



Stratosphere.

Edition 59: April 2019

STRATFORD-SUB-CASTLE CHURCH OF ENGLAND V.C. PRIMARY SCHOOL

The newsletter about learning! Help your child really take off!

Our commitment to learning is to make it ACTIVE and RELEVANT.

Maths Planet Booklets are part of home learning. They are designed to help children learn and become fluent in the recall of relevant **MATHS FACTS**. They also provide a framework to support progress in Maths. When used well, they help children to gain the knowledge which will support them forever! For example by Year 4 the ideal is for a pupil be able to recall the 7x table. By Year 6 they should be able to recall it at speed and to use it confidently, in different contexts.

Learning is made up of several small steps, all of which build and build, contributing to progress. Each step builds on prior learning. If children have 'gaps' in their learning it often leads to confusion and progress can falter. This is why it is important to ensure each piece of knowledge is embedded before moving on. Will the knowledge be remembered next week, next month and next year?

The Maths Planet Booklets have been carefully designed to ensure that children learn all the appropriate number facts for their year group (as outlined in the National Curriculum). This really helps children become confident in Maths as they move through school.

The facts in the **Maths Planet Booklets** are the essential building blocks of primary Maths. However, the truth is, they can take a long time to learn and the process may be challenging for some children. Lots of frequent practice is needed to make the facts 'stick'. It is therefore vital that children spend time at home going over and over and over them just as they might practice their reading and spellings. Little and often is the key to success!

The overall aim is for children to complete the relevant Planet Booklet(s) for their year group across the academic year. This allows time for concepts to become secure and understanding to deepen.

The National Curriculum is written so that children are working on objectives appropriate for their age group. However, when children have gaps in their learning (for whatever reason) teachers will adapt the Maths Planet Booklets to suit an individual pupil. In some instances, children may work on objectives from a previous year's Maths Planet Booklet until they secure the earlier learning. We aim to fill the gaps as quickly as possible, so that children are working at age appropriate levels.



Guidance for Parents:

- The Maths Planet Booklets are pitched in line with year group expectations. They contain the number objectives from the National Curriculum and these will be taught during the year in maths lessons. They are designed to support parents to reinforce this learning outside school.
- The children need to be *very* secure in their knowledge and ability to recall (quickly) in order to ‘achieve’ each objective.
- Your child’s teacher will indicate in the Maths Planet Booklet which facts need to be practised at home.
- Children need to show that the learning has been embedded. Once you feel your child is confident with the fact put a date in the ‘Home’ column. The dates in the ‘Home’ column must be *at least two weeks apart* to show they have practiced over a period of time.
- When a fact is tested in school, the teacher will either put a sticker on the ‘star’ on the front cover or date the completed fact to show your child has been tested and has been successful. **This can only be done in school!**

A few ideas to help you support your child:

- Encourage your child to spend a short amount of time every week practising a target.
- Remind them that it is not a race to complete the booklet – it is *much* more important to be secure with the facts.
- Be positive about maths! Even if you are not confident, never let your child hear you say “I was no good at maths when I was at school”...! All children can succeed in maths. We need to give them the confidence to feel the same way.
- When practising at home, please remember to go back to what has been previously learnt to see if your child has retained the knowledge!

The Front Cover

Initially, children need to have a secure understanding of the value of number, and need to be able to create numbers in different ways. These facts need to be recalled quickly.

- Number bonds – two numbers that add together to make a whole. e.g. $5 = 1 + 4$ or $3 + 2$
- Subtraction facts for number bonds – the reversal, e.g. $5 - 2 = 3$, $5 - 1 = 4$
- Doubles – children need to be able to mentally double numbers to 20, e.g. double 4 = 8, double 16 = 32
- Halves – the reversal of doubles facts. They need to be able to mentally half **even** numbers, e.g. $\frac{1}{2}$ of 14 = 7

In KS2 we focus on children having quick recall of their times tables facts, although they do begin learning these within KS1. You can practice by:

- writing/solving them in order
- writing/solving them ‘muddled up’
- quickfire reciting, e.g. $1 \times 2 = 2$, $2 \times 2 = 4$
- quickfire recall of any fact

Children also need to know the division facts for their times tables, e.g. if $3 \times 4 = 12$, $12 \div 4 = 3$. ‘BBC SuperMovers’ have times tables songs which are active and fun to help recite these facts.

