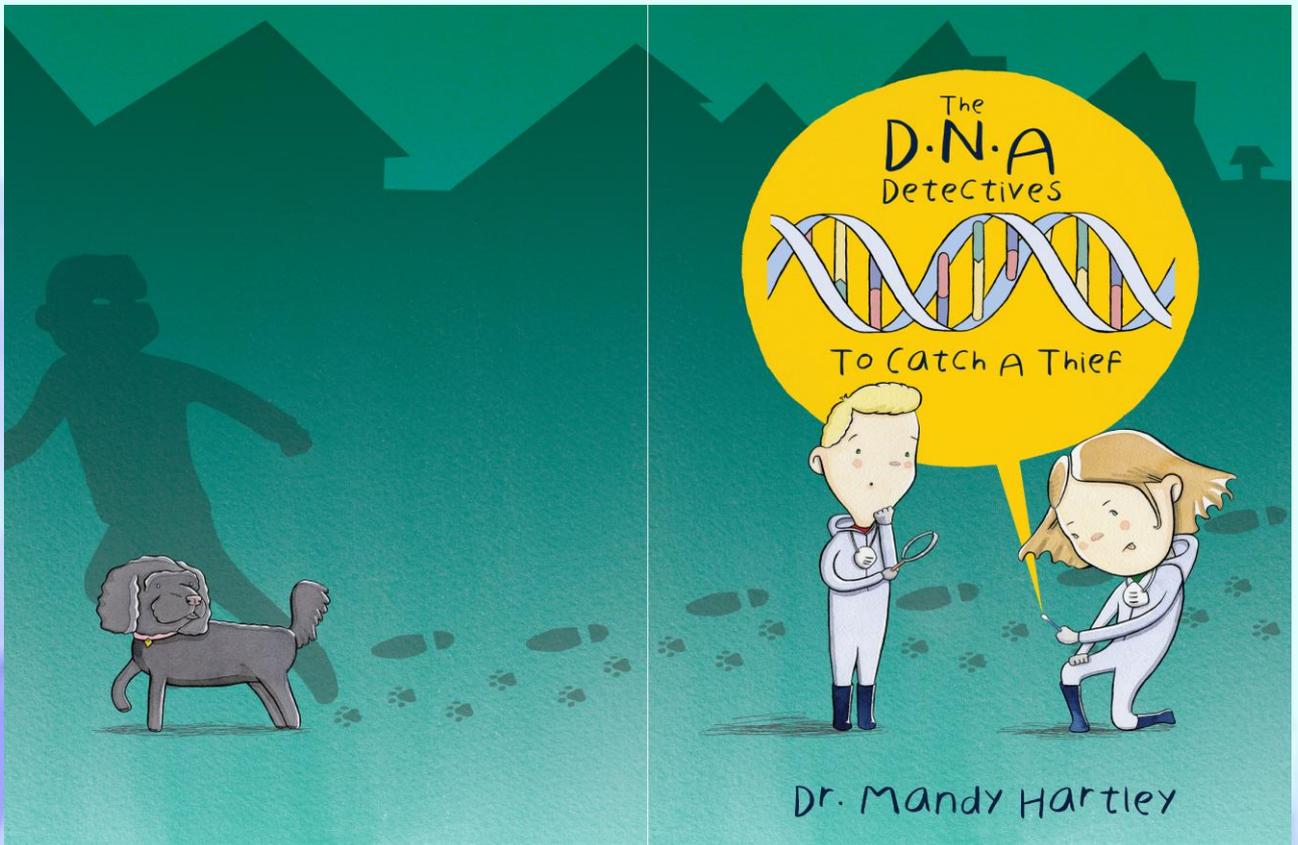


# 'DNA Detectives – To Catch a Thief'





## **How does this book “The DNA Detectives – To Catch a Thief” fit into the curriculum?**

This fictional book for children aged 7-12 years has been designed so that it fits with different aspects of the National Programme of study for English and science for KS1 and KS2.

### **English**

The idea is that the book “The DNA Detectives – To catch a thief” and the “live” or “online” workshops can be combined together to act as a resource for English and science. Children can however, still benefit from reading the book without participating in the workshop. Reading the book in class fulfils many of the requirements of the National Programme of study for English in terms of word reading and comprehension for both KS1 and KS2

Overall I have written this book so that it is fast paced, easy to read, with an exciting plot and plenty of twists and turns along the way. I hope that it will inspire children with a love of reading, to show them that reading is fun and leave them wanting more!

Children can read this book independently or as a class. Through reading the book they can practice their phonic knowledge and skills to help them decode words they don't recognise. The vocabulary in the book is aimed at children between 7 – 12 years who have a wide range of reading skills. The book can be read aloud to test children's knowledge of blending and common words.

