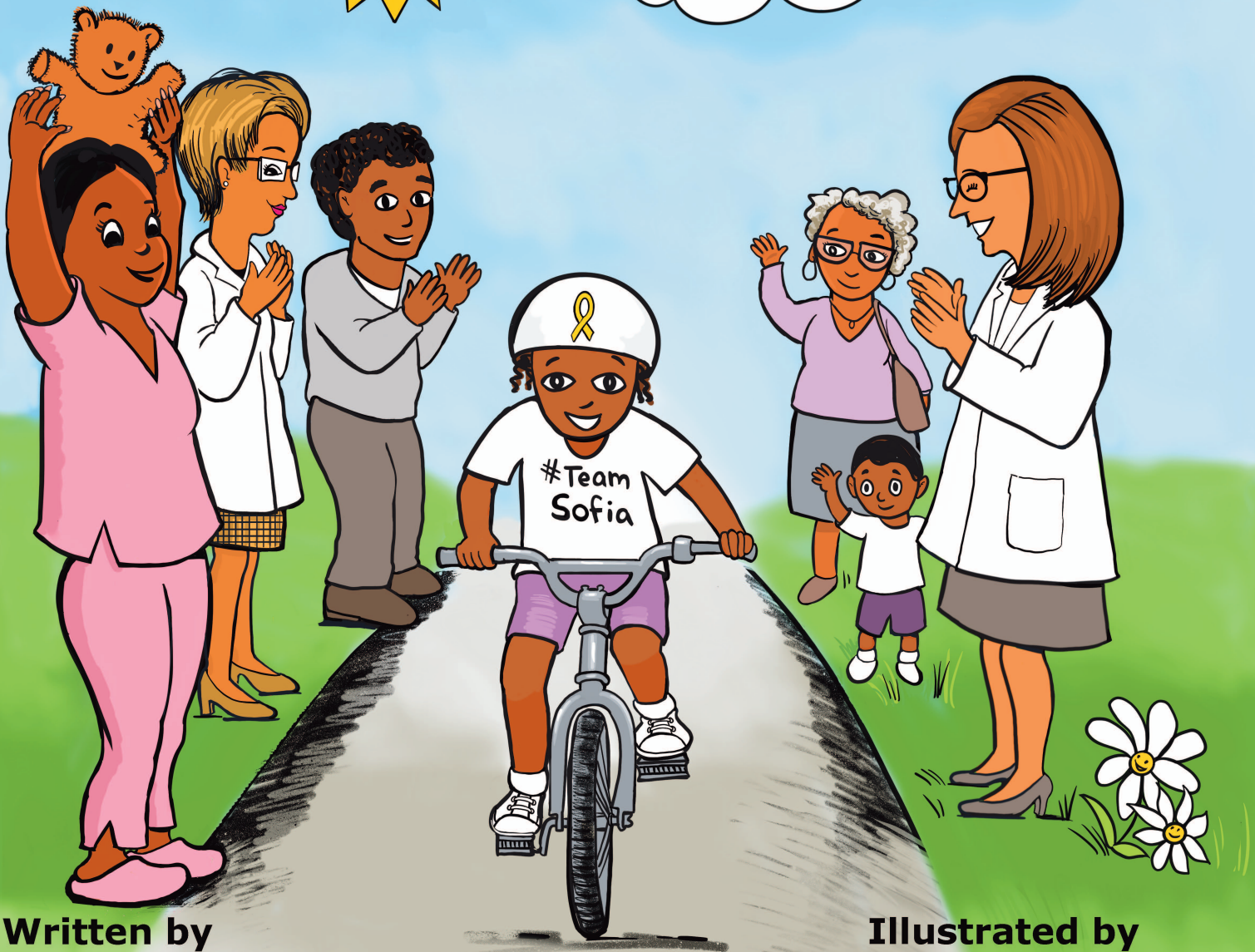
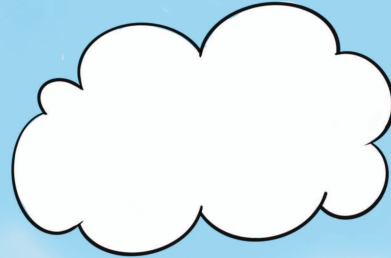


SOFIA

LEARNS ABOUT CANCER RESEARCH



Written by
Amanda Teo, MA
Hital Patel, BS
Kara Kelly, MD
Teresa Quattrin, MD
Renee Cadzow, PhD

Illustrated by
Isabella Bannerman

Series Editors
Renee Cadzow, PhD
Teresa Quattrin, MD

SOFIA

LEARNS ABOUT CANCER RESEARCH

Written by
Amanda Teo, MA
Hital Patel, BS
Kara Kelly, MD
Teresa Quattrin, MD
Renee Cadzow, PhD

Illustrated by
Isabella Bannerman

Series Editors
Renee Cadzow, PhD
Teresa Quattrin, MD



University at Buffalo Clinical and Translational Science Institute

Copyright 2025 by University at Buffalo Clinical and Translational Science Institute

