# Welcome to Future You



Future You is an initiative from the Australian Government's Women in STEM Ambassador, funded and supported by the Commonwealth Department of Industry, Science and Resources.

Future You addresses stereotypes, misconceptions and biases about science, technology, engineering and mathematics (STEM). It's a free program 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 Ffture

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





# What's in this pack

This pack includes activities that are all related to Renee's film. 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**

Watch Renee's Pathfinder film 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 Meredith'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 Renee'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:

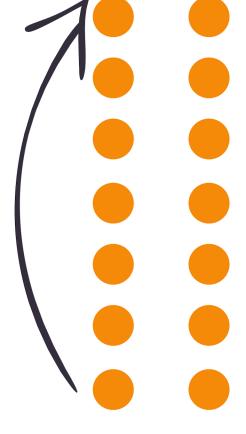
- identify some likes, dislikes, strengths, abilities and/or interests when showing a personal preference
- acknowledge that people have different needs, emotions and abilities

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
- · Watch Renee's film with the class
- Print the questions
- Play the game
- Modify or include new questions based on students' needs











#### **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 at the end runs person 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.



# Renee Aerospace Engineer

## Question 1

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

## **Question 2**

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

# **Question 3**

How do you think aerospace engineering has changed over time? How might this career change in the future?

## **Question 4**

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

# **Question 5**

How are your interests and hobbies similar to Renee's career?

## **Question 6**

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

## **Question 7**

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

## **Question 8**

Think of some examples of aerospace vehicles that Renee might design or work on.

### **Question 9**

How important to Renee's work is teamwork in the aerospace industry? Think of an example.

## **Question 10**

What do you think would be the biggest challenge in pursuing a career in aerospace engineering?



# 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 Renee'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 Renee can do.
- 2. Name two things Renee CAN'T do.
- 3. What happened when Renee was 15?
- 4. What did Renee do after she finished her Engineering studies?
- 5. What is an incredible feeling for Renee?
- 6. Whose support was very important to Renee?
- 7. What is Renee's 'high vision'?
- 8. What does Renee consider 'life-changing'?
  Why?

#### Answers:

- 1. Lift weights, do the splits, fly a plane, solve big engineering problems.
- 2. Can't speak French, can't finish reading a book.
- ${\tt 3.Moved}$  to a new town and joined the local Air Force Cadets program.
- 4. Put all of her energy into pursuing flying.
- 5. Flying above buildings and over cities.
- 6. Her grandparents.
- 7. To become an astronaut.
- 8. Exposure to opportunities and to people that do different things actually is life-changing because you can connect or identify with somebody else and that sets you on your mission to creating your own future.











# Highflyer

Student name:

# **Comprehension Questions**

Name FOUR things Renee can do.

1.

2.

3.

4.

What happened when Renee was 15?

What is Renee's 'high vision'?

Name TWO things Renee can't do.

1.

2.

What is an incredible feeling for Renee?

What did Renee do after she finished her Engineering studies?

Whose support was very important to Renee?

What does Renee consider 'life-changing'? Why?

# Aerospace Engineer

**Renee** is an aerospace engineer. After joining the Air Force Cadets at 15, Renee discovered a passion for the skies. She now works as the First Nations Engagement Manager for Qantas and has her sights set on a career in space. Find out more:

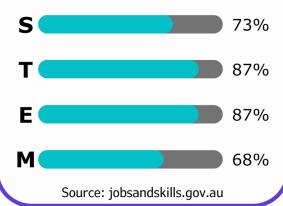
futureyouaustralia.com.au/pathfinders/renee

'How do you get something so big up into the sky?'



## **STEM Meter**

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



### Job stats and facts

**Location:** 16% of aerospace engineers live outside capital cities.

#### **Employment pathways:**

A bachelor degree in engineering 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

Creativity

English, HASS, Science, Technologies, the Arts Lawyer, Research Scientist, Video Game Designer

Critical thinking

Science, Mathematics, Digital Technology

Analyst, Criminologist,
Doctor

Computer skills

Digital Technology

Software Developer, Cybersecurity, Architect





# Other careers related to this line of work



#### Engineering

Materials Engineer Nuclear Engineer Aerodynamic Engineer **Robotics Engineer** Fuel Cell Engineer



#### Space

Astronaut Spacecraft Designer **Rocket Scientist** Flight Technician **Payload Specialist** 



