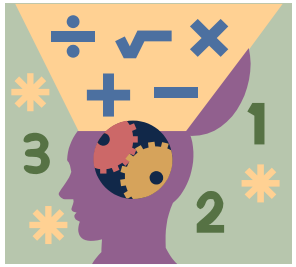
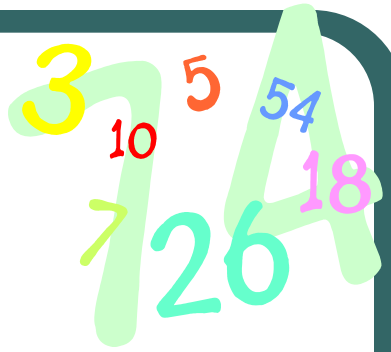
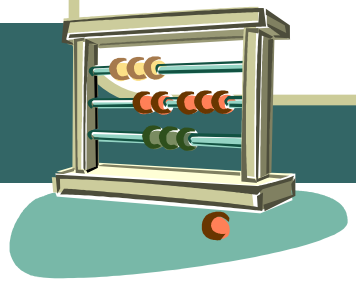


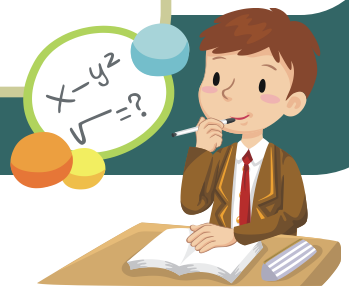


Numeracy
How can we help?

'LEARN TOGETHER'

Let's learn to enjoy, achieve, respect and nurture together



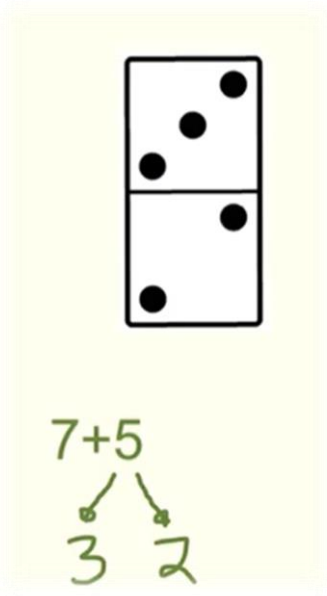


Introduction

- Whole School Calculation Policy
- Teaching methods have changed – *focus now on understanding and visualisation rather than following a set of given steps to solve problems*
- Visualisation – *understanding quantities*
- Addition – *mental methods*
- Subtraction – *mental methods*
- Literacy & Numeracy Framework
- National Testing
- Web Page

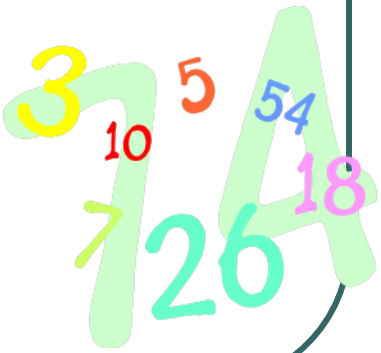
Visualisation

- Children develop feel for number
- Develop strong link between number and quantity
- Learn to subitize with small numbers.
- Importance of fingers in learning maths



Playing Games

- Dot patterns –*helps understanding of quantities, subitizing and grouping.*
- Dominoes – *seeing whole split into 2 parts,*
- Fingers- *important tool in learning maths.*