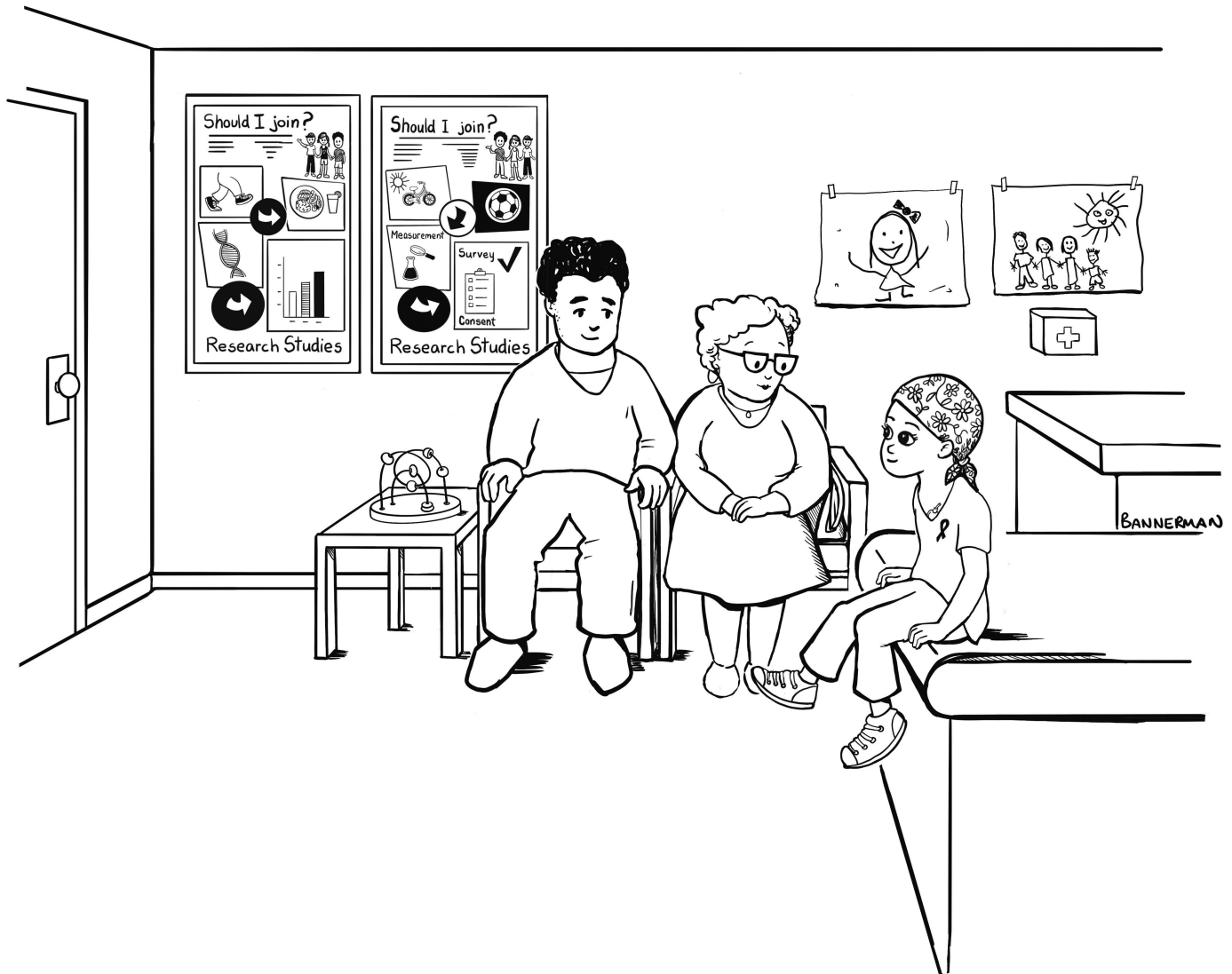
All rights reserved. This book or any portion thereof
may not be reproduced or used in any manner whatsoever
without the express written permission of the publisher.

Printed in the United States of America
2025

The publication was supported by the National Center for Advancing Translational Sciences of the National Institutes of Health under award number UM1TR005296 to the University at Buffalo. The content is solely the responsibility of the authors and does not necessarily represent the official views of the NIH.

If interested in ordering copies of this book, please contact

SofiaCTSI@buffalo.edu



Sofia was back at the hospital again. Not long ago, she had stayed there for a whole month. That's when Sofia found out she had cancer.

Cancer is when some of the body's cells get sick and grow too much. That's why Sofia had **symptoms** like a fever and feeling very tired.

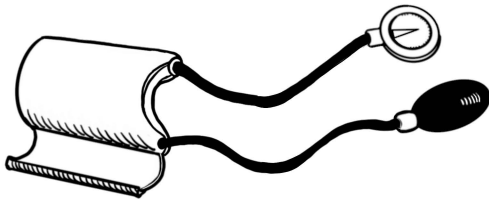
"It's no fun coming to the hospital all the time," Sofia said quietly.

ACTIVITY: Help Sofia learn about the things she may see or hear at the doctor's office. Draw a line from the picture on the left to the matching word on the right.



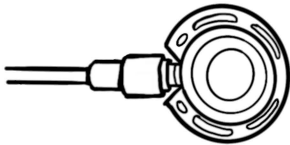
•

• Blood pressure cuff



•

• Cells



•

• Gloves



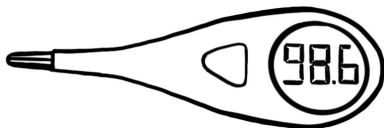
•

• Head measurement



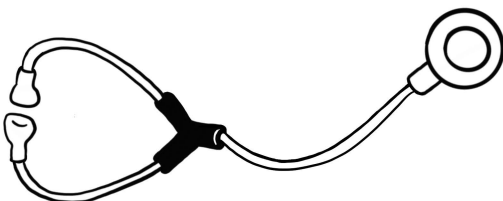
•

• Port



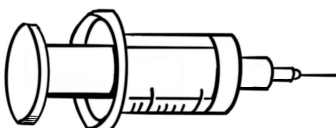
•

• Stethoscope



•

• Syringe



•

• Thermometer

"I know it's not fun. Can I come in?" asked Dr. Wilson.

Sofia looked up and saw Dr. Wilson walk into the room. He was her favorite doctor!



"Hi, Dr. Wilson" said Sofia.

"Hi, Sofia! It's good to see you today," said Dr. Wilson. "I know coming for **check-ups** can be hard. But they help us make sure your medicine is working. Taking your medicine is a big part of helping you feel better."

