

SMIRFs (Space Mission Instant Recall Facts)

Astronaut selection

Learning Objectives	Child	Parent	Teacher
Can say all numbers in order, to 10			
Can read numbers from 1 to 5			
Can count 3 or 4 objects			
Can count six objects from a larger group			
Can read numbers from 1 to 10			
Counts objects to 10			
Can count objects higher than 10			

Launch Pad

Learning Objective	Child	Parent	Teacher
Can count from 0 to 20			
Can read numbers 1 to 20			
Can say which number is 1 more than any number between 0-20 E.g 1 more than 7 is 8			
Can say which number is 1 less than any number between 0-20 E.g 1 less than 7 is 6			
Say 1 more and 1 less than any number over 10 E.g 1 more than 23 is 24			
Can count in twos E.g 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24....			
Can count in fives E.g 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60....			
Can count in tens E.g 10, 20, 30, 40, 50, 60, 70, 80, 90, 100			

Mercury

Learning Objective	Child	Parent	Teacher
To know by heart all number bonds to 10 e.g which 2 numbers add up to 10 E.g $7 + 3$, $2 + 8$, $4 + 6$...			
To know the days of the week, months of the year and seasons in order.			
To know by heart all addition and subtraction facts for each number from 1 to 5. E.g $5 + 0$, $5 - 0$, $4 + 1$, $4 - 1$, $3 + 1$, $3 - 1$, $2 + 1$, $2 - 1$...			
To know the doubles for each number from 1 to 10. E.g <i>double 1 is 2, double 2 is 4, double 3 is 6</i>			
Know by heart all number bonds that total 20. E.g <i>which 2 numbers add up to 20, $13 + 7 = 20$, $12 + 8 = 20$</i>			
To know by heart all addition and subtraction facts for each number up to 10 E.g $10 - 1 = 9$, $10 + 1 = 11$			

Venus

Learning Objective	Child	Parent	Teacher
Know by heart all bonds of multiples of 10 to 100			
To know the doubles and halves for every number from 2-20 E.g <i>double 2 is 4, half of 2 is 1</i>			
Can count in tens from any number, forward or backward E.g <i>11,21,31,41 or 63,53,43,33,23,13,3</i>			
To know by heart all addition and subtraction facts for each number up to 20 E.g $20 + 1 = 21$, $20 - 1 = 19$			
Know by heart the 2 times tables and the division fact E.g $4 \times 2 = 8$ so $8 \div 2 = 4$			
Know by heart the 5 times tables and the division fact E.g $6 \times 5 = 30$ so $30 \div 5 = 6$			
Know by heart the 10 times tables and the division fact E.g $7 \times 10 = 70$ so $70 \div 10 = 7$			

Earth

Learning Objective	Child	Parent	Teacher
Know all the adds and take aways of multiples of 10 up to 100. E.g 60- 40, 20 + 40 etc.			
To know by heart all the 2 numbers that add up to 100 (number bonds that total 100) E.g 45+ 55 = 100 or 32 + 68 =100			
Know by heart all doubles of numbers ending in 5 (multiples of 5) up to 95 Eg <i>double 45, double 15</i>			
Know by heart all doubles of numbers ending in 0(multiples of 10) up to 100... <i>double 30,double 20, 30</i>			
Know by heart all halves of all multiples of 10 up to 100... <i>halve 60, halve 70</i>			
Know by heart the 3 times tables and the division fact. E.g $3 \times 3 = 9$ so $9 \div 3 = 3$			
Know by heart the 4 times tables and the division fact , e.g $4 \times 8 = 32$ so $32 \div 4 = 8$			

Mars

Learning Objective	Child	Parent	Teacher
Know the number of seconds in a minute, minutes in an hour and hours in a day			
Know the number of days in a week, month and year, including leap years			
Know the number of grams in kilograms, millilitres in litres, millimetres in centimetres, centimetres in metres and metres in kilometres			
Count from zero in steps of 4 E.g 4, 8, 12, 16			
Count from zero in steps of 8 E.g 8, 16, 24, 32			
Count from zero in steps of 50 50, 100, 150 200			
Count from zero in steps of 100 100, 200, 300, 400			

