AVANTI HOUSE

EXCELLENCE · VIRTUE · DEVOTION

KS1 Mathematics

Parent Workshop

Contents

- The New Curriculum – What has changed
- Place value
- The 4 operations – including methods used and progression through the key stage
- Mental Mathematics: Number bonds, times tables and mental strategies
- Your turn to have a go/Using and Applying
- - Problem Solving
- How you can help at home
- My Maths
- Online applications

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Aims

- Provide you with a greater understanding of how mathematics is taught in school.
- Show you the progression of the 4 operation methods through Key Stage 1.
- See the importance of mental maths skills and the strategies children are taught.
- Help you understand how you can help your child at home.

The New Curriculum

Primary Mathematics - What has Changed?

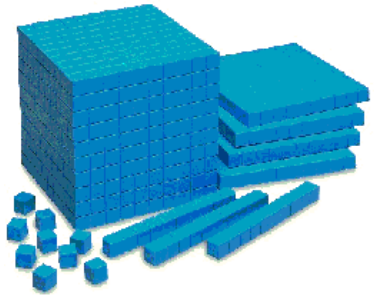
- Higher expectations overall – benchmarked against other nations
- Conceptual development of number addressed in more detail
- Fewer things in more depth
- All pupils expected to build firm foundations to help become secondary ready

Place Value

Helping children recognise the value of two and three digit numbers and how they are made by adding tens and units.

<u>Resources</u>

- Diennes Apparatus



- Place Value Charts

H	T	U

The Four Operations

Addition and Subtraction

Correctly understanding and using the symbols +, - and =

Understanding the relationship between adding and subtracting and the importance of order when subtracting and putting the biggest number in their head to count on when adding

9 + 7 = 16
7 + 9 = 16
16 – 7 = 9
16 – 9 = 7

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The Four Operations

Addition – Practical Resources

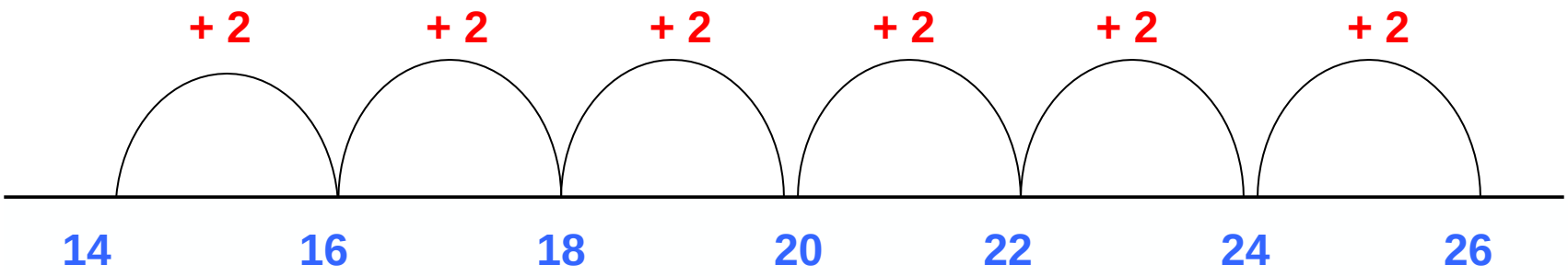
- Diennes Apparatus
- Counters
- Toys
- Pebbles