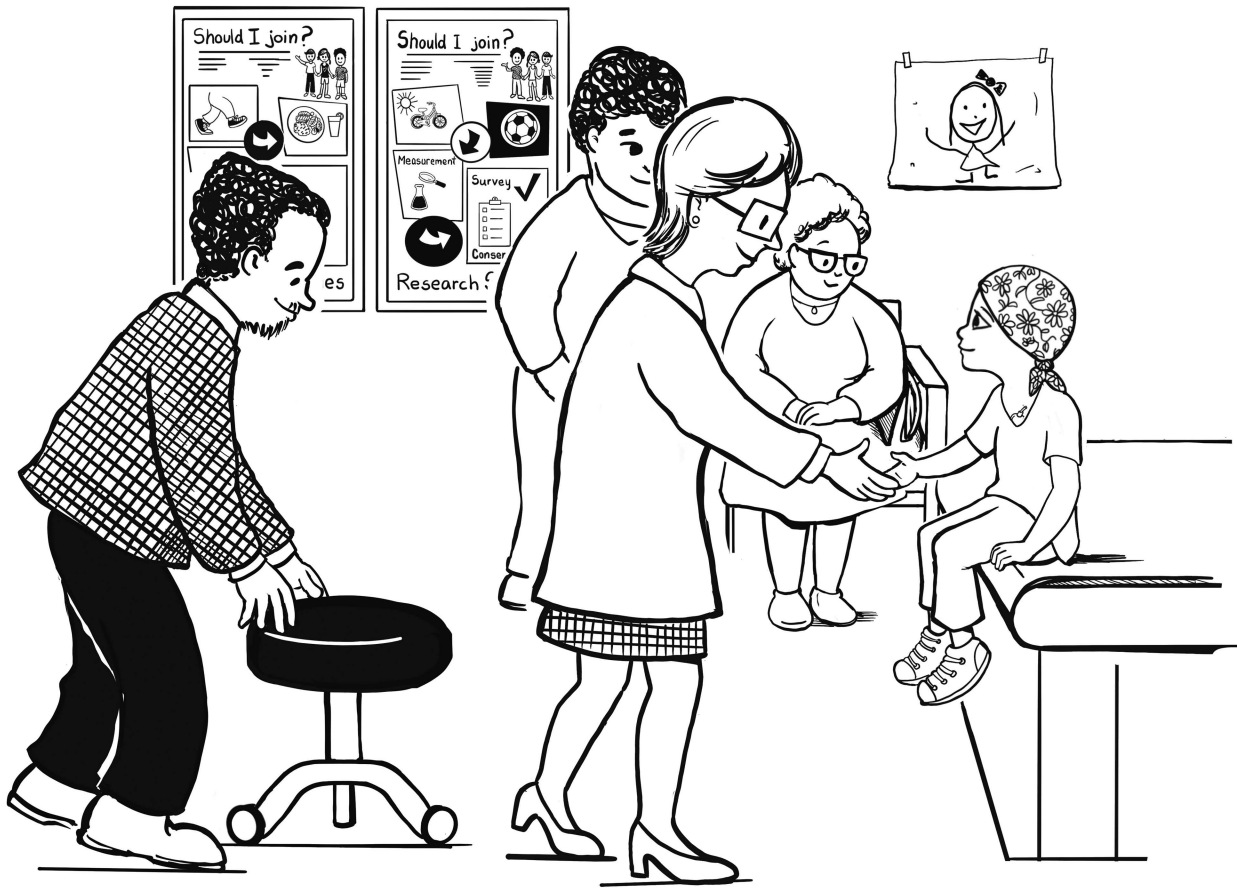
Dr. Wilson smiled. "I hope today's visit is a little more fun. We're going to talk about **research!**"

"What is **research**?" asked Sofia. She had been learning a lot of new words recently.

"I would like to introduce you to Dr. Amanda Quinby. She is a **scientist**. You can call her Dr. Q. She can tell you all about research." said Dr. Wilson.



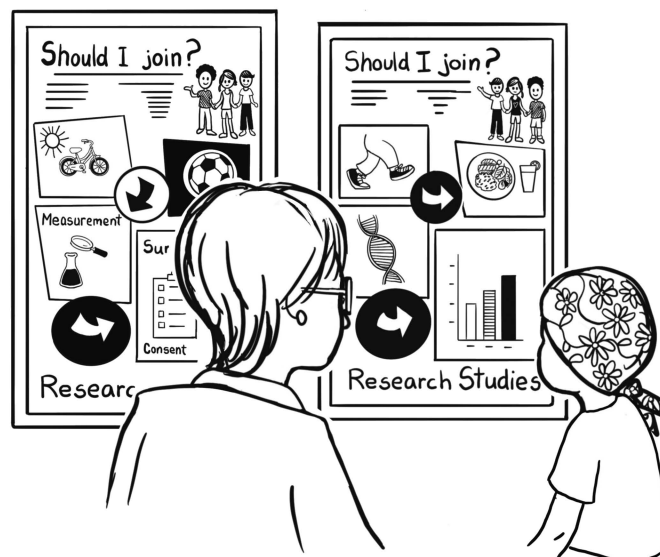
"Hi Sofia! Hi Mr. and Mrs. Moreno! It's so nice to meet you. I'm Dr. Q. Research is a lot like a science experiment. It helps us learn how to treat other kids with cancer. Sometimes, research can help us make better **medicines** for you too!" said Dr. Q.

