Division

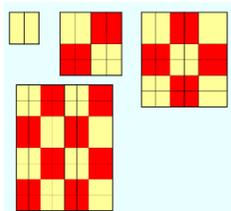| Year 5	Year 6
Mental Strategies Children should count regularly using a range of multiples, and powers of 10, 100 and 1000, building fluency. Children should practice and apply the multiplication facts to 12 x 12. **Vocabulary** see year 4 common factors prime number, prime factors composite numbers short division square number cube number inverse power of **Generalisations** The = sign means equality. Take it in turn to change one side of this equation, using multiplication and division, e.g. Start: **24 = 24** Player 1: **4 x 6 = 24** Player 2: **4 x 6 = 12 x 2** Player 1: **48 ÷ 2 = 12 x 2** Sometimes, always, never true questions about multiples and divisibility. E.g.: • If the last two digits of a number are divisible by 4, the number will be divisible by 4. • If the digital root of a number is 9, the number will be divisible by 9. • When you square an even number the result will be divisible by 4 (one example of 'proof' shown left)	**Mental Strategies** Children should count regularly, building on previous work in previous years. Children should practice and apply the multiplication facts to 12 x 12. **Vocabulary** see years 4 and 5 **Generalisations** Order of operations: brackets first, then multiplication and division (left to right) before addition and subtraction (left to right). Children could learn an acrostic such as PEMDAS, or could be encouraged to design their own ways of remembering. Sometimes, always, never true questions about multiples and divisibility. E.g.: If a number is divisible by 3 and 4, it will also be divisible by 12. (also see year 4 and 5, and the hyperlink from the Y5 column) Using what you know about rules of divisibility, do you think 7919 is a prime number? Explain your answer. **Key Questions** **What do you notice?** **What's the same? What's different?** **Can you convince me?** **How do you know?**