

Brain Detective

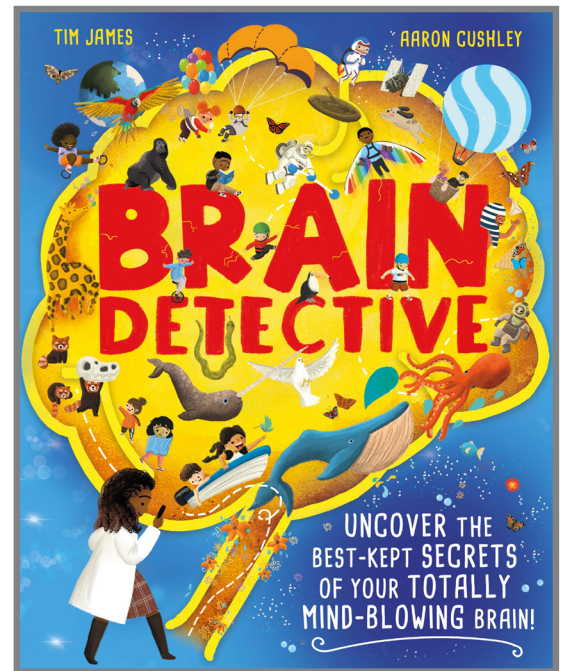
AUTHOR
TIM JAMES

ILLUSTRATOR
AARON CUSHLEY

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RECOMMENDED FOR: Mid to Upper Primary



SYNOPSIS

Did you know that the world's most complicated computer is the one inside your head?

The brain is amazing. It controls everything we do. It makes us think, move, feel, sleep, remember, forget, imagine and have some pretty weird dreams. But it's also one of the most mysterious organs in the human body.

Grab your magnifying glass and become a brain detective and discover how the weird and wonderful brain works. You'll find out what your brain is really doing while you sleep, what causes us to feel emotional and whether it's possible to remember everything that's ever happened.

Packed with fascinating facts and jaw-dropping real-life case studies, this book has everything you need to uncover the best-kept secrets about our brilliant brains.

ABOUT THE AUTHOR

Tim James is a science teacher and populariser, YouTuber, blogger and Instagrammer. His YouTube videos have been viewed over 410,000 times and his website receives over 2,000 hits a week. He has regularly appeared on BBC Radio as a science consultant, as well as writing an article for *BBC Science Focus* magazine on Quantum Field Theory. Selected media appearances can be found at: <https://www.timjamescience.com/media-and-appearances.html>.

Raised by missionaries in Nigeria, he fell in love with science at the age of fifteen and refuses to get over his infatuation. Since graduating with a Master's degree in chemistry, specialising in computational quantum mechanics, he has devoted himself to teaching. His first book, *Elemental: How the Periodic Table Now Explains (Nearly) Everything* was selected by the *Daily Mail* as one of the best books of 2018, his second, *Fundamental: How quantum and particle physics explain absolutely everything (except gravity)*, was published in August 2019.

ABOUT THE ILLUSTRATOR

Aaron is an illustrator and doodler of dogs. From Belfast, he studied Illustration and Graphic design at the University Of Ulster Belfast School Of Art & Design. Aaron's work stems from his inner child and the innocence and creativity that emerges when he takes a pencil in his hand.

STUDY NOTES

- There are so many fascinating facts about the brain in *Brain Detective*. Discuss your favourite facts with a partner, then share and compare your favourite facts with your classmates.
- Discuss each ancient investigator and select the most disgusting one. Which ancient investigator is the most disgusting and why?
- On p 13 it says ‘Humans are basically meat-robots who use neurons and nerves instead of cables and wires.’ Do you agree that humans are like meat-robots? Why or why not?
- What definition can you come up with for humans to complete the sentence below? Make sure to include something about the brain: Humans are . . .
- Explain and compare each sense making reference to the brain:
 - Sight
 - Hearing
 - Taste
 - Smell
 - Touch
 - Internal health
 - Proprioception
 - Balance.
- What makes people clever? How many synonyms can you think of for the word ‘clever’?
- Work with a partner and make a list of all the things you think may stop your brain working so well. Once you have finished your list, on a clean piece of paper, make a list that you think can help your brain work well.
 - Compare your list with your classmates. Do you agree with the items on your lists?
- Why do you think scientists say that reading is good for our brains?
- Describe everything you can do to take care of your brain. Consider your own lifestyle and what you are doing to take care of your brain.
- It is important to look after our brain just like we would look after a precious item, a pet or friend. Look at the pictures on p 48 and 49. Use the pictures to discuss all the things we need to do to protect our brain. Do you think some are more important than others? Rank your list from least to most important.
- Would you rather be a Giant Pacific Octopus with nine separate brains or a human with just one brain? Select your preference and justify your reason why. Compare your answers with the class.
- Once you have finished reading the book, create a new blurb for the book based on your understanding and consider the bits you liked the most.