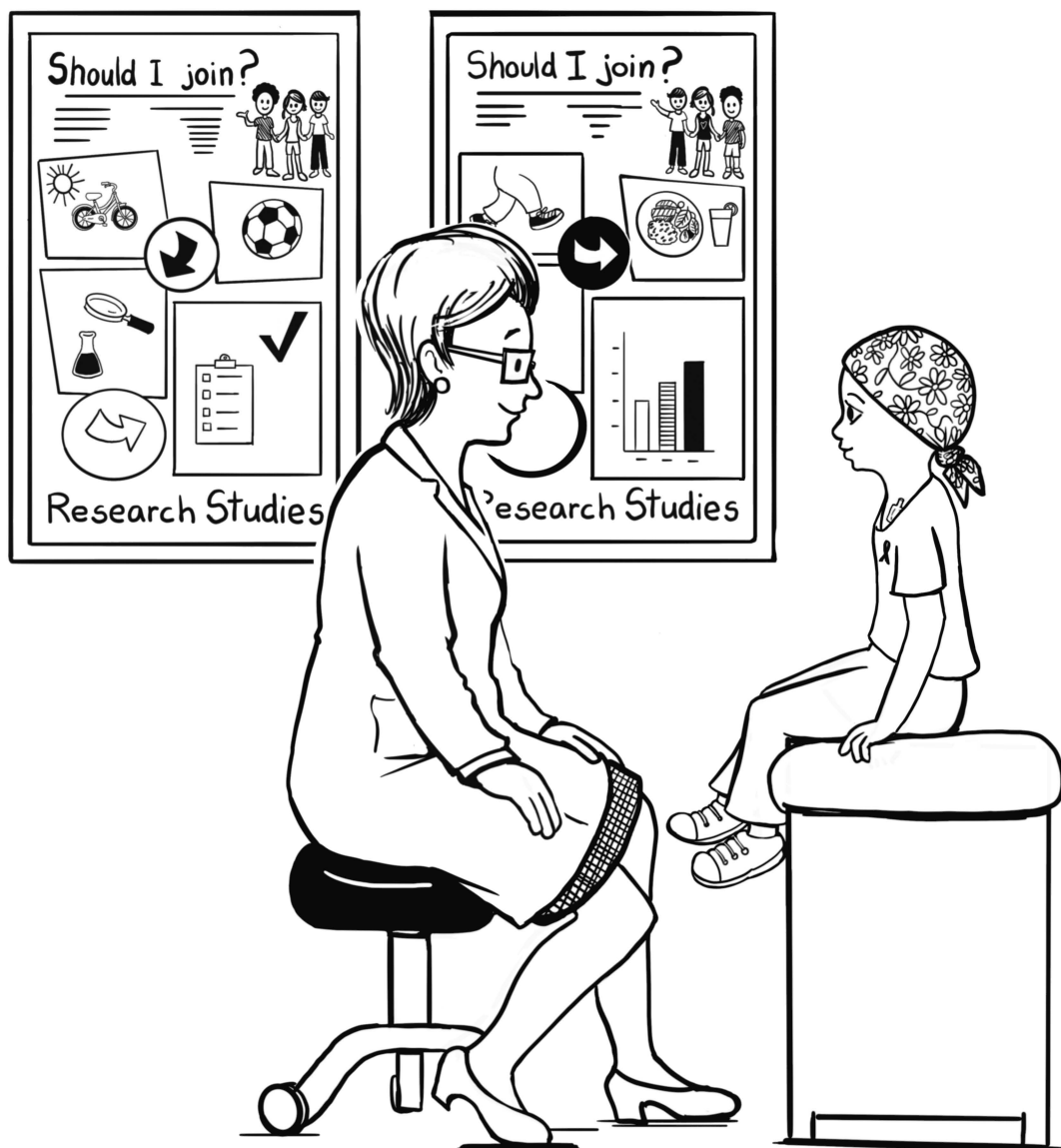


"Hi Dr. Q, it's nice to meet you too," said Sofia.

She looked at the wall. There were lots of bright posters with the word "research" on them.

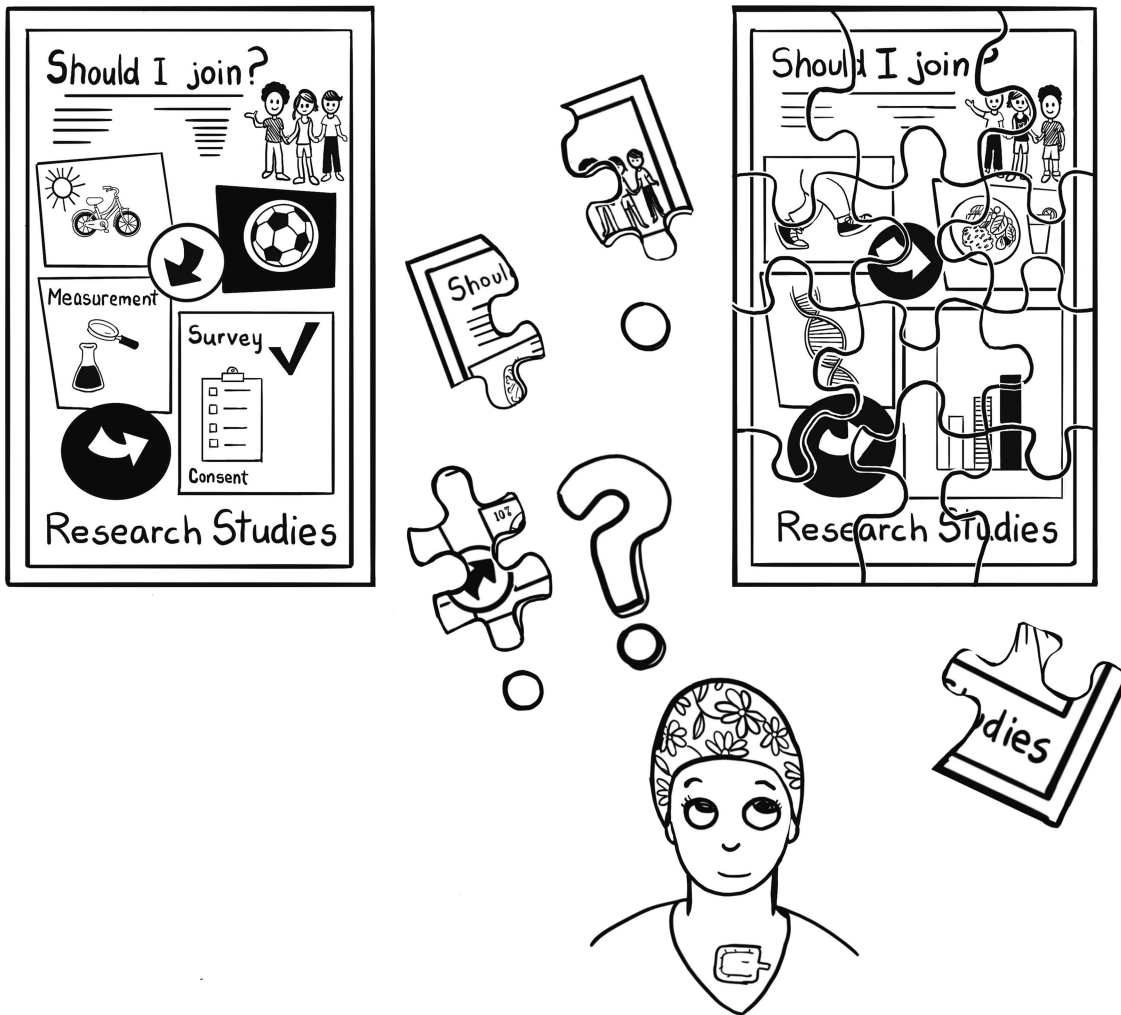
"Hmm," said Sofia. "It looks like there are many types of research. How do we know which one is right for me?"