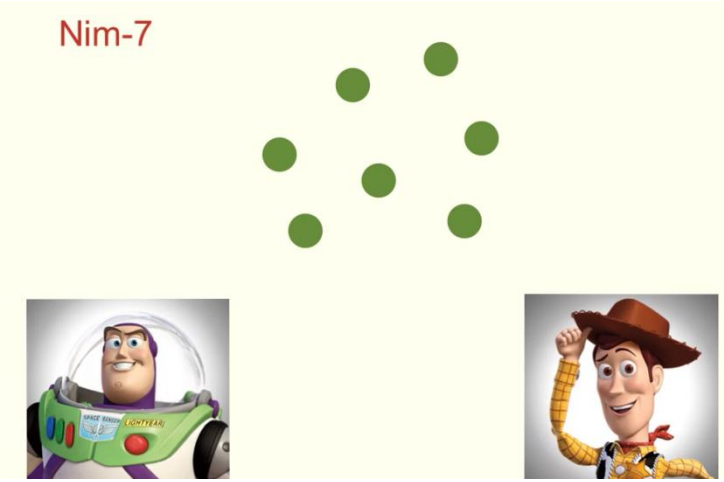


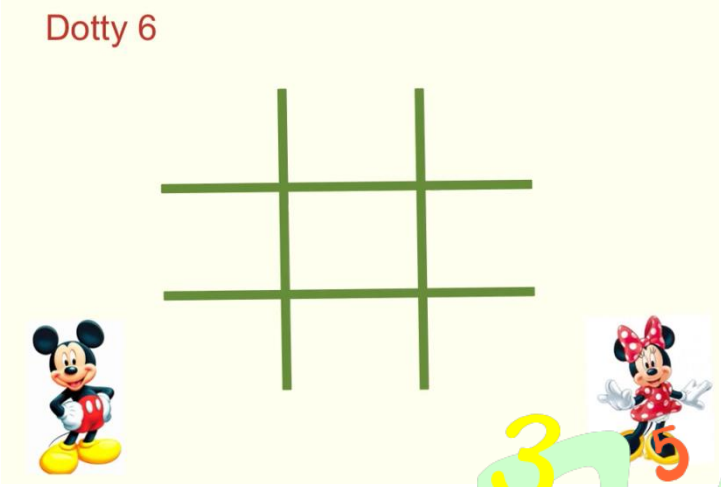
Visualisation in School

- Continuous provision Maths Area
- Challenge visualisation cards and number lines

More Games

- **Dotty 6 –** *2 players and die, object to complete row with 6 in each box.*
- **Nim 7 –** *strategy game for 2 players.*





