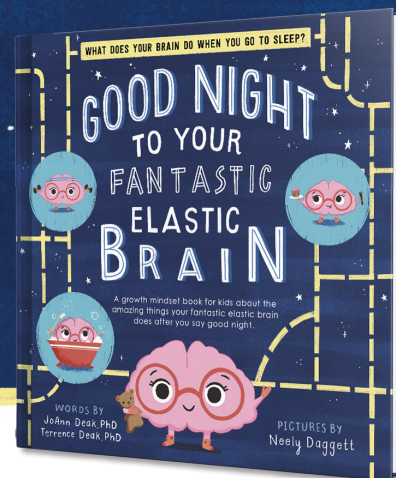


GOOD NIGHT TO YOUR FANTASTIC ELASTIC BRAIN

by JoAnn Deak (Author) • Terrence Deak (Author) • Neely Daggett (Illustrator)

EDUCATOR'S GUIDE



Created by: Lisa Dugan

Discussion & Activity Guide for Grades 1 and up

ABOUT THE BOOK

GO TO SLEEP AND GROW YOUR BRAIN!

During the day, your brain helps you do things like eat, walk, play with friends, and learn new things—and using your brain helps it stretch and get stronger. But did you know that you have the power to grow and train your brain just by going to sleep? In fact, while you're resting, your brain is doing some of its most important work!

Learn about the important jobs your brain does at night like:

- Locking in what you learned during the day
- Resetting itself so that it's ready when you wake up
- Even taking a bath to make sure it's clean and healthy!

Written by two brain experts, *Good Night to Your Fantastic Elastic Brain* is packed with fascinating science and fun facts that will have kids excited to get a good night's rest!



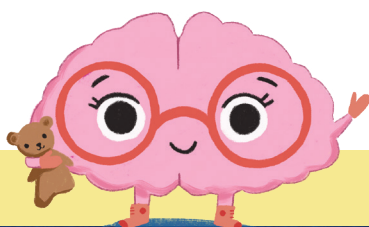
ABOUT THE AUTHORS

JOANN DEAK, PHD, is an author and an international speaker, educator, and preventive psychologist. She also works with parents, teachers, and other adults who work with children as a consultant to schools worldwide on issues of brain development and gender equality. She is also the author of the award-winning book *Your Fantastic Elastic Brain*.

TERRENCE DEAK, PHD, is a Professor of Psychology and Behavioral Neuroscience at Binghamton University in upstate New York, where he runs a highly active neuroscience laboratory.

ABOUT THE ILLUSTRATOR

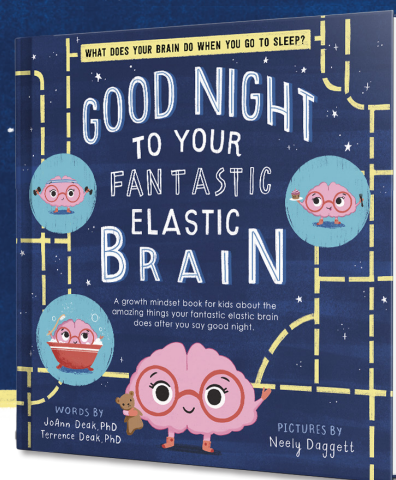
NEELY DAGGETT is a children's book illustrator based just outside Portland, Oregon. She has a BA in psychology from the University of Illinois at Chicago and a degree in graphic design from the Art Institute of Colorado. Creating picture books is her passion, but she also loves to cook, travel, run long distances, and visit the Oregon coast with her family. You can find more of her work at www.neelydaggett.com.



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PRE-READING QUESTIONS AND ACTIVITIES

Read the complete title of this book to the class: *Good Night to Your Fantastic Elastic Brain: What Does Your Brain Do When You Go to Sleep?* What do students think their brains do when they sleep? How do they feel after a good night's sleep? How do they feel when they don't get enough sleep?

Before reading, do a "picture walk" through this book with students. What do students think this book will be about? Will it be a fiction or a nonfiction book? What is the brain doing in the different pictures?