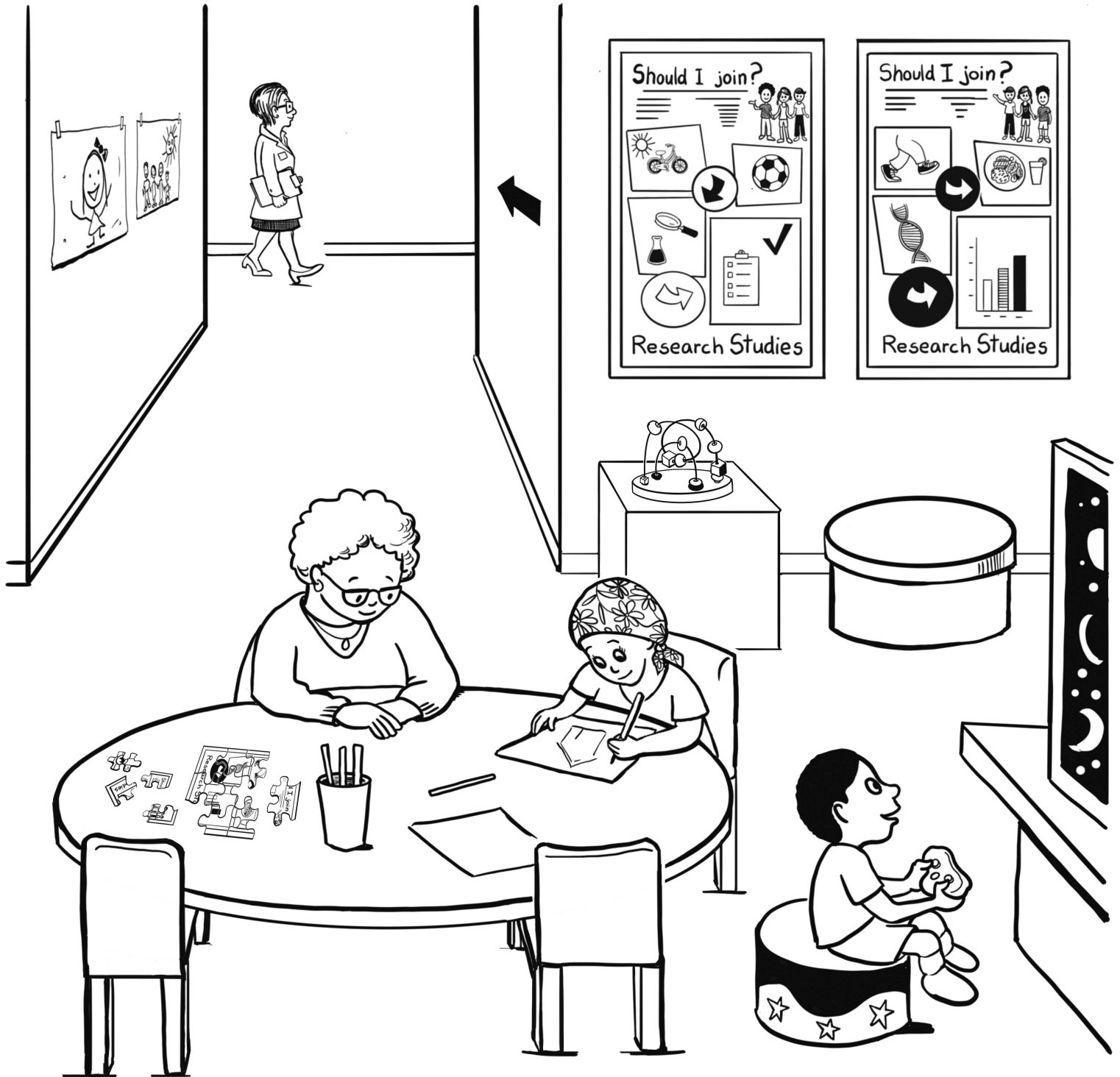
"You're right! There are lots of different types of **research**," said Dr. Q. "That's because kids need different **medicines** than adults. Our team will help you and your parents pick the study that's best for you. We're all here to help."

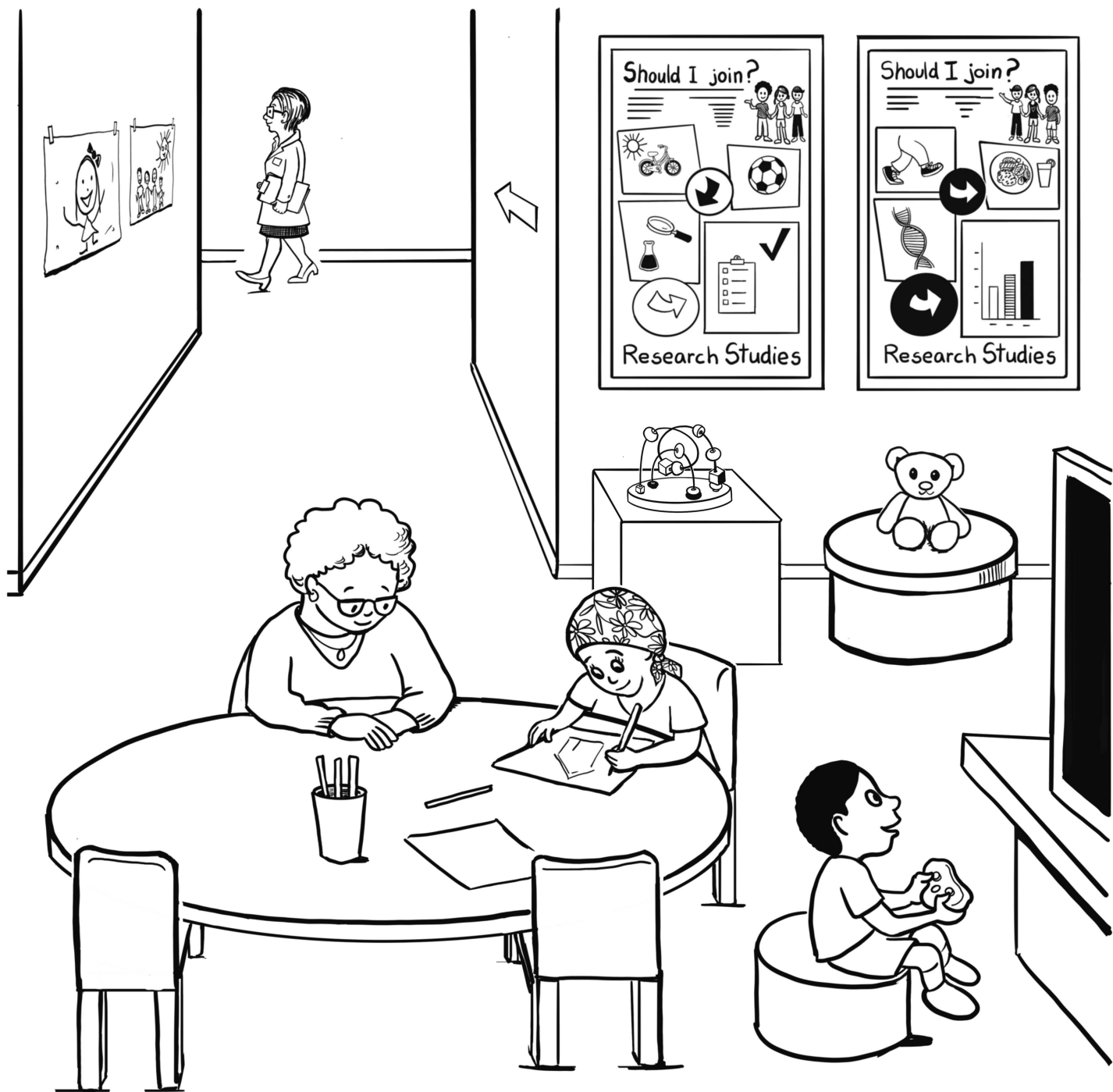
Sofia liked the idea of helping other kids. But she still felt a little nervous. She saw that Dr. Q's clipboard had a lot of papers on it.



