Meredith is

a Connector

CAN'T

do a kickflip or reach things up high

STUDIED

Music Technology and then a Bachelor of Computer Science at university

CAREER

Software engineer on the Google Chrome accessibility team

WORKS WITH

amazing, smart, kind, generous people

EXPERT ON

writing accessibility code for the internet

PURPOSE

the joy of life is connecting with people and learning from them

LOVES

the guitar and making sure the internet is for everyone

CAN

write code, make music, play soccer

FUTUREYOU

www.futureyouaustralia.com.au/pathfinders/meredith

Works part-time in a music shop

Finish Year 12

Gap year teaching English in Vietnam

Bachelor of Education

Becomes primary teacher but doesn't enjoy the work

Diploma of Software Development (full time)

Paid industry placement for 12 months

Placement results in full-time job as accessibility software engineer

Joins coding club at school

Finish Year 12

Bachelor of Computer Science

Works part-time at JB Hi-Fi

Gets 12-week internship with Google

Undertakes independent studies about accessibility

Gets job as accessibility software engineer

School-based traineeship in IT while finishing school

Finish Year 12

Keen gamer - creates interest in learning about software

Undertakes independent study - online coding

Gains practical experience working on open-source projects via RocketChat

Attends coding bootcamp

Entry-level software engineer

On-the-job learning

Promoted to accessibility software engineer

PROMOTE

Software engineer career pathways

Find out more at www.futureyouaustralia.com.au/resources/#other/

FUTUREYOU

The educational qualifications and levels outlined in these pathways are intended as general guidelines. To obtain accurate and up-to-date information, explore resources specific to your state or territory, available through websites like *myfuture.edu.au*, *YourCareer.gov.au* and *australianapprenticeships.gov.au*.

There is also a range of financial support available for students doing apprenticeships or going to university, visit *www.servicesaustralia.gov.au/education* to see what's available.

- Volunteer to teach abroad: https://people.gviaustralia.com.au/volunteer-overseas/teaching-projects/
- Internship opportunities: https://womeninstem-careershub.prosple.com/
- Bachelor of Education: https://www.courseseeker.edu.au/
- Diploma of Software Development: https://www.tafecourses.com.au/course/diploma-of-software-development/

- Bachelor of Computer Science: https://www.courseseeker.edu.au/
- Digital accessibility courses: https://www.adcet.edu.au/resource/11230/vision-australia-digital-accessibility-training-2023

- School-based apprenticeship: https://www.australianapprenticeships.gov.au
- Online coding courses: https://www.asd.gov.au/careers/career-opportunities/cyber-education-programs

SCAN ME

Remember, there are countless pathways to the same career. Each child's unique skills, interests, and strengths will guide them on their personal journey to success.

Meredith's Day

Australian Curriculum V9.0 links for Years 3 to 4

Digital Technologies
- Generating and designing
  - AC9TDI4P02
  - AC9TDI6P02
- Producing and implementing
  - AC9TDI4P04
  - AC9TDI6P05

Learning outcomes:

All students will be able to:
- follow and describe algorithms involving sequencing, comparison operators (branching) and iteration.

In addition, some students will be able to:
- describe the connections between the algorithm steps and can create links between them.

Previous knowledge required:

To undertake this activity, students will need previous knowledge of what an algorithm is. This will have been delivered to students in Years 1/2.

Recap: An algorithm is a series of ordered steps that are required to solve a problem. In order to work, algorithms need to have their steps in the right order.

Algorithms are everywhere in our daily lives. At their simplest level, algorithms exist as a series of instructions that enable us to solve simple problems; for example, recipes or getting ready for the day. Algorithms can also be more complex. For example, some of the largest corporations use algorithms to guide our internet browsing, airports use them to program flight paths, and the health sector uses them to find donor–patient matches.

To find out more about algorithms, explore the algorithm page from the Digital Technologies Hub.

Instructions:

This activity has been designed to be undertaken in various formats to suit the learning styles and preferences of your class. This can be done as a group activity or as individual activities.

Step 1) Read 'A Day in the Life of a software engineer' on the back of Meredith's career information sheet (as a class or individually)

Step 2) Tell the class you will be working on Algorithms today and share the LO, using the 'Day in the Life of' sheet as the data source.

Step 3) As a class, contribute to a list of steps that Meredith does in a day (suggested list on next page). This can be written on the class board, or students work in pairs and noted down in workbooks before discussing it as a class.

