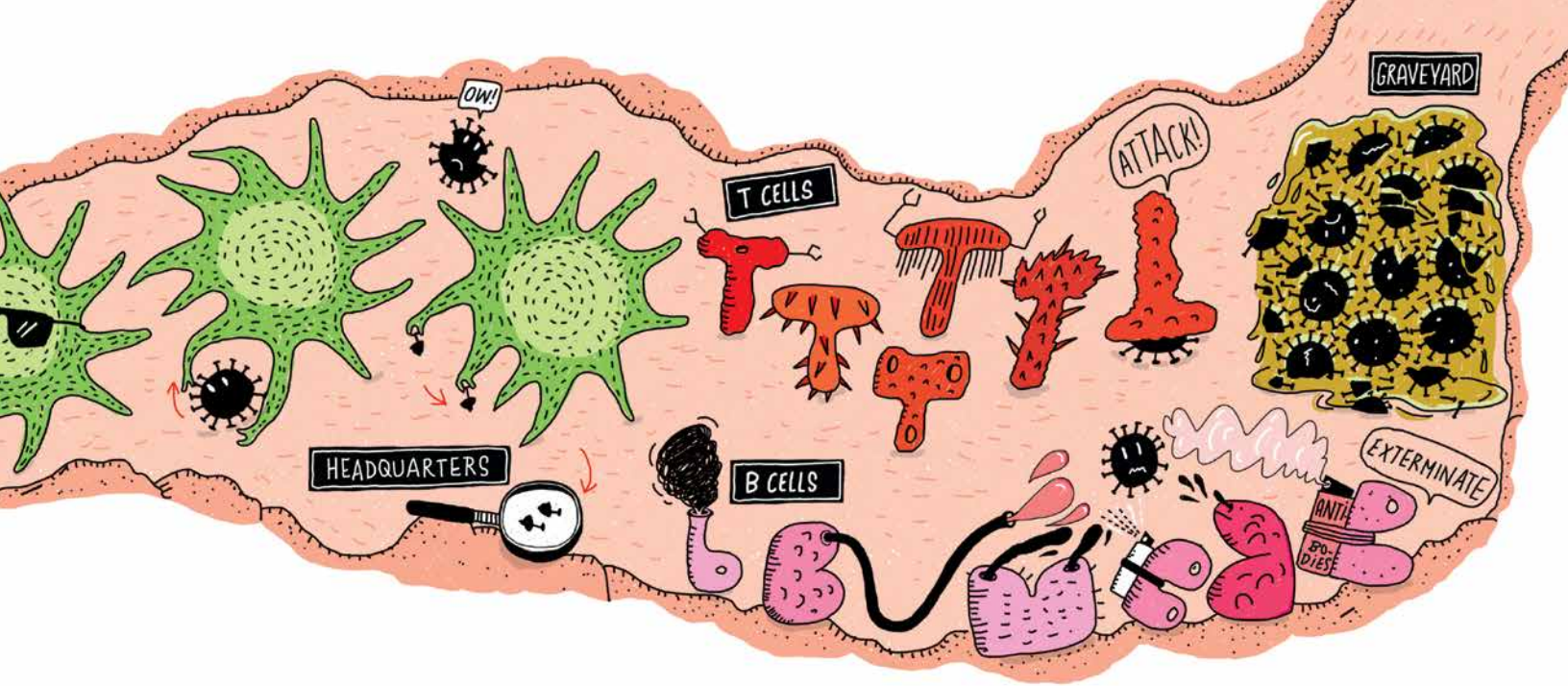




**COMPANION
GUIDE**



TITLE: *Snot, Sneezes, and Super-Spreaders*

AUTHOR: Marc ter Horst

ILLUSTRATOR: Wendy Panders

GENRE: Nonfiction

THEMES: Microbes, viruses, bacteria, disease, infection, pandemics, viral spread, immune system, vaccines, science, community

