

Welcome to Future You



Future You is a free program that gets kids aged 8 to 12 interested in STEM (Science, Technology, Engineering, and Mathematics) subjects and careers.

Future You addresses stereotypes, misconceptions and biases about science, technology, engineering and mathematics (STEM). It's designed to increase participation in STEM by inspiring children aged 8 to 12 to explore STEM themes.

What do we offer?

- Free classroom resources aligned with the Australian Curriculum V9.0.
- Five STEM-fiction stories to excite imaginations and inspire exploration.
- First-hand accounts from people using their STEM skills to make the world a better place.
- Information and practical tools for parents and kids about STEM skills and careers.

Here are two sets of resources we think you'll love using in your classroom:

Pathfinders

Introduce your students to interesting people working with STEM skills to make the world a better place. We know how important role models are for inspiring young people's career choices, and you can't be what you can't see, which is why we have interviewed fascinating people who come from various backgrounds to ensure every child can see themselves working in STEM.

Imagining the Future

Take your class on an incredible journey into the world of space exploration with Imagining the Future. Set in the vastness of space, these five stories delve into different sectors of STEM, offering a captivating exploration of robotics, AI, climate change, resource management and more. These stories will inspire your students to envision their own STEM space careers.

Classroom activities

We've developed practical activities you can use in your lessons to make learning experiences socially relevant. Did we mention they're aligned to the Australian Curriculum V9.0?

See you in the future

We have developed a wide range of free resources to support teachers, parents and kids to discover the amazing world of STEM. Discover them all at

www.futureyouaustralia.com.au

FUTUREyou

What's in this pack



This pack includes activities that are all related to Sharna's career. Each Pathfinder has its own Teacher's Pack. You can find them on their individual pages or on the resources page under the *Pathfinders* or *Teach* tabs.

Our Imagining the Future short-fiction series also includes fantastic resources you can use in the classroom. The Bloom's Taxonomy and Gardner's Multiples Intelligences activity matrix includes a wide range of activities for your lesson plans that cover multiple areas and year levels in the Australian Curriculum V9.0.

Capability Convos

A short starter activity that can be adapted to other uses to get students thinking about the General Capabilities statements in the National Curriculum V9.0

Comprehension questions

Read about Sharna's career as a class or individually, and then your students can practise their comprehension skills by answering these questions (answers included).

Career information sheet - for adults

This document provides practical advice for adults who are looking for ways to support students in understanding the different pathways they can take into specific career roles. This information sheet can also be passed on to parents if a student demonstrates an interest in a particular career area.

Classroom wall poster

An attractive poster that can be printed out and placed on a wall to highlight some of the skills required in Sharna's career so students can see themselves reflected in those skills.

Student skills brain break

Students can undertake this activity for mindfulness while thinking about their own skills and talents.

Word-search answers

The student's pack includes a word search with words relevant to Sharna's career. Find the answers here.

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

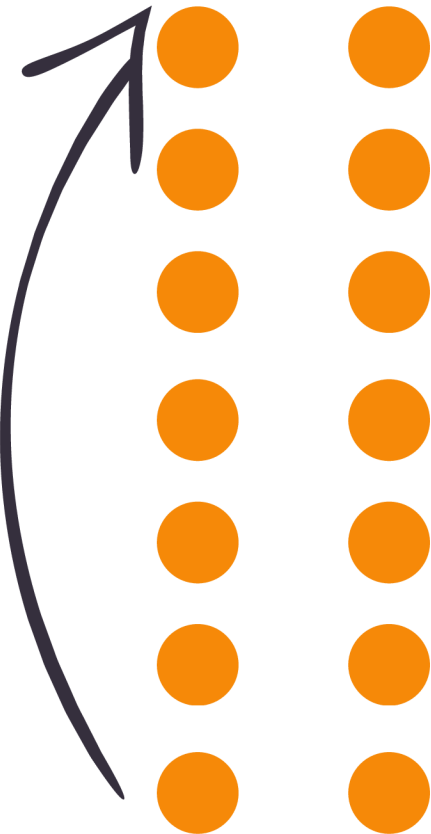
In addition, some students will be able to:

- describe the ways they are connected and can contribute to their community groups

Format

- Interactive game with 10 questions
- Easy to play
- Read about Sharna's job and journey with the class
- Print the questions
- Play the game
- Modify or include new questions based on students' needs

Scan this QR code to find out more about 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.

Sharna Neuroscientist

Question 1

What do you think is interesting about Sharna's career?

