



COSPAR 2021

43rd COSPAR
Scientific Assembly

28 January – 4 February 2021

Connecting space research
for global impact

www.cospar2021.org



EVENT MANAGEMENT BY



MEDIA RELEASE

Get your SPACE SUIT on in virtual activities at COSPAR-K

Students encouraged to participate in world's largest space research conference

With the 43rd Committee on Space Research Assembly being held in Sydney this week, school students with an interest in all things space are being encouraged to jump online and try out some of the virtual activities being streamed now at COSPAR-K.

COSPAR-K is a FREE Space STEM Event running in partnership with the NSW Department of Education's STEM Industry School Partnerships (SISP) Program alongside the scientific assembly (COSPAR 2021).

Due to COVID-19, the live component of COSAR-K has been postponed until later in the year.

A range of virtual activities are still being run and school students and teachers are encouraged to give them a go. Activities include:

Discover Mars from the classroom

The team from Monash Nova Rover are giving classrooms and groups the opportunity to virtually access their custom-designed and manufactured 6-wheeled rover, Wombat.

During this activity, students will get the opportunity to operate the rover and complete activities designed to introduce them to new skills and improve on their communication, teamwork and problem-solving skills. Specifically, students will be challenged to complete two tasks virtually:

Task 1: Geological Analysis - students will learn about geology and astrobiology and be required to prove the existence of life on the Martian surface. This will involve students driving the rover remotely around the Mars Yard to different geological sample sites (rocks or soils), investigating these sites using the on-board scientific array and then determining the rock types and the extent of life in soils (existent, non-existent or extant). Students will need to work collaboratively within their groups and be able to convey their understanding and/or argue their results.

Task 2: Programming - students will be taught the fundamentals of JavaScript to generate a virtual Martian environment and drive a simulated Mars rover. Students will be split into groups of 4 and rotate through each of the tasks for the duration of the lesson.

Exploring Habitable Worlds

Praxical co-founders and presenters, Bonnie Teece and Luke Steller, will lead an interactive workshop based on Praxical's Exploring Habitable Worlds workshop.

In this interactive workshop, you can make predictions as to how planetary conditions (i.e. a planet's size, distance from its star and the type of star it orbits around) can affect its potential habitability. You will vote to make predictions, along with have the opportunity to ask questions to astrobiologists Luke and Bonnie.



COSPAR 2021

43rd COSPAR
Scientific Assembly

28 January – 4 February 2021

Connecting space research
for global impact

www.cospar2021.org



EVENT MANAGEMENT BY



Teach the Teacher Taster

During this Teach the Teacher Taster event, Dr Rosa Doran will get the audience acquainted with a series of powerful tools to introduce Space Exploration and Astronomy to students of all ages.

The session will be a journey through the Universe starting with our own star, the Sun. While navigating through the Solar System, participants will have the opportunity to see how tools like Salsa J, Stellarium, Celestia, Google Earth, World Wide Telescope and more can greatly enrich the learners experience. The voyage through the Universe will bring data repositories such as the Faulkes Telescope Archives and examples of real research in the classroom will be presented to the participants.

Finally, a series of innovative practices for science education will be outlined and examples of its integration in students' experience will be shared with the audience. Methodologies such as Design Thinking for Education, Inquiry-based Learning, STEAM learning and other models will be presented to the participants.

Virtual Q&A with NASA

Connect in live with the amazing team at NASA's Goddard Space Centre, home to the United States' largest organisation of scientists, engineers and technologists who build spacecraft, instruments and new technology to study our Earth, the sun, our solar system and the universe.

What an opportunity to ask them about:

- Why STEM is Important
- Pathways into space at Goddard
- Any questions you might have about space research and technology

COSPAR-K online scavenger hunt

We've developed an exciting on-line game for you to play during COSPAR-K. Play it from wherever you are. Rough gaming time is 60 minutes. All you need is a device connected to the internet and you're set. Choose from single player or a team of up to 10 people.

Get your thinking hats on as Mars is waiting! Here's the plot: After years of training, the time has come for you to start the remarkable journey from Earth to Mars. Can you take off from Earth, navigate to the Moon and overcome cybersecurity threats along the way? After travelling millions of miles through space, can you then manage to establish human life on Mars?

This activity is available for all five days of COSPAR-K, book your COSPAR-K TV *powered by Microsoft* tickets to access this game.

Satellite Mission Virtual Activity

In this satellite design game, you will discover how a spacecraft is developed based on the objectives of the space mission. You will need to let your imagination roam freely to come up with a mission scenario - finding water on Mars, setting up a communications relay around the Moon or catching debris in Earth orbit. Based on the mission scenario, which consists of an orbit and a payload, you will have to build the remaining satellite subsystems as the goals it to have a satellite that works as a system.



COSPAR 2021

43rd COSPAR
Scientific Assembly

28 January – 4 February 2021

Connecting space research
for global impact

www.cospar2021.org



EVENT MANAGEMENT BY



These instructions are intended to be followed by a teacher who will run the activity with their class.

The game is designed to be completed in 30 minutes but you are encouraged to take more time and let students explore the details of satellites in more depth.

Visit www.cospar2021.org/stem for full details on how you and students can participate.

About COSPAR

Headquartered in France and established in 1958, the Committee on Space Research (COSPAR) aims to further the research, exploration, and the peaceful use of outer space through international cooperation.

About the 43rd COSPAR Scientific Assembly

The COSPAR Scientific Assembly is held on a rotational basis between countries every two years. This year's theme – Connecting Space Research for Global Impact – is an opportunity for Australia to broaden its footprint in space research at a time when Australia's space sector, assisted by the Australian Space Agency, is rapidly gathering momentum. COSPAR-2021 will provide Australian companies, scientists and researchers with an opportunity to showcase their expertise to a global audience.

Visit www.cospar2021.org for further details.

Further Information

Scientific & technical enquiries

Professor Russell Boyce, COSPAR-2021 Chair, and
Director of UNSW Canberra Space

E: russell.boyce@adfa.edu.au

Media

Brad Foster – ICMS Australasia
(COSPAR-2021 Professional Conference Organiser)

E: bradf@icmsaust.com.au

P: +61 447 040 333

Media Registration

Kristina Liska – ICMS Australasia
(COSPAR-2021 Professional Conference Organiser)

E: media@cospar2021.org