Jupiter

Recognise which numbers are in the 2, 5 and 10 times tables up to 100 (multiples of 2, 5, and 10) E.g 20 is a multiple of 2, 5, and 10 or 24 is a multiple of 2			
Double any 2 digit number... <i>double 42, double 67, double 88</i>			
Halve any 2 digit number... <i>halve 50, halve 86, halve 98</i>			
Know by heart the 7 times tables (multiplication facts for 7) up to 12×7 E.g $2 \times 7 = 14$, $3 \times 7 = 21$			
Know by heart all division facts, for 7, up to 12×7 E.g $35 \div 7 = 5$			
Know by heart the 8 times tables (multiplication facts for 8,) up to 12×8 . E.g $4 \times 8 = 32$			
Know by heart all division facts for 8 up to 12×8 E.g $72 \div 8 = 9$			
Know by heart the 9 times tables (multiplication facts for 9) up to 12×9 E.g $4 \times 9 = 36$			
Know by heart all division facts, for 9, up to 12×9 $54 \div 9 = 6$			

Saturn

Learning Objective	Child	Parent	Teacher
Count from any number in steps of 6 E.g 2, 8, 14, 20 etc or, 5, 11, 17, 23 etc			
Count from any number in steps of 7 E.g 3, 10, 17, 24, 31 etc			
Count from any number in steps of 9 E.g 2, 11, 20, 29, 38			
Count from any number in steps of 25 E.g 2, 27, 52, 77,			
Count from zero in steps of 1000 E.g 33, 1033, 2033, 3033			
Know by heart all multiplication facts for 11, up to 12×11			
Know by heart all division facts for 11 up to 12×11			
Know by heart all multiplication facts for 12, up to 12×12			
Know by heart all division facts, for 12, up to 12×12			

Uranus

Learning Objective	Child	Parent	Teacher
Know how many hours, minutes and seconds in an hour and a day and use this knowledge to know equivalent times. E.g 120 seconds= 2 minutes or 3 hours = 180 minutes.			
Know how many grams are in kilograms and use this knowledge to write equivalent measures E.g. 3.75kg = 3750g or 5678g = 5.678kg			
Know how many millilitres are in litres and use this knowledge to write equivalent measures E.g. 7.45L = 7450ml or 3278ml = 3.278L			
Use knowledge of length facts to write equivalent measures e.g. 5.2km = 5200m, 22mm = 2.2cm			
Count up and down in tenths from any given number E.g 2, 2 and one tenth, 2 and 2 tenths etc			
Know by heart 1 tenth more of any given number E.g 1 tenth more than 3 and 3 tenths is 3 and 4 tenths.			
Know by heart 1 tenth less than any given number E.g 1 tenth less than 3 and 3 tenths is 3 and 2 tenths.			

Neptune

Learning Objective	Child	Parent	Teacher
Add 2 fractions with the same denominator (bottom number).E.g $3/8 + 2/8 = 5/8$			
Subtract 2 fractions with the same denominator E.g $6/7 - 3/7 = 3/7$			
Starting at any given number count forwards and backwards in steps of any number from 1-20, including negative numbers. E.g Steps of 13, going backwards = 49, 36, 23, 10,-3, -16 etc			
Double any number including numbers with 1 decimal place. E.g $3.4 = 6.8$ or $13.7 = 27.4$			
Halve any number with up to 1 decimal place. E.g $3.4 = 1.7$ or $13.7 = 6.85$			
Recall quickly their times tables up to 12×12 and use them to multiply pairs of multiples of 10 and 100. E.g $30 \times 70 = 2100$ or $40 \times 200 = 8000$			
Recall quickly division facts of all times tables up to 12×12 and use them to divide pairs of multiples of 10 and 100, for example $240 \div 40 = 6$ or $800 \div 4 = 200$			

The Milky Way

Learning Objective	Child	Parent	Teacher
Identify all factors for all 2 digit whole numbers E.g $56 = 2, 23, 4, 14, 8, 7$			
Know by heart all the squares of numbers up to 12×12 E.g $3 \times 3 = 9$ or $4 \times 4 = 16$ or $5 \times 5 = 25$			
Know by heart all the cubes numbers up to 12^3 E.g $3^3 = 3 \times 3 \times 3 = 27$ or $6^3 = 6 \times 6 \times 6 = 216$			
Use knowledge of place value and times tables to 12×12 to derive related multiplication and division facts involving decimals. E.g $0.8 \times 7 = 5.6$ or $5.6 \div 7 = 0.8$			