"I can answer any questions you or your family have," said Dr. Q. "These papers tell you all about the study. Do you remember the puzzles in the waiting room? Each puzzle piece is like a study. When we put the pieces together, we learn more about cancer."

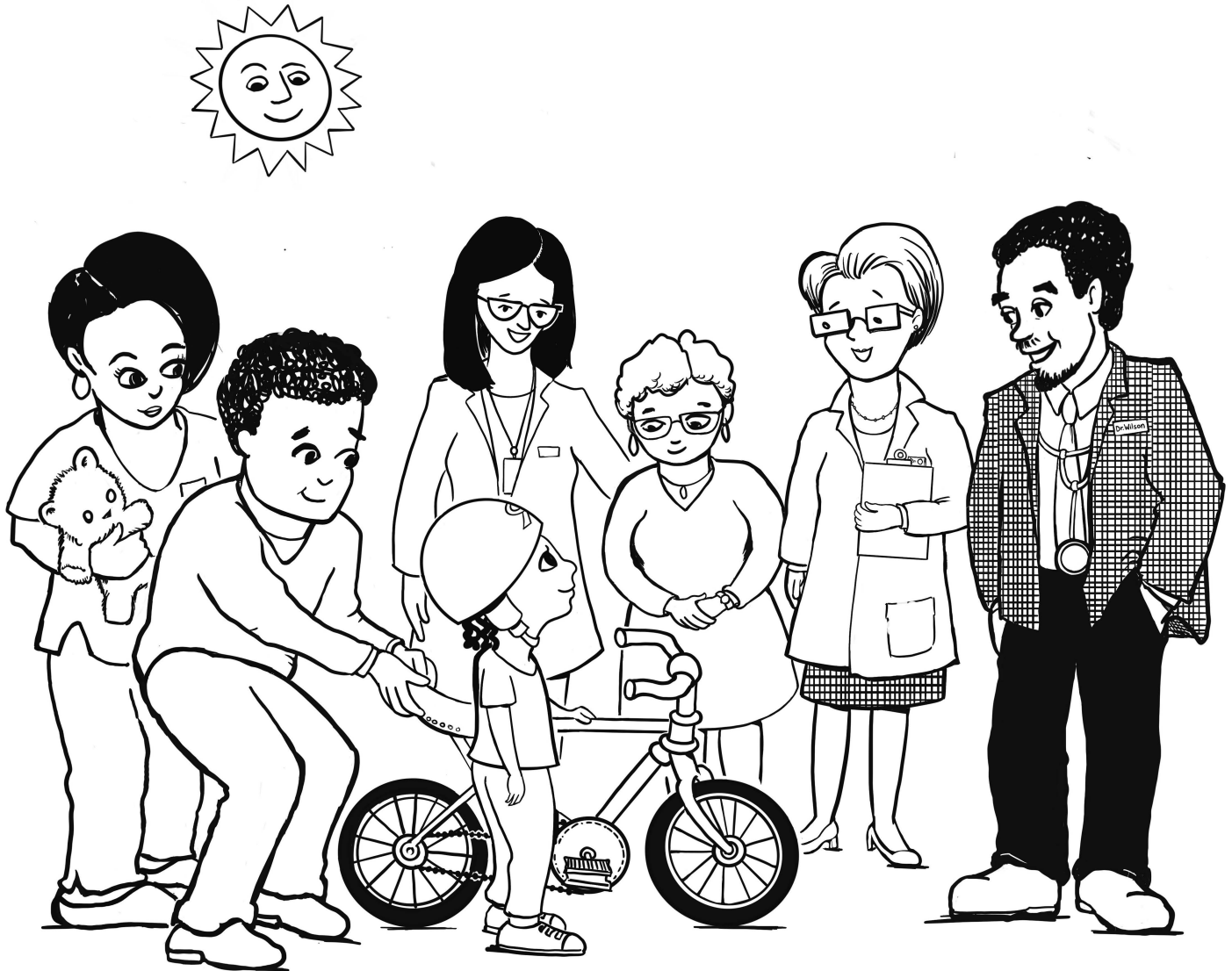
ACTIVITY: Practice your observation skills. Can you help Sofia find 6 differences between the waiting rooms?





Answer Key: 1. Doctor walking in hallway. 2. Arrow on wall. 3. Puzzle.
4. Pattern on seat. 5. Teddy bear. 6. TV screen.

"You will meet our **research team!**" said Dr. Q. "They will tell you what's good and what might be hard about being in a **research study.**"



"Benefits are good things that happen in a study. One good thing that might happen is that the study could help find a new medicine that works for you!"

"There are risks. Risks are unpleasant things that might happen. It's like riding a bike—there's a small chance you could fall."



"But I always wear a helmet when I ride my bike!" said Sofia.

"That's great, Sofia!" said Dr. Q. "Think of me and the research team as your helmet. We will do our best to keep you and your family safe and help you through the study."

ACTIVITY: Meet Sofia's Research Team. Learn about the different titles and jobs of her team.

Oncologist: A doctor who helps treat cancer with medicine. (Hint: they look at x-rays.)

Scientist: A person who asks research questions and finds out how things work. (Hint: might use a microscope.)

