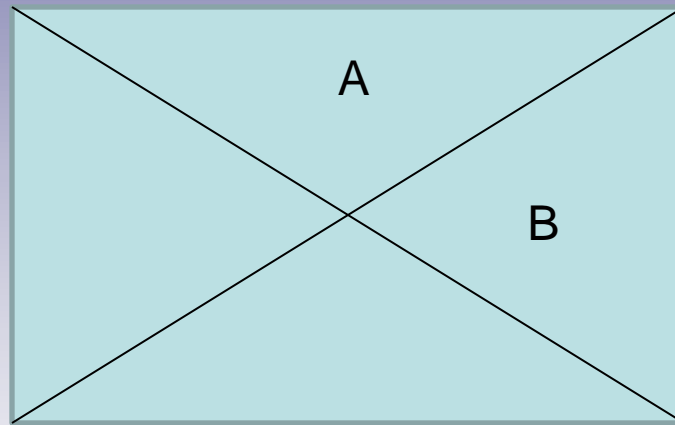


Is triangle A the same as  
Triangle B?



# Mathematics at Bathwick St. Mary Primary School

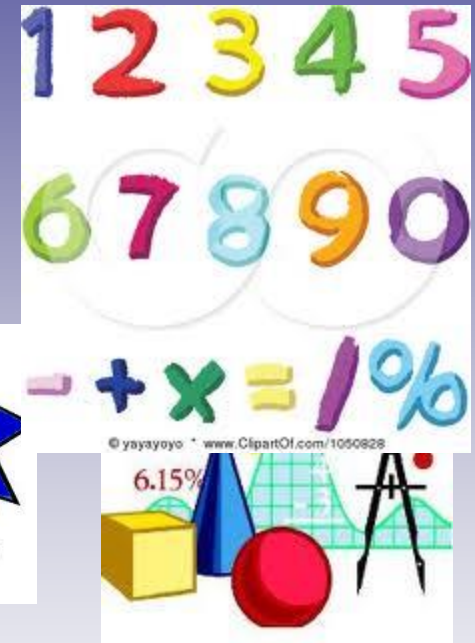
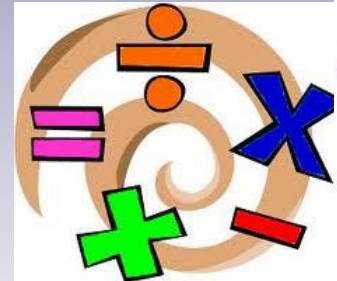
## **AIMS**

- **To inform you about the Maths national curriculum**
- **To tell you about Maths learning and progression at School**
- **To show you ideas for helping at home with Maths**

# Years 1-6

Aims of the new curriculum for KS1 and KS2:

- To become fluent in the fundamentals of mathematics and to be able to recall and apply knowledge rapidly and accurately
- To reason mathematically
- To solve problems by applying knowledge



- There is an expectation that children will master specific targets by the end of each year.

# What is covered at KS1?

- Numbers- place value, addition, subtraction, multiplication and division
- Fractions
- Measurements
- geometry - positions, directions and shapes
- statistics
-