The ‘Inside’ Facts

Inside each Planet Booklet, there are listed the relevant number knowledge and facts that each child needs to apply in their year group, as stated in the National Curriculum.

Below are pages for the facts for each Planet Booklet, and some ideas of how you can practice each fact.

Page 3 – Sun (Not a planet it’s a star!)

Page 4 – Mercury

Page 5 – Venus & Earth

Page 7 – Mars & Jupiter

Page 9 – Saturn & Uranus

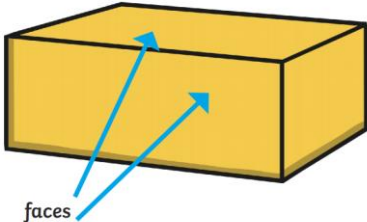
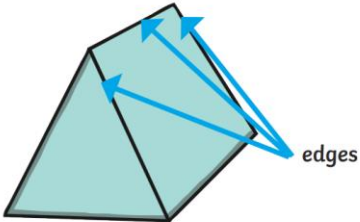
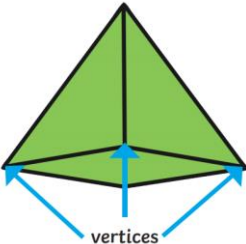
Page 11 – Neptune

Page 12 – Pluto







Sun – EYFS

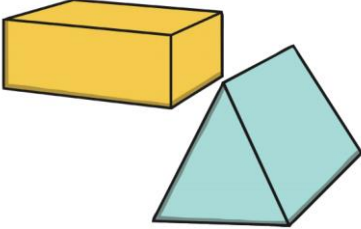
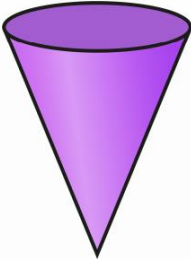
Number / measure fact	Further explanation /Ideas of how to practice..
Know the days of the week	Talk about the days of the week. If today is Monday, what day is it tomorrow / what day was it yesterday?
Know my birthday	Talk about the date, month and year of birth.
Name 'common' 2D shapes (circle, square, triangle and rectangle)	Look at shapes all around you, talk about the number of sides.
Count forwards in 1's to 10	Regular practice counting anything and everything!
Count backwards in 1s from 10	Sing counting songs (e.g., 1,2,3,4,5, once I caught a fish alive!) How many marbles are in this jar? How many socks are in the laundry basket?
Recognise numerals 0-10	Notice numbers in the world around them (House numbers, buses, clocks etc.) Have a number line displayed in a prominent place.
Order numerals 1-10	Order magnetic numbers on the fridge. Pictures of football shirts with numbers on back.
Say 1 more than a given number to 10	Here are seven beads in this pot. If I put one More in the pot how many would there be?
Say 1 less than a given number to 10	There are 6 apples in the fruit bowl. I am taking one out, so how many are left?
Count forwards in 1's to 20	Use the same ideas as above but extend the numbers you count or recognise further. Counting backwards is just as important as counting forwards!
Count backwards in 1s from 20	
Recognise numerals 0-20	
Order numerals 1-20	
Say 1 more than a given number to 20	
Say 1 less than a given number to 20	

