



Platanos College Mathematics Department

Core features of the new curriculum:

Conceptual understanding

Pupils are able to recall and apply their knowledge rapidly and accurately to problems.

Pupils need to know their multiplication tables.

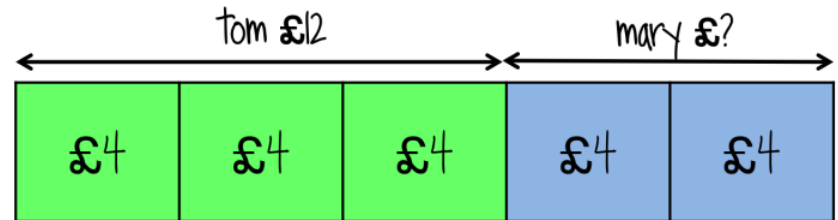
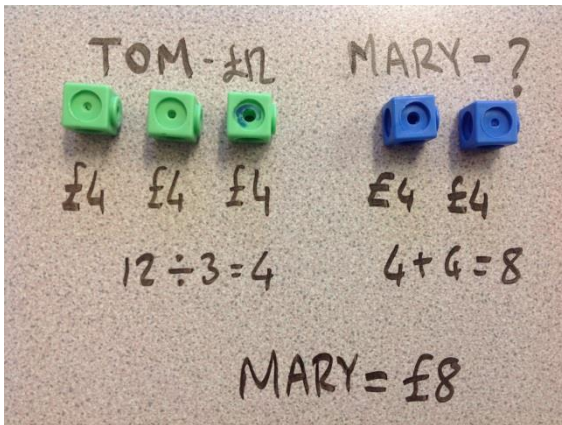
Pupils need to memorise formulae.

Mastering the maths

Conceptual understanding

Tom and Mary share some money in the ratio 3 : 2. Tom gets £12, how much does Mary get?

Concrete



draw bar model showing ratio 3: 2 and tom getting £12
find 1 part is £4
mary gets £8

Abstract

Tom is 3 parts and £12
One part: $12 \div 3 = £4$
Mary is 2 parts
Mary: $4 \times 2 = £8$
Mary has £8

Pictorial

Core features of the new curriculum:

Fluency

- Pupils become fluent in the fundamentals of mathematics, including through varied and frequent practice with increasingly complex problems over time.

Calculate the area of a circle with dimensions:

Fluency


1. Radius = 3cm

4. Diameter = 12cm

2. Radius = 5.9cm

5. Diameter = 5.9cm

3. Radius = 6.54cm

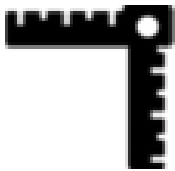
6. Diameter = 3.45cm

Core features of the new curriculum:

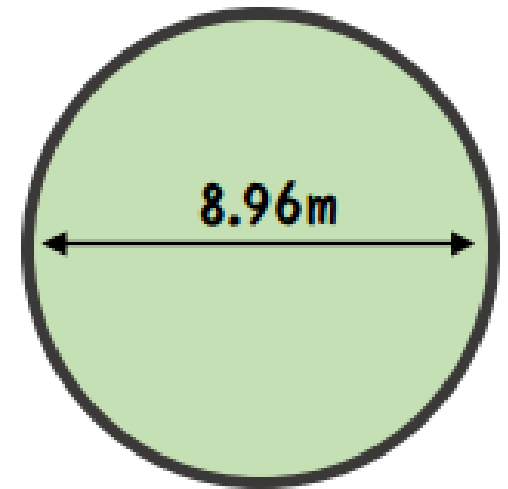
Mathematical reasoning

- Pupils reason mathematically by following a line of enquiry, conjecturing relationships and generalisations, and developing an argument, justification or proof using mathematical language.

Reasoning



Lawn seed is sold at 40p per bag. A bag is said to cover one square metre. How much will it cost to plant the lawn shown?

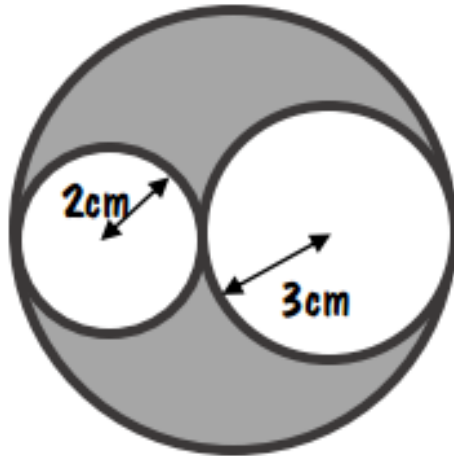


Core features of the new curriculum:

Problem solving

- Pupils can solve problems by applying their mathematics to a variety of routine and non-routine problems

Problem Solving



The radius of the smallest circle is 2cm. And the radius of the other smallest circle is 3cm.

Which area is larger: The sum of the two smaller circles, or the area of the shaded section of the larger circle?

Mastering mathematics in Year 7

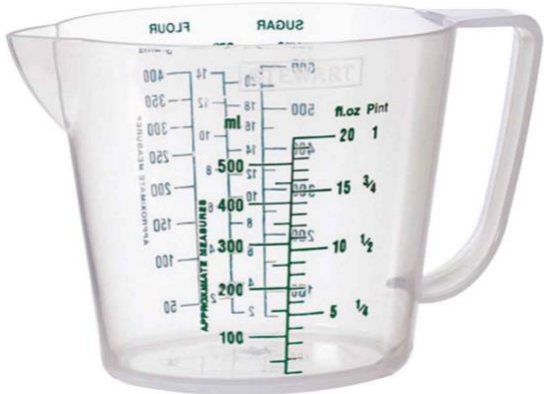
Autumn 1	Place value, addition and subtraction
Autumn 2	Place value, multiplication and division
Spring 1	Geometry: 2D shape in a 3D world
Spring 2	Fractions
Summer 1	Applications of algebra
Summer 2	Percentages and pie charts

Tips for Parents/Carers

Discuss maths in the real world:

- **Take your child shopping**
- **Cook with your child**
- **Plan holidays with your child**
- **Do DIY with your child**
- **Play problem solving games with your child**

Some useful props for mums and dads:



Support at home doesn't have to be from a revision guide. Allow your child to enjoy and discover patterns in the world.

Some useful props for mums and dads:

- A clock in the kitchen – analogue & digital helps comparisons with what the values**

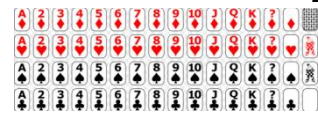
represent



- A traditional wall calendar – used to identify patterns with numbers in months**



- Board games that involve dice and spinners – incorporate various topics such as fractions & probabilities**



- A pack of traditional playing cards – introduce children to chance/probabilities**

- A calculator – check online for calculator games**

- Measuring jugs & scales – identifying values between the numbers given**



- Dried beans/macaroni/smarties – useful for counting**



There are many ways to show your child the importance of maths is universally recognised. Please remember, everyone's a mathematician!