

SUMMER 2

Woodwork

- 1. Introduction to the Final Project
- 2. Cutting and Preparing Parts
- 3. Assembling Parts
- 4. Adding Moving Parts
- 5. Final Assembly and Finishing
- 6. Testing and Evaluation

SUMMER 1

Woodwork

- 1. Introduction to Woodworking
- 2. Measuring and Marking
- 3. Cutting and Sawing
- 4. Sanding and Shaping
- 5. Wood Pieces
- 6. Finishing Techniques

SUMMER 1

Sustainability

- 1. Sustainable Products I
- Sustainable Products II
- 3. Climate Change
- 4. Carbon Capture
- Carbon Footprint
- 6. Pollution

SUMMER 2

Sustainability

- 1. Renewable Energy
- 2. Insulation
- 3. Ecotourism
- Sustainability and Green Spaces
- 5. Sustainable Microflat I
- 6. Sustainable Microfflat II

AUTUMN 1

Electronics

- 1. Introduction to Electronics and Radios
- 2. Understanding Circuits
- 3. Introduction to Soldering
- 4. Soldering Practice
- 5. Introduction to Radio Components
- 6. Reading Schematics

AUTUMN 2

Electronics

- 1. Building a Simple Radio Circuit
- 2. Testing and Troubleshooting Circuits
- 3. Introduction to the Radio Project
- 4. Soldering the Radio Components I
- 5. Soldering the Radio Components II
- 6. Testing and Evaluating the Radio

SPRING 1

3D Printing & Design

- 1. Introduction to 3D Printing
- 2. Basics of 3D Design
- 3. 3D Printer Operation
- 4. Advanced 3D Design Techniques
- 5. Slicing Software
- 6. Troubleshooting Prints

SPRING 2

- 3D Printing & Design
- 1. Designing Moving Parts
- 2. Preparing for Final Project 3. Printing and Assembling Parts
- 4. Refining the Design
- 5. Final Assembly
- 6. Testing and Evaluation

SPRING 2

STEM Innovations

- 1. Stethoscopes
- Green Humans
- 3. Modelling the Heart
- 4. Heart Dissection
- 5. Al and Medicine
- 6. Forensics

SPRING 1

STEM Innovations

- 1. Prosthetics I
- Prosthetics II
- 3. Meditation
- **DNA Extraction**
- 5. Human Flight
- 6. Microscopy and Medicine

AUTUMN 2

Apocalypse

- 1. Stable structures
- 2. Traversing the Wasteland
- 2. An Apocalyptic Meal
- 3. Water Purification
- Designing the Base I
- 5. Designing the Base II

AUTUMN 1

Apocalypse

- 1. Acid Rain
- 2. Photosynthesis
- 3. Gas Mask
- 4. Extremophiles
- 5. Surviving the Nuclear Winter
- 6. Health and Hygiene

SUMMER 2

Animal Adaptations

- 1. Taking to the Skies
- 2. Animals and Energy
- 3. Microscopic Superpowers
- 4. Hibernation
- 5. Designing an Enclosure I
- 6. Designing an Enclosure II
- Reptile Visit?

SUMMER 1

Animal Adaptations

- 1. What are Adaptations?
- 2. Extreme Environments
- 3. Living in the Dark I
- 4. Living in the Dark II
- 5. Population Ecology 6. Camouflage

Whole school – Mobile Farm

AUTUMN 1

Chemistry Magic

- 1. Experimental Design and Lab Protocol
- 2. Chromatography
- 3. Flame Tests
- 4. Red Cabbage Indicator
- 5. Carbon Sugar Snake
- 6. Oobleck

AUTUMN 2

Chemistry Magic

- 1. Slime
- 2. Levitation
- 3. Homemade Lava Lamp
- 4. Elephants Toothpaste
- 5. lodine Clocks
- 6. Invisible Ink

SPRING 1

Wonders of the Universe

- 1. Intro to Astronomy
- 2. The Moon
- 3. Asteroids 4. The Sun
- 5. Stars I
- 6. Stars II

SPRING 2

Wonders of the Universe

- 1. Extraterrestrial Geology
- 2. Observing Space
- 3. Black Holes
- 4. Exploring Space I
- 5. Exploring Space II

6. Exploring Space III