

**Maths Passport stages for parents**

<b>Stage 1 - Neptune</b>	<b>Examples</b>	<b>Can your child answer these questions?</b>
Say the numbers in order to 20		How many marbles are in this jar? Start at the number 7, and then count on until you reach 20.
Say 1 more than any number between 0 and 20	1 more than 4 is 5	There are seven beads in this pot. If I put one more in the pot how many would there be?
Say 1 less than any number between 1 and 20	1 less than 8 is 7	There are ten beads in the pot. I am taking one bead out of the pot now – how many are left?

<b>Stage 2 - Uranus</b>	<b>Examples</b>	<b>Can your child answer these questions?</b>
Know by heart all number bonds to 10	$0+10 = 10$ $1+9 = 10$ $2+8 = 10$ $3+7 = 10$ $4+6 = 10$ $5+5 = 10$ $6+4 = 10$ $7+3 = 10$ $8+2 = 10$ $9+1 = 10$ $10+0 = 10$	What would you add to 7 to get a total of 10?  Use number cards from 1 to 9 – can you pair the numbers which make 10?  How many pairs of numbers can you remember that make a total of 10?
Count in twos	2,4,6,8,10 etc	How far can you count in twos? What number would follow in this sequence: 6,8,10,12....? How far can you continue the sequence What about this sequence? 18,16,14,... What would come next? Can you get back to 0?
Count in tens	10,20,30,40 etc	How far can you count in tens? What number would follow in this sequence: 40,50,60, ....? How far can you continue the sequence What about this sequence? 90,80,70,... What would come next? Can you get back to 0?
Count in fives	5,10,15,20,25 etc	How far can you count in fives? What number would follow in this sequence: 45,50,55,60, ....? How far can you continue the sequence What about this sequence? 80,75,70,65,... What would

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		come next? Can you get back to 0?
Recall the doubles of all numbers to at least ten	Double 1 is 2 Double 2 is 4 .... Up to Double 10 is 20 And beyond...	I roll double 3 – what is my score? Pick a number, and then double it. What is the largest number you can double? Explain how you know your answer is right... I doubled a number and got 18... which number did I double?

<b>Stage 3 - Saturn</b>	<b>Examples</b>	<b>Can your child answer these questions?</b>
Know by heart all number bonds that total 20	$0 + 20 = 20$ $1 + 19 = 20$ $2 + 18 = 20$ Up to.... $19 + 1 = 20$ $20 + 0 = 20$	How many pairs of numbers which total 20 can you remember? What would you add to 4 to get a total of 20? Use number cards from 1 to 19 – can you pair the numbers which make 20?
Know by heart all bonds of multiples of 10 up to 100	$0+100 = 100$ $10+90 = 100$ $20+80 = 100$ $30+70 = 100$ $40+60 = 100$ $50+50 = 100$ $60+40 = 100$ $70+30 = 100$ $80+20 = 100$ $90+10 = 100$ $100+0 = 100$	Look at these multiples of 10... which pairs give a total of 100? 0 10 20 30 40 50 60 70 80 90 100
Know by heart doubles of all numbers to 20	$1+1 = 2$ (double 1) $2+2 = 4$ (double 2) Up to $19+19 = 38$ (double 19) $20+20 = 40$ (double 20)	I think of a number, then I halve it and get 15, what number was I thinking of? Pick a number, and then double it. What is the largest number you can double? Explain how you know your answer is right... Roll 2 numbers on a die, add them together, and then double it. What must I double to get 16? 22? 36?
Know by heart all halves of numbers to 20	Halves of all the even numbers up to 40 – this is the inverse or opposite of the above objective Half 2 is 1 Half 4 is 2 Half 6 is 3	I think of a number and double it, the answer is 18, what number did I start with? What number must I halve to get 8? 13? 19?

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	Etc... up to Half 18 is 9 Half 20 is 10	Mina has 32 stickers, she gives half of them to her brother – how many stickers does she give him?
Know by heart all multiplication facts for 2 up to 2x10	0 x 2 = 0 1 x 2 = 2... Up to 10 x 2 = 20	Which is the number before 16 in the 2x table? What is the answer to 6x2? 9x2?

