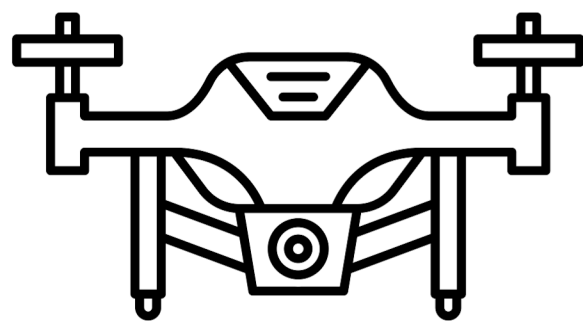
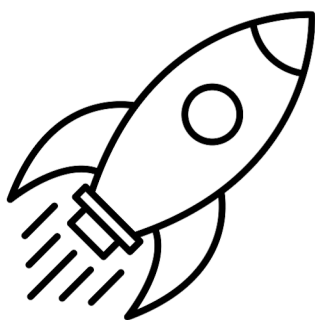
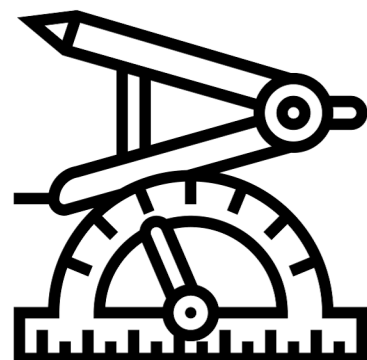
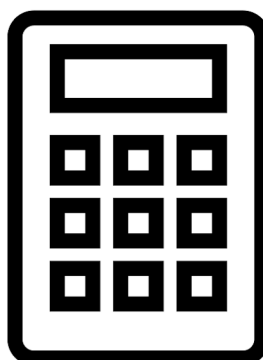
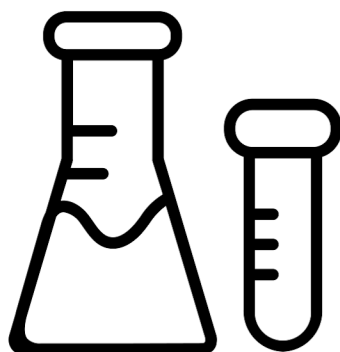


# Finding the ME in STEM



**Siobhan's student activity pack**

# Imagining the Future

Let us take you on an incredible journey into the world of space exploration with the Callistan Cycle.

The Callistan Cycle is a series of five short stories from our Imagining the Future series that explore STEM areas like robotics, AI, climate change and resource management.

You can read, watch or listen to each story, for free.



## **Far Out!** by Lili Wilkinson

As the seconds count down to the launch of humanity's first family into deep space, young stargazer Stella is sure that today is going to be the most exciting day of her life. But she has no idea of just HOW exciting and terrifying and important it will be. And what it will mean for the future of interstellar travel.

Join the Kaufmanns as they go FAR OUT! in a story that explores space and robotics.



SCAN ME



## **Calculating Apple Pie** by Melissa Keil

Kal and her sister Arche are hurtling through space towards Callisto in a ship shaped like a beluga whale that is the size of a city block. Arche does something a bit (very!) reckless to try to help her sister feel a little less homesick.

Calculating Apple Pie explores future food production and coding and how tampering with it can cause serious real-world problems.



SCAN ME



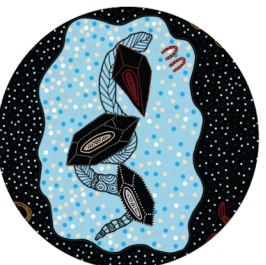
## **Semper** by Rebecca Lim

Shang travelled to Callisto on the Hohmann transfer from Earth, which took almost six years. She sacrificed everything for the chance to explore distant moons for resources and critical minerals, but gets paired with a Drobo called Semper that always wants to play, like a real dog. Shang doesn't have time for games, so why has she been paired with such a useless Drobo?

Semper explores robotics, AI and mineral exploration.



SCAN ME



## **Proof** by Gary Lonesborough

Tanner has been noticing that lots of people in his town on the lunar outpost on Callisto are getting sick. What is causing this mysterious illness plaguing his community? Tanner's sister Rachel thinks she knows what's causing it and takes Tanner on an eye-opening adventure where they discover a lot more than just the cause of the illness.

Proof explores filtration, waste management and environmental science.



SCAN ME



## **Earthbound** by Alison Evans

Pen and their father have arrived on Earth. Pen's comms device isn't working, and when Pen tries to fix it, they hear a strange rhythmic sound coming from it. Determined to figure it out, Pen seeks the help of an android to help decipher the mysterious sound.

Earthbound explores transportation and telecommunication.



SCAN ME

## Comprehension Questions

What does Siobhan split her time across?

1.

2.

What two things is Siobhan not good at?