# Targets to be met at the end of each year:

## e.g. Year 1

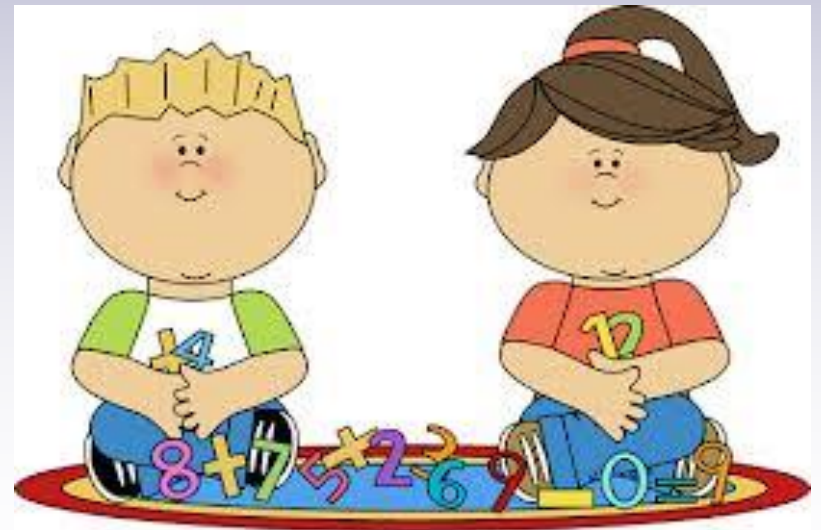
- count to and across 100,
- use number bonds to 20,
- Solve simple multiplication and division problems through grouping or sharing
- recognise  $\frac{1}{2}$ ,  $\frac{1}{4}$ ,
- measure length, weight, capacity,
- tell time to hour and half past,
- name 2-d and 3-d shapes,
- describe  $\frac{1}{4}$ ,  $\frac{1}{2}$  and  $\frac{3}{4}$  turns.

## Year 2

- count in steps of 2,3,5,10 forwards and backwards,
- add and subtract 2 digit numbers,
- know 2x, 5x, 10x tables,
- find  $\frac{1}{2}$ ,  $\frac{1}{4}$ ,  $\frac{3}{4}$  of a shape or number,
- use money,
- tell the time to 5 minutes,
- recognise symmetry,
- construct tally charts and compare data

# The Daily Lesson from Years 1-6

- Mental starter
- Main Introduction and Group Activity
- Independent/Group Activity
- Plenary



# Learning styles

- VISUAL
- AUDITORY
- ACTIONS
- MENTAL
- WRITTEN
- Grouped/paired
- individual

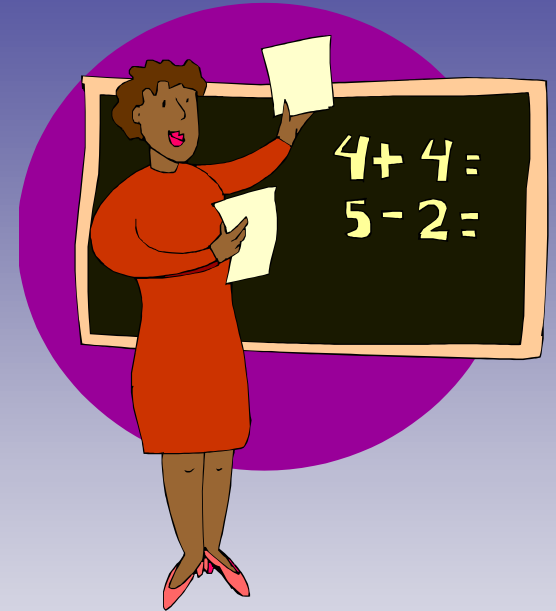


# Written Calculations at Bathwick



addition

division



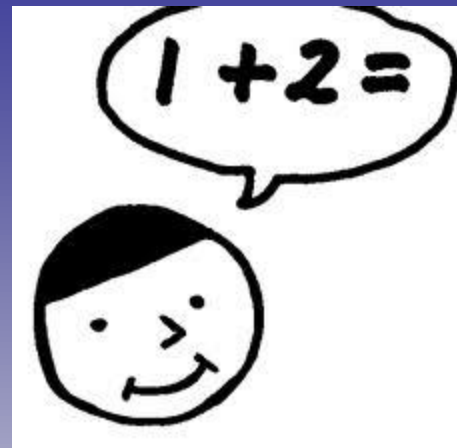
subtraction

multiplication

Essential to have number knowledge: bonds and times tables



# Addition



1. Hands on addition
2. Pictorial addition/100square
3. The empty number line
2. Partitioning
3. Expanded method in columns
4. Column addition

# Hands on and pictorial addition

- How can you make 5 using unifix?
- Put in hands- what happens if you swap your hands over. Do you still have 5?

