

Dianne McGrath

ONE WAY MISSION TO MARS



Dianne McGrath from Melbourne was one of over 200,000 people worldwide who applied for the job. After being shortlisted as an astronaut candidate in late 2013, Dianne underwent medical tests and an interview with the selection committee. On 16 February 2015, Dianne became one of 7 Australians, and 100 people globally, to progress to the Round 3 astronaut pool. In 2017 she faces international team challenges to see if she has 'the right stuff'. Dianne is a sustainability expert doing a PhD in Environmental Engineering.

DIANNE MCGRATH 2017 SCHOOL SEMINAR SERIES – TOPIC DETAILS

SEMINAR TOPICS MAY BE TAILORED FOR INDIVIDUAL SECONDARY AND PRIMARY SCHOOLS AND CLASSES



THE MARS ONE MISSION

Dianne is one of the 100 short-listed astronaut candidates in the international Mars One mission, which plans to establish the first permanent human settlement on Mars after 2032.

Topics may include: the Mars One mission and aspects of science; challenges the astronauts will face; a sustainable Earth-independent colony; why Dianne wants to go to Mars; how Mars One affects her life and what she's learnt; working hard to realise your dreams.



FOOD FOR MARS

What are the challenges of becoming self-sufficient for food on Mars? What could a closed-loop, sustainable food system look like on Mars? What lessons could be applied to Earth?

Topics may include: different food production systems; space food research; optimising conditions for growing food in Martian soil (energy, a supportive sustainable ecosystem, cosmic radiation, soil composition, etc); the nutrient cycle in a limited system.



FOOD WASTE AND SUSTAINABILITY

Australia grows food to feed > 60 million people, yet wastes 32 MCG's worth each year. We waste other resources too. What is waste? Why does it occur? How can we be sustainable?

Topics may include: Waste and the waste management hierarchy; Dianne's PhD food waste research; other targets for sustainability (water, energy, materials etc); how people can use environments more sustainably; possible solutions and actions individual students can take.



HUMAN HEALTH IN SPACE

What medical skills are needed in space, and then on Mars? What are the health risks that astronauts face? How can they be managed? Can we learn anything for Earth?

Topics may include: the effects of space on human health; strategies to manage health-related challenges (health, safety and wellbeing); similar health-challenged environments on Earth, and what can be learnt from both perspectives.



PUBLIC SPEAKING AND PRESENTATION SKILLS

"The single most important skill you must have to lead is the ability to tell your own story." - Bo Eason, American footballer. Public speaking is a skill that anyone can learn.

Topics may include: planning a talk; giving an impromptu speech; practice practice practice – but not too much! Engaging the audience; use of the body; getting the mind-set right; dealing with nerves; self-reflection and review; different tools for different purposes.

DIANNE MCGRATH - 2017 SCHOOL SEMINAR SERIES

ONE-WAY MISSION TO MARS!

Humankind has been to the moon and back. Now it's off to Mars – permanently! Mars One is seeking to establish the first permanent human settlement on Mars by 2032 (www.mars-one.com). In an effort to find astronauts for this exciting and dangerous adventure, Mars One put out a global call for astronauts in 2013.

SCHOOL VISIT AND SPEAKING OPPORTUNITY

Schools have the opportunity to have Dianne present on a range of topics which include:

THE MARS ONE MISSION

FOOD FOR MARS

FOOD WASTE AND SUSTAINABILITY

HUMAN HEALTH IN SPACE

FOOD WASTE AND SUSTAINABILITY

PUBLIC SPEAKING AND PRESENTATION SKILLS

Dianne can tailor aspects of her talks or workshops to your secondary or primary school's needs. Dianne is an experienced public speaker, having been on TV and radio, given a TEDx talk, presented to tens of thousands of school students across Australia, as well as on panels and at corporate events, and has given lectures at university and academic conferences. Find out more about Dianne on her website: www.dianne.mcgrath.com.au.

Fees (NB, some travel and accommodation costs may apply):

\$1200 (plus GST):

Dianne speaks with 1 group within the school. Dianne is at the school for approximately 1 hour.

\$1600 (plus GST)

Dianne speaks with between 2-4 groups within the school, or speaks with the whole school in a single plenary accompanied by multiple events (classroom visits, morning teas, etc). Dianne is at the school for up to half a day.

\$3500 (plus GST)

Dianne speaks with more than 4 groups within the school, or speaks with the whole school in a single plenary accompanied by multiple events (classroom visits, morning teas, etc). Dianne is at the school for an entire day.

BOOKINGS AND ENQUIRIES

Expressions of interest by return email to BCC.Management.info@bccm.com.au
For more information, contact Ros Christie or Jude Prentice 03 8679 5460 or 0400 964 696

Photos attributed to Luis Ascui, Mars One & Bryan Versteeg, NASA and TEDxMelbourne