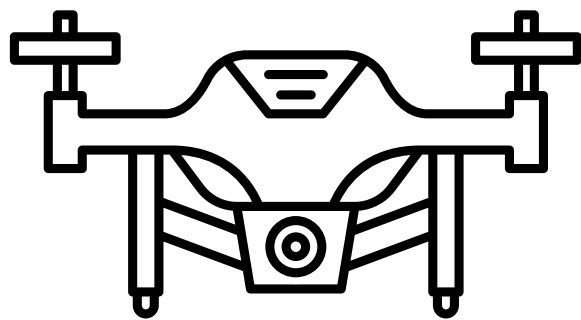
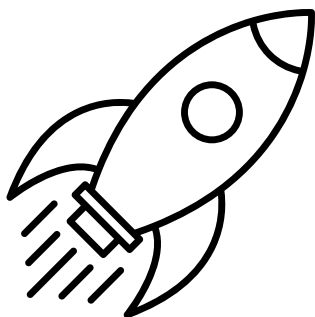
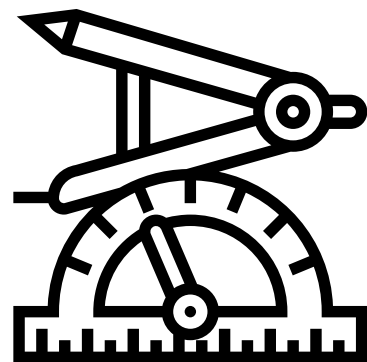
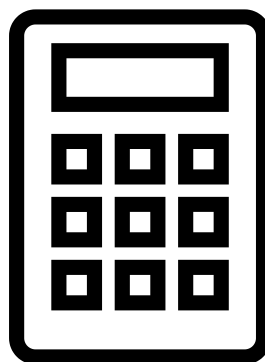
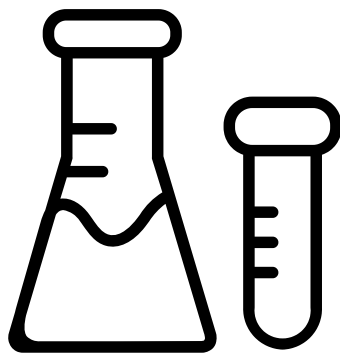


# Finding the ME in STEM



## Meredith'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.



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## **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.



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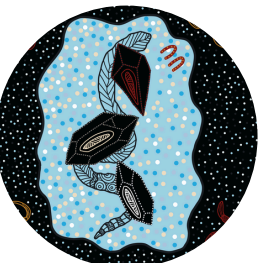
## **Semper** by Rebecca Lim

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.



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## **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.



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## **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.



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# Comprehension Questions

Student name: \_\_\_\_\_

To answer these questions, scan this QR code and watch Meredith's film.



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**Name FOUR things Meredith can do.**

1.

2.

3.

4.

**What kinds of jobs does Meredith say computer science degrees are valuable in?**

1.

2.

3.

4.

**What 'age' does Meredith say we're in?**

**Name TWO things Meredith can't do.**

1.