Mercury – Year One

Number / measure fact	Further explanation / Ideas of how to practice..
Count forwards to, and across 100 beginning with 0 or 1.	
Count in 2's to 20 forwards and backwards.	Use 2p coins, or objects in pairs such as socks
Count in 10's to 100 forwards and backwards.	Play a 'clapping' game with your hands so you're using 10 fingers, use 10p coins
Count backwards from 100 to 0 or 1.	
Count forwards and backwards to and across 100 from any given number.	Start at any number to count forwards or back
Read and write numbers to 100 in numerals.	Notice numbers all around and ask what they are, including digital clocks, speed signs, bus timetables etc.
Count in 5's to 100 forwards and backwards.	Play a 'clapping' game using one hand at a time for 5 fingers, use 5p coins
Say 1 or 2 more/less than a given number to 20	What is 2 more than 16? What is 1 less than 18? This needs to be quick recall!
Say if a number is odd or even.	Remind children that counting in 2's is counting our even numbers
Know the months of the year in order	Talk about the months, which months certain events or birthdays are in and how many months away things are, e.g. Christmas
Know my date of birth ('long' and digital version)	Long – 13 th April 2012 Short – 13.04.12
Recognise all coins values	Play 'shops' at home and use real coins and notes.
Recognise all note values	
Recognise and name common 2D shapes (rectangle, square, circle and triangles)	Look at shapes in the environment and count how many sides and corners they have, e.g. a square has 4 sides and 4 corners
Recognise and name common 3D shapes (cuboids, cubes, pyramids and spheres)	<p>Look at shapes in the environment and talk about how many faces, vertices and edges they have</p> <div style="display: flex; justify-content: space-around; align-items: flex-start;"> <div style="text-align: center;">  <p data-bbox="683 1377 727 1402">faces</p> <p data-bbox="683 1436 1008 1493">Faces are the flat surfaces on a shape.</p> </div> <div style="text-align: center;">  <p data-bbox="1377 1325 1437 1350">edges</p> <p data-bbox="1089 1467 1455 1499">Edges are where 2 faces meet.</p> </div> </div> <div style="text-align: center; margin-top: 20px;">  <p data-bbox="786 1730 857 1755">vertices</p> <p data-bbox="639 1782 1019 1837">Vertices are the corners of a 3D shape, where 2 or more edges meet.</p> </div>

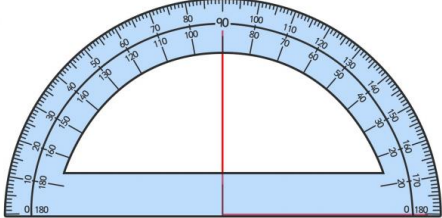








Venus and Earth – Year Two

Number / measure fact	Further explanation / Ideas of how to practice...
Read and write numbers from 1 to 20 in words.	When writing as an answer in numerals, ask your child if they can also spell the word
Count in steps of 2, 3, and 5 from 0.	This is the start of learning times tables, practice the counting patterns as far as you can go!
Count in tens from any number forwards and backwards.	e.g. 22, 32, 42, 52, 62.... 76, 66, 56, 46...
Recognise the place value of each digit in a two digit number (tens/ones)	24 = 2 tens and 4 ones so 20 and 4 38 = 3 tens and 8 ones so 30 and 8
Recall multiplication and division facts for the 2x table.	Start with writing these in order and using the counting pattern to solve, then move onto quicker recall and reciting aloud. Know numbers in this times table are even. Division facts – $20 \div 2 = 10$, $12 \div 2 = 6$
Compare and order numbers using <, >, = up to 100.	e.g. $34 > 12$ shows 34 is greater than 12 $16 < 51$ shows 16 is less than 51 $45 = 45$ shows these values are equal
Recall multiplication and division facts for the 5x table. Look for patterns such as odd and even numbers.	Start with writing these in order and using the counting pattern to solve, then move onto quicker recall and reciting aloud Know numbers in this times tables end in 0 (even) and 5 (odd) Division facts – $50 \div 5 = 10$, $25 \div 5 = 5$
Recall multiplication and division facts for the 10x table. Look for patterns such as odd and even numbers.	Start with writing these in order and using the counting pattern to solve, then move onto quicker recall and reciting aloud. Know numbers in this times table end in 0 (all even). Division facts – $50 \div 10 = 5$, $30 \div 10 = 3$
Recall all bonds of multiples of 10 up to 100.	Know number bonds to 100, e.g. $10 + 90 = 100$ Know number bonds for 10, 20, 30 etc, e.g. $40 = 20 + 20$, $40 - 10 = 30$ etc.
Recognise all coin values and note values	These are facts that need to be recalled from Mercury (Year One).
Know the months of the year in order	
Know my date of birth ('long' and digital version)	
Know the number of minutes in an hour.	
Know the number of hours in a day.	24 hours = 1 day
Know 100cm = 1m	Try finding out what at home is 1m long. Our garden is 5m long, how many cm would that be?
Recognise a quadrilateral.	<p>A quadrilateral is a 2D shape that is closed with four sides.</p> <p>The shapes below are all types of quadrilaterals.</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p>Parallelogram</p> </div> <div style="text-align: center;">  <p>Rectangle</p> </div> <div style="text-align: center;">  <p>Rhombus</p> </div> </div> <div style="display: flex; justify-content: space-around; align-items: center; margin-top: 10px;"> <div style="text-align: center;">  <p>Square</p> </div> <div style="text-align: center;">  <p>Trapezium (UK)</p> </div> <div style="text-align: center;">  <p>Kite</p> </div> </div>

