Science + Mathematics Integrated Projects
Year 1 – Year 8

This document outlines 21-day cross-curricular projects integrating Science and Mathematics for Year 1 through Year 8. Each project is designed to be engaging, practical, achievable within three weeks, and suitable for exhibitions, assessments, and teaching aids.

Year 1 – My Moving Toys Lab

Science: Push and pull, movement
Mathematics: Counting, comparing distances

Students explore how toys move using ramps and surfaces. They observe rolling, sliding, and spinning, measure distances travelled, and compare results. The project concludes with a movement chart and class display.

Year 2 – Mini Wind Power Explorers

Science: Wind as a force, renewable energy
Mathematics: Counting rotations, simple tables

Students build pinwheels and explore how wind causes movement. They count rotations, compare blade sizes, and record data. The project highlights clean energy and ends with a working model and poster.

Year 3 – Mini Theme Park Science

Science: Forces, gravity, motion
Mathematics: Measurement, comparison

Students design and build mini rides such as ramps or marble runs. They test speed and distance, measure heights and lengths, and compare designs. The final outcome is a class theme park exhibition.

Year 4 – Earthquake-Proof Building Challenge

Science: Forces, stability
Mathematics: Measurement, data comparison

Students design and build structures using simple materials. They test stability using shake tests, record results, improve designs, and present findings with data tables.

Year 5 – Simple Machines Mini Workshop

Science: Levers, pulleys, ramps
Mathematics: Measurement, distance, comparison

Students construct simple machines and investigate how they make work easier. Measurements and comparisons are recorded, and working models are demonstrated.

Year 6 – Eco-Smart Home Energy Challenge

Science: Energy transfer, insulation
Mathematics: Data analysis, percentages

Students design model houses and test insulation materials. Temperature and energy loss data are analysed, and students propose energy-saving improvements.

Year 7 – Engineering Forces & Mechanical Advantage Lab

Science: Forces, work and energy
Mathematics: Ratios, formula application

Students design machines, test loads, calculate mechanical advantage, and improve efficiency. Findings are documented in a technical report.

Year 8 – Smart Sustainable City Project

Science: Energy systems, environmental science
Mathematics: Scale, ratios, data interpretation

Students design and build a scale model of a sustainable city, analyse energy use, and present their work in an exhibition-style showcase.