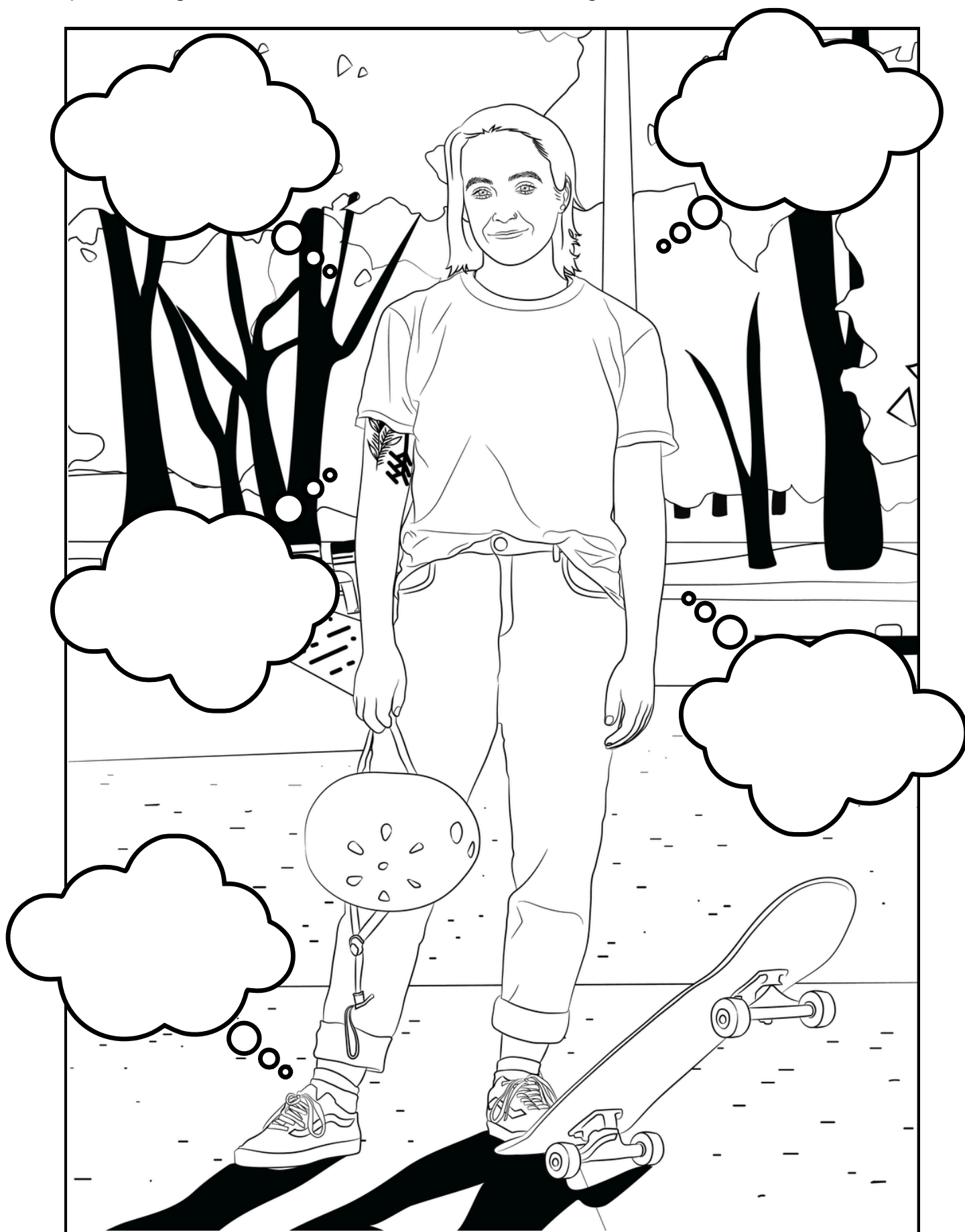
2.

**What got Meredith interested in computer programming?**

**Where does Meredith work, and what does she do?**

**What does Meredith believe is the joy of life?**

Meet Meredith. She's a software engineer. 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

## Software Engineer

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

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

- |                  |                   |
|------------------|-------------------|
| 1. COMPUTERS     | 11. SYSTEMS       |
| 2. INTERNET      | 12. EMAIL         |
| 3. CODING        | 13. ACCURACY      |
| 4. READING       | 14. TECHNICAL     |
| 5. MATHS         | 15. ELECTRICITY   |
| 6. PROGRAMMING   | 16. LANGUAGES     |
| 7. COMMUNICATING | 17. ACCESSIBILITY |
| 8. CREATIVITY    | 18. ORIGINALITY   |
| 9. DATA          | 19. PSYCHOLOGY    |
| 10. TEAMWORK     | 20. LITERACY      |