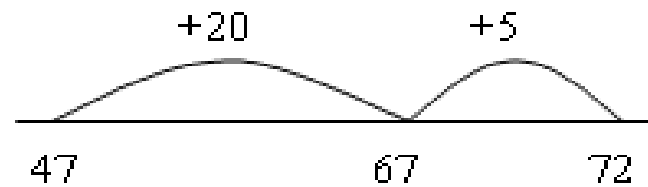
# The empty number line

$$47 + 25 = \square$$

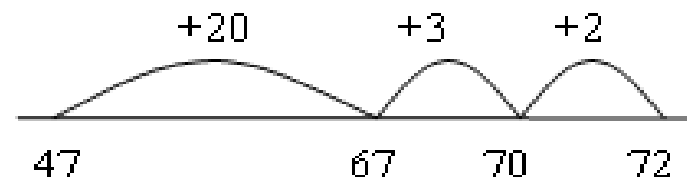
My sunflower is 47cm tall.

It grows another 25cm.

How tall is it now?



or



# Partitioning

- $47+76 = 40+70+7+6=110+13=123$

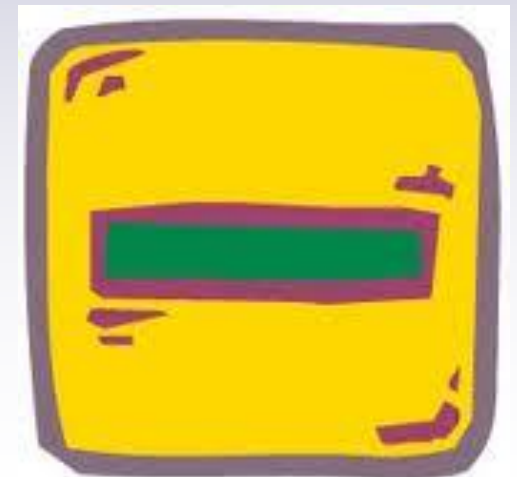
- $47 = 40 + 7$

- $\underline{+76} = \underline{70 + 6}$

- $110 + 13 = 123$

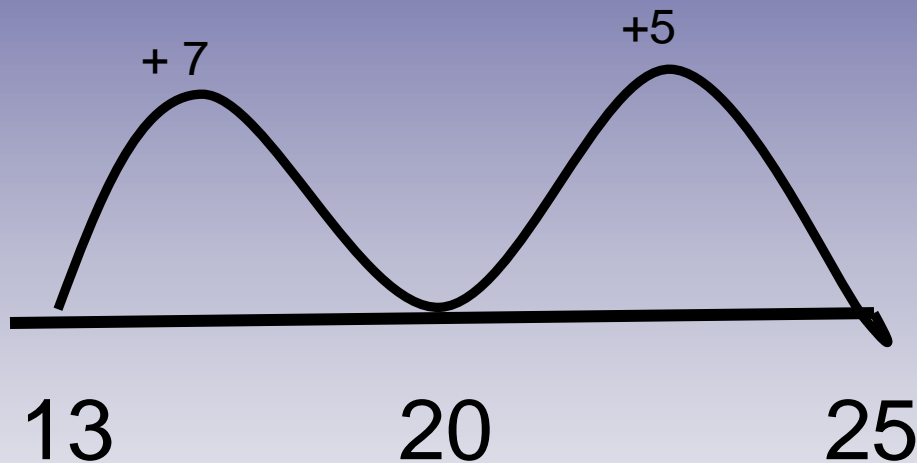
# Subtraction

1. Hands on subtraction
2. Pictorial subtraction/100square
3. Using the empty number line
4. Partitioning
5. Expanded method
6. Column subtraction



# The empty number line- counting up

- $25 - 13$

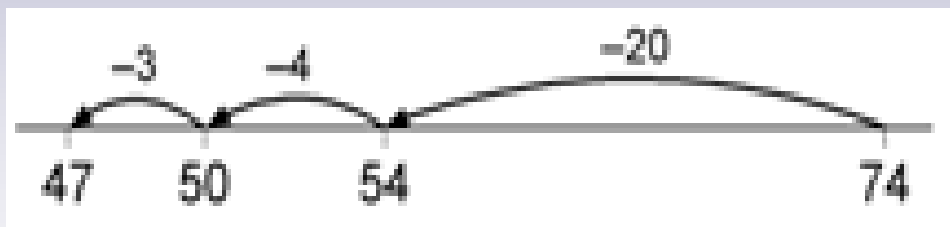


- 13                      20                      25

- So  $25 - 13 = 7 + 5 = 12$

# Partitioning

- Subtraction can be recorded using partitioning:
- $74 - 27 = 74 - 20 - 7 = 54 - 7 = 47$



