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| **Lesson**  | **Prior Knowledge** |
| **Key Learning Objectives:**I can find the lowest common multiple using times table facts.**Starter:**What are multiples?Why are they multiples?What are the multiples of:25710 | **Success Criteria:**I have-* Found the multiples of numbers
* Found the common multiples between two numbers
* Found prime factors using a prime factor tree

**Key Vocabulary:**Times table, multiples, common, same, factor, prime number, divisible  |
| **Activity**  | **Resources** |
| **Fluency**Multiples are numbers that can be divided by another certain number without a remainder (they are the numbers in the times tables)Common multiple are – the same multiple that found in two different times tables/the same multiple that can be divided by two different numbers without a remainder. Children to find common multiples between two numbers.Eg. 2 and 3 Multiples of 2 = 2, 4, 6, 8, 10, 12Multiples of 3 = 3, 6, 9, 12So common multiples = 6 and 12**Find common multiples between:**6 and 152 and 56 and 812 and 185 and 1510 and 25**Reasoning** If, 2, 4, 6, 8, 10 are multiples of 2 would 800 be a multiple of 2?Would 87?Would 136?How do you know? Explain.Explain why a multiple of 80 is also amultiple of 8.**Mini-Plenary**Create your own questions and solve them about other common multiples. Investigate as many as you can.**Problem-solving**Nancy is double her sister’sage. They are both olderthan 20 and younger than50. They are both multiplesof 7. How old are they? Clare’s age is a multiple of 7and 3 less than a multiple of8. How old is Clare?  **Next Step: Investigative Work using previous knowledge of multiples.** Prime factors are factors of a number which are prime numbers. You can find the prime factors of any number by using a prime factor tree. Look at the example of a prime factor tree  27 9 3 3 3Prime factors of 27 = 3 x 3 x 3We can find the LCM (lowest common multiple) of two numbers by using common prime factors, instead of listing the multiples and looking for the LCM. Example: Prime factors of 27 = 3 x 3 x 3 Prime factors of 45 = 5 x 3 x 3 Using a venn diagram we can find the common prime factors.  27 45 3 3 5 3LCM of 27 and 45 = 3 x 3 = 9 Investigate LCM using prime factors and venn diagram. Find the prime factors of:12 and 1824 and 6024 and 4536 and 4848 and 180420 and 132660 and 252 | Knowledge of times tables facts and divisibility rules. Create a times table square to help you.Use your fingers to help you count. |