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Aim: Identify common factors, common multiples and prime numbers. I can identify prime numbers.	Success Criteria: I know what 'prime numbers' are. I can identify prime numbers.	Resources: Lesson Pack Whiteboards and pens
	Key/New Words: Prime number, factors, multiple of.	Preparation: Identifying Prime Numbers 0-200 Activity Sheet - one per pair Intel Prime Cards - one per class Prime Detectives Activity Sheet - one per pair Prime Number Generator Activity Sheet - one per pair Extra Challenge Activity Sheet - as required

Prior Learning: It will be helpful if children have a secure understanding of place value, multiplication facts and corresponding number facts.

Learning Sequence

	Factor Finder: Using the Lesson Presentation , the children find the factors of the number that the spinner lands on.	
	Prime Training: Using the Lesson Presentation , explain what a prime number is.	
	Hidden Prime: Using the Identifying Prime Numbers 0-200 Activity Sheet , children circle as many prime numbers as possible within the specified time limit.	
	Gathering Intel: Give out the Intel Prime Cards , one per child. The children get into groups of three by having consecutive prime numbers. Some of the cards contain some red herrings; non-prime numbers. The children who have a non-prime number form a group. <i>Are the children able to identify prime numbers? Can the children identify the prime numbers that are either side of a chosen number?</i>	
	Case Investigation: In mixed-ability pairs, explain to the children that they will be completing a range of questions on the Prime Detectors Activity Sheet that will require them to <i>identify prime numbers</i> , as demonstrated earlier in the lesson. Once all of the questions have been answered and rounded to a specified degree of accuracy, the answers will lead to the culprit of the crime. An Extra Challenge Activity Sheet is provided as an extension activity if required.	
	Diving into Mastery: Schools using a mastery approach may prefer to use the following as an alternative activity. These sheets might not necessarily be used in a linear way. Some children might begin at the 'Deeper' section and in fact, others may 'dive straight in' to the 'Deepest' section if they have already mastered the skill and are applying this to show their depth of understanding. <ul style="list-style-type: none">  Children find primes between two numbers and find prime factors using a factor tree.  Children reason about the properties of prime numbers, explaining others' errors and misconceptions.  Children investigate addition facts to generate prime numbers. 	
	Prime Number Generator: Using the modelled example on the Lesson Presentation , the children create their own prime number questions for their partner to solve. Afterwards, give the children a Prime Number Generator Activity Sheet to complete. The children create five prime numbers using the digits provided.	

Explore it

Quizit: Invite children to complete the challenging questions on this amazing [Year 6 Calculation Factors Multiples Prime Numbers Maths Mastery Activities PowerPoint](#).

Dateit: Children complete this exciting [Prime Time Detectives Activity Sheet](#); using dates compiled from prime numbers, they then utilise the Internet to investigate moments of interest relating to these days in history.