Christ Church Grammar School
PERTH, WESTERN AUSTRALIA

Static Electricity

Students demonstrated the fascinating power of static charge using a Van de Graaff Generator, exploring how electrical potential can cause hair to rise and sparks to fly.

Electrolysis

Using a homemade glass jar and a simple electrical circuit, this project showed how water can be separated into hydrogen and oxygen through electrolysis — bringing chemistry to life with visible bubbles of gas.

The Mathematics of Gambling

This investigation unpacked the probability behind gambling games, revealing the mathematical reasons why "the house always wins" and why luck is rarely enough.

Energy Sources of the Future

Featuring a model city powered by solar panels and hydroelectric systems with real running water, this project explored renewable energy technologies shaping a sustainable future.

Gummy Bear pH Experiment

Through creative use of candy and chemistry, students examined how acids and bases react — producing colourful and sometimes explosive results!

The Physics of the Perfect Basketball Shot

By analysing angles, force, and spin, this project explored how physics can transform a regular shot into a perfectly calculated score.

Plastic Recycling Innovation

Focusing on environmental impact, this project investigated how single-use plastics can be repurposed through small-scale recycling processes to reduce waste.

Working Glider Model

Students engineered a functioning glider, testing aerodynamics, lift, and drag to understand the science of flight in action.

Study Organisation App

Designed to help boys stay on top of their studies, this app prototype supports organisation and motivation through reminders and goal tracking.

Parachute Designs

From round to ram-air, cruciform to rogallo, this experiment tested which parachute shapes fall most efficiently and safely under controlled conditions.

Water-Cooled Laptop

An inventive student built a homemade water-cooling system to improve laptop performance — merging physics, computing, and engineering in one sleek design.

The Physics of Carnival Attractions

This project explored the science behind rollercoasters, ferris wheels, and merry-go-rounds — and revealed the physics (and psychology) behind why sideshow games are rigged against the player.