

**A Parent’s Guide to Mental Maths Skills for Year 6**

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| C:\Users\lburber\AppData\Local\Microsoft\Windows\INetCache\Content.MSO\9A2084B8.tmpTo help with addition, children need to: * Know by heart **decimal number bonds to 1**

(e.g. 0.3 + 0.7 = 1, 0.43 + 0.57 = 1)* Work out quickly **number bonds to 1000** (e.g. 230 + 770, 124 + 876)
* **Add small and large whole numbers** where the use of place value or number facts means the calculation can be done ‘in our heads’ (e.g. 34,000 + 8000 is 34 thousand + 8 thousand - using the fact 34 + 8 we get to 42,000)
* **Add positive numbers to negative numbers**, for example, calculate a rise in temperature (e.g. -3 oC with a rise of 9 oC means it is now 6 oC)
 | Image result for subtraction sign cartoonTo help with subtraction, children need to: * Use **number bonds to 10 and 100** to perform mental subtractions of any pair of integers using ‘complementary’ addition (e.g. know that 1000 – 654 = 346 because 654 add 46 makes 700 and 700 add 300 makes 1000. You have added 346)
* **Find change** for £1, £5, £10 etc using ‘complimentary’ addition i.e. counting on from the smallest amount to the largest (e.g. what is the change from £10 if £6.55 spent? Find by adding 45p to get to £7.00 and then adding £3 to get £10. The change is £3.45)
* **Subtract any number from a positive number**, in a context such as temperature, where the answer will be a negative number (e.g. 6oC - 8oC = -2oC)
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| Image result for multiplication sign cartoonTo help with multiplication, children need to: * Know by heart all the **multiplication facts** up to 12 x 12
* **Multiply whole numbers and decimals** with up to three places b**y 10, 100 or 1000**

 (e.g. 234 x 10 = 2,340 and 0.23 x 100 = 23) * Use place value and number facts in **mental multiplication** (e.g. 400 x 6 can be worked out using the knowledge that 4 x 6 is 24 then multiplying by 100 to get 2,400)
* Use **rounding in mental multiplication** (e.g. 7 x 19 can be worked out by doing 7 x 20 and then subtracting 7)
 | Image result for division sign cartoonTo help with division, children need to: * Know by heart all the **division facts** up to 144 ÷ 12
* **Divide whole numbers and decimals** with up to three places **by 10, 100 or 1000** (e.g. 234 ÷ 10 = 23.4 and 2300 ÷ 100 = 23)
* Use place value and number facts in **mental division** (e.g. work out that 250 ÷ 5 is the same as 25 ÷ 5 multiplied by 10 as 250 is 10 times bigger than 25. So 250 ÷ 5 is 50)
* **Halve odd numbers** easily (i.e. know that half of 5 is 2.5, half of 13 is 6.5 etc)
* **Halve decimal numbers** (with up to 2 places) using ‘partitioning’ (e.g. half of 36.8 is half of 36 (18) plus half of 0.8 (0.4). so the answer is 18.4)
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| Also, please practise:* recalling or working out which numbers are **prime numbers** between 0 and 50
* working out the **factors of numbers**
* recalling the **equivalents of fractions and percentages** (e.g. ½ = 0.5 = 50%). Vital equivalents are those for 0.5, 0.25, 0.75, 0.1 and 0.01
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