St David's C of E Primary School

Parents Booklet

Written Methods of Calculations

(Foundation Stage and Year 1)

Do your children ask for help with their maths homework and start using words like 'grouping', 'number lines', 'number squares'....? The purpose of this booklet is to outline the various calculation methods that children are taught, many of which look different to the methods that you may have been taught in your school days.

We hope the explanations and examples of strategies will help you to assist your child at home.

A lot of emphasis in Mathematics teaching is placed on using mental calculations where possible, using jottings to help assist thinking. As children progress through St David's, and are taught more formal written methods, they are still encouraged to think about what mental strategies they could use first and only use written methods for those calculations they cannot solve in their heads.

It is important to encourage children to look first at the problem and then get them to decide which is the best method to choose - pictures, mental calculations with or without jottings, structured written methods, appropriate equipment or even a calculator.

When faced with a calculation problem, encourage your child to ask:

Can I do this in my head?

Do I need to use a written method?

Should I do this in my head, using drawings or jottings to help me?
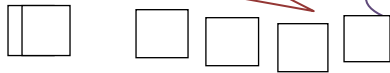
Addition

Ordering numbers

Why are you ordering number cards from 0-20?

It helps me to learn the order of numbers and form them into a number line which I can use for counting forwards or backwards in 1s, 2s, 5s and 10s.

Addition stories

What are addition stories and why do you tell them?

One example of a story could be: "There were 3 frogs in the pond and 2 more jumped in. How many altogether?" 3 + 2 = 5 It helps me to understand visually and practically what happens when I add two amounts together

Counting on using a number line

Why are you using a number line?

I may not have objects to add together but I can use a number line instead. So if I was adding 3 and 5, I could start on 3 and count 5 bunny hops before landing on the answer, 8.

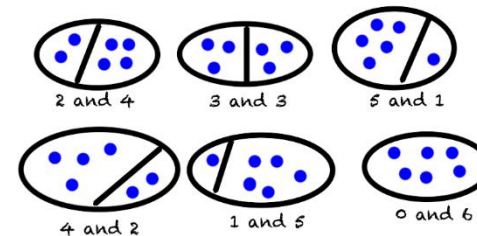| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
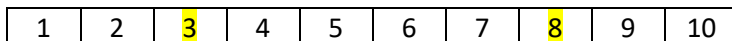
Pictorial representations

Why are you drawing pictures in maths?

It helps me see the numbers so I can count them one at a time, as my confidence grows I could count in 2s so it's quicker!
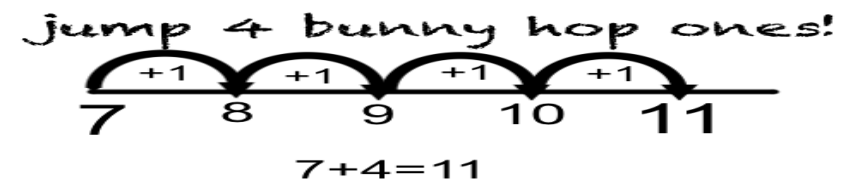
Make 6

2 and 4   3 and 3   5 and 1

4 and 2   1 and 5   0 and 6

Using a number line to count on

It helps me to show on paper what is going on in my head. I can jump in lion leap tens and bunny hop ones!

Why use a number

jump 4 bunny hop ones!

+1 +1 +1 +1

7   8   9   10   11

7+4=11

Subtraction

Counting back

Why and how do you count back?

I count back in 1s (2s, 5s, and 10s) from 20-0 verbally, using their fingers and using a number line to help them understand the concept of subtraction. We love using songs and rhymes such as: 5 currant buns, 10 little men in a flying saucer; 5 little ducks went swimming one day; 5 fat sausages; 10 green bottles; rocket launch count down

Subtraction stories

**What are addition stories and why do you tell them?**
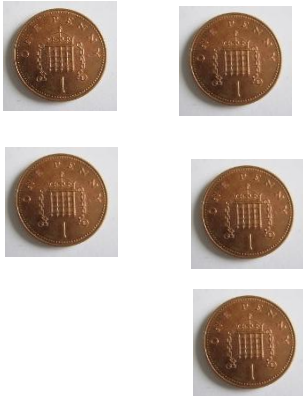
What? These are simple stories or real life scenarios. E.g. We get 10 cartons of milk; 4 are drunk how many are left? Using play dough, we make 6 cakes. 3 friends take a cake each. How many left? We have 5 pennies and use 1p to buy an ice cream. How many pennies are left?

Pictorial representations

Why are you drawing pictures in maths?
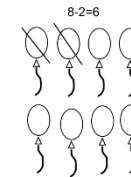
It helps me to see what I need to cross out or take away to see what I have left

8-2=6

Why do you need to find the difference or compare numbers to subtract?

It helps me think about how many jumps the numbers are apart

8-5=

means the difference between 8 and 5 or the difference between 5 and 8 and how many jumps they are apart
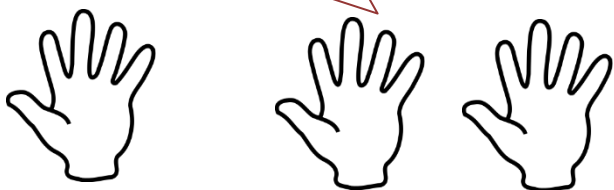
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Sorting objects into groups and counting them

Why are you sorting objects into equal sized groups?
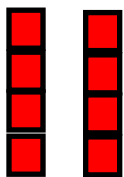
It helps me count in multiples of 2, 5, and 10

5 +5 +5 = 15

Doubling

Why use objects to double numbers?

It helps me see what happens when you multiply numbers

Double 4 is 8

4 x 2 = 8

Repeated addition

Why are you adding when you should be multiplying?

It helps me see how numbers keep getting bigger

0 2 4 6 8

Doubling

Why double numbers using

Using objects helps me visualise numbers doubling

Double 3 is 6

3x2=6

5

Division

Sharing

What is sharing and how does it help dividing?

I can move objects into groups to help me understand that dividing is sharing objects into equal groups
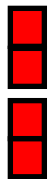
$6 \div 3 = 2$

Grouping

What is grouping and how does it help dividing?

I can move objects physically to help me understand dividing is sharing equally

$12 \div 3 = 4$

Halving

Why halve objects and how does it help me divide?

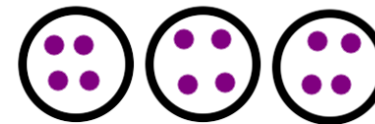It helps me to see that amounts get smaller when you halve the amount

Half of 4 is 2

$4 \div 2 = 2$

Halving

Why is it important to halve numbers?

It helps me to notice the inverse, that I can make a number bigger by doubling it, then inverse the process by halving it – objects help me see this

Half of 6 is 3

$6 \div 2 = 3$

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