Scan this QR code to find out more about Meredith

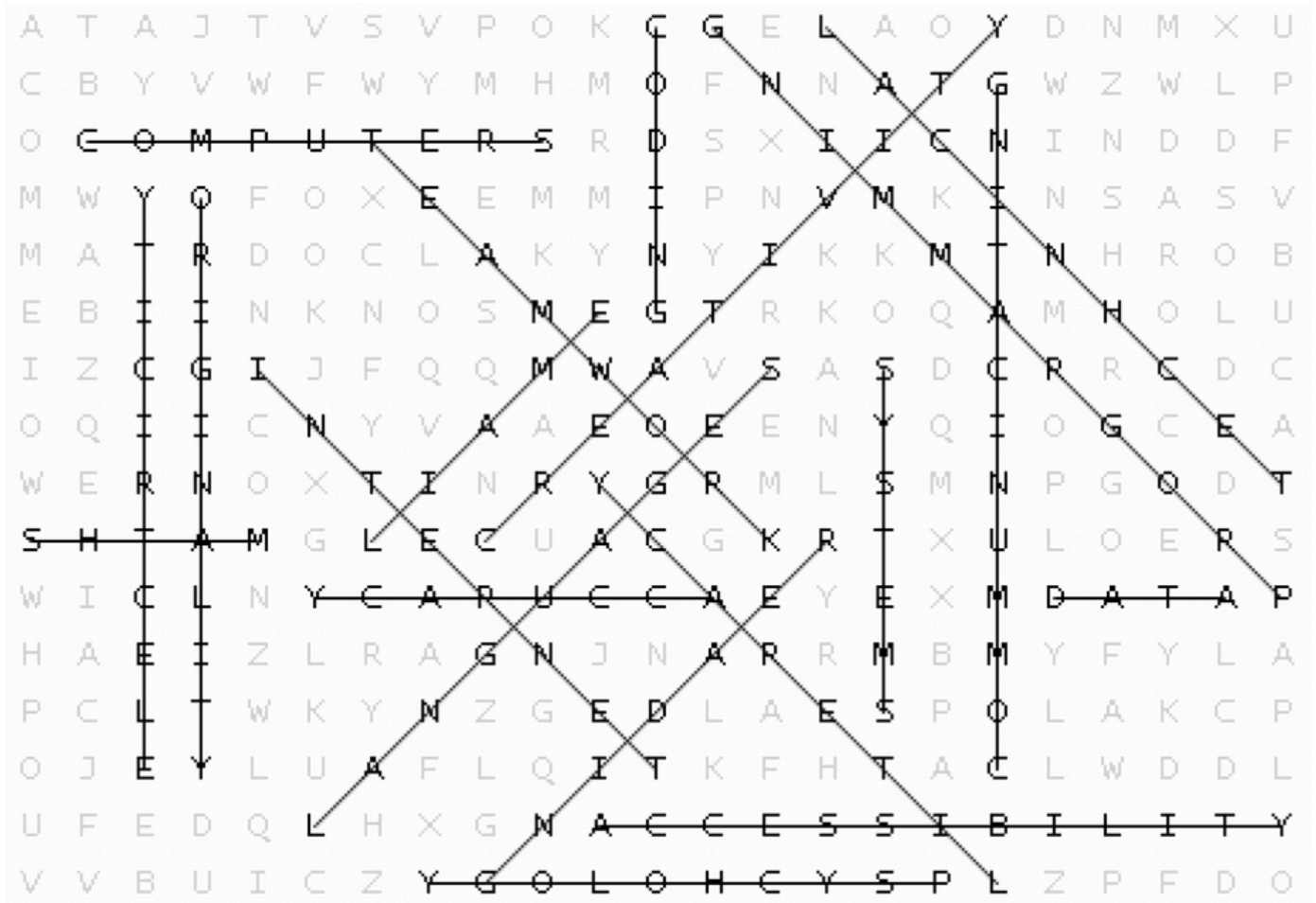


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# Pathfinder Workwords

## 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 Meredith might need to do her job?

\_\_\_\_\_



# A day in the life of a software engineer

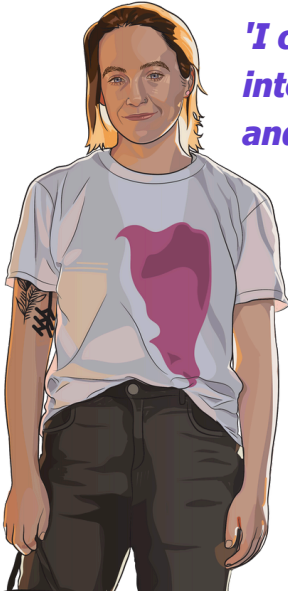
- 6.30am** I get myself out of bed and head to the gym before work.
- 8.30am** I finish at the gym and skate to work. I catch up with a friend before heading upstairs to grab breakfast. That's one of the best perks of working at Google - the free food!
- 9.00am** Get to my desk and begin the day. The first thing I do is check my emails. You get so many emails at Google (everyone calls it "The Firehose"). I dedicate the first 15-20 minutes of my morning to cleaning it out and organising everything.
- 9.15am** Mondays are my favourite day. It's still Sunday in the US, which means less meetings and I can get some solid work done. I remember I haven't showered after the gym yet, so I go do that.
- 9.30am** When I get back to my desk, one of my teammates has arrived so we spend some time catching up, talking about our weekends, music and video games.
- 10.00am** I work on the ChromeOS team! Did you know Google develops its own operating system? I work on a team that focuses on front-end work, making sure our apps and user interfaces look slick and polished! I write code and various 'experts' in the company review it to ensure that the code is of the best possible quality. I uploaded some code for review last week, and now I have some comments that I need to address.
- 10.30am** I take a quick break, play with my co-worker's dog, then back to work!
- 12.00pm** I address the comments in my code and upload my changes to be tested. This can take a while, so my teammate and I decide to break for lunch.
- LUNCH** Normally I have lunch on my own or with my very small team, but today I was with a big group. It was great to get to chat with other Googlers I don't normally socialise with, but it did mean lunch went very overtime.
- 1.15pm** I get back to my desk and have a quick look through the results of my tests, and alas, there are some failures :( This means I'll have to take a look at what failed so I can work on a fix.
- 1.30pm** I take a quick break to go get introduced to all the new interns who have just started, because I am one of their resident advisers. This is a voluntary role, but I'm excited to do my part in fostering a welcoming and inclusive atmosphere.