Important Number Skills

Counting on and back in 1s and 10s

Number bonds to: 4, 5, 6, 7, 8, 9, 10

6 e.g. 6 + 0

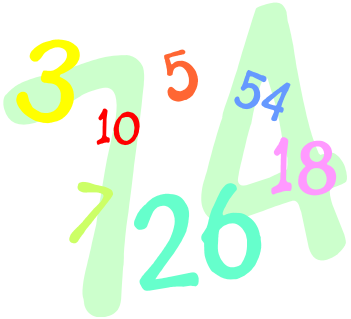
5 + 1

4 + 2

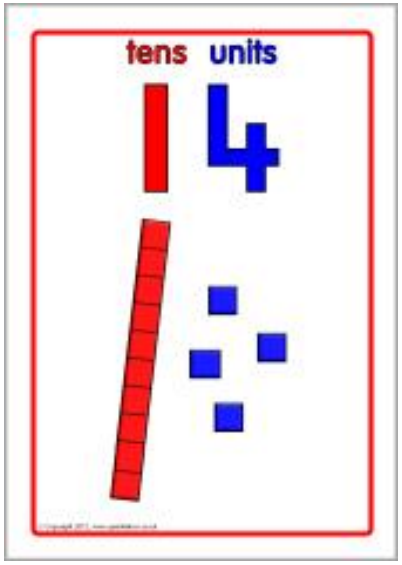
3 + 3

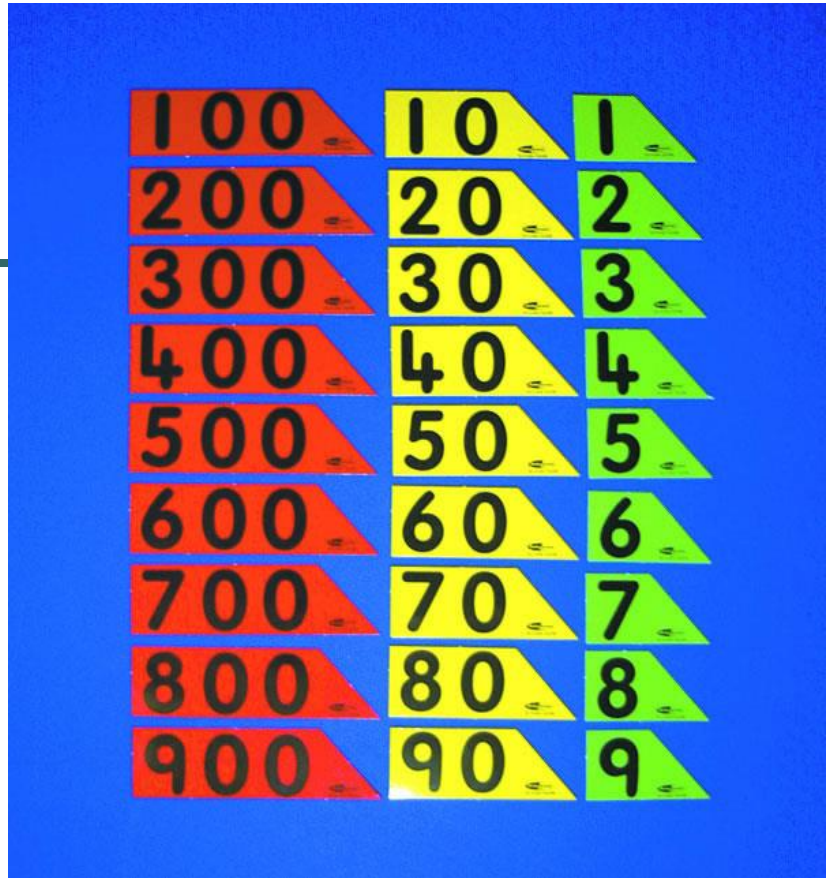
10 e.g. 7 + 3

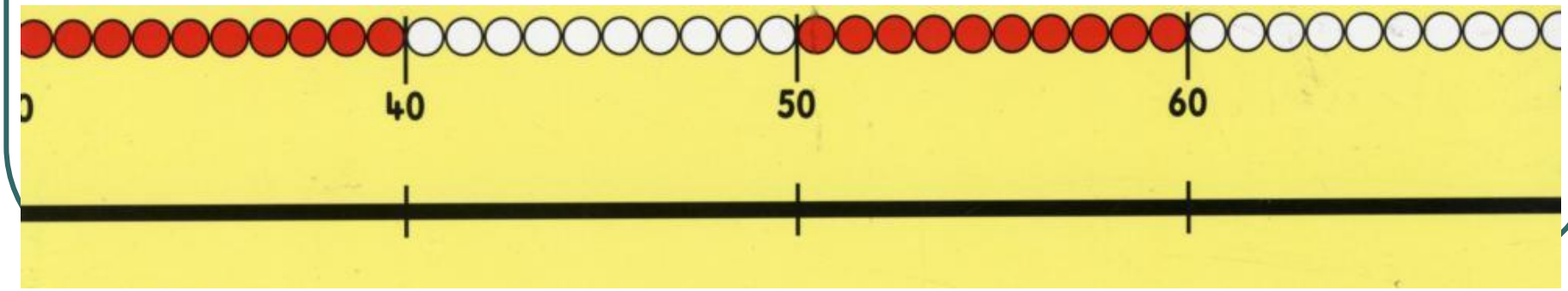
100 70 + 30 (v)



Tens and Units







abacus

Teacher notes Sound: turn off Reset

1s	1	2	3	4	5	6	7	8	9
10s	10	20	30	40	50	60	70	80	90

Clear

Counting on

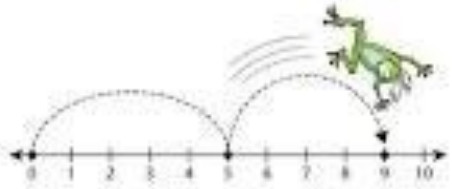
Use a variety of resources;

Multilink cubes

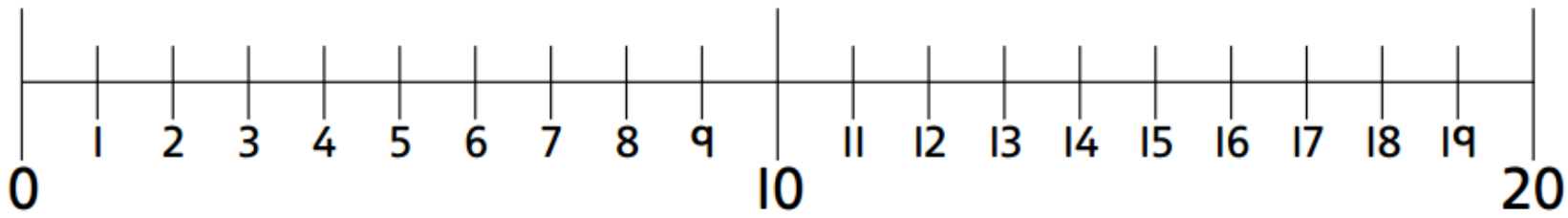
Numicon

Counters

Number line and frog



0–20 number line



9 + 7 = ☐

Mental method – Addition: Adding 1 digit numbers to 2 digit numbers

21 + 7

Count on from 21 e.g.

