

# Parent Guide

## How can I use this with my children?

Read the introduction at the top of the first page. Knowing that prime numbers are numbers that can only be divided by 1 and themselves, ask your child to complete the questions and solve the crime.

## How does this help my children's learning?

Knowing and using the vocabulary of prime numbers is a key objective in year 5 (ages 9 to 10) and recalling what prime numbers are and how to spot them will help your child recognise prime factors.

## Ideas for further learning:

Work out all the prime numbers up to 100. Download these [0-100 Digit Cards](#) and ask your child to pick two numbers that add up to a prime number. How many pairs can they get?



# Prime Numbers Puzzle



## The Rockin' Rolls Robbery

Rockin' Rolls, a popular local bakery, makes delicious cakes. People visit from far and wide to buy doughnuts, cream cakes and pastries. However, last night there was a burglary at Rockin' Rolls and now all the shelves are empty! The police have been called to investigate the crime.

As Detective Chief Inspector, it is your job to work out who the cake thief is. Your officers have written down the names of possible suspects. Can you solve the clues and find out who the thief is?

### Suspects

Name	Male or Female?	Height	Right or Left-Handed
Hannah Brown	female	short	right
Susan Granger	female	tall	right
Henry Jones	male	short	left
Yvona Chowdhury	female	short	right
Simon King	male	tall	right
Tan Yong	male	short	right
Helen Edwards	female	short	left
Toby Ply	male	tall	right

Name	Male or Female?	Height	Right or Left-Handed
Jack Grande	male	tall	left
Temi Howler	female	short	left
Patrick Jenson	male	tall	right

# Clue One



Circle all of the prime numbers in the list to the side. If you have an even number of prime numbers, the suspect is male. If you have an odd number of prime numbers, the suspect is female.

2	9	15
3	7	19
4	11	6
14	10	8
18	13	5
17	16	12

Number of prime numbers:

The guilty subject is:

male      or      female



# Clue Two



Write the missing prime numbers in the sequences below then add them up. If the total is a prime number, the suspect is right-handed. If the total is not a prime number, the suspect is left-handed.

Total:

The guilty suspect is:

right-handed

or

left-handed

5	7	13	
2	3	7	
11	13	17	
13	11	5	
	3	5	7
5		11	13





# Clue Three



Find a way through the maze by colouring statements that are true. You can only go up or down, left or right.

The path will lead to a clue about the height of the guilty suspect.



<b>Start</b>	11 is a prime number.	9 is a prime number.	3 is a prime number.
17 is not a prime number.	19 is a prime number.	15 is not a prime number.	All prime numbers are odd.
10 is a prime number.	13 is not a prime number.	7 is a prime number.	15 is a prime number.
5 is a prime number.	7 is not a prime number.	8 is not a prime number.	2 is the only even prime number.
11 is not a prime number.	3 is not a prime number.	9 is an odd prime number.	3 is a prime number.
They are tall.	They are short.	They are tall.	They are short.



The guilty suspect is:

# Answers

## Clue 1

2  
3  
17  
7  
11  
13  
19  
5

Male

## Clue 2

1. 11  
2. 5  
3. 19  
4. 7  
5. 2  
6. 7

Left-handed

## Clue 3

<b>Start</b>	<b>11 is a prime number.</b>	9 is a prime number.	3 is a prime number.
17 is not a prime number.	<b>19 is a prime number.</b>	<b>15 is not a prime number.</b>	All prime numbers are odd.
10 is a prime number.	13 is not a prime number.	<b>7 is a prime number.</b>	15 is a prime number.
5 is a prime number.	7 is not a prime number.	<b>8 is not a prime number.</b>	<b>2 is the only even prime number.</b>
11 is not a prime number.	3 is not a prime number.	9 is an odd prime number.	<b>3 is a prime number.</b>
They are tall.	They are short.	They are tall.	<b>They are short.</b>

The guilty suspect is:

**Henry Jones**

