



Warrumbungle National Park
Environmental Education Centre



Education



eSTEM: Taking it to new heights

Stage 2 to 5 Incursion



Environmental (e) STEM will provide students with an introduction to real world environmental coding using mini-drones.

Learning experiences

During this program students will learn what coding is and current applications in our day-to-day life. Students will be introduced to coding and have the opportunity to code mini drones to complete a number of basic tasks, before being given more complex tasks in which their drone will be used to monitor several environmental scenarios.

Outcomes – Stage 3	Content – Stage 3
<p>Mathematics K-10 (2022)</p> <p>Geometric measure A</p> <ul style="list-style-type: none"> develops understanding and fluency in mathematics through exploring and connecting mathematical concepts, choosing and applying mathematical techniques to solve problems, and communicating their thinking and reasoning coherently and clearly MAO-WM-01 locates and describes points on a coordinate plane MA3-GM-01 <p>Science and Technology (2024)</p> <p>Design and digital technologies</p> <ul style="list-style-type: none"> uses design processes to create, evaluate and modify designed solutions ST3-DDT-01 creates, evaluates and modifies algorithms to code or control digital 	<p>Mathematics K-10 (2022)</p> <p>Position: Explore the Cartesian coordinate system</p> <ul style="list-style-type: none"> Recognise that the grid-map reference system gives the area of a location and the number plane identifies a specific point Identify that in the coordinate system the lines are numbered, not the spaces Plot and label points, given coordinates, on the number plane in the first quadrant, describing the horizontal position first, followed by the vertical position <p>Science and Technology (2024)</p> <p>Design and digital technologies</p> <ul style="list-style-type: none"> Research Australian technologies and inventions that meet an identified need Collect data about a user need to generate design criteria for sustainable solutions Develop design ideas to build a prototype using design criteria Test, evaluate and modify the prototype to meet the design criteria