Nurse: Helps give medicine and writes down how you are feeling during the study. (Hint: can enter data while standing!)

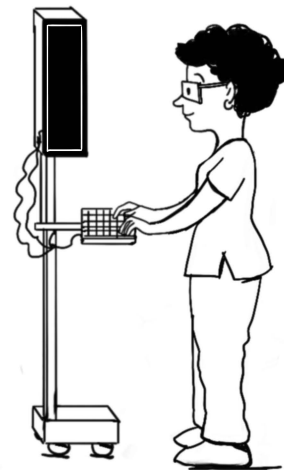
Research Coordinator: Makes sure the study goes well. Helps your family understand everything. (Hint: can use a phone and a computer at the same time.)

Pharmacist: Shows you how to take your medicine the right way. (Hint: handles prescription bottles.)

Dad and Grandma: Your support team! They learn about the study and can ask questions for you.

Research Ranger/Sofia: (This is you!) Don't forget! You are the most important person on the team.

Can you help Sofia put job titles under their pictures?



"You will have lots of time to ask questions and learn about the study," said Dr. Q. "Then, you and your family can decide if you want to join. We will ask for assent and consent from you and your legal guardian."



"A **legal guardian** is a grown-up who helps you make big choices. For you, Sofia, that's your dad and grandma."

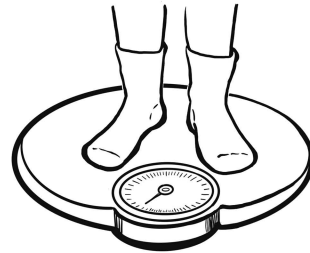
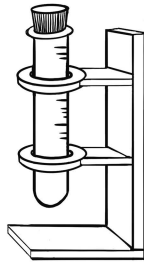
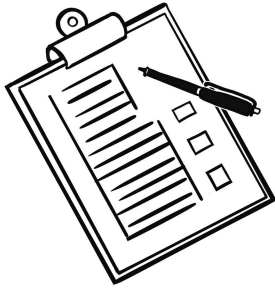
"**Consent** means your grown-up says yes to the study. **Assent** means you, the child, say yes, too," Dr. Q explained.

"What do we have to do if we say yes to the study?" asked Sofia's dad.

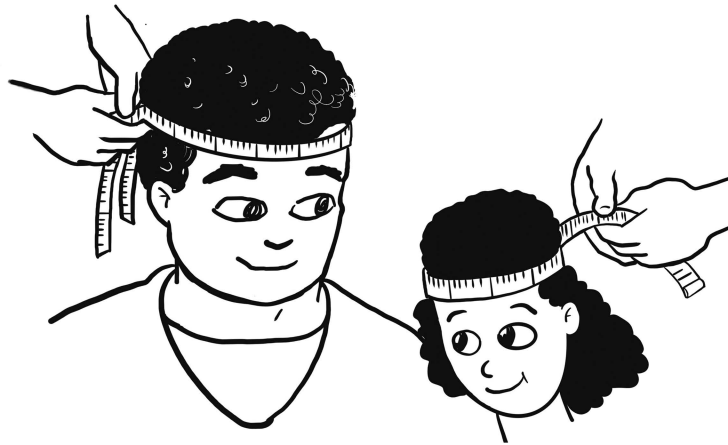


"Great question, Mr. Moreno," said Dr. Q.

"Every study is different. Some studies ask you to answer questions in a **survey**. The questions might be about your family or how medicine time goes at home.



Sometimes, scientists might ask for a **sample** of blood or spit to learn more about your body. Other times, they measure how tall you are, how much you weigh, or how big your head is!"



"These are all ways we collect **data**," said Dr. Q. "Data is information that helps scientists learn how your body changes while you're in the study."

Sofia giggled as she thought about getting her head measured next to her dad.

ACTIVITY: Answer the questions in this survey to collect data about yourself.

If you need help with this survey, ask a grown-up for help!

What is your first name? _____

What is your last name? _____

When is your birthday? _____(month)_____(day) _____(year)

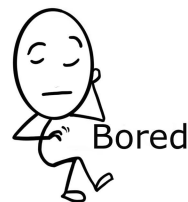
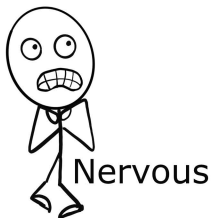
How tall are you? _____ inches

How much do you weigh? _____ pounds

What time did you wake today? ____:____ AM

What is your favorite food? _____

Today, I am feeling (circle all that are true):



ACTIVITY: Write or draw some of the things that make you feel strong on Sofia's Research Ranger cape.



"Dr. Q, if I join a study, will I have to come to the clinic more?" asked Sofia. She looked a little nervous.



"Don't worry, Sofia," said Dr. Q. "We want to make sure the study works with your schedule. If there are too many visits, or if the times don't work for you, just tell me. Our team will help make it easier for you to take part!"



Sofia had one more question. It was very important!

