

## table <br> of contents

## |+|=2

## $20 \times 12=$

Targets \& Strategies ..... 03
Number cards I-20 ..... 04
Pin the peg on the number ..... 05
Dominoes ..... 06
10 \& 20 frames ..... 07
Numberlines ( $1-10$ ) ..... 08
I can write my numbers ( $1-10$ ) ..... 09
Hand cards ..... 10
Bridging cards ..... II
Counting On/Back ..... 12
Useful Websites/Links ..... 13

## Targets \& Strategies

## During foundation stage your child may be working on the following:

- Count orally in l's and I0's forwards/backwards from/to zero within 50
- Count orally in l's, 2's forwards/backwards from different starting numbers within 20
- Count orally in IO's forwards/backwards from a given number within 50
- Recognise, read and write the numbers before, after, between, within 20, then 50
- Work out one more, two more, three more - demonstrate understanding that when adding, answer will be larger
- Work out one less, two less, three less than a number - demonstrate understanding that when subtracting, answer will be smaller
- Add two numbers fewer than then by counting on e.g. 6+3 is 6, 7, 8, 9
- Take away one, two or three from a number up to 12
- Know/understand number facts to 5, 10
- Identify missing numbers in a sequence within 20
- Add I, 2, 0 to any number, answers within IO, then 20
-Know doubles to 5+5
- Know 3+2 and 2+3 to complete number stories to 5
- Subtract I, 2, 0 from any number, answers within IO
- Demonstrate understanding of commutative nature of addition
- From 3 given numbers within 5 , give 4 number facts


## Number cards l-20



## Pin the peg on the number

## Cut out and use the number cards from pl.

## Use 20 wooden pegs

Write the numbers I-20 on the pegs (one number per peg)


Turn the pegs over so the number isn't visible
When your child turns the peg over, they must pin it on the correct number card.

## Find the pair

Use 20 milk bottle lids (or other plastic lids)
Get 20 stickers and write the numbers l-20 (one number per sticker
Stick them to the inside of the plastic lids
Turn over so the numbers are face down
Take turns to turn over 2 lids to find the numbers that add up to 20 (e.g 8 and I2) If the number on the $\mathbf{2}$ lids don't add up to $\mathbf{2 0}$ the turn passes to the next player.


## Dominoes



## 10 \& 20 frames

10 frame

|  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |

20 frame




## Hand Cards

To help your child you can ask similar questions to the following, using cards/hands etc
I. Show me 4, 6, 8
2. Show me 4, 6, 8 in a different way
3. Tell your child to close their eyes. You clap a number of times
e.g. 3. Get your child to show you number with "hand card".
4. Repeat no. 3 only click your fingers this time.
5. Make chopping movements this time in air.
6. Do dice/dominio patterns in the air for the number e.g. $4(3,4,5,6)$
7. Mix/match the above with your child
8. Clap e.g. 3/2 pattern, $7 / 3$ pattern and ask child to find it

## Sample



## Bridging Cards

## Tips

What I need: $\mathbf{2}$ Ten frames

|  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  |  |

You can make, draw, use 2 empty egg cartons( $2 \times 5$ ) or 10s/20s frames Get your frame laminated.

* 2 sets of coloured counters. Eg Red/black, Yellow/Purple. (Do not use lots of different "odd" coloured counters as it may be confusing for your child.) * Or Reversible Counters (Red/Yellow-Downloadable from Mathsimprovementni) *Or Ip coins (Using Heads(H) or Tails ( $T$ ) for colours)
You can get your child to complete any of the "sums" which bridge over 10 on your frame as follows: eg. 6+5, 6+6... $9+8,9+9$


## Frame I

E.g. Move 7 Red Counters (lip coins Heads) onto one of the Ten Frames.

| H | H | H | H | H |
| :--- | :--- | :--- | :--- | :--- | :--- |
| H | H |  |  |  |

## Frame 2

Move 5 Yellow Counters (lp coins Tails) onto the other frame (Frame 2)

| $\mathbf{T}$ |  | $\mathbf{T}$ | $\mathbf{T}$ | $\mathbf{T}$ | $\mathbf{T}$ |
| :--- | :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  |  |

Ask your child to move yellow counters (lp coins Tails) from frame 2 to fill up Frame I (Encourage your child to remove counters (coins) from the right hand side/far end/side of the frame).
The answer should look like this:


## Bridging Cards

* How many counters (coins) altogether? (Ans=I2)
* How many in Frame l? (Did you need to count? Why not?)
* How many in Frame 2?
* So 7+5=12
* Get your child to do the sum making their own Empty Number Line (ENL)
which they can draw on a whiteboard or book as follows:

* There are about 30 different sums to give your child to practise.
* Take your time and give your child "wait" time too!
* Check the answer

Sample


## Counting On/Back

## Teaching Activities

Note: Pupils may use number lines where and when appropriate
A. Counting on (l's)

## Example: 9-II

Count from 9 to II, and say it after me. Ready; 9,10 , II.


- Now count from 12 to I4 and I want you to say it after me. Ready; 12, 13, I4.
- This can be repeated for any I, 2, or 3 digit number e.g. 69, 70, 71 or 99, $100,101$.
- Count from 9 to I3 and I want you to say it after me. Ready; 9,10 , II, I2, I3.
- Now, count from 9 to 13 by yourself.
- Similarly 24 to 28, 99 to 103.
B. Counting Back (l's)


## Example 9-II



- Count backwards from II, and say it after me. Ready; II, IO, q.
- Count backwards from I4, and say it after me. Ready; 14, I3, I2.
- Count backwards from 8, and I want you to say it after me. Ready; 8, 7, 6.
- The decade I0-12 is particularly difficult, so loads of practice is required using 3 numbers before progressing to the next step of 5 successive numbers.
- Now, count from 14 back to 9 by yourself.

Similarly, 18 to I4, 20 to I6, 82 to 78, 103 to 99.
C. Counting Forwards/Backwards (alternately and sequence)

For this section the teacher's words are plain and the pupil's words are in (brackets):

- This time we'll take turns to say the numbers. I will say 15 , then you say 16 , and we will keep going like that. Ready; 15, (16), 17, (18),...
- Now we'll swop around. You start with 92. Ready; (92), 93, (94), 95,...
- Let's try that going backwards. l'll start off. Ready; 21, (20), I9, (18),...
- This time we'll go backwards again and you can start from 34. Ready; (34), 33, (32),...
- This time l'll say a list of numbers and you tell me what the next number is.

Ready; II, 12, I3, (?); 27, 28, 29, (?)

- Now we'll try that backwards. Ready; 21, 20, I9, (18); 34, 33, 32, (31).
- l'll say a number and you tell me what number comes after it.

Ready; 6, (7); 16, (17); 26, (27) etc.

- This time you tell me what number comes before the number I say. Ready; 93, (92); 53, (52); 33, (32); 30, (29); 4I, (40) etc.


## Useful Websites/Links

|  | Website Address |
| :--- | :--- |
| http://illuminations.nctm.org/ | Details |
| Best opened with Google Chrome | Go to Interactives <br> Select Pre-K-2 <br> Select Number \& Operations <br> Search for Five/Ten Frame <br> Search for Five/Ten Frame |
| http://www.taw.org.uk/lic/itp// <br> (Interactive Teaching Programme) | Number facts <br> Difference <br> Number grid |
| www.primaryresources.co.uk |  |
| www.suffolkmaths.co.uk | (Useful ideas with playing cards) |
| www.topmarksmaths.co.uk | Whiteboard Resources |
| www.tbbcbitesizemaths.co.uk |  |
| www.clounagh.org | Go to Primary (Lower) <br> Click on "Strategy Games" |
| www.nrichmaths.org |  |

## Games

- Jigsaws (number)
- Shopping (counts)
- Hop scotch
- Playing cards
- Money spins (heads/tails)
- Ludo
- Dominoes


## Resources

- Counting frames to 20
- Reversible (2 colour) counters
- Dice
- Blank dice


## Helping out at Home

## Out and About

- Sorting coins
- Playing with lp, 2p, 5p, 10p, 20p
- Making/ordering lists
- Estimating e.g. how many bags?
- Change from 5p, 10p, 20p

In the Kitchen

- Measures - full/half-full/nearly full/empty
- Maths vocabulary

- Numbers in the kitchen: microwave, TV, radio, clock Around the house
- Can you put these in order?
- Find Sky Sports I? Etc.
- Weighing: heavier/lighter - heaviest/lightest
- Fractions - half an apple, Kit Kat, sandwich etc.