<b>Stage 4 - Jupiter</b>	<b>Examples</b>	<b>Can your child answer these questions?</b>
Know by heart all division facts for 2 up to 20	20 ÷ 2 = 10 18 ÷ 2 = 9... Down to 0 ÷ 2 = 0	What is the answer to 16 ÷ 2? 8 ÷ 2? Which is the missing number: ? x 2 = 18? How do you know?
Know by heart all multiplication facts for 10 up to 10x10	0 x 10 = 0 1 x 10 = 10... Up to 10 x 10 = 100	Which is the number before 80 in the 10x table? What is the answer to 6x10? 8x10?
Know by heart all division facts for 10 up to 100	100 ÷ 10 = 10 90 ÷ 10 = 9... Down to 0 ÷ 10 = 0	What is the answer to 70 ÷ 10? 40 ÷ 10? Which is the missing number: ? x 10 = 60? How do you know?
Know by heart all multiplication facts for 5 up to 5x10	0 x 5 = 0 1 x 5 = 5... Up to 10 x 5 = 50	Which is the number before 40 in the 5x table? What is the answer to 6x5? 8x5?
Know by heart all division facts for 5 up to 50	50 ÷ 5 = 10 45 ÷ 5 = 9... Down to 0 ÷ 5 = 0	What is the answer to 35 ÷ 5? 40 ÷ 5? Which is the missing number: ? x 5 = 25? How do you know?

<b>Stage 5 - Mars</b>	<b>Examples</b>	<b>Can your child answer these questions?</b>
Know by heart all sums and differences of multiples of 10 up to 100	60 + 30 = 90 70 + 80 = 150 20 + 90 = 110 70 - 20 = 50 90 - 60 = 30 40 - 30 = 10	Add 80 and 30, tell me how you did it. Tell me all the number pairs you know with multiples of 10 which make 90. What is the difference between 20 and 80? Look at these multiples of 10... which pairs give a total of 100? 0 10 20 30 40 50 60 70 80 90 100
Know by heart all number	63 + 37 = 100	What must you add to 62p to

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bonds that total 100	$41 + 59 = 100$ $17 + 83 = 100$	make £1? I cut 35 cm off a 1m long piece of string. How much is left?
Know by heart all multiplication facts for 3 up to 10x3	$0 \times 3 = 0$ $1 \times 3 = 3...$ Up to $10 \times 3 = 30$	Which is the number before 30 in the 10x table? What is the answer to $6 \times 3$ ? $8 \times 3$ ?
Know by heart all division facts for 3 up to 30	$30 \div 3 = 10$ $27 \div 3 = 9...$ Down to $0 \div 3 = 0$	What is the answer to $27 \div 3$ ? $15 \div 3$ ? Which is the missing number: $? \times 3 = 18$ ? How do you know?
Know by heart all multiplication facts for 4 up to 4x10	$0 \times 4 = 0$ $1 \times 4 = 4...$ Up to $10 \times 4 = 40$	Which is the number before 16 in the 4x table? What is the answer to $6 \times 4$ ? $9 \times 4$ ?

<b>Stage 6 - Earth</b>	<b>Examples</b>	<b>Can your child answer these questions?</b>
Know by heart all division facts for 4 up to 40	$40 \div 4 = 10$ $36 \div 4 = 9...$ Down to $0 \div 4 = 0$	What is the answer to $16 \div 4$ ? $36 \div 4$ ? Which is the missing number: $? \times 4 = 28$ ? How do you know?
Know by heart all multiplication facts for 8 up to 8x10	$0 \times 8 = 0$ $1 \times 8 = 8...$ Up to $10 \times 8 = 80$	Which is the number before 56 in the 8x table? What is the answer to $6 \times 8$ ? $5 \times 8$ ?
Know by heart all division facts for 8 up to 8x10	$80 \div 8 = 10$ $72 \div 8 = 9...$ Down to $0 \div 8 = 0$	What is the answer to $16 \div 8$ ? $64 \div 8$ ? Which is the missing number: $? \times 8 = 72$ ? How do you know?
Know by heart all multiplication facts for 6 up to 6x10	$0 \times 6 = 0$ $1 \times 6 = 6...$ Up to $10 \times 6 = 60$	Which is the number before 36 in the 6x table? What is the answer to $6 \times 6$ ? $8 \times 6$ ?
Know by heart all division facts for 6 up to 6x10	$60 \div 6 = 10$ $54 \div 6 = 9...$ Down to $0 \div 6 = 0$	What is the answer to $36 \div 6$ ? $48 \div 6$ ? Which is the missing number: $? \times 6 = 24$ ? How do you know?
Recognise multiples of 2, 5 and 10 up to 1000	24 is a multiple of 2 35 is a multiple of 5 500 is a multiple of 2, 5 and 10	Can you tell me some numbers which divide exactly by 2? By 5? By 10? How do you know?  Which of these numbers are multiples of 2? How do you know? 18 25 40 65 120 375 468 700 Which are multiples of 5? Multiples of 10? How do you know?