VOCABULARY

This book uses many words that may be new to students. As you read, be sure to pause and review the technical terms with the class so students will understand them. For older students, distribute the list below and have them fill in the definitions on their own when the term is used in the book. Are there other words students would add to this glossary?

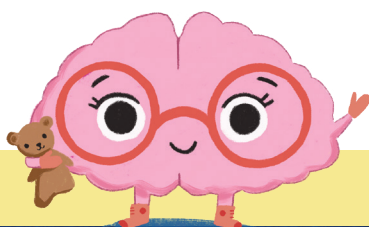
PARTS OF THE BRAIN AND BODY

Amygdala	Heart	Neurons
Blood Glucose	Hippocampus	Occipital Lobe
Brain Stem	Lungs	Organ
Cerebral Spinal Fluid (CSF)	Medulla Oblongata	Pineal Gland
Dendrites	Melatonin	Prefrontal Cortex (PFC)
Electrical Impulses	Motor Cortex	Rapid Eye Movement (REM)
Glial Cells	Muscle	Synapses

POST-READING QUESTIONS AND ACTIVITIES

READING COMPREHENSION QUESTIONS

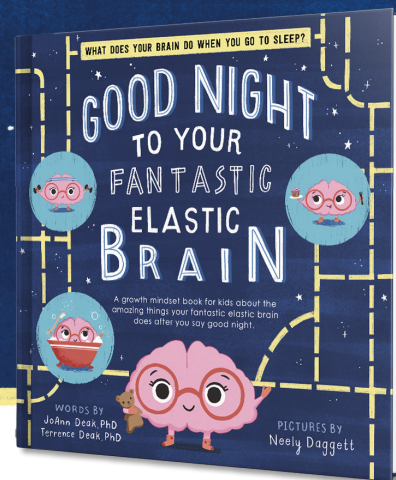
- What controls everything you think, feel, say, and do?
- How does the brain act like a muscle?
- List the things that your brain does at night to help you grow and stay healthy.
 - List the things that happen when you don't get enough sleep.
 - What is REM sleep?



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- Why don't you move and act out your dreams?
- What do the lungs and stomach provide the brain, and how does the heart help deliver these things?
- How does a good night's sleep help you deal with bad things that happened during the day?
- Why is it helpful when glial cells prune the connections between neurons in your brain?
- Does your brain shut down completely when you sleep?

PICTURE THIS

This book uses different types of illustrations to get its message across. Some show children playing, some are diagrams of the brain or our nerves, and some show the brain as a character, doing things like eating and exercising. As a class, come together and discuss these different illustrations. What information does each kind of image convey best? How do they work together to help students understand the book?

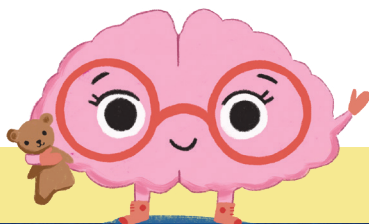
BUILDING CONNECTIONS

As a class, review the page where the children are playing soccer. The illustration shows neurons in the brain sending the "kick" message. Later, in the "Your Brain Develops" section we are introduced to neurons in more detail, showing how their dendrites connect to other neurons at the synapses. Come together as a class and review this section. What do glial cells do? How do they help your brain develop? To illustrate this process, have students draw a picture of a neuron, including a word or picture identifying the message it is sending. Connect the neurons together. Use scissors to simulate some of these connections being "pruned" by glial cells. What connections become stronger thanks to the pruning?

REM SLEEP

REM sleep is important, but mysterious. We know that we need it but we don't know why. Read what the book tells us about dreams and REM sleep. What does REM sleep mean and why is it called that? When during our sleep do we dream? Do scientists know why we dream? Why don't we act out our dreams? Do students remember their own dreams? What things do they dream about? How do students think dreaming might help their brains?

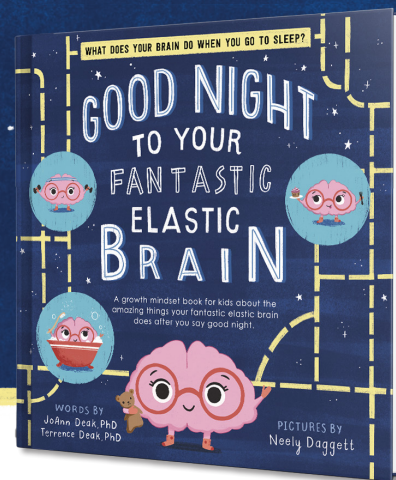
- Bonus Activity: If students have a dog or a cat, have them make a video of their pet when it is asleep and dreaming to share with the class!