Recognise a polygon.	<p>A polygon is any 2D shape with straight sides, e.g. triangle, square, rectangle, pentagon, hexagon, heptagon, octagon.</p> <p>If the shapes are the same length it is regular, if the shapes are different lengths it is irregular</p>
Recognise a prism.	 <p>A prism always has the same shape at both ends.</p>
Recognise a cone.	<p>cone</p> 

Mars and Jupiter - Year Three

Number / measure fact	Further explanation / Ideas of how to practice...
Count in multiples of 50 from 0	50, 100, 150, 200, 250...
Count in multiples of 100 from 0.	100, 200, 300, 400, ...
Find 10 or 100 more than a given number.	10 more than 357 is 367, 100 more than 234 is 334, 10 more than 145 is 155
Find 10 or 100 less of a given number.	10 less than 432 is 422, 100 less 467 is 367, 10 less than 198 is 188
Compare and order numbers up to 1,000.	Using < > to show numbers that are greater than or less than, e.g. 345 < 672
Recall multiplication and division facts for 4 times tables.	Start with writing these in order and using the counting pattern to solve, then move onto quicker recall and reciting aloud. Know numbers in this times table are even. Division facts: $12 \div 4 = 3$, $28 \div 4 = 7$
Recall multiplication and division facts for the 8 times tables	Start with writing these in order and using the counting pattern to solve, then move onto quicker recall and reciting aloud. Know numbers in this times table are even. Division facts: $56 \div 8 = 7$, $24 \div 8 = 3$
Read Roman Numerals (1 to 12)	I = 1 II = 2 III = 3 IV = 4 V = 5 VI = 6 VII = 7 VIII = 8 IX = 9 X = 10 XI = 11 XII = 12
Count in multiples of 4 from 0.	4, 8, 12, 16, 20, 24...
Count in multiples of 8 from 0.	8, 16, 24, 32, 40...
Recognise the place value of each digit in a three digit number (hundreds, tens, ones).	$152 = 100 + 50 + 2$, 298 has 9 tens etc
Recall multiplication and division facts for the 3 times table.	Start with writing these in order and using the counting pattern to solve, then move onto quicker recall and reciting aloud. Know numbers in this times table are even. Division facts: $18 \div 3 = 6$, $24 \div 3 = 8$
Count in fractions to 10 starting from any number and using the $\frac{1}{2}$ and $\frac{2}{4}$ equivalence.	e.g. $3, 3\frac{1}{2}, 4, 4\frac{1}{2}, 5, 5\frac{1}{2}$... $6\frac{1}{4}, 6\frac{3}{4}, 7\frac{1}{4}, 7\frac{3}{4}$... $3, 3\frac{2}{4}, 4, 4\frac{2}{4}, 5$...
Know by heart all sums and differences of multiples of 10 to 100	e.g. $60 + 30 = 90$, $70 + 80 = 150$, $20 + 90 = 110$, $70 - 20 = 50$, $90 - 60 = 30$, $40 - 30 = 10$
Double any two-digit number.	e.g. double 34 = 68, double 65 = 130
Halve any two-digit number.	Reversal of the above facts, even numbers only
Know 60 secs in 1 minute.	60 secs in a 1 minute; 120 secs in 2 minutes
Know how many days in each month.	<i>30 days has September, April, June and November. All the rest have 31 Except February alone, Which has 28 days clear And 29 in each leap year.</i>
Know how many days in a year and leap year.	365 days in a year, 366 days in a leap year