# Multiplication

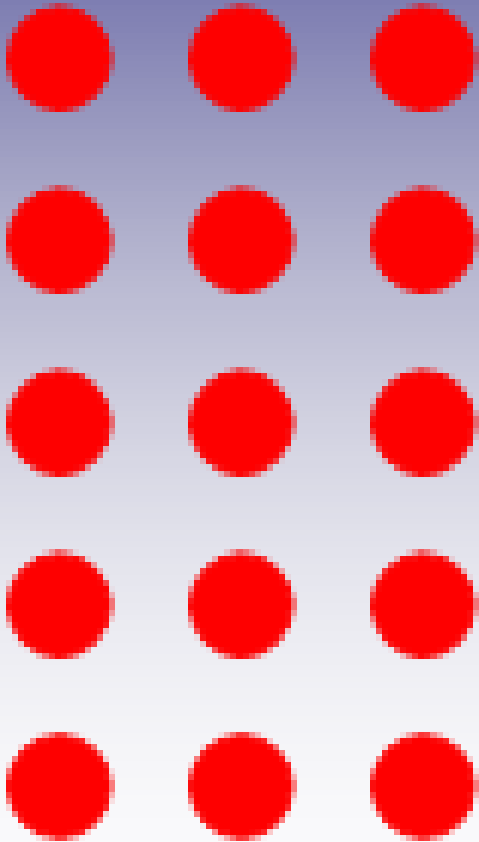
1. Hands on/ groups of
2. Pictorial/groups of
3. Jottings with arrays
4. Number line
5. Mental multiplication using partitioning
6. Grid method
7. Column multiplication



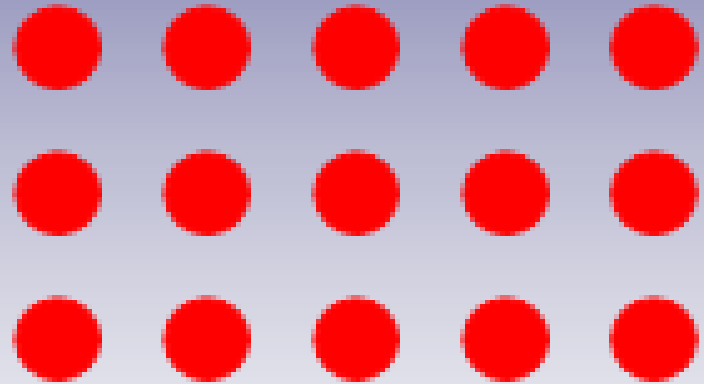


# Arrays

**3 x 5**



**5 x 3**



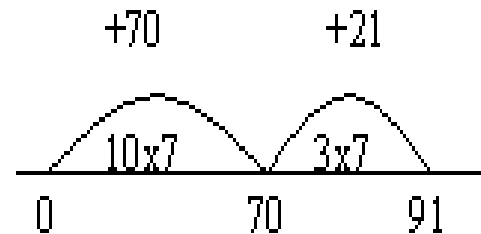
Links to vocabulary

# Mental multiplication using partitioning

By the end of year 2 children are expected to know their 2x, 5x, 10x tables up to 12 x10 **off by heart** and be able to use a times table square to help with others.

$$13 \times 7 = \square$$

There are 13 biscuits in a packet. How many biscuits in 7 packets?