4 + 3 =

The Four Operations

Addition – Practical Resources

-Number Line/Ruler



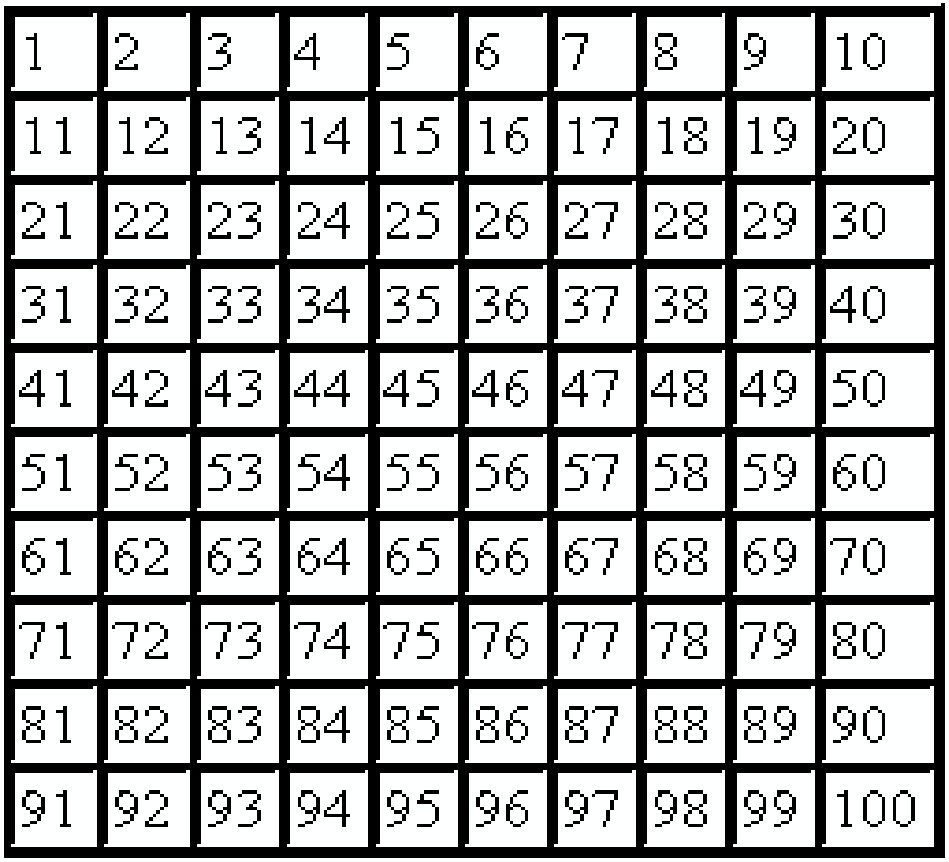
14 + 12 = 26

The Four Operations

Addition – Practical Resources

-100 square

25 + 9 =



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

The Four Operations

Addition – Written Methods

-Partitioning

Partitioning means splitting the number into the tens and units. It is **essential** that their place value is **secure.**

56 + 32 = **50 + 30 = 80** (partition tens first)

6 + 2 = 8 (partition units)

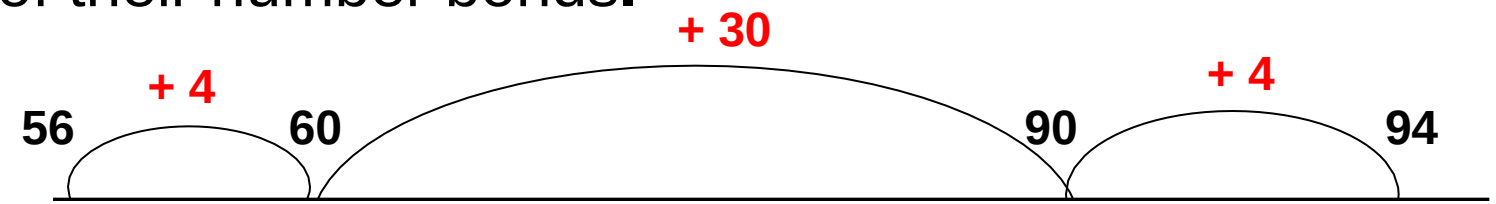
80 + 8 = 88 (add tens and units answer together)

The Four Operations

Addition – Written Method

- Bridging through multiples of ten

For children to bridge through ten or a multiple of ten. It is **essential** that they have accurate and secure knowledge of their number bonds**.**