Question 6

What sort of problems do you think Sharna might have doing this job in a rural or remote location?

Question 2

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

Question 7

How important are mathematics and technology in Sharna's job? Can you think of some examples?

Question 3

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

Question 8

What tools or technology do you think Sharna needs to do her job?

Question 4

How are your interests and hobbies similar or different to Sharna's career?

Question 9

How do you think AI might change Sharna's job in the future? Can you think of some examples?

Question 5

How do you think Sharna's career contributes to society?

Question 10

What do you think would be the biggest challenge pursuing a career as a neuroscientist?

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 various texts as they read them
- 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 they read about Sharna
- Read about Sharna as a 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. What does Sharna do and what does she use to do it?
2. What two themes is Sharna interested in learning more about?
3. What was Sharna's goal growing up?
4. What did Sharna do when she decided her first degree wasn't quite right?
5. Where has Sharna's research taken her?
6. Name two things Sharna isn't good at.
7. Name two things Sharna is good at.
8. What does Sharna's work help people to do?

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Answers:

1. She's a neuroscientist who used brain imaging technologies.
2. What activities make you resilient to the aging process and how becoming a parent changes the brain.
3. Go to university.
4. Took a six month break.
5. Europe, USA and Asia, and Antarctica
6. Being confident when doing something new, and artistic things.
7. Persisting and writing.
8. Live longer, healthier lives.



Comprehension Questions

What does Sharna do and what does she use to do it?

What two things is Sharna not good at?

1.

2.

What two themes is Sharna interested in learning more about?

1.

2.

Name two things Sharna is good at.

1.

2.

What was Sharna's goal growing up?

Where has Sharna's research taken her?

What did Sharna do when she decided her first degree wasn't quite right?

What does Sharna's work help people to do?

Neuroscientist

Sharna is a neuroscientist. She is interested in finding out more about how life experiences, like careers, playing puzzles, and becoming parents impacts our brains. Find out more at:

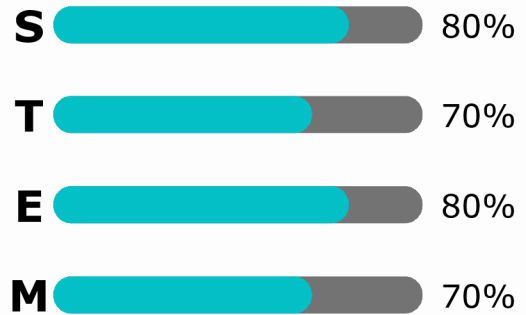
futureyouaustralia.com.au/pathfinders/sharna



It is so cool that I can peer into people's brains and see it working in action."

STEM Meter

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



Source: jobsandskills.gov.au

Job stats and facts

Location: The majority of neuroscientists live in Victoria and New South Wales.

Employment pathways: A bachelor degree in science is required, but there are many pathways you can take to get an undergraduate degree. Discover them at myfuture.edu.au

3 STEM skills required for this job	Subjects to develop these skills	3 other jobs that value this skill
Research	Science, HASS	Business Analyst, Psychologist, Economist
Computer Science	Digital Technologies	Data Engineer, Marketing, Quantitative Analyst
Chemistry	Science	Chemist, Pharmacist, Veterinarian

Other careers related to this line of work

Health

Psychologist
Social worker
Psychiatrist
Palliative Care Nurse
Neurosurgeon

Agriculture

Mixed Livestock Farmer
Botanist
Precision Agriculture Specialist
Pest Management
Beekeeper

Animals

Veterinarian
Wildlife Conversation Officer
Zookeeper
Marine Biologist
Park Ranger

AI

Computational Neuroscientist
Neural Network Engineer
Brain-Computer Interface Engineer
Cognitive Robotics Researcher
AI Safety Researcher

Technology

Robotics Engineer
Neuroimaging Engineer
Visualisation Programmer
Neuroprosthetics Developer

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

Sharna is a neuroscientist

NOT GOOD AT

feeling confident
trying new things
and artistic things



CAREER

neuroscientist

EXPERT ON

helping live longer,
happier lives

GOOD AT

persevering and
writing

LOVES

travelling the world,
meeting new people,
watching old movies, and
reading

STUDIED

started a degree in Maths
and Computer Science, but
switched to Psychology

WANTS TO

help others become
scientists

HER RESEARCH

looks at how life impacts
the brain



Meet Sharna. She's a neuroscientist who wants to know more about how to make our brains more resilient to aging. 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

Answers

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



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 Sharna might need to do her job?