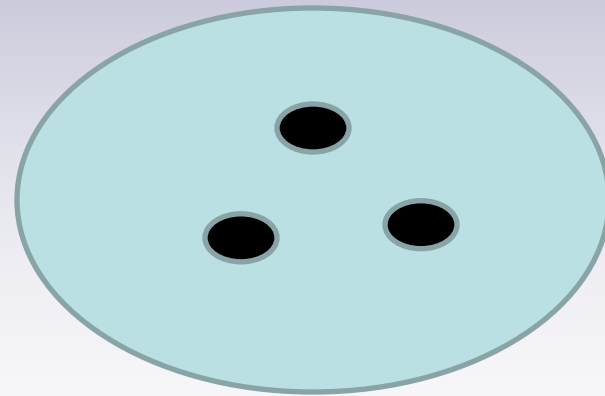
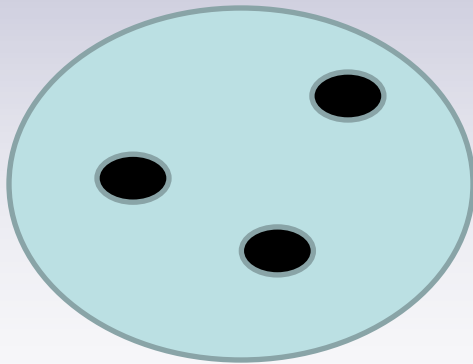
# Division

1. Sharing and grouping using objects
2. Jottings on pictures/number line
3. Empty number line
4. Mental division using partitioning
5. Expanded method for HTU (Chunking)
6. Short division
7. long division



# grouping

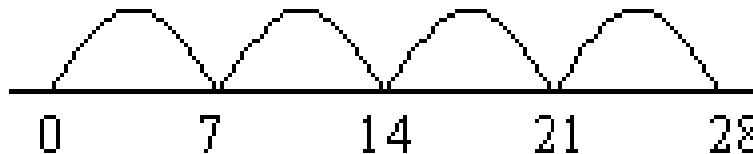
- 6 divided by 2 =
- 2 lots of 3



# The empty number line

$$28 \div 7 = \square$$

A chew bar costs 7p. How many can I buy with 28p?



# Mental division using partitioning

By the end of year 2 children are expected to know the related division facts for 2x, 5x and 10x tables off by heart.

$$84 \div 6 = \square$$

I need 6 drawing pins to put up a picture. How many pictures can I put up with 84 pins?





# TESTS



## KS1

- 1 arithmetic test (15minutes on number only)
- 1 test for mathematical fluency, solving problems and reasoning (35minutes on number, shapes, measures and statistics)
- Levels are not given. It is achieved or not achieved.
- There will be a SATS talk closer to the time.

# How you can help at home.

- Crucial that children practice times tables and number bonds.
- Look for number in everyday activities.

Make Maths fun to do... Play games: snakes and ladders, darts, dominoes and other games that depend on numbers, counting, calculation and scoring.

Do some cooking. Use timers and clocks.





# How you can help at home...

- **POCKET MONEY**. Help them to add it up week by week, and work out whether they can afford a particular toy or treat. Shop using money and calculate change.

**TIME**. Look at clocks, both digital and analogue. Estimate how long a certain activity will take to do and see if you are right! Work out how long it is until the next mealtime. Play games: how long is a minute, starting from now?

- **HOBBIES**. If your child is car-mad, talk about relative engine sizes, fuel economy, speed and performance. Watch and play sports that involve scoring, timing, counting, measuring.



**CALENDARS AND DATES**. Give your child a calendar to record special occasions. Count the days in each month. Learn the poem 30days hath September etc.

# Creating a maths mind!

- Don't say 'I am no good at maths' – a good role model is very important, especially for girls.
- It is ok to make mistakes.
- Children who can manipulate their fingers without looking, do better at maths. (show bunny ears)
- Find the links to numbers in different ways. E.g. 5 can be shown in many different ways. Eg, on a dice, on cards , roman numerals,  $4+1$ , with unifix.
- Ask questions about numbers.

# Parent Booklets

- There is a parent booklet available for **each year group** with some targets, questions and activities that you can refer to.
- It includes calculation progressions for addition, multiplication, subtraction and division.
- It will be sent home with your child!