1.

2.

Name two things Siobhan is good at.

1.

2.

What phenomenon did Siobhan focus her research time on?

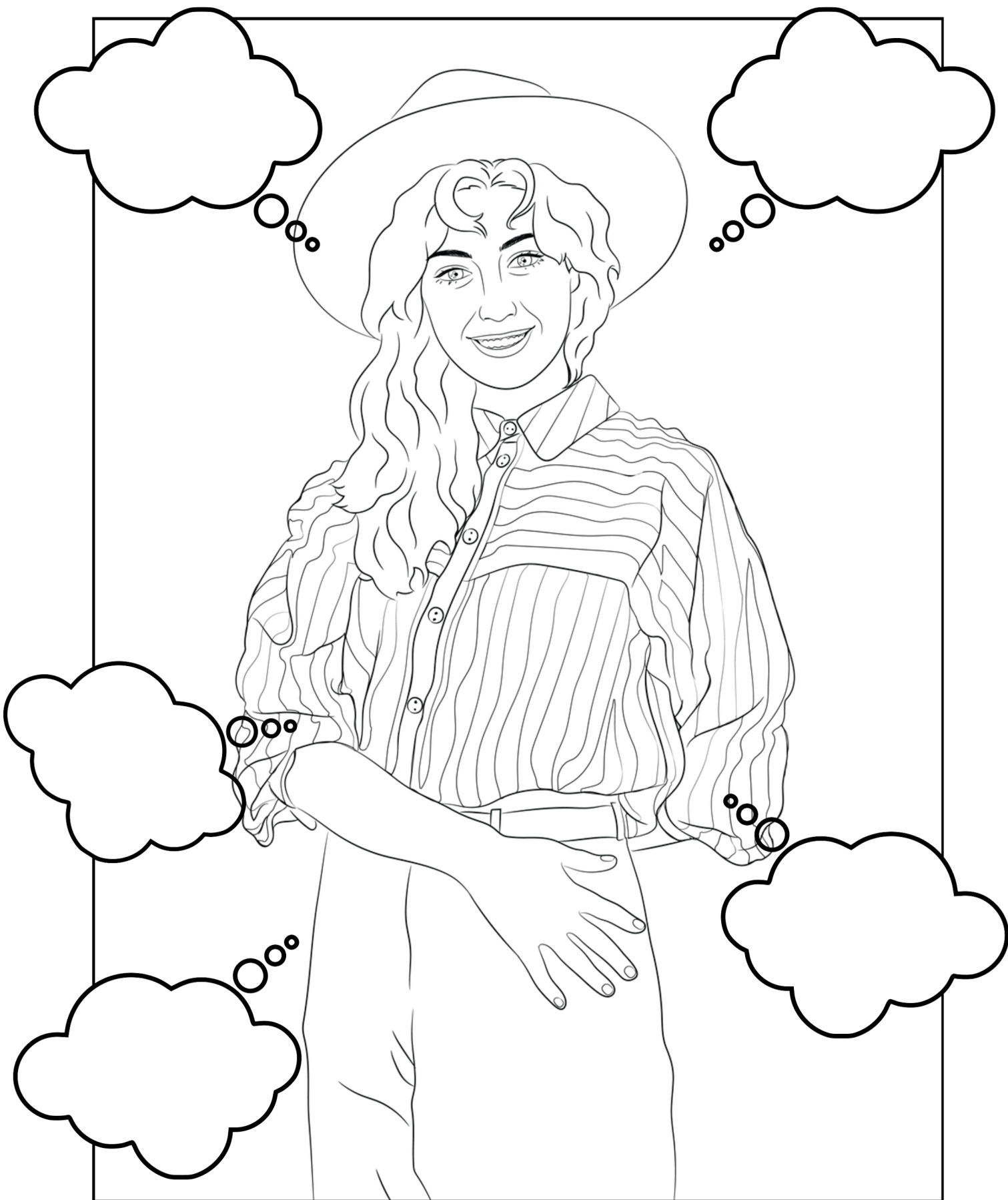
What title did Siobhan give her PhD?

What language is Siobhan currently learning?

What is at the heart of Siobhan's job?

How does Siobhan's job help musicians?

Meet Siobhan. She's an artist and audiologist who splits her time across creative endeavours and hearing health. Fill in the bubbles with 5 STEM (Science, Technology, Engineering and Mathematics) skills she uses in her job. Which of these skills do you think is most important? Which do you think would be the hardest to develop? When you've thought of the skills, colour in the rest of the image.



