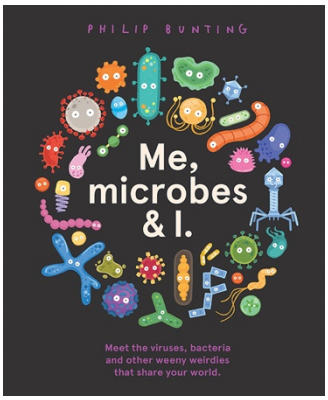
Hardie Grant
CHILDREN'S PUBLISHING

Teacher's Notes



Me, Microbes & I.

Written by Philip Bunting

Illustrated by Philip Bunting

Teacher's Notes by Bec Kavanagh

LEARNING OUTCOMES

RECOMMENDED FOR
Primary-aged readers (ages 8+, grades 3+)

KEY CURRICULUM AREAS

- Learning areas: English & Science
- General capabilities:
  - Biological sciences (ACSSU044)
  - Use and influence of science (ACSHE051)
  - Communicating (ACSIS060)
  - Text structure and organisation (ACELA1478)

THEMES

- Microbes
- Health & hygiene
- Good and bad bacteria
- Life cycles & transmission

SYNOPSIS

Microbes are living things (and almost-living things) so small that we can only see them with the help of a microscope. You could fit thousands of them in the full stop at the end of this sentence.

But in this entertaining and educational book, Philip Bunting zooms in on the most common microbes in our day-to-day lives. Each microbe is brought to life with its own colourful personality so that readers can relate to their individual characteristics. In easy-to-understand language and illustrations, Bunting introduces readers to the fascinating world of microbes – including those that live in the air, at the park and on our bodies – and explores their relevance to our lives, from the good to the bad and everything in between.

Me, Microbes & I will teach readers to wash their hands, cover their noses when they sneeze, and become more aware of the millions of tiny lives sharing the planet with us, even though we might not be able to see them.

ABOUT THE AUTHOR & ILLUSTRATOR

Philip Bunting is known for his informative, playful picture books. He is an author and illustrator with a soft spot for creating picture books for sleep-deprived, time-poor, raisin-encrusted parents (and their children).

Philip's work deliberately encourages playful interaction between the reader and child, allowing his books to create a platform for genuine intergenerational engagement and fun. He believes that the more fun the child has during their early reading experiences, the more likely they will be to return to books, improve their emergent literacy skills, and later find joy in reading and learning.

Philip's books have been translated into multiple languages and published in more than 25 countries around the world. Since his first book was published in 2017, Philip has received multiple accolades, including Honours from the Children's Book Council of Australia, and making the list for the Kate Greenaway Medal in 2018.

Philip grew up in England's Lake District and now lives with his young family in the hills behind Noosa.

THEMES

There are a number of themes covered in the book, from the scientific to the universal. Because of the way Philip Bunting relates the topics to the real world, readers are invited to use their own experiences as a basis for understanding the content. In particular, topics of discussion might include:

- Understanding the way harmful microbes (like bad bacteria and viruses) are transmitted, and the role we play in transmission
- Microbes and food
- Understanding our bodies and the environment
- Sickness and health
- Harmful and helpful microbes

WRITING STYLE

There are a lot of scientific facts in *Me, Microbes & I,* but Philip Bunting manages to relay them in a way that is easy to understand, without oversimplifying. The data is presented in bite-sized chunks on each page, and each page or spread engages with a particular topic (e.g. health, bacteria, life-cycles etc.). This layout allows readers to discover the book in one sitting, or dip in and out as they choose.

Bunting uses many of the tools of fiction – character, humour, imagery – to make the material easier to understand and to engage all readers. Speech bubbles help to establish the microbes as characters in the book, making them easier to relate to and demonstrating their unique characteristics. The complex technical names are balanced out by relevant real-world examples – i.e. 'Rhizobia live in the soil and help plants to grow' – and humour alleviates some of the pressure, particularly on pages heavy with technical information.

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Invite students to consider the way the writer uses these fiction techniques to engage them with the book, and ask if it helps them to understand the content. You might also talk about the language used in the book: making lists of technical terms or scientific names, of words that are casual or familiar, and of words that aren't technical, but that are challenging for students. How does the writer balance words across these three categories to get the information across?

COMPREHENSION

- What is a microbe?
- Where do they live? Draw three places that you might find a microbe around your house.
- Microbes aren't all bad! List three ways that (some) microbes benefit us.
- What are two of the most surprising things you learnt about microbes from the book?
- Which parts of the book make you laugh? Why do you think Philip Bunting uses humour to present facts about microbes?
- What is 'herd immunity'? How does it help to protect people who are unable to get vaccinated?
- Do you think microbes in real life look like the microbes in the book? Which parts do you think are accurate, and which parts do you think the illustrator has made up?
- Why is our skin so important to our immune system? What other parts of our body help us to stay healthy?
- Where do we find fungi? What are the different uses of fungi in our lives?
- How does Philip Bunting use the illustrations to show what different microbes do or how they behave?

WRITING EXERCISE

- There could be as many as one trillion kinds of microbe on the planet. Imagine that you are a scientist who has discovered a new microbe. Write a diary entry about your discovery (you will probably want to include pictures of your new discovery).
    - Where did you find this microbe?
    - What does it do?
    - How did you find it?
    - Is it harmful to people?
    - What does it look like? (Which of the features illustrated in the book does your microbe have?)

ILLUSTRATION STYLE

Philip Bunting uses semi-realistic illustrations with cartoon elements to portray the content of the book, and to give microbes individual characteristics and identities. The illustrations capture the scientific facts – showing elements of each microbe such as the pili, cell wall and membranes, and the flagellum – but eyes turn the microbes into individual characters, making them more relatable for young readers who are

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perhaps encountering these sorts of diagrams for the first time. The bright colours also make the microbes stand out, and help to break up the text on each page.

You might discuss the elements of the illustrations that Bunting has taken from scientific diagrams, and the elements where he has used his own imagination and creativity. Readers may be interested in comparing the diagrams in the book to photographic images found online, and discussing the differences between the two.

CREATIVE ACTIVITIES

- What are five things we can do to stay healthy? Choose one and make a poster that illustrates how this activity helps us to stay on the right side of microbes.
- In the book, Philip Bunting traces the snotty trail of the common cold, from the virus entering your body to the time you start coughing (and potentially spreading your germs). Have you ever had a virus? What type of virus was it? Using the trail of a cold as a template, trace the journey of your virus for five days (you might need to do some research to discover how your virus is transmitted and how it spreads in the body).
- Have you ever watched mould grow on a piece of bread? Take three pieces of white bread and put them in three separate zip lock bags as follows.
    - Bag 1 – Untouched bread (use tongs to put it in the bag)
    - Bag 2 – Bread touched with clean hands (washed with soap and water)
    - Bag 3 – Bread touched with dirty hands (no washing)

  Keep track of what happens to the bread over the next week, making a note in your diary each day. Which bread grows mould the quickest? Why do you think this is? Use the book to help you understand why some of your bread grows mould quicker than others.
  At the end of the week, write a short paragraph that summarises what you've learned from this experiment.
- Philip Bunting uses creative techniques to convey a lot of scientific content in this book, but you could use these techniques to help people understand anything that's a bit complicated. Choose something you're interested in, and design a picture book that helps to explain it to someone who doesn't know anything about it.
    - Who are the characters?
    - What topics would you cover on each page?
    - What are the technical terms, and how can you use real-world examples to explain them to someone else?
    - What illustrations would you use?

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