56 + 38 = 94

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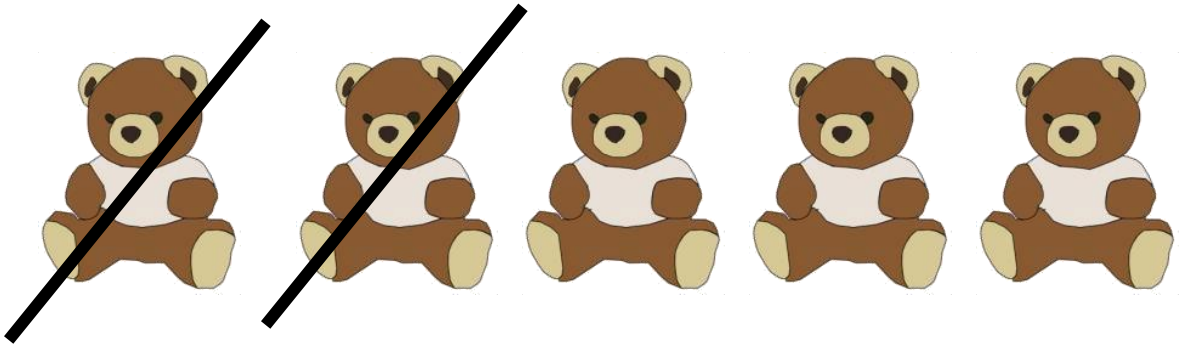
The Four Operations