There are plenty of contractions within the text which have been included to make the speech within the story more realistic and fluid. These provide great examples to help children understand that the apostrophe in the text represents the missing text e.g. I'll – I will, it's – it is, should've – should have etc.

There are great opportunities for discussion when reading this book. Children can be encouraged to take turns in asking relevant questions and listening to others asking questions. Reading the book can lead to a class discussion where children can express their views, discuss the chapters, recap on the evidence that has been found or the sequence of events – What does it mean? Who do they think is the pet thief? How are the characters in the story different? What do they think will happen next? What was the order of evidence found? What was the sequence of events that led to the characters coming to their conclusion? This can be used to demonstrate that the children have listened or read the story accurately and have understood the meaning of the language and text used.



Children can also talk about their ideas for writing a chapter in the book and come up with ideas for stories of their own. In my experience children reading this book love making inferences as to who they think is the pet thief and why. They love trying to work this out by piecing together the information. This can be encouraged by printing out the DNA profiles used by the characters in the book from the web links (see web address below). The children will become DNA Detectives just like the characters in the book by analysing the same data.

(<http://www.thelittlestorytellingcompany.co.uk/the-dna-detectives-to-catch-a-thief>).

Through listening to the book being read and having discussions with their teacher or friends in class about the book children can start to increase their vocabulary. They will also learn how language sounds, how sentences are structured and they can learn new words that they may not hear in everyday language. This book will help children build up a range of specialist vocabulary and technical terminology such as deoxyribonucleic acid (DNA), cell, cytoplasm, electromagnet and DNA profile.

Just like in the "live" and "online" workshop children can participate in role play and act out the parts of the children in the story, the pet thief or police officers. This can help them to identify with and explore the different characters especially "Annabelle" and "Harry" who are very different. The children could decide which of these characters they are more like! These roles will require them to problem solve, listen and respond to what they are being asked to do. They will be encouraged to speak audibly and fluently for their part in the story. They will have opportunities to improvise and respond appropriately to others in the role. This will help them to understand what they have read and try out the language they have listened to. This could help to build confidence and competence for speaking language.

Children can also try some of the activities on my web links for this book to help extend their understanding of what they have read e.g. When reading the chapter where the children break into the lab and extract DNA from their samples children could go to the virtual laboratory online and have a go at extracting DNA.

<http://www.thelittlestorytellingcompany.co.uk/the-dna-detectives-to-catch-a-thief>

## **Science**

This workshop has been designed to fit with several aspects of the national programme of study for science for KS1 and KS2.

In the book the children create an electromagnet. This can be used to get children thinking about different materials and their properties. They can discuss the properties of different materials and find out which conduct electricity and which



are magnetic and can be made into electromagnets. They can also explore the strength of magnets made out of different materials. In the workshop we make an electromagnet out of steel and iron and find out which makes the stronger electromagnet and discuss why this might be.

There are instructions for how to make an electromagnet on the web links for this book on my website.

<http://www.thelittlestorytellingcompany.co.uk/the-dna-detectives-to-catch-a-thief>

Children will learn that all living things have DNA which complements their work on living organisms. Learning about DNA fits very well into the topic of evolution and inheritance. Children can find out more about DNA, cells and how DNA is inherited by using the web links for the book.

When comparing forensic data in the book the characters identify what materials scene of crime officers are looking for as sources of DNA. They then look at the DNA profiles from the crime scenes and the suspects for patterns and identify similarities and differences. Children can do this by printing out the DNA profiles used in the book from the web links on my web site.

<http://www.thelittlestorytellingcompany.co.uk/the-dna-detectives-to-catch-a-thief>

This is encouraging the children to observe data and make inferences from the data. The children in the book identify the difference between a female and a male DNA profile. Also when identifying which pets were kept in the shed and the identity of the pet thief they look for similarities between the DNA profiles to solve the crime. Children can do the same using the printed out copies of DNA profiles.

Throughout the book children are encouraged to observe different aspects of DNA, to identify scientific evidence to support an argument and to ask questions about what they have found and to be curious. I hope that by finding out the answers to the different questions by reading the book i.e. what is DNA? Who is the pet thief? Children will be inspired to want to find out more, to read about it and find out the answers to their questions. One children have read the book if they want to find out more they can access the web links on my web site (<http://www.thelittlestorytellingcompany.co.uk/workshops>). This will enable them to learn more about DNA, cells and forensic science and try out some of the fun activities either at home or in the classroom such as - extracting DNA from fruit, making a plaster cast footprint, becoming forensic scientists and solving a crime online or going to a virtual online laboratory and extracting DNA just like the characters in the book!