Step 4) Direct students to complete either Sheet A, B, C or D at your discretion (Please note, tasks are levelled in increasing difficulty to meet the needs of different abilities you may find in your classroom. Please choose the most appropriate for your class/individual students).

Teacher's note: Support students to understand why order is important when undertaking some tasks. Ask students if they can identify other tasks where the order of instructions is very important, such as:
- Getting undressed to hop in the shower/bath.
- Opening your mouth to have a drink of water.
- Getting a bowl for your cereal so the milk doesn't end up all over the kitchen bench.

Instructions continue on the next page.

Comprehension Questions

Australian Curriculum V9.0 links for Years 3 to 7

English
- Literacy

General Capabilities:
- Literacy

Learning outcomes:

All students will be able to:
- Identify that all people have strengths and weaknesses
- Actively think about what is happening in a video while they are watching it
- Apply comprehension strategies to different media formats

In addition, some students will be able to:
- Identify different reasons for doing different jobs

Instructions:

- Format/print the students' question sheets (or load them onto school LMS) and direct students to a copy.
- Read the questions as a class to start, discussing any meanings
- Discuss with the class strategies for being able to answer the questions as the film plays
- Watch Meredith's film with the class, encouraging students to answer questions as you go

Adaptation note: Questions can be modified on the PDF to meet students' needs or learning focus areas in your classroom

Comprehension questions

1. Name FOUR things Meredith can do.
2. And two things Meredith CAN'T do.
3. Where does Meredith work, and what does she do?
4. What got Meredith interested in computer programming?
5. What kinds of jobs does Meredith say computer science degrees are valuable in?
6. What 'age' does Meredith say we're in?
7. What does Meredith believe is the joy of life?

Scan this QR code to watch my film.

SCAN ME

Answers:
1. Code, play soccer, make music, an ollie.
2. A kick-flip, reach things up high.
3. Google, she makes sure the internet is for everyone.
4. Music technology
5. Healthcare, building an app, education, working on the web.
6. The Age of Connection
7. Connecting with people and learning from them and being friends.

FUTUREYOU

www.futureyouaustralia.com.au/pathfinders/meredith

Connector

Student name:

Comprehension Questions

Name FOUR things Meredith can do.

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

1.

2.

3.

4.

What does Meredith believe is the joy of life?

Capability Convos

Australian Curriculum V9.0 links for Years 3 to 7

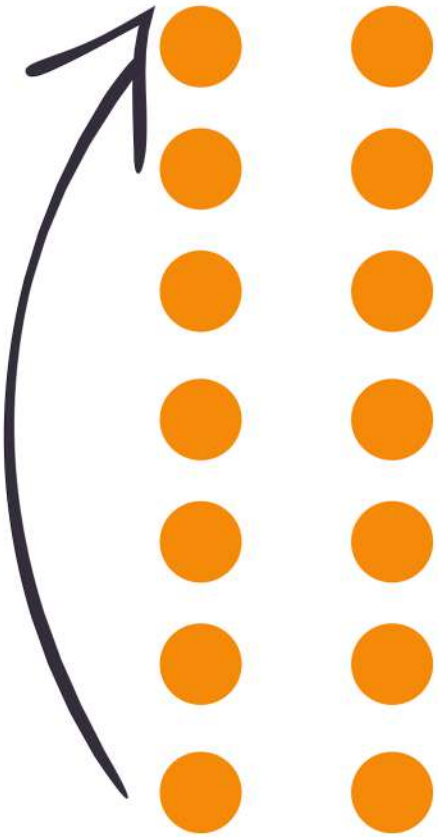
English
- Language
- Literacy

General Capabilities:
- Critical and Creative Thinking
- Personal and Social Capability
- Ethical Understanding
- Literacy

Learning outcomes:

All students will be able to:
- identify some likes, dislikes, strengths, abilities and/or interests when showing a personal preference
- acknowledge that people have different needs, emotions and abilities

In addition, some students will be able to:
- describe the ways they are connected and can contribute to their community groups



Format
- Interactive game with 10 questions
- Easy to play
- Watch Meredith's film with the class
- Print the questions
- Play the game
- Modify or include new questions based on students' needs

Scan this QR code to watch my film.

SCAN ME

Instructions for students

Line the class up in two lines facing each other to form pairs. Ask the first question. Once each pair has discussed it, get one line to move one person to their right. The person at the end runs around to the other end of the line. Then you ask the next question and repeat the process until all the questions have been asked.

Meredith
Software Engineer

Question 1
What do you think is interesting about Meredith's career?