SUITABLE FOR: Ages 8–12, Grades 3–7

COMMON CORE STANDARDS: College and Career Readiness Anchor Standards for Reading (R.CCR.1, 3, 4, 5) and Writing (W.CCR.2, 3, 4, 7, 8); Reading Standards for Informational Text (RI.3.8)

SKILLS AND COMPETENCIES:

- asking questions
- making connections
- using nonfiction text features
- taking notes
- creating a timeline
- recording information in a chart
- researching a topic
- evaluating information
- identifying cause and effect
- labeling a diagram

BOOK SUMMARY

Discover the extraordinary world of viruses, from their creation and transmission to what we can do to stop them.

If we didn't know it before, we certainly know it now: viruses can be powerful—so powerful, in fact, that they can hold the world in their grip for months at a time. But what exactly is a virus? Where do they come from and what do they do to our bodies? How do they spread, and what can we do to protect ourselves? Learn about:

- pandemics
- the value and importance of vaccines for addressing viral diseases
- fascinating, icky diseases of the past—and those that still hang around today
- the science behind protecting ourselves and our communities from current and future viruses



ABOUT THE AUTHOR

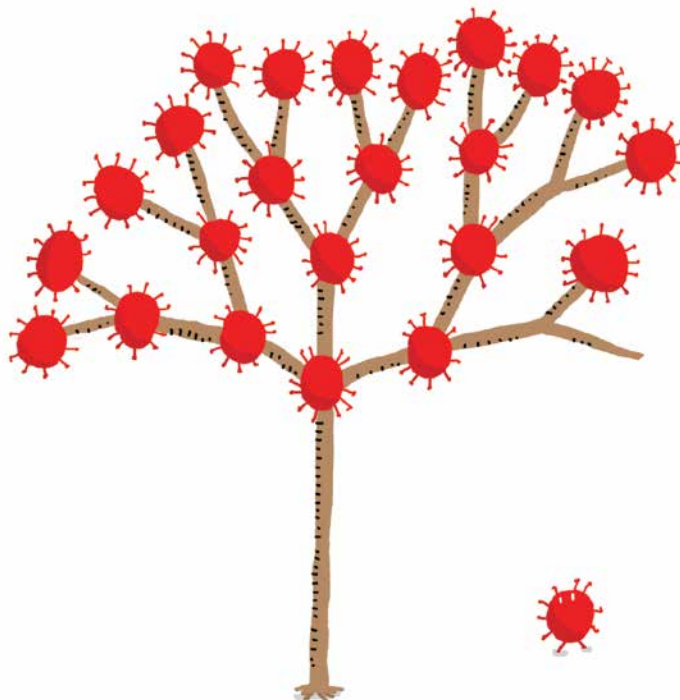
Marc ter Horst studied literature but soon found himself more interested in geology, astronomy, and evolution. He has written several nonfiction books for kids, which have been translated into many languages, including *Palm Trees at the North Pole*. He lives in the Netherlands.

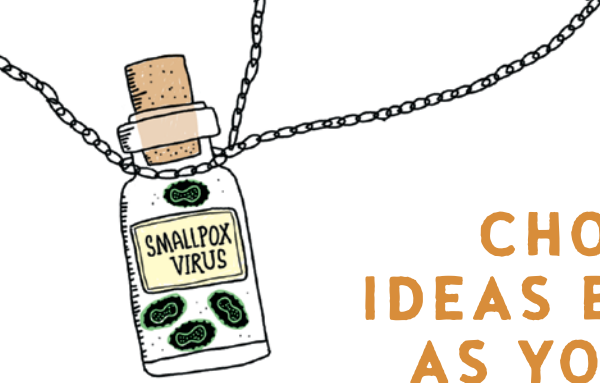
ABOUT THE ILLUSTRATOR

Wendy Panders is an illustrator and graphic designer for magazines and newspapers who has illustrated many children's books. She lives in the Netherlands.