<u>Subtraction – Practical Resources</u>

- Diennes Apparatus
- Counters
- Toys
- Pebbles

5 – 2 =

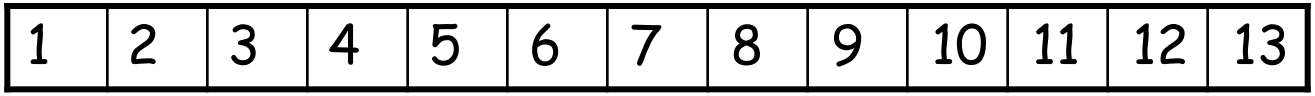


The Four Operations

Subtraction – Practical Resources

-Number Line/Ruler

13 – 6 =

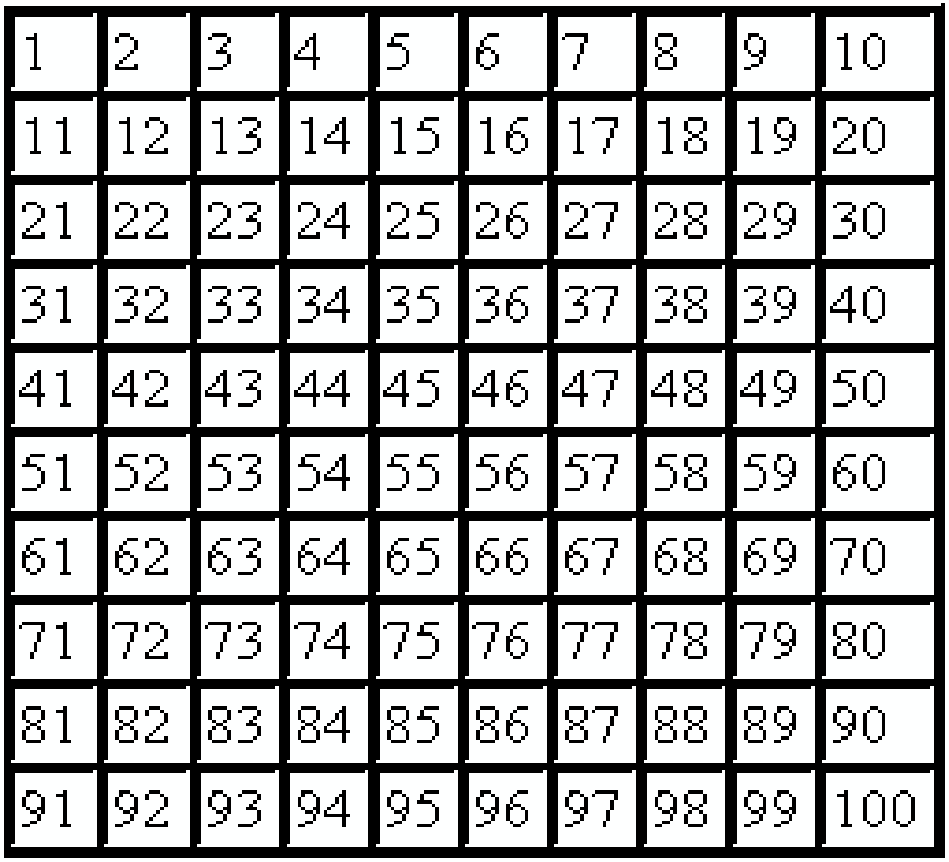


The Four Operations

Subtraction – Practical Resources

-100 square

34 – 8 =



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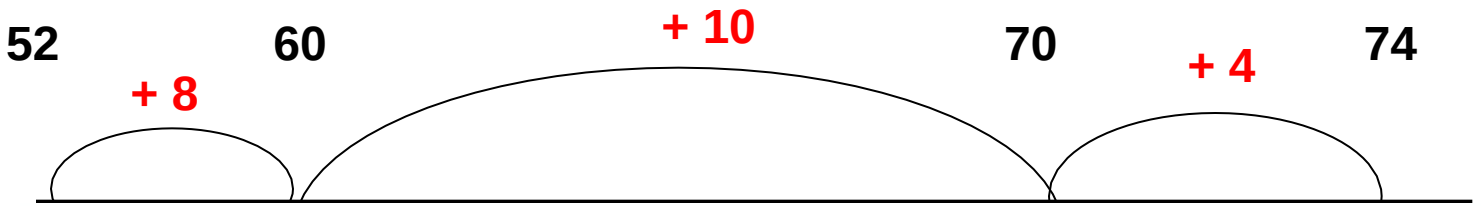
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

The Four Operations

Subtraction – Counting On

Finding the difference

-Count on from the smallest to the largest once again bridging through ten or a multiple of ten.



74 – 52 = 10 + 8 + 4

= 22

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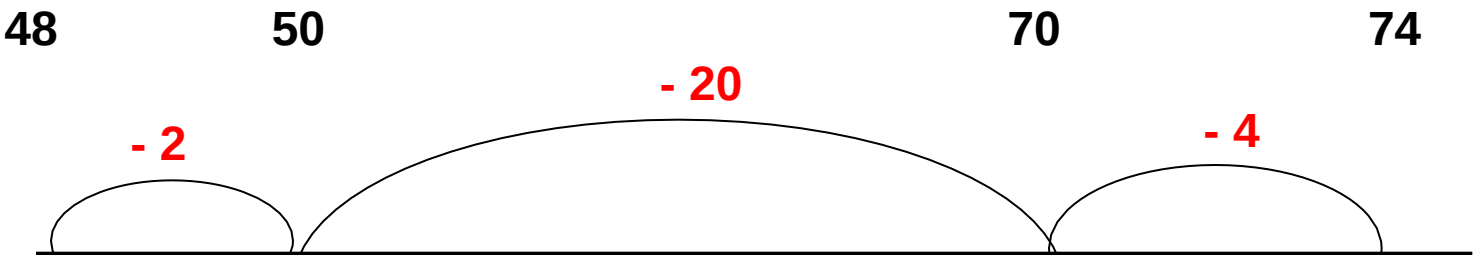
The Four Operations

Subtraction – Counting Backwards

-Count back from the largest to the smallest once again using knowledge of number bonds.