Question 2
What skills does Meredith have that you also have, and does she have any skills you don't have that you would like to have?

Question 3
Why do you think it's important to find a career that suits your skills and personality?

Question 4
How are your interests and hobbies similar to Meredith's career?

Question 5
How do you think Meredith's career contributes to society?

Question 6
How could this career be done in a rural or remote setting?

Question 7
How do you think the world has changed to become more accessible, and what do you think caused these changes?

Question 8
What kinds of tools or technologies do you think Meredith would use on the job?

Question 9
How important in Meredith's work is teamwork with other engineers, designers, and persons with disabilities? Think of an example.

Question 10
What do you think would be the biggest challenge in pursuing a career as a software engineer?

Software Engineer

STEM Meter

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

S 59%

T 96%

E 75%

M 71%

Source: jobsandskills.gov.au

Meredith is a software engineer who is passionate about accessibility and inclusivity. Meredith works 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

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

Job stats and facts

Future job growth: Over the next five years jobs in software development are expected to grow by 27%.

Employment pathways: A bachelor or postgraduate degree in a related field or a vocational education and training (VET) qualification.

3 STEM skills required for this job	Subjects to develop these skills	3 other jobs that value this skill
Programming	Digital Technologies, Mathematics	Web Developer, Information Security Analyst, Computer Systems Engineer
Evaluation	English, HASS, Science, Technologies, the Arts	Research Associate, Epidemiologist, Grant Manager
Analysis	Science, Mathematics	Product Analyst, Quantitative Analyst, IT Analyst

Other careers related to this line of work

People

Developer Relations
Developer Marketing
Sales Engineer
Technical Recruiter

Product

Quality Assurance
Test Engineer
Business Analyst
Program Manager

Support

DevOps Engineer
Database Administrator
Site Reliability Engineer

Teaching

Technical Writer
Trainer

Analytical

Data Scientist
Security Analyst
Research and Development

The world is changing rapidly, and this means the career possibilities available to our kids are wide-ranging and exciting (and probably don't exist yet!).

From traditional vocations to emerging fields, there are countless pathways to be explored.

Parents and teachers can create environments that encourage kids to discover and investigate possible careers that match their skills and interests.

We've included some links to other valuable resources that can help guide career conversations and explorations. Find out more at:

www.futureyouaustralia.com.au/resources/#other

Software Engineer

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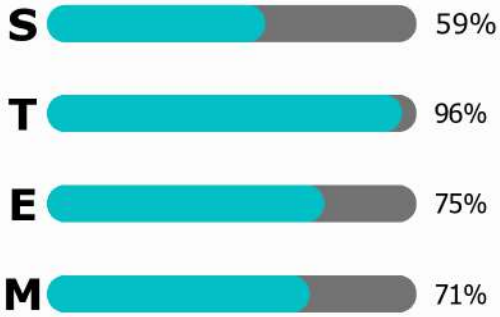
'I can make sure the internet is for everyone, and I love it.'

STEM Meter

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



Source: jobsandskills.gov.au

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	Subjects to develop these skills
Programming	Digital Technologies, Mathematics
Evaluation	English, HASS, Science, Technologies, the Arts
Analysis	Science, Mathematics

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.

Pathfinder Workwords

Software Engineer

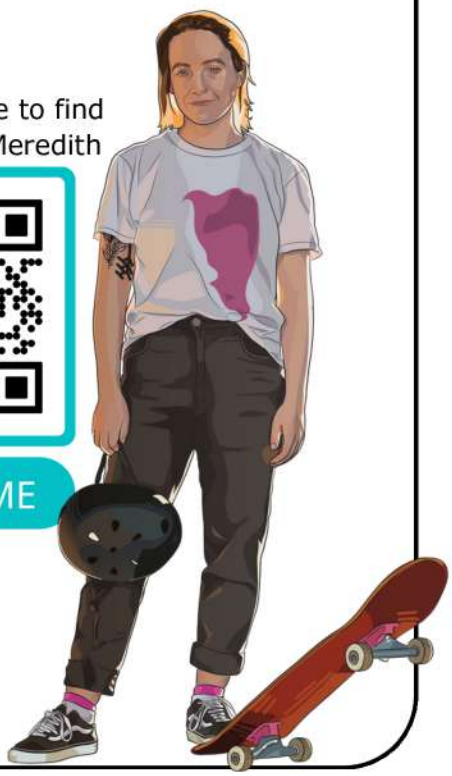
A T A J T V S V P O K C G E L A O Y D N M X U
C B Y V W F W Y M H M O F N N A T G W Z W L P
O C O M P U T E R S R D S X I I C N I N D D F
M W Y O F O X E E M M I P N V M K I N S A S V
M A T R D O C L A K Y N Y I K K M T N H R O B
E B I I N K N O S M E G T R K O Q A M H O L U
I Z C G I J F Q Q M W A V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