- 2.00pm** Back at my desk again to fix those failures. Once I've fixed them, and also addressed a few minor review comments, I submit my changes again. Now it's time to start working on something new! I open up a fresh doc to put all my thoughts and design ideas into and start doing research. I spend a lot of time reading, making notes on things that are interesting or important.
- 3.45pm** My tests have finished running, and I have some comments from one of my reviewers. I ask them to clarify some of the comments, but since Google is a global company, that stretches across multiple timezones, that means waiting for a response.
- 5.30pm** Before I know it, it's already 5.30. I do one final check of my email. One of my dear friends has just started his internship, so we head out to celebrate. I am super-excited to have them around the office for the next three months!
- 7.30pm** After having an excellent time catching up with my friend, I head to my local pub's quiz night, which myself and a few other coworkers frequent on Mondays. We win a few vouchers before the end of the night!
- 9.30pm** Finally get home, pretty exhausted. Today was a very social day with all the interns starting and I am knackered. I play a little bit of guitar to wind down, and then get myself ready for bed.



# Software Engineer

**Meredith** is a software engineer who is passionate about accessibility and inclusivity. Meredith works at Google on the Chrome Accessibility team, adding support for accessibility features to the web platform to make sure it caters to the needs of people with disabilities. Find out more:

[futureyouaustralia.com.au/pathfinders/meredith](https://futureyouaustralia.com.au/pathfinders/meredith)



*'I can make sure the internet is for everyone, and I love it.'*

## STEM Meter

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



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

## 5 reasons why you should do this job

- 1 Help everyone use the internet
- 2 Solve problems in creative ways
- 3 Always learning new things
- 4 Travel opportunities
- 5 Work with lots of different people

### 3 STEM skills required for this job

Programming

Evaluation

Analysis

### Subjects to develop these skills

Digital Technologies, Mathematics

English, HASS, Science, Technologies, the Arts

Science, Mathematics