ABOUT THIS GUIDE

This companion guide was created by **Becky Noelle**, an experienced writer and teacher. Use this guide to help you fully engage in the book and expand your understanding of viruses.





CHOOSE ANY OF THE IDEAS BELOW TO COMPLETE AS YOU READ THE BOOK!

- Think you know everything there is to know about **viruses**? Use this book to find out! Make connections to facts and information that you already know, and take note of new information you learn, by creating a **KWL** (Know-Wonder-Learned) chart.
- This book has a LOT of information about **viruses and bacteria**! As you read, create two mind maps to keep all the information straight: one with “Viruses” in the middle and one with “Bacteria” in the middle. Here is some of the information you may want to look out for as you read to include on your mind maps: types of viruses/bacteria, how they spread, what they look like, and how they affect humans.
- Sometimes we may think viruses and bacteria are pretty much the same thing—but they’re definitely not! As you read, see how many differences you can find between viruses and bacteria. Draw a T-chart with viruses on one side and bacteria on the other and take note of all the things that make them different from each other.
- Our **immune systems** are pretty amazing, aren’t they? In the book, you’ll read about all kinds of things that your body does to keep bad viruses and bacteria at bay. Draw an outline of a **human body** and label the different parts of your immune system as you read. For example, where are the lymph nodes? What parts on our face and head help keep viruses and bacteria out? (Hint: look up “immune system” in the index to find out where in the book you can learn about the immune system!)



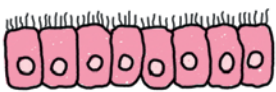
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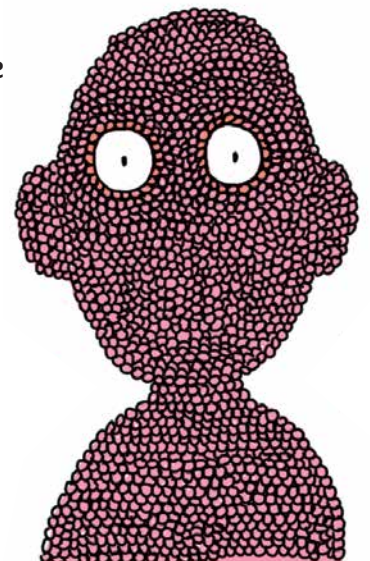
BONE CELL