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

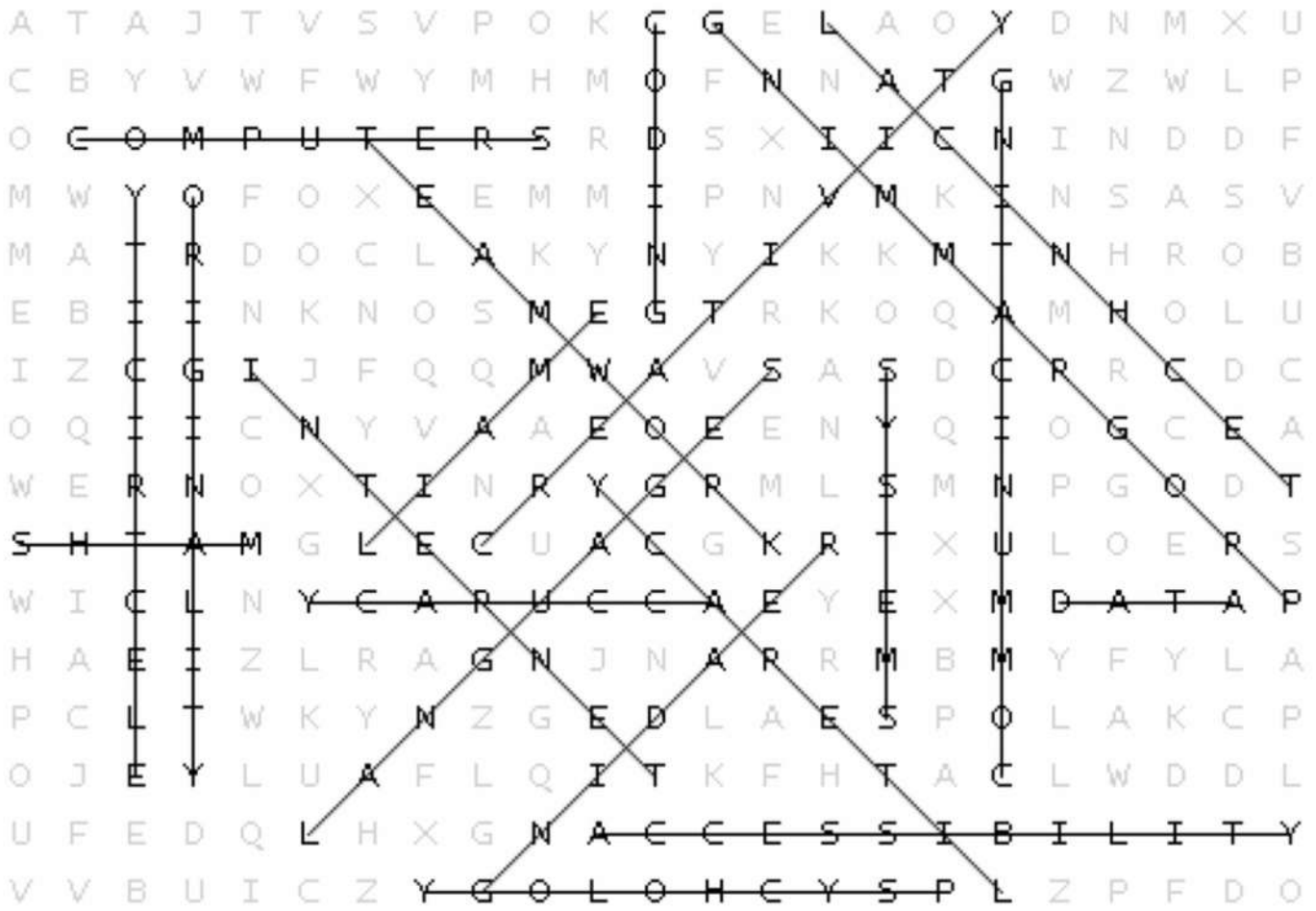
Scan this QR code to find out more about Meredith

SCAN ME



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?

_____

Meet Meredith. She's a software engineer. Think of five STEM (Science, Technology, Engineering, Mathematics) skills she uses in her job.