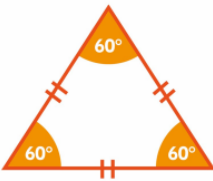

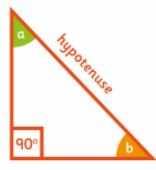
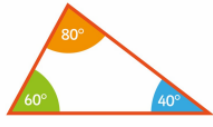
<p>Identify a right angle.</p>	<p>Right Angle</p> <p>A right angle is 90°.</p> 		
<p>Identify horizontal and vertical lines.</p>	<table border="1"> <tr> <td data-bbox="618 344 987 657"> <p>Vertical</p>  <p>Straight line up and down</p> </td> <td data-bbox="1003 344 1372 657"> <p>Horizontal</p>  <p>Straight line left and right</p> </td> </tr> </table>	<p>Vertical</p>  <p>Straight line up and down</p>	<p>Horizontal</p>  <p>Straight line left and right</p>
<p>Vertical</p>  <p>Straight line up and down</p>	<p>Horizontal</p>  <p>Straight line left and right</p>		
<p>Identify pairs of perpendicular lines.</p>	<p>Perpendicular</p>  <p>Lines that meet at a right angle (90°)</p>		
<p>Identify pairs of parallel lines.</p>	<p>Parallel</p>  <p>Lines that will never meet and are always the same distance apart.</p>		
<p>Know $10\text{ mm} = 1\text{ cm}$</p> <p>Know $50\text{ cm} = \frac{1}{2}\text{ m}$</p> <p>Know $25\text{ cm} = \frac{1}{4}\text{ m}$</p>	<p>Quick recall of these facts is needed to apply to problem solving</p>		

Saturn and Uranus – Year Four


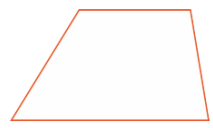

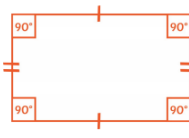

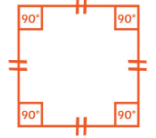
Number / measure fact	Further explanation / Ideas of how to practice...
Count in multiples of 6.	6, 12, 18, 24, 30, 36...
Count in multiples of 7.	7, 14, 21, 28, 35, 42...
Count backwards through 0 to include negative numbers.	5, 4, 3, 2, 1, 0, -1, -2, -3
Recognise the place value of each digit in a four digit number.	4563 = 4 thousands, 5 hundreds, 6 tens and 3 ones 1876 = 1000 + 800 + 70 + 6
Order and compare numbers beyond 1000.	e.g. 123, 673, 8549, 99361 or using < > so 14387 > 10254
Recall multiplication and division facts for the 6x table.	Start with writing these in order and using the counting pattern to solve, then move onto quicker recall and reciting aloud. Know numbers in this times table are even. Division facts: $36 \div 6 = 6$, $72 \div 6 = 12$
Recall multiplication and division facts for the 7x table.	Start with writing these in order and using the counting pattern to solve, then move onto quicker recall and reciting aloud. Know numbers in this times table are even. Division facts: $56 \div 7 = 8$, $21 \div 7 = 3$
Multiply numbers by 10 and 100	e.g. $12 \times 10 = 120$, $47 \times 100 = 4700$
Read Roman numerals to 12.	I = 1 II = 2 III = 3 IV = 4 V = 5 VI = 6 VII = 7 VIII = 8 IX = 9 X = 10 XI = 11 XII = 12
Count in multiples of 9.	9, 18, 27, 36, 45, 54...
Count in multiples of 25.	25, 50, 75, 100, 125, 150, 175, 200...
Count forwards and backwards in hundredths.	1/100, 2/100, 3/100, 4/100, 5/100,
Count in multiples of 1000.	1000, 2000, 3000, 4000, 5000...
Understand the effect of dividing a one or two digit number by 10 or 100 (identify the value of the digits as ones, tenths, hundredths)	e.g. $12 \div 10 = 1.2$ so 1 and 2 tenths $47 \div 100 = 0.47$ so 4 tenths and 7 hundredths
Recall multiplication and division facts for the 9x table.	Start with writing these in order and using the counting pattern to solve, then move onto quicker recall and reciting aloud. Know numbers in this times table are even. Division facts – $54 \div 9 = 6$, $81 \div 9 = 9$
Recall multiplication and division facts for the 11x table.	Start with writing these in order and using the counting pattern to solve, then move onto quicker recall and reciting aloud. Know numbers in this times table are even. Division facts – $66 \div 11 = 6$, $88 \div 11 = 8$
Recall multiplication and division facts for the 12x table.	Start with writing these in order and using the counting pattern to solve, then move onto quicker recall and reciting aloud. Know numbers in this times table are even. Division facts: $36 \div 12 = 3$, $72 \div 12 = 6$
Know by heart the decimals for $\frac{1}{4}$, $\frac{1}{2}$ and $\frac{3}{4}$	$\frac{1}{4} = 0.25$ $\frac{1}{2} = 0.5$ $\frac{3}{4} = 0.75$
Read Roman numerals to 50	I = 1 V = 5 X = 10 L = 50 so 21 = XXI 34 = XXXIV 47 = XLVII