# Pathfinder Workwords

## Audiologist

S C O M M U N I C A T I O N E L V I F N M L S  
H E M R H H L Y H U P W X Q C A Q T N I S Z P  
J E V N W U I X L D X P A O N N P G O D I F E  
S N A A U Y N D J I M F O R A A T A X N S K E  
R P O R W O E W S T D A U X L C N D N W O N C  
A X E C I D S K Q O F C R G A R S E Z T U O H  
W Z O E D N N W U R E O A G B A R N X L N Z T  
G N S P C L G U S Y X U X F O E X J N D D D H  
I X D R K H E U O B D S B R A I L M U M P A E  
Q P Y Q E A T Y L S I T W R A Y D C B B R L R  
S D P V R I D I A G N I R A E H T U D Q O V A  
T A K D N J D G H T C C Q K A I T L A O O R P  
I C R N C O C H L E A S C R V U E W E P F Z Y  
S U I O X H E A R I N G T E S T A K A T P S S  
M T V C I T S O N G A I D Y C N E U Q E R F G  
V Z R T V E B Y Y J Q X C J Q X V F A A I E M

**Find 20 words Siobhan needs to do her job.**

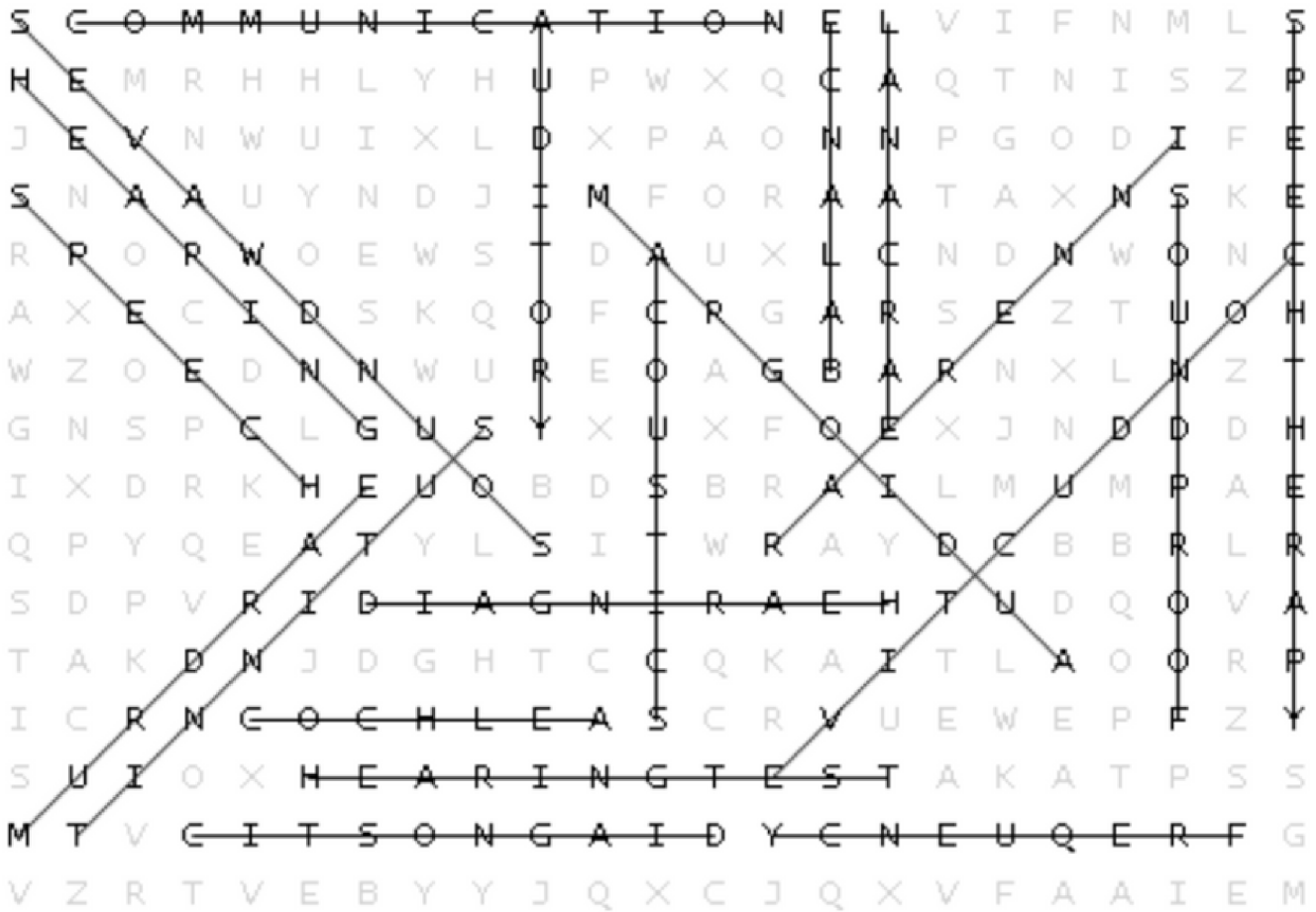
- |                |                    |
|----------------|--------------------|
| 1. HEARING     | 11. CONDUCTIVE     |
| 2. ACOUSTICS   | 12. DIAGNOSTIC     |
| 3. EARDRUM     | 13. AUDIOGRAM      |
| 4. HEARING AID | 14. BALANCE        |
| 5. SOUND WAVES | 15. HEARING TEST   |
| 6. EAR CANAL   | 16. SPEECH THERAPY |
| 7. TINNITUS    | 17. INNER EAR      |
| 8. COCHLEA     | 18. FREQUENCY      |
| 9. SPEECH      | 19. COMMUNICATION  |
| 10. AUDITORY   | 20. SOUNDPROOF     |

Scan this QR code to find out more about Siobhan.