MUSCLE CELL



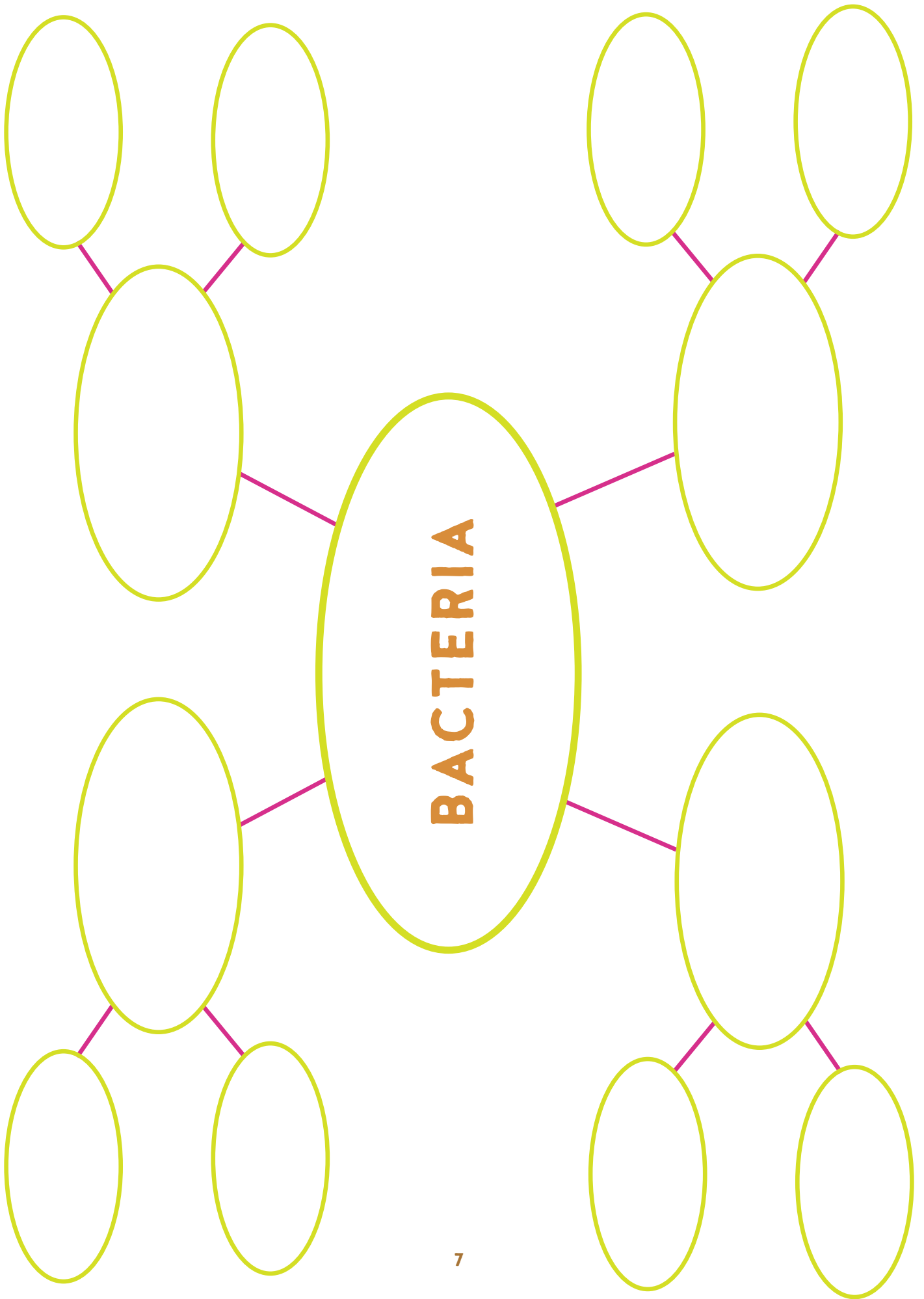
SKIN CELLS

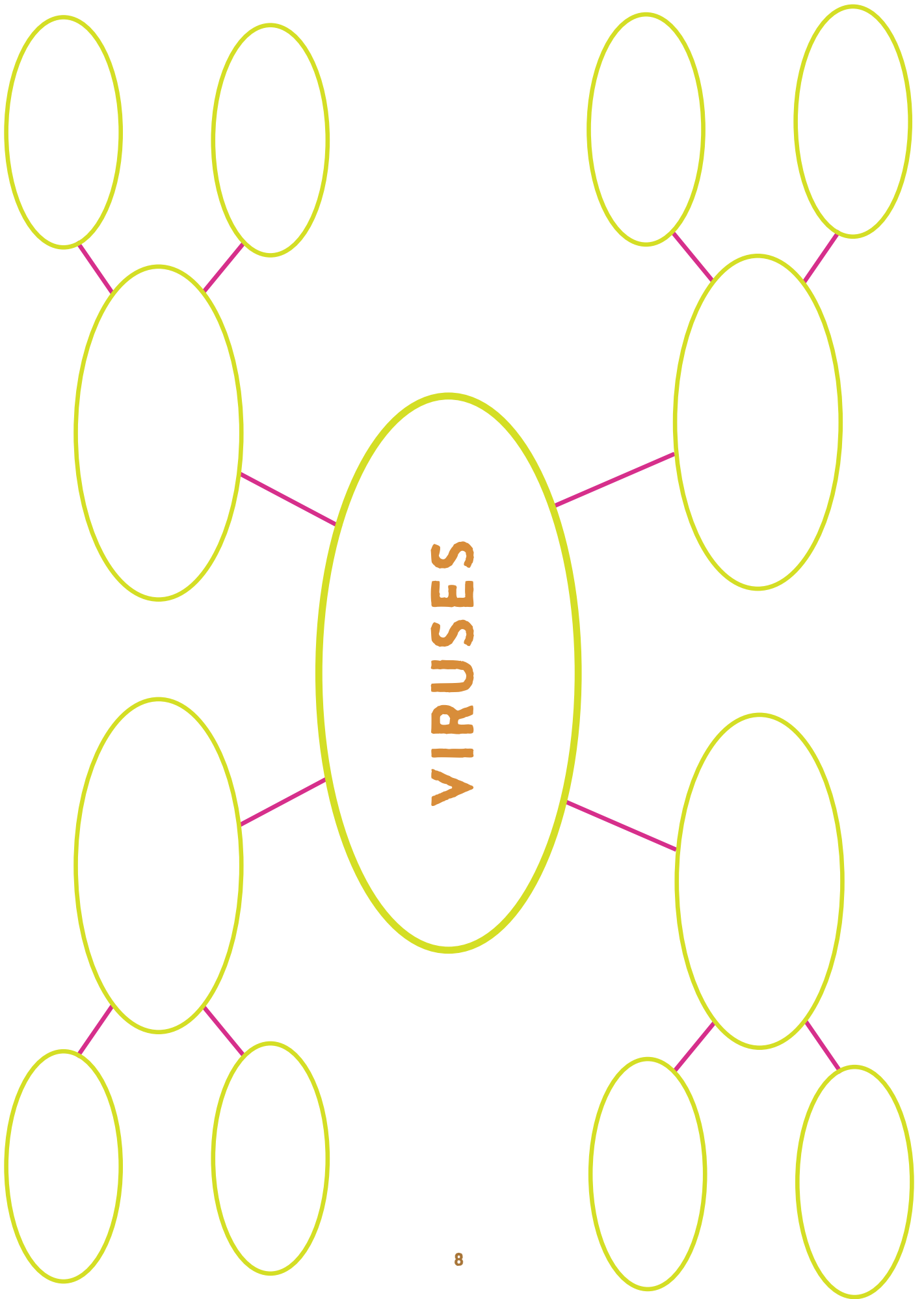




- Interested in learning more about the **immune system** and its defenses? Use the information in the book to create a timeline starting with when a virus enters your body until it's destroyed. What are all the steps to keep your body protected? Better yet, draw two timelines: one for if your body is seeing a virus for the first time, and a second one for if you've had a vaccine to help you fight that virus.
- At the start of each chapter, you'll find a story about a **virus** and how it spread. Create a **graphic novel** of one of the stories. Search online if you need more information about what happened or who was involved to complete your graphic novel (maybe you can even find pictures of the people and places to help you with your drawings!).
- Interested in the **scientists** behind viral research? As you read, write down the names of any scientists mentioned and then find other books and websites to learn more about the scientists and what they discovered. Create a slideshow or video presentation to teach others what you learned.
- Viruses affect humans and humans affect viruses. It's part of life. Create a chart to keep track of the **causes and effects** that you read about in the book. For example, some viruses have been named after places where they were present (that's a cause), and often the effect was racism against people living in or from that place.
- In the book, **T and B cells** are shaped like the letters they're named after, but that's probably not how they actually look! Create your own artwork of what you imagine they look like. (Hint: Use the index to find the pages that discuss T and B cells!) Then, look them up online to see what they actually look like.









KWL CHART

(KNOW-WONDER-LEARNED)

What I know	What I'm wondering	What I learned

COMPARING BACTERIA AND VIRUSES



Bacteria	Viruses

TIMELINE





CAUSE & EFFECT



Cause

Effect