74 – 48 = 20 + 4 + 2
= 26

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The Four Operations

Multiplication – Practical Resources/Repeated Addition

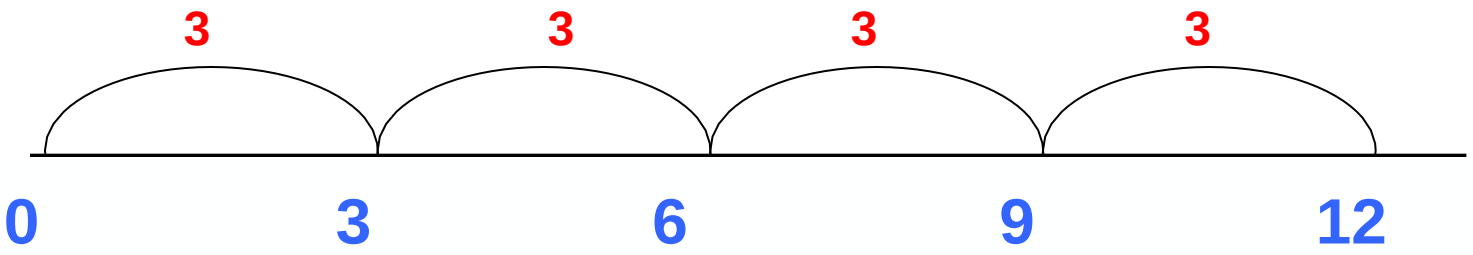
3 x 5 = (3 groups of 5) = 5 + 5 + 5 =

The Four Operations

Multiplication – Number lines/100 square

-Children use the number line and the idea of repeated addition to count in groups.

4 X 3 =



The Four Operations

<u>Division – Practical Resources – Sharing</u>

15 ÷ 3 = 15 ‘shared between’ 3 =

After practical resources children are shown the written method of ‘dots in pots’.

The Four Operations

<u>Division – Grouping</u>

The number in the group is known but how many groups is unknown.

How many 3s in 12?

We need to count the number of groups.

The Four Operations

Division – Corresponding times table facts

From here we get the children to use their times tables knowledge to work out the inverse operation

27 ÷ 3 =

Children need to use their knowledge of 3 times table to use the corresponding fact

3 x 9 = 27 so 27 ÷3 = 9

Mental Mathematics

It is essential children have secure knowledge and recall of mental facts including:

- Number bonds to 10 & Number bonds to 20
- Counting in 2s, 5s, 10s. Continuing to learn all from 0 to 12!
- You can count anything in different steps to help them e.g. stairs, cars, trees.
- Once multiplication facts are secure you can work on corresponding division facts.

Mental Mathematics

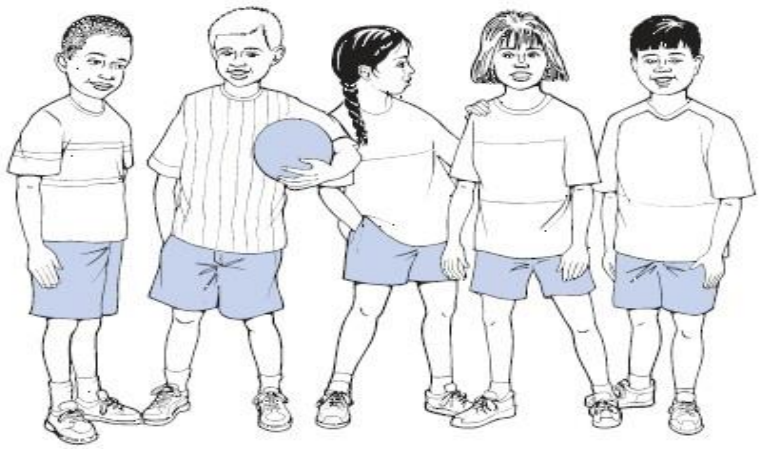
Mental Maths Strategies:

- Use number bonds to 10, 20 and 100
- Use doubles and near doubles
- Counting on and backward in ones, tens
- Partition into tens and units
- Put the biggest number first
- Add 10 then add 1 = adding 11
- Add 10 then subtract 1 = adding 9
- Subtract 10 then subtract 1 = subtracting 11
- Subtract 10 then add 1 = subtracting 9

Your turn

There are **35** children.