21 + 7 more = 28

Use knowledge of bonds to 8 e.g.

1 + 7 = 8

so 21 + 7 = 8

(e)

Mental Method - Addition: Adding 2 digit numbers to 2 digit numbers (e)

43 + 32

Mentally add:

10s	43	+	30	=	73
1s	73	+	2	=	75

43 + 32 = 75

(e)

abacus

Teacher notes | Sound: turn off | Reset

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

Options

mode

highlight

show/hide numbers

start number (0-101) 1

Update start number

step

1 | 10

number of rows

10

number of columns

10

show prime numbers

show multiples of

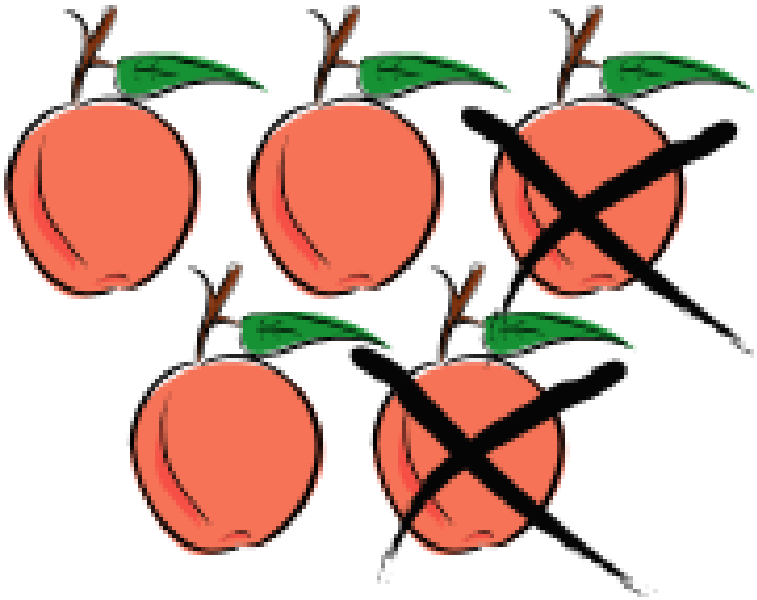
--

--

--

Clear

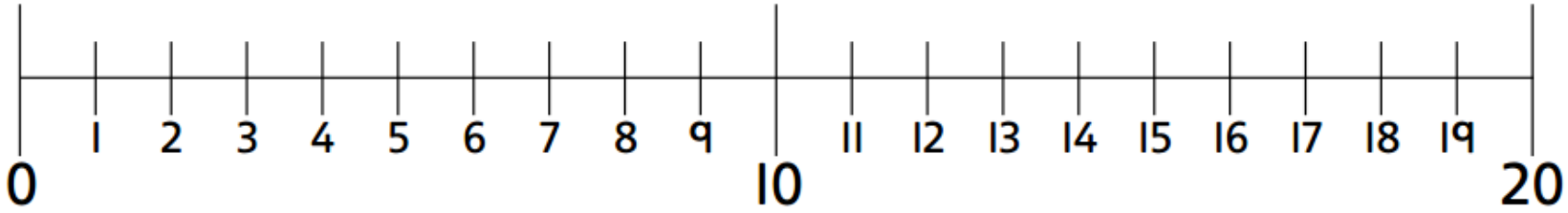
Subtraction – Taking Away 1 digit numbers



Begin by using objects and counting back in 1s

Subtraction – Taking Away 1 digit numbers

0–20 number line



19 -6 =

Subtraction – Taking Away 2 digit numbers

59 - 26

Mentally take away:

10s	59	-	20	=	39
1s	39	-	6	=	33

59 - 26 = 33

(e)

