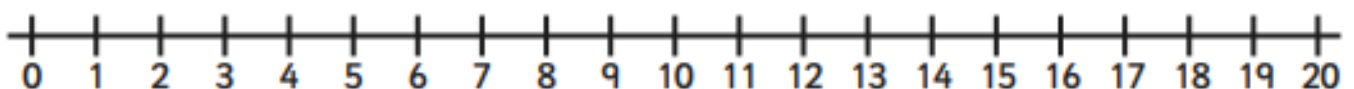
$$12 + 3 =$$



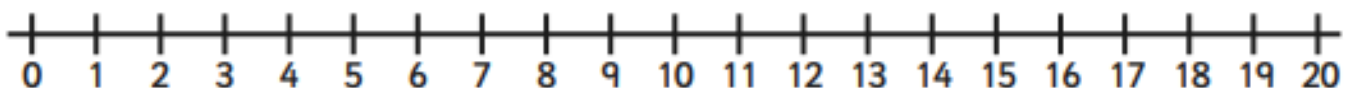
$$4 + 7 =$$



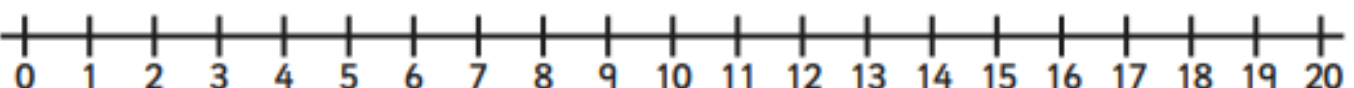
$$0 + 5 =$$



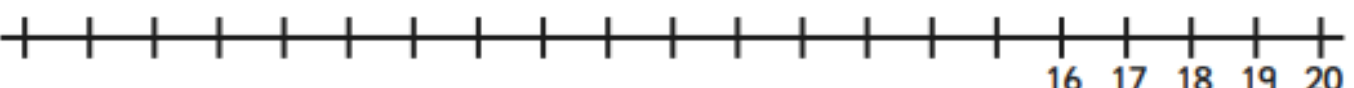
$$11 + 5 =$$



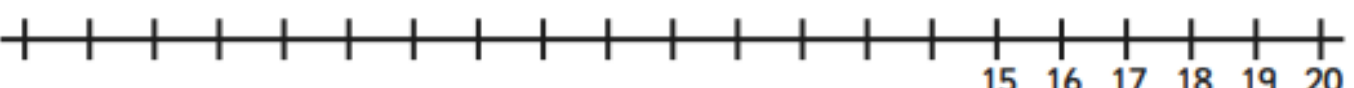
$$18 + 2 =$$



$$16 + 3 =$$



$$15 + 1 =$$

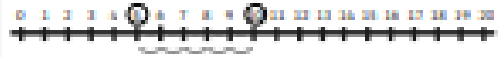




Number Line Subtraction

Example:

$$10 - 5 = 5$$



$20 - 3 =$



$9 - 4 =$



$18 - 2 =$



$10 - 6 =$



$7 - 3 =$



$2 - 2 =$



$3 - 1 =$



$11 - 8 =$



$15 - 3 =$



$6 - 1 =$



Dice Addition

4-in-a-Row

You will need:

- 2 dice
- 2 different coloured sets of 13 counters

The aim of the game is to get four of your own counters in a row.

Roll the two dice. Add the numbers together and place a counter on that number.

Take it in turns until a player wins or the board fills up.



| | | | | |
|----|----|----|----|----|
| 2 | 5 | 10 | 8 | 3 |
| 4 | 11 | 6 | 4 | 10 |
| 5 | 7 | 2 | 12 | 8 |
| 11 | 6 | 4 | 9 | 5 |
| 12 | 3 | 8 | 6 | 9 |

Dice Addition Game

Instructions: Roll a pair of dice and place in the box. Add the numbers and write the answer in the box.

+

=

+

=

+

=

+

=

+

=

+

=



Start

$7+9$

$9+2$

$5+14$

$6+7$

$12+3$

$8+9$

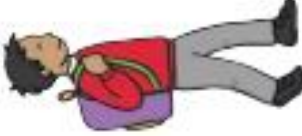
Addition to 20 School Bus Ride

$2+12$

$17+2$

$8+9$

$1+11$



$3+7$

$14+2$

$13+1$

$19+1$

$15+5$

$16+1$

$5+13$

$18+1$

$7+8$

$5+10$

$10+1$

$2+5$

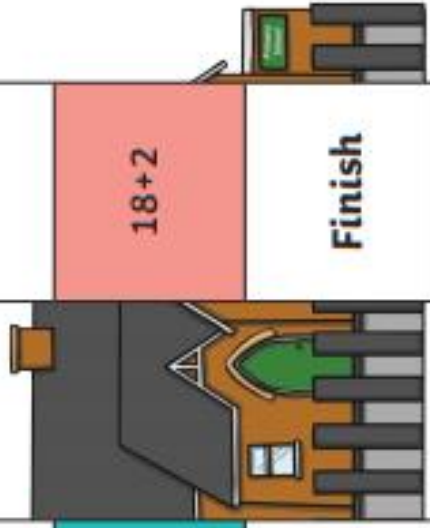
$6+14$

$1+4$

$18+2$

$8+4$

Finish



100 Square

| | | | | | | | | | |
|----|----|----|----|----|----|----|----|----|-----|
| 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 |

You can use this number square to practice number recognition to 100.

- Play – can you find? State a number and see who can find it first
- Pick a number. What is one more and one less of that number?
- Can you count in 2s, 5s or 10s using the 100 square?

Number Bonds to 10 Number Line Challenge Cards

Number Bonds to 10 Number Line Challenge Cards

$$10 + \square = 10$$



Number Bonds to 10 Number Line Challenge Cards

$$9 + \square = 10$$



Number Bonds to 10 Number Line Challenge Cards

$$8 + \square = 10$$



Number Bonds to 10 Number Line Challenge Cards

$$7 + \square = 10$$



Number Bonds to 10 Number Line Challenge Cards

$$6 + \square = 10$$



Number Bonds to 10 Number Line Challenge Cards

$$5 + \square = 10$$



Number Bonds to 10 Number Line Challenge Cards

$$4 + \square = 10$$



Number Bonds to 10 Number Line Challenge Cards

$$3 + \square = 10$$



Number Bonds to 10 Number Line Challenge Cards

$$2 + \square = 10$$



Number Bonds to 10 Number Line Challenge Cards

$$1 + \square = 10$$



Number Bonds to 10 Number Line Challenge Cards

$$0 + \square = 10$$



Number Bonds to 10 Number Line Challenge Cards

$$\square + 10 = 10$$



Number Bonds to 10 Number Line Challenge Cards

$$\square + 9 = 10$$



Number Bonds to 10 Number Line Challenge Cards

$$\square + 8 = 10$$



Number Bonds to 10 Number Line Challenge Cards

$$\square + 7 = 10$$



Number Bonds to 10 Number Line Challenge Cards

$$\square + 6 = 10$$



Number Bonds to 10 Number Line Challenge Cards

$$\square + 5 = 10$$



Number Bonds to 10 Number Line Challenge Cards

$$\square + 4 = 10$$



Number Bonds to 10 Number Line Challenge Cards

$$\square + 3 = 10$$



Dice Net