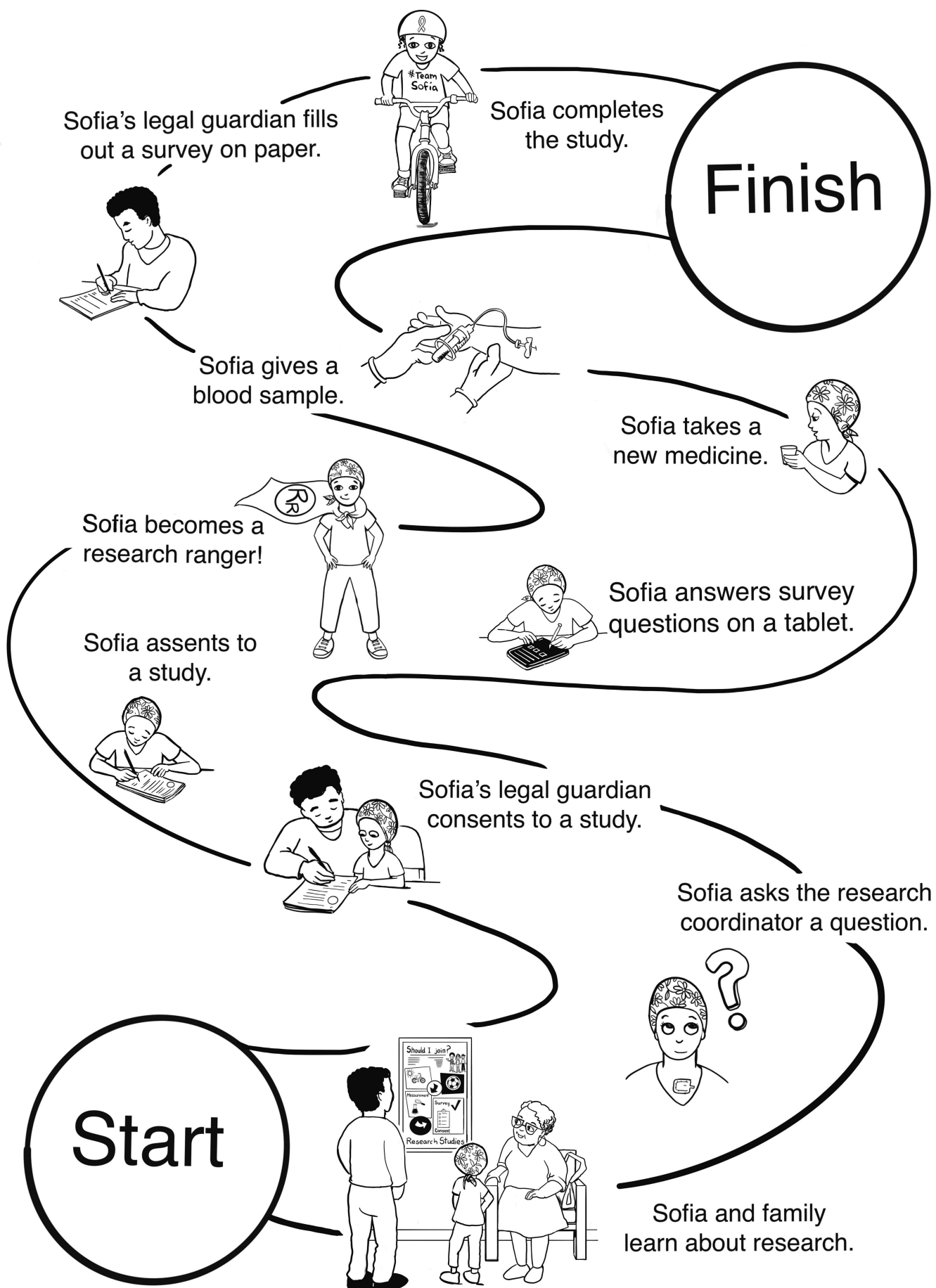
"What if I want to stop?" she asked in a quiet voice.

"You can stop at any time," said Dr. Q. "The most important part of a study is how *you* feel. If you want to stop, that's okay. We will listen. We won't be mad. You can always change your mind."

"Phew!" said Sofia. "Thank you for answering all my questions, Dr. Q!"

"Answering questions is my job!" said Dr. Q. "Remember, research helps us learn more about kids with cancer. You can help other kids just like you. Research Rangers can help change the world!"

Follow Sofia's journey from start to finish



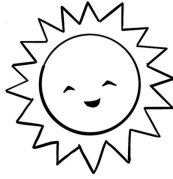
ACTIVITY: Are you part of Sofia's team? Draw a picture of yourself and write your name!



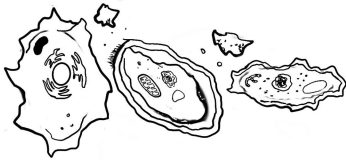
Glossary



Assent: Assent is when kids agree to join a research study.



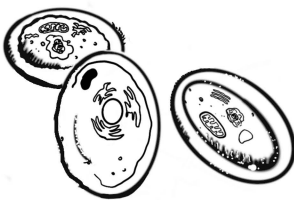
Benefits: Benefits are good things that come with joining a research study. For example, finding a medicine that works for you and other kids.



Cancer: Cancer is a disease that happens when sick cells stop healthy cells from doing their job. Sick cells have a different shape than your healthy cells, and they can spread to other parts of the body.



Cancer treatment: Cancer treatments can include special medicines or clinic visits to help your healthy cells fight off sick cells.



Cells: Cells are the building blocks of your body.



Check-up: A check-up is a regular visit to clinic with your doctor, to talk about how you're feeling, to take measurements, and to catch up with your research team.



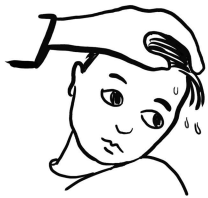
Consent: Consent is when your legal guardian agrees that its okay for you to join a research study.



Data Collection: Scientists gather information to learn more about you. This information is called data.



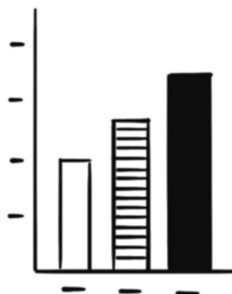
Fatigue: Fatigue is when your body feels tired, even when resting.



Fever: A fever is when your temperature is high because your healthy cells are working hard to protect your body.



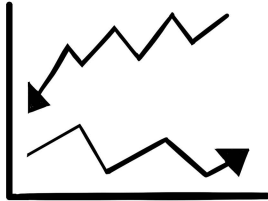
Legal guardian: A legal guardian is the adult who is responsible for helping you make important decisions.



Research Study: A research study is a science experiment that helps you answer a question. This may involve using your eyes, ears, nose, or your sense of touch to learn about something. It involves careful planning and writing everything down. This helps scientists remember everything.



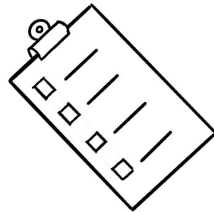
Research Team: A research team helps support you and your adults from the beginning to the end of a research study.



Risks: Risks are things that may not go as planned during a research study. Remember, you have your whole research team to help keep you safe!



Sample: A sample is something scientists collect to learn more about you.



Survey: A survey is when you answer questions that help scientists learn more about you.



Symptoms: A symptom is something you feel, like pain, nausea or fatigue.

Special Thanks

to all who helped us make this book the best it could be!

Naveed Shah for page layout and design

Andy Strohmeier for project coordination and editing

The Roswell Park Alliance Foundation for supporting
Amanda Teo and Hital Patel

And all of the children and their families for their
much-appreciated feedback and support:

**A very special thank you to
Brynlee & Ava, Colin, Connor,
Kenneth, Kinsey, Lazaria, and Willow**

