

# The Canobolas Rural Technology High School

The Canobolas Rural Technology High School is a comprehensive coeducational school situated in Orange.

STEM at Canobolas involves teaching science, technology, engineering and mathematics holistically in project based activities. STEM is an interdisciplinary and applied approach to learning and aims to engage students and give clearer meaning and purpose to science and mathematics skills and knowledge. STEM involves a real-world problem solving approach where students apply their knowledge and skills through project based engineering challenges.

The motto at Canobolas is **Students Thinking, Exploring and Making**. The aim of developing STEM skills is to nurture a passion for learning, make our students candidates of choice for future employment and provide them with an asset in tertiary study. An innovative STEM strategy has been implemented that features a school-designed STEM course for all Stage 4 students and the School Developed Board Endorsed Course **iSTEM** for Stage 5 students.

Students study two ten week **integrated STEM units**, each school year, in **Stage 4** (four units by the end of Year 8).

The content of each unit aligns with the topics being studied in mainstream science classes, allowing students to apply their scientific knowledge to real world applications. Knowledge and skills from mathematics is embedded within the project work in the STEM units to give authentic learning experiences.

STEM classes are delivered in our **innovative STEM Centre**. This repurposed library was developed through a design thinking process to determine the best way to use the space for 21st Century learning activities. It features, the **Thinkerspace**, a flexible space for collaborative learning and designing using critical thinking; the **Explorerspace**, a knowledge area featuring traditional books and an eLibrary accessed on class sets of iPads, and the **Makerspace**, a practical space for crafting prototypes with traditional tools and advanced manufacturing using computer aided design and rapid prototyping tools like 3D printers.

