Course Details

Course	Lesson Time	Course Dates	Course Context
iSee Licence & Skill Builder iSee Licence and Scientific Inquiry	*For Year 5 + 6 students* **Monday** 10.10 – 11.20am	Start: March 1 End: May 17	Students will build their ability and fluency in using the iSee virtual platform. They will also collaboratively access and gain experience in using several other software platforms (Tinkercad, OneNote and Padlet). This skill builder will equip students with the necessary scientific inquiry skills to progress into a Grand Challenge in Round 3. Students will hypothesise, analyse, create, evaluate, and perform scientific experiments to effectively explore concepts as scientifically literate learners.
Grand Challenge Missing the Night	*For Year 5 + 6 students* **Tuesday** 9.00 – 10.10am	Start: March 2 End: May 18	Students explore the concept of light pollution and the grand impact this has on many facets of society. Students will collaborate with astronomy experts, turtle researchers, and members of CQUniversity's sleep deprivation studies to ideate a solution to the ever-increasing problem of light pollution in our lives.
Grand Challenge Mission to Mars	*For Year 5 + 6 students* **Tuesday** 12.00 – 1.10pm	Start: March 2 End: May 18	Students will examine and synthesise solutions to the exciting challenge of interplanetary colonisation. To understand this challenge, they will examine the environmental conditions of planetary bodies; limitations of space travel and colonising a planet with modern technology; and our understanding of the impact of space on the human body. Students will also appraise potential ethical issues surrounding transporting people on a one-way trip to Mars and evaluate alternatives. They will connect with industry professionals to build an understanding of relevant global issues associated with the space industry, human health, and cost, both financially and environmentally. By applying this knowledge, they will ideate a future for interplanetary colonisation.
Skill Builder **Raptors, Rhinos and Reimagining the Past**	*For Year 7 – 9 students* *Tuesday* *1.40pm – 2.50pm*	Start: March 2 End: May 20	2.5m long scorpions, carnivorous hell pigs the size of a car, dog sized triceratopsians! All of these things existed, among many more amazing and unimaginable creatures, plants and other life forms back in deep time. The Earth is an ancient, ancient place that has had a multitude of resets and restarts at the game of life, each with new and even more unique and fascinating creatures

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			rising up to take their turn in the sunlight. In this course we will examine the history of the Earth from an evolutionary standpoint, examine each of the major time points for the key developments and the organisms that existed and thrived in that period; examine the driving force of evolution, its mechanisms and how scientists display and relay this information.
Grand Challenge **Healthy Harbours and Habitats**	*For Year 5 – 9 students* *Wednesday* *9.00 – 10.10am*	Start: March 3 End: May 19	Through collaboration with CQUniversity key researcher, Dr Emma Jackson, students will identify the importance of natural and artificial habitat restructuring, and have the opportunity to participate in an excursion to the Gladstone Campus of CQUniversity where seagrass flowers will be collected, and natural and artificial reefs can be observed and examined. Students who are not able to attend the excursion will have access to a Virtual Tour. The excursion is not compulsory.
Grand Challenge **Bushfire Reduction**	*For Year 5 + 6 students* *Wednesday* *1.40 – 2.50pm*	Start: March 3 End: May 19	Students will connect with industry professionals from the Queensland Fire and Rescue Team and CQUniversity to develop an understanding of the many causes of bushfires in our region along with the current bushfire reduction strategies, as well as how Traditional Owners have managed the risk of bushfires throughout history. Students will be required to ideate 21st century solutions to the age-old problem of Queensland bushfires.
Grand Challenge **The Future of Fighting Fires**	*For Year 7 - 9 students* *Thursday* *9.00 – 10.10am*	Start: March 4 End: May 20	Managing bushfires is a problem every state in Australia must deal with on a yearly basis. Traditional bushfire fighting techniques are being reimagined with a very tech-focused future on the horizon. In this Grand Challenge, students investigate the causes and ramifications of Australian bushfires through liaising with experts from CQUniversity and ANU's World of Drones and Robotics Congress. This Grand Challenge builds on ideas and concepts from the Bushfire Reduction course, designed for Year 5/6 students. This Grand Challenge is appropriate for students who have participated in the Bushfire Reduction Grand Challenge, as well as students who are new to the idea of mitigating the effects of bushfires.

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Grand Challenge **Mitigating the Spread of Disease**	*For Year 7 – 9 students* *Friday* *12.00 – 1.00pm*	Start: March 5 End: May 21	Students collaborate with CQUniversity's School of Health, Medical and Applied Science, Agriculture, Science and the Environment, and Rockhampton Regional Council's disease mitigation team to explore the concept of disease management and mitigation strategies. Students will innovate a solution to provide the population with ways to reduce the spread of disease from animal to animal, animal to human, and plants to plants.