#### 🦳 Health

**Data Processor Biomedical Engineer Orthotists Prosthetists** Medical Equipment Repair **Technician** 



**Higher Education Lecturer** Professor of Engineering



#### 💥 Technical

**CAD Technician Product Designer** Quality Manager Compliance Officer **Patent Attorney** 

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





# a Highflyer

# **CAN'T**

speak French or finish a book

# **CAREER**

Aerospace engineer and now the First Nations engagement manager at Qantas

# **EXPERT ON**

solving big engineering problems

# CAN

lift weights, do the splits and fly a plane



# **LOVES**

rocking up at an airport, hiring a plane and flying

# **STUDIED**

Bachelor of Aerospace Engineering at university

# **GAMECHANGER**

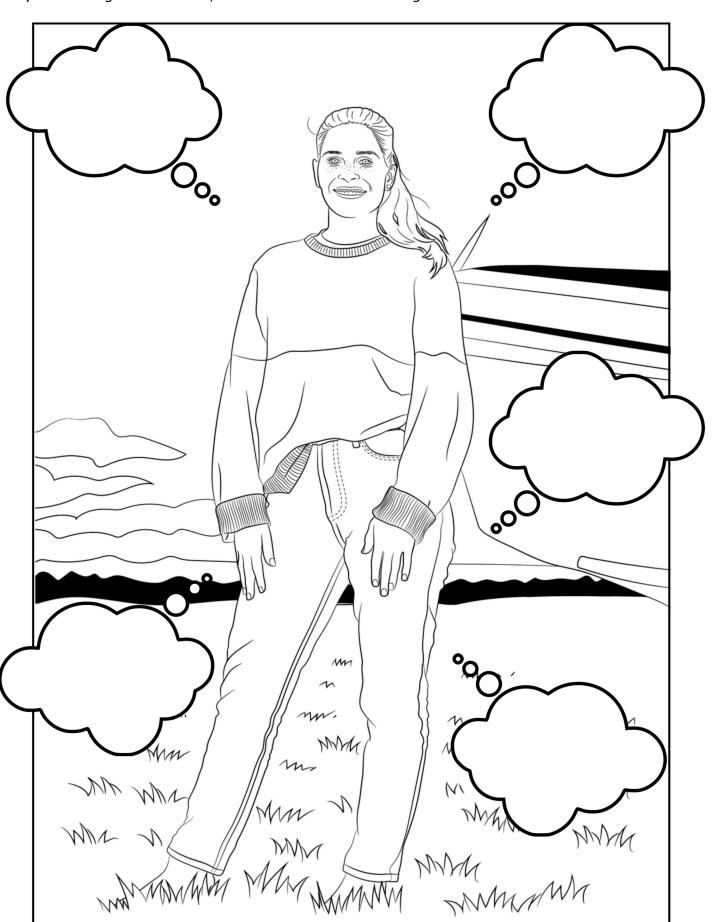
joining the Air Force cadets at 15

# **WANTS TO**

become an astronaut and lead a spacecraft project team

www.futureyouaustralia.com.au/pathfinders/renee

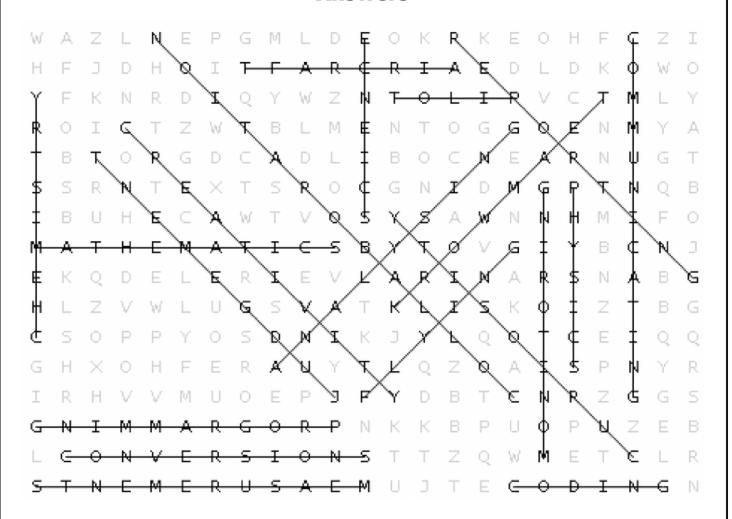
Meet Renee. She's an aerospace engineer. Fill in the bubbles with 5 STEM (Science, Technology, Engineering and Mathematics) skills she uses in her job. Which of these skills do you think is most important? Which do you think would be the hardest to develop? When you've thought of the skills, colour in the rest of the image.





# Pathfinder Workwords

#### **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?

4			
I			
- ·			

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

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