abacus

Teacher notes | Sound: turn off | Reset

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

Options

mode

highlight

show/hide numbers

start number (0-101) 1

Update start number

step

1 | 10

number of rows

10

number of columns

10

show prime numbers

show multiples of

--

--

--

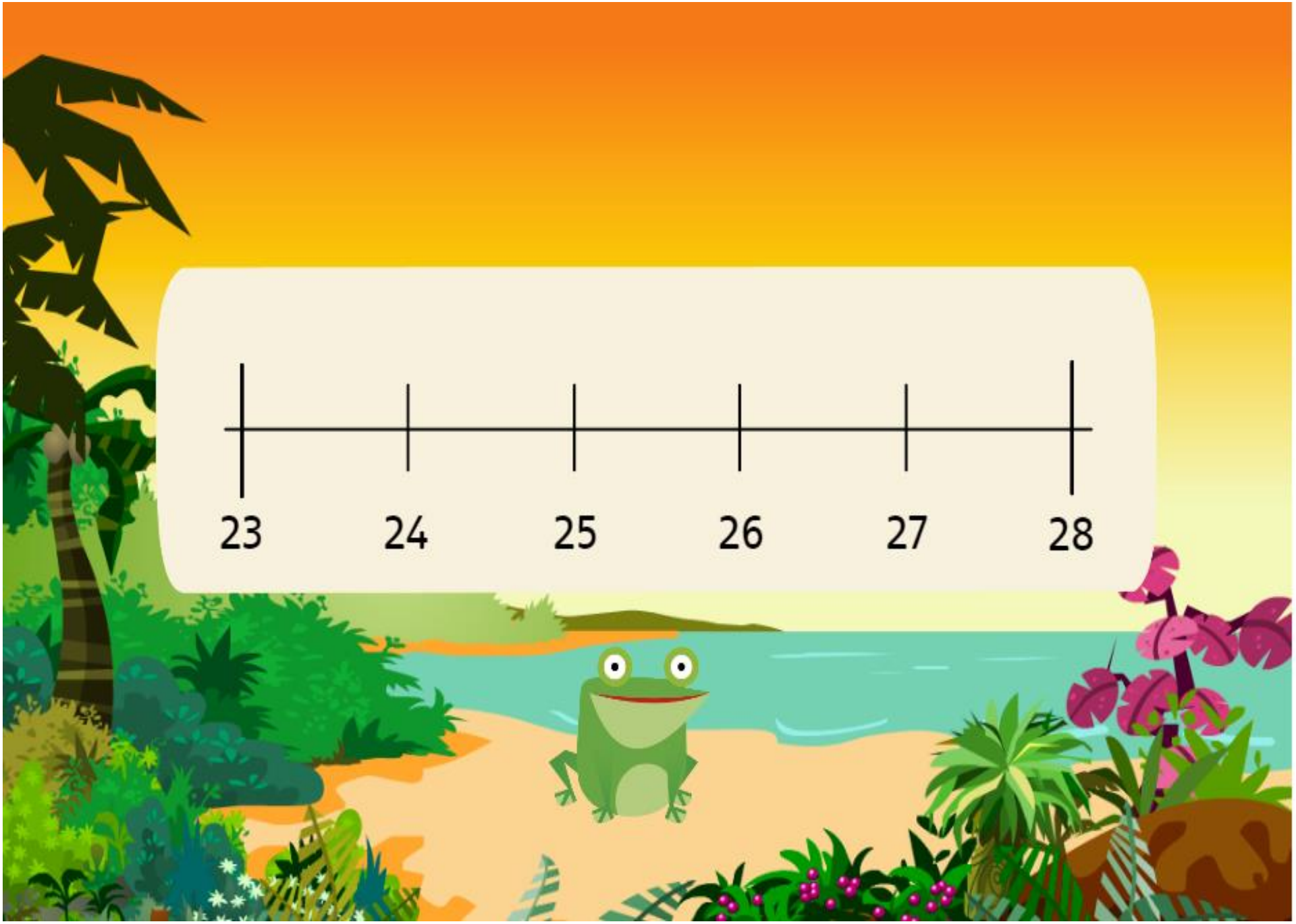
Clear

Subtraction – Counting On (e)

Begin with the smaller number and count on until we reach the bigger number.