Know 1000m = 1km	These facts need to be recalled quickly so they can be applied to problem solving
Know 1000ml = 1l	
Know 1000g = 1kg	
Know 500m = 1/2km	
Know 250m = 1/4km	
Know 500ml = 1/2l	
Know 250ml = 1/4l	
Know 500g = 1/2kg	
Know 250g = 1/4kg	

Name types of triangles (isosceles, equilateral and scalene)

<p>equilateral</p>  <p>3 equal sides 3 equal angles (60°)</p>	<p>isosceles</p>  <p>2 equal sides 2 equal angles</p>
<p>right angle</p>  <p>One angle is a right angle (90°) Two other angles add up to 90° The longest side is called the hypotenuse</p>	<p>scalene</p>  <p>All sides are different All angles are different</p>

Name types of quadrilaterals (parallelogram, rhombus and trapezium)

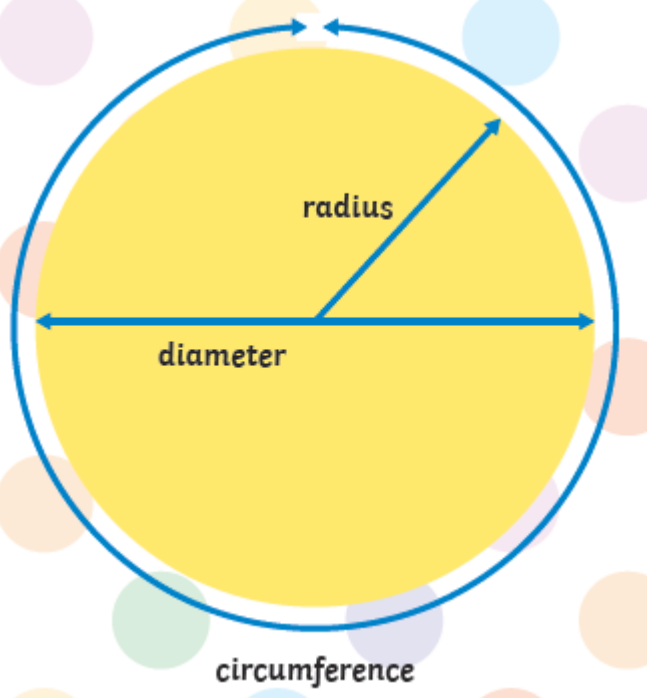
<p>parallelogram</p>  <p>2 pairs of equal sides Diagonally opposite angles are equal</p>	<p>trapezium</p>  <p>1 pair of sides are parallel</p>	<p>rhombus</p>  <p>All sides are equal Diagonally opposite angles are equal</p>
<p>rectangle</p>  <p>2 pairs of equal parallel sides 4 right angles (90°)</p>	<p>kite</p>  <p>2 pairs of sides of equal length 1 pair of opposite angles is equal.</p>	<p>square</p>  <p>4 equal parallel sides 4 right angles (90°)</p>

Neptune – Year Five

Number / measure fact	Further explanation / Ideas of how to practice...
Count using simple fractions and decimals forwards and backwards bridging zero.	3, 2 ½, 2, 1 ½, 1, ½, 0 0.5, 0.4, 0.3, 0.2, 0.1, 0, -0.1, -0.2 -0.3
Read, write, order and compare numbers to at least 1 000 000 and say the value of each digit.	Identify ones, tens, hundreds, thousands, tens of thousands etc. 13, 123 has 3 thousands
Know by heart all the squares of numbers between 1 and 12.	e.g. $1 \times 1 = 1$, $4 \times 4 = 16$, $6 \times 6 = 36$
Recognise and use cube numbers and notation.	e.g. $3 \times 3 \times 3 = 27$ or $3^3 = 27$, $5 \times 5 \times 5 = 125$ or $5^3 = 125$
Count forwards and backwards in steps of 10 for any given number up to 1 000 000.	345, 355, 365, 375... 12345, 12355, 12365, 12375... 99999, 99989, 99979, 99969...
Compare numbers with the same numbers of decimal places (up to two decimal places).	e.g. $12.34 > 12.13$ $5.27 < 6.01$
Read Roman numerals up to 100.	I = 1 V = 5 X = 10 L = 50 C = 100 so 47 = XXXXVII 89 = LXXXIX 90 = XC
Know 2.5 cm = 1 inch (approximately).	Quick recall of these facts is needed to apply to problem solving
Know 0.45kg = 1lb (approximately)	
Know 1pt = 560 ml (approximately)	
Know 3.3 ft = 1m	
Know 180° in a triangle.	
Know 360° is a turn.	
Know 180° is 1/2 a turn	
Conversion between metric units (mm ↔ cm; cm ↔ m; g ↔ kg; ml ↔ l)	This is consolidation of facts from Saturn / Uranus (Year Four)