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WHAT HAPPENS IF YOU DON'T SLEEP?

Come together as a class and list the ways our behavior changes when we don't get enough sleep, as specified by the book. What is going on in the brain that makes us respond this way? Have students make a drawing illustrating one of these results of lack of sleep.

HELP YOU SLEEP

This book shows how important sleep is, and it also tells us about some things we can do to help fall asleep and stay asleep. Have students review the book—and find the things they can do to help their fantastic elastic brains sleep and develop. Come together as a class and discuss how they can practice make these things part of their day-to-day life.

BOOKS IN A SERIES

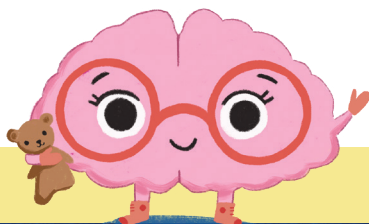
JoAnn Deak is also the author of the award-winning *Your Fantastic Elastic Brain*. That book is an introduction to the brain, and is full of ways for young readers to develop their brains with exercise. In *Good Night to Your Fantastic Elastic Brain*, readers learn how sleep helps their brains to develop. Compare and contrast these books. What do they tell the reader about their brains? How do these books work together to help readers understand themselves and their fantastic elastic brains?

WHAT IS A GROWTH MINDSET?

This book is identified on the cover as, “A growth mindset book for kids.” Someone with a “growth mindset” believes they can get better at things through work and practice. Come together as a class to discuss these ideas. How does the book's explanation of what sleep does to help the brain reflect a growth mindset? How do students feel about these ideas? What skills or abilities have they improved through practice and effort?

WHO AM I?

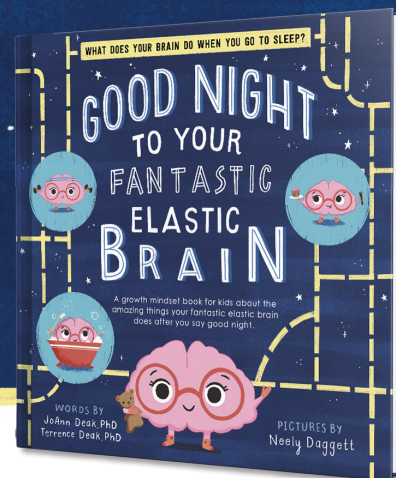
Break students into groups and assign each one a part of the brain or process of the brain. Have them find three facts about their part of the brain to share with the rest of the class. Have each group read off their facts one by one, and let volunteers try to guess what the part of the brain they are describing. If no one can identify the subject after the three facts, have students review the book or use the glossary sheets they created to help them figure out “Who am I?”



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WHAT HAPPENS WHEN WE SLEEP

Break students into groups and assign each group one of the sections from the “Brain’s Nighttime Checklist” as the subject for a poster and presentation. Working with an adult as necessary, have students create an informational poster that illustrates one of the things the brain does during sleep in a fun and memorable way. Have each group present their section to the class, explaining their poster and performing a short skit about their subject. Display the posters around the classroom to help students remember how sleep keeps their brains working at their best!

INTERNET RESOURCES

Looking for more information about the brain for kids? Check out these websites!

The Dana Foundation Resources for Educators: Share Brain Science with Your Students!

<https://dana.org/share-science/resources-for-educators/>

Neuroscience for Kids:

<https://faculty.washington.edu/chudler/neurok.html>

National Geographic Kids: Your Amazing Brain

<https://kids.nationalgeographic.com/science/article/your-amazing-brain>

Cool Kid Facts: Fun Facts About the Brain

<https://www.coolkidfacts.com/facts-about-the-brain-for-kids/>

Healthline’s Fun Facts about the Brain

<https://www.healthline.com/health/fun-facts-about-the-brain>