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<b>Stage 7 - Venus</b>	<b>Examples</b>	<b>Can your child answer these questions?</b>
Double any 2 digit number	Double 26 = 52 Double 97 = 194	Which numbers are missing in this sequence? 17 34 ? 136 ? I think of a number and half it – the answer is 55. Which number was I thinking of? How do you know?
Halve any 2 digit number	(EVEN numbers only) Half 48 = 24 Half 86 = 43 Half 96 = 48	Which numbers are missing in this sequence? 96 ? 24 ? ? Use the number 86 to explain what doubling and halving mean.
Know by heart all multiplication facts for 9 up to 9x10	0 x 9 = 0 1 x 9 = 9... Up to 10 x 9 = 90	Which is the number before 54 in the 9x table? What is the answer to 6x9? 9x9?
Know by heart all division facts for 9 up to 90	90 ÷ 9 = 10 81 ÷ 9 = 9... Down to 0 ÷ 9 = 0	What is the answer to 36÷9? 72÷9? Which is the missing number: ? x 9 = 27? How do you know?
Know by heart all multiplication facts for 7 up to 7x10	0 x 7 = 0 1 x 7 = 7... Up to 10 x 7 = 70	Which is the number before 56 in the 7x table? What is the answer to 6x7? 5x7?
Know by heart all division facts for 7 up to 70	70 ÷ 7 = 10 63 ÷ 7 = 9... Down to 0 ÷ 7 = 0	What is the answer to 14÷7? 63÷9? Which is the missing number: ? x 7 = 63? How do you know?

<b>Stage 8 - Mercury</b>	<b>Examples</b>	<b>Can your child answer these questions?</b>
Double any number with up to 1 decimal place	Double 5.7 Double 12.6	Which number did you double to get the answer 3.8? How do you know?
Halve any number with up to 1 decimal place	Halving any number with an even digit decimal. Halve 7.2 Halve 9	If I halve 2.6 litres of juice into two jugs, how much juice in each jug?
Recall quickly multiplication facts up to 10x10	3x8 6x7 9x4	Which is the missing number? 6x ? = 42 The answer is 36 – which multiplication sum could it be?
Know the factors of all timetable answers up to 10x10	The factors of 21 are 21 and 1, 3 and 7  The factors of 24 are 1 and 24, 2 and 12, 3 and 8, 4 and 6	Is 6 a factor of 38? How do you know?

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<b>Stage 9 – The Sun</b>	<b>Examples</b>	<b>Can your child answer these questions?</b>
Know by heart all the squares of numbers between 1 and 12	1 squared is 1 6 <sup>2</sup> 11 squared is 121	Can you tell me all the square numbers between 50 and 100? A number squared is 49, what is the number?
Know by heart all squares of multiples of 10 up to 100 squared	30 squared is 900 90 <sup>2</sup>	What would be the answer to 40 squared? Can you explain how you got your answer?
Recognise and recall factors of numbers up to 100 and corresponding multiples of 100	The factors of 24 are 1,2,4,2,12,3,8,4,6	Which is the missing number? $6x \ ? = 42$ The answer is 36 – which multiplication sum could it be?

<b>Stage 10 – Outer Space</b>	<b>Examples</b>	<b>Can your child answer these questions?</b>
Simplify fractions	$\frac{5}{10}$ can be simplified to $\frac{1}{2}$ $\frac{5}{20}$ can be simplified to $\frac{1}{4}$	How can we simplify...? Which of these fractions is the simplified version of...?
Know how to calculate fractions of quantities or measurements	$\frac{1}{2}$ of 30 is 15 $\frac{1}{3}$ of 30 is 10 $\frac{2}{3}$ of 30 is 20 $\frac{1}{4}$ of £20 is £5	What is... of...? How did you get your answer? If I have £20 and I spend $\frac{1}{2}$ of it. How much do I have left?
Find simple percentages (50%, 25%, 10% or 20%) of quantities or measurements	50% of 120cm is 60cm 25% of 60 is 15 10% of 80cm is 8cm	What is 50% of ...? If I use 20% of my 100cm long piece of string, how much have I used? How much is left?