# Pathfinder Workwords

## Answers



### Let's reflect

Were any of these words new to you? Look them up and find out what they mean.

Which of these skills do you think you are best at, or would like to get better at?

1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

Can you think of anything else Siobhan might need to do her job?

\_\_\_\_\_



# A example of a day in the life of an audiologist

- 7.00am** Time to get up! I love starting my day with a walk around our local lake. Sometimes I'll play an audiobook or call one of my friends who lives abroad. It's my favourite time of the day when everything is quiet and full of potential.
- 8.00am** It's time to head to work, in the car, on the train, the bus or a plane - it all depends on where I'm heading for the day. With my current job, there's a lot of travel. Sometimes in the city, sometimes way out in the bush. I pack my bags and head to the day's destination.
- 8.45am** I arrive at the office, coffee at hand and check in with the other staff. Working in a team means there are always stories and people to meet. I head to my office and give it a quick tidy, making sure I have all the equipment I need for the day. I like to do this so there are no hiccups during the day and things run smoothly.
- 9.15am** The first patient rolls in. If they're a kid, it's maximum fun. We play hearing games, take pictures of their ears, or test how well their eardrums are moving. Within half an hour, we can usually tell how well a child is hearing, and then give recommendations to the parents on what to do next.
- Midday** Time for lunch! It's not too long so I like to head somewhere to get a bite to eat. When your job is listening all day, sometimes it's nice to have a short pause for quiet.
- 12.30pm** Back to it, this time it might be adults, musicians, or patients with chronic tinnitus. The more complex the condition, the more my mind gets buzzing. Often people come holding onto so much worry and distress about their condition, one of the first things we can do is listen. Just by having someone patiently acknowledge all their symptoms, you can see a huge decrease in distress. We then go on to test and address their concerns, sometimes fitting earplugs, and hearing aids or discussing referral pathways. That part is especially important, as audiology can't solve everything alone. We work best in a team with other professionals.
- 4.15pm** The last patient leaves and I open my clinical files on my laptop. Time to write reports for everyone I saw today, and make sure the recommendations are clear.
- 5.00pm** Head out the door, you're done for the day! If I'm remote, it's a short walk to the motel. If I'm in the city, it's a commute in Melbourne.
- 6.00pm** If the weather's fine, I'm out for a walk to the shops to buy groceries for dinner. If my partner cooks, I'll get out the sewing machine and let my mind wander creatively for an hour or two. Some people read books to wind down, I prefer to make clothes. Whatever works for you!

# Audiologist/ Artist

**Siobhan** is an audiologist/artist who helps people access hearing care and prevent hearing injuries. She says communication is at the heart of everything she does. Siobhan is also an artist with a disability and is passionate about creating more accessible arts practices in Australia. Find out more:

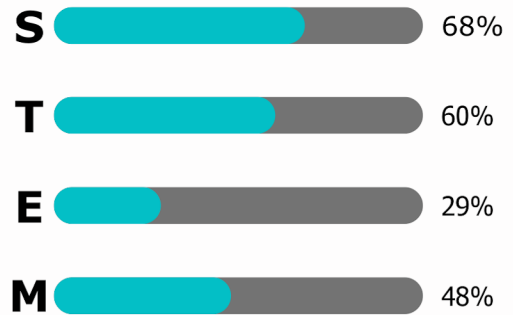
[futureyouaustralia.com.au/pathfinders/siobhan](http://futureyouaustralia.com.au/pathfinders/siobhan)



*“As a disabled artist myself, it’s been a real treat to support initiatives that create more accessible arts practices in Australia.”*

## STEM Meter

How much Science, Technology, Engineering and Mathematics (STEM) does this job use?



Source: [jobsandskills.gov.au](http://jobsandskills.gov.au)

## 5 reasons why you should do this job

- 1 Make a difference in people’s lives
- 2 Lots of career opportunities
- 3 Ongoing learning and innovation
- 4 Bringing joy to people
- 5 Improve educational outcomes

### 3 STEM skills required for this job

Psychology

Critical thinking

Biology

### Subjects to develop these skills

English, Mathematics, Science

Science, Mathematics, Digital Technology

Science