They get into teams of **5**



How many teams are there altogether?

teams

Your turn

Write the total.

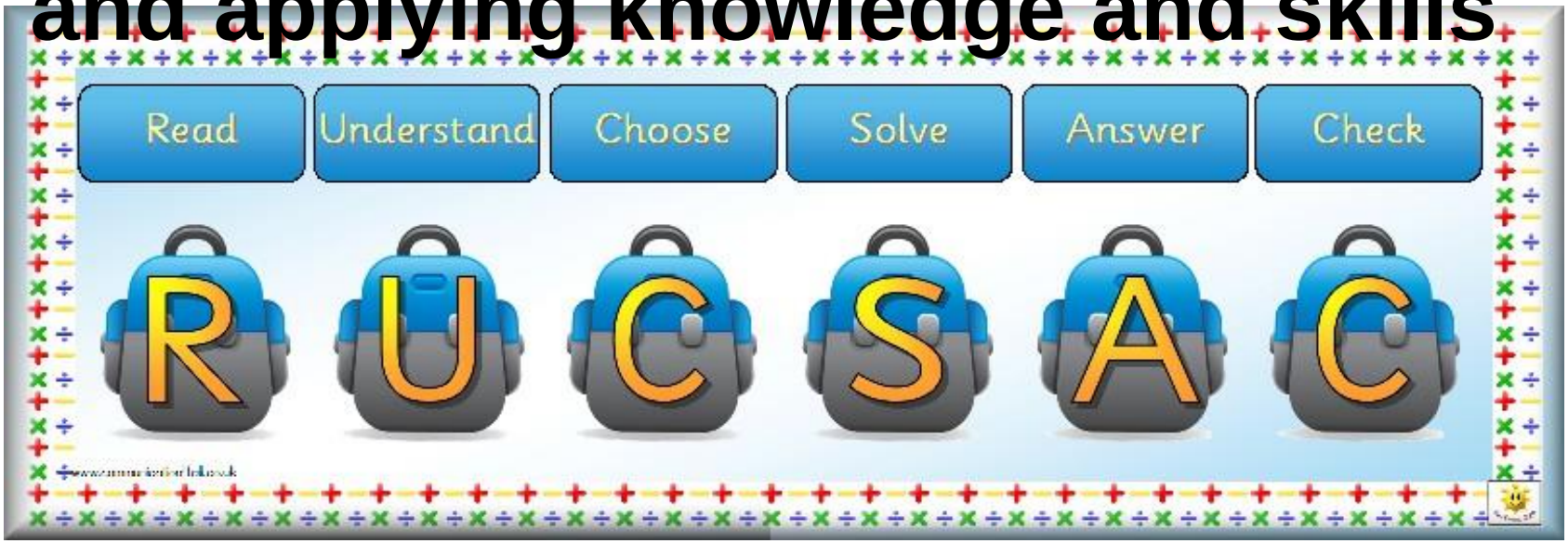
$$138 + 62 =$$

Write the answer.

$$176 - 49 =$$

Problem Solving Using

and applying knowledge and skills



Problem Solving

- Understanding mathematical vocabulary
- Applying strategies taught
- Explaining process
- Reasoning for why doing that
- Justifying answer

How you can help at home

-Lots of practice – in the car, online games, counting stairs, cars, trees etc

-Playing games – cards, snakes and ladders, dominoes

-Cooking

-Telling the time

--Online Applications

Online Applications

Multi player mental maths game

Four operation practice

Math Bingo: Four operation bingo

Squeebles Times Tables 2

Numberjacks: Addition facts up to 10

Amazing coin: Learn about different British currency

Any other questions?

Thank you.