

CLIP students fighting extinction with Zoos Victoria

In the latter half of Term 3, CLIP Grade 5 and 6 students stepped into the world of conservation science! With the support of Mr Krauss, Mr Robinson and Zoos Victoria, students explored what a conservation scientist really does and what challenges they face, while also getting first hand experiences with the various pieces of technologies that are used to track, locate and monitor endangered Victorian animals.



This program began with an excursion to Melbourne Zoo to gain new knowledge, before coming back to school and using a whole day to apply this knowledge to create a new piece of conversation technology, using the Design Thinking Process.



These 30 students proudly represented Coburg West on an excursion offered by Zoos Victoria, who are at the core of protecting and breeding Melbourne's native (and endangered) animals. We started by examining the features of different animals and made observations about their habitats, to make connections between how animals use their adaptations to their environments in the wild.

Then, we moved onto the next activity, where we investigated one of the 27 threatened and endangered species in small groups. We learnt about their features and adaptations, while also learning new knowledge about how scientists track, locate and monitor animals in the wild and the benefits and limitations of this technology.



We got firsthand experiences with the actual technology that is used in conservation science, and had to apply this knowledge to find an effective way to either track, locate or monitor our given animal. After learning with the staff at Melbourne Zoo, we then had the opportunity to explore the rest of the animal enclosures of our choice, taking notes on their features, habitats and then began questioning what sorts of technology could be used to track and monitor these animals in the wild.

Locating	Monitoring	Tracking
• Drones • Night vision scope • Thermal camera • Binoculars • Car • Automatic feeder	• Trap cameras • Song meter	• Radio collars • Passive integrated transponder tag (PIT) • Radio tracker • Drone

Using this excursion to build the field of knowledge, the CLIP students used a day back at school to apply design thinking solutions to the challenges that Australia's Wildlife Conservation Scientists face with the technology currently available for use.

This collaborative day stepped students through the various stages of the design thinking process, where students first had to define and empathise with the 'problem' or 'opportunity for innovation', before ideating potential solutions and then collaboratively building their prototypes and communicating their ideas to the larger group.

As a collective, the CLIP students used their previous knowledge and new experience from their Zoo excursion to form the following problem:

Due to human recklessness the biodiversity in our world is decreasing. In order to conserve animal populations we need to gain knowledge of animal adaptations (features and behaviours) and habitats, and what problems they are facing.

Students then reflected on their understanding of the known technologies to draw inspiration from to either create a new piece of technology, or improve upon current technologies to locate, track or monitor a chosen endangered animal species.



Our Design

Our design is like a small hutch that Mallee Emu-wrens can live in. To attract the birds we would try to let out a smell that smells like their food. There would be enough room to fit their pack with 40 members or so.

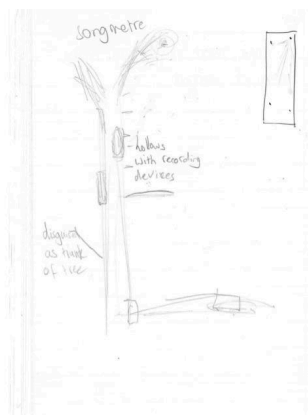


After collaboratively constructing their prototypes, students communicated this to the CLIP class and both Mr Colagrande and Mr Copping. These designs were also sent back to Zoos Victoria for further feedback. After highly impressing the staff at Melbourne Zoo, the students' work was posted to the Zoos Victoria padlet for Fighting Extinction, providing worked examples for other educators to draw inspiration from to begin their own projects.

Prototype

We have made a prototype of a Song Metre with the following features:

- We have made this prototype to look like a bottle brush tree with actual bottle brushes to attract our species
- We put hollows with recording devices to record and bounce the sounds across to other song metres
- We have put little perches up to the bottle brush flowers so that there is a sure chance of them getting food
- And finally, we made a sensor so that when a Regent Honeyeater lands, a camera trap comes out to follow the species when they leave.



Moving forward, Coburg West has been invited to take part in this year's Fighting Extinction Schools Showcase at Melbourne Zoo. A small selection of these CLIP students will have the opportunity to share their learning from this program, while also learning from other students in schools across Victoria.

We are immensely proud of all of the CLIP students who have participated in these programs across the year and we look forward to seeing more of this brilliant work in the future!