e.g. 28 – 23

Rearrange to: 23 + $\square$ = 28

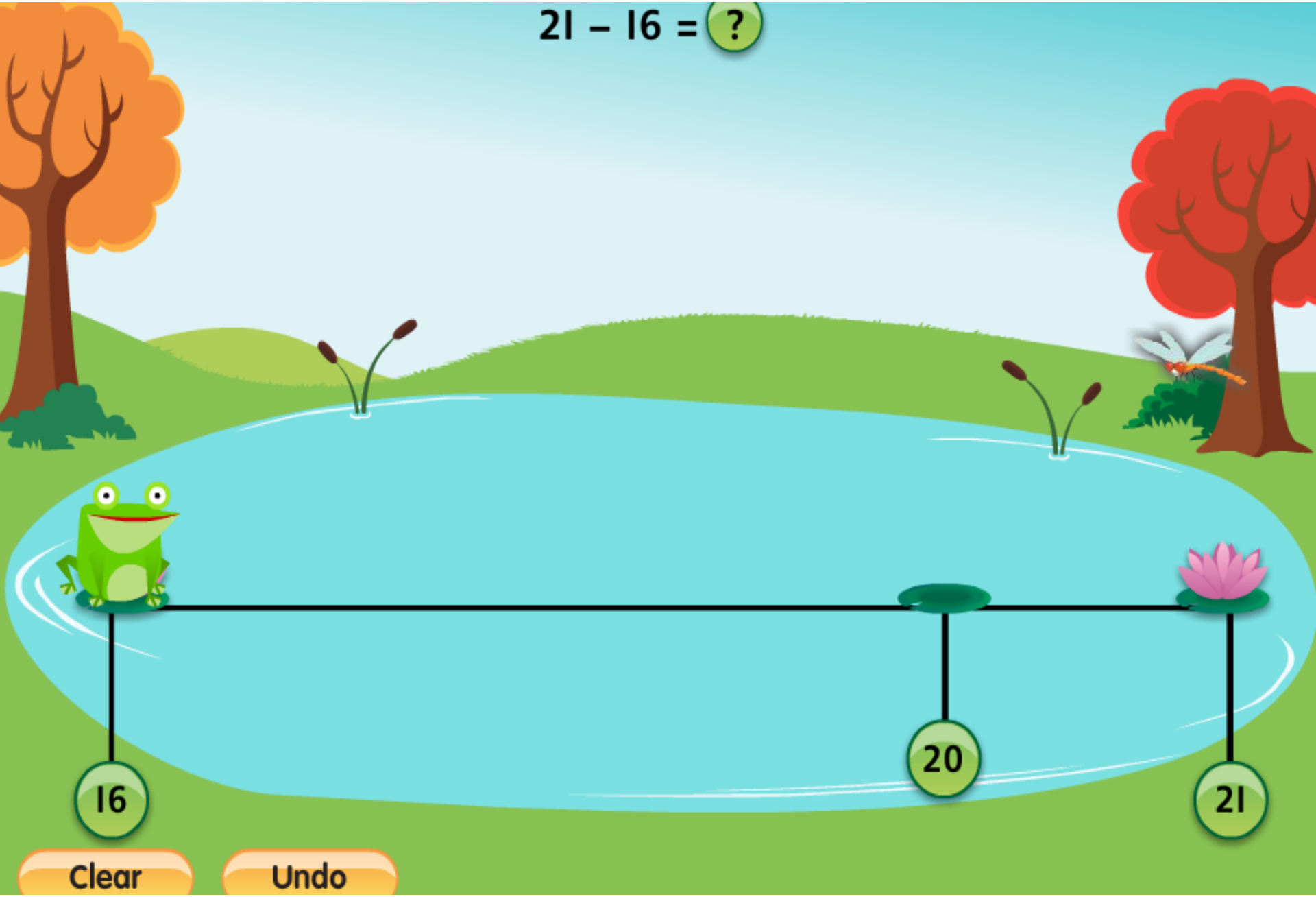

23
24
25
26
27
28

Bridging a ten

Begin with the smaller number and count on until we reach the bigger number.

e.g. 21 – 16

Rearrange to: 16 + $\square$ = 21


21 – 16 = ?
16
20
21
Clear
Undo

Inverse operations

Encourage children to recognise that addition is an inverse of subtraction;

e.g. $3 + \boxed{7} = 10$

$10 - 3 = \boxed{7}$

Plenary

- **Mental strategies:**
  - Importance of having a good understanding of visualisation of quantities, place value and number facts.
- **Addition:**
  - Counting on
  - Using knowledge of number bonds
- **Subtraction:**
  - Taking Away, finding the difference, counting on.

The National Curriculum and the Numeracy Framework

- Set of expectations for each year group from Reception to Year 9
- Applying numeracy skills in all areas of the curriculum
- Change in thinking – applying numerical skills rather than just isolated maths lessons

National Tests

- All children in Wales from Bl 2 to Bl 9
- Two parts to the Numeracy Tests:

1) Procedural
2) Numerical Reasoning

- Test window set by Welsh Government:
- 3rd to 10th May 2017

Next steps…..

Any questions?

Have a look at the web page:

www.barkerslaneprimary.co.uk

www.iseemaths.com

With thanks to active learn and Gareth Metcalfe

Please complete the questionnaire – your feedback is important to us!

Diolch yn fawr iawn!