Pluto – Year Six

Number / measure fact	Further explanation / Ideas of how to practice...
Multiply and divide whole numbers and decimals by 10, 100, 1000.	e.g. $24 \times 1000 = 24,000$ $1.3 \times 100 = 130$ $53 \div 1000 = 0.053$ $3.4 \div 100 = 0.034$
Read, write, order and compare numbers with up to three decimal places.	e.g. $13.546 > 2.876$
Know by heart all the squares of multiples of 10.	e.g. $20 \times 20 = 400$, $90 \times 90 = 8100$
Identify the value in each digit in numbers given to three decimal places.	$234.981 = 200 + 30 + 4 + 0.9 + 0.08 + 0.001$
Read, write, order and compare numbers up to 10 000 000 and say the value of each digit.	7,256,124 is seven million, two hundred and fifty six thousand and one hundred and twenty four. Order numbers up to 10 million.
Recognise and recall factors of numbers up to 100 and corresponding multiples of 100.	<p>A multiple is a number that can be divided by another number a certain number of times without a remainder.</p> <p>A factor is one of two or more numbers that divides a given number without a remainder.</p> <p>Multiples and factors are best explained by using a number sentence such as the following:</p> <div style="text-align: center;"> <p style="font-size: 1.5em; color: red; font-weight: bold;">5 x 4 = 20</p> <p style="color: red; font-weight: bold;">factor of 20 factor of 20 multiple of 4 multiple of 5</p> </div> <p>This number sentence tells us that 20 is a multiple of 5 and is also a multiple of 4.</p> <p>It also tells us that 5 and 4 are factors of 20.</p>
Find all factor pairs.	This means pairs of numbers that when multiplied make the same total e.g. to make 20: 1×20 , 2×10 , 5×4
Recall prime numbers up to 19.	2, 3, 5, 7, 11, 13, 17, 19 Numbers that only have 1 and themselves as factors.
Identify common factors, common multiples and prime numbers.	Using times tables facts learnt to find this information of any number. What is a common factor between 12 and 24? 2, 4 or 6!
Double and halve any number with one decimal place.	Doubling and halving odd and even numbers!
Know the equivalence of simple fractions, decimals and percentages.	e.g. $\frac{1}{2} = 0.5 = 50\%$, $\frac{1}{10} = 0.1 = 10\%$, $\frac{1}{5} = 0.2 = 20\%$
Know 8km = 5 miles	Recall of these facts is needed to apply to problem solving

<p>Know formula for calculating diameter of a circle ($d = 2r$)</p>	 <p>The diagram shows a yellow circle with a blue outline. A horizontal blue line with arrows at both ends passes through the center, labeled 'diameter'. A blue line with an arrow at the end extends from the center to the top-right edge, labeled 'radius'. A blue arrow follows the outer edge of the circle, labeled 'circumference'.</p>
<p>know formula for calculating area of a circle ($A = \pi r^2$)</p>	
<p>Know formula for calculating circumference of a circle ($c = 2\pi r$)</p>	
<p>Conversion between metric units (mm \leftrightarrow cm; cm \leftrightarrow m; g \leftrightarrow kg; ml \leftrightarrow l)</p>	<p>This is consolidation of measures facts taught during KS2.</p>
<p>Know 2.5 cm = 1 inch (approximately).</p>	
<p>Know 0.45kg = 1lb (approximately)</p>	
<p>Know 1pt = 560 ml (approximately)</p>	
<p>Know 3.3 ft = 1m</p>	
<p>Know 180° in a triangle.</p>	
<p>Know 360° is a turn.</p>	
<p>Know 180° is 1/2 a turn</p>	