

## SCIENCE-BASED TOPICS



### PRECIOUS POTIONS

Explore making potions, including mixing, floating, sinking, dissolving and counting.



### AIR POWER

Explore different ways to make bubbles and fun ways to play with moving objects around with air.



### COLOUR SCIENCE

Explore primary colours, mixing colours and separating colours with chromatography



### WATER

Explore properties of water and the basics of the water cycle, including warm water rising.



### MARVELLOUS MAGNETS

Explore magnets, magnetic materials and strength of magnets including games with magnets.



### ICE ADVENTURES

Explore the properties of ice and freezing and melting, plus a fun trick with salt, ice and string.



### RAINBOW HUNTERS

Explore rainbow colours with science, learn how rainbows are made and hunt for rainbows inside and out.



### CHEMISTRY CHAMPIONS

Explore chemistry and how reactions make things change, observing three different reactions.



### MIRROR MISSIONS

Explore mirrors and reflections, read mirror codes and use mirrors and angles to see around and under.



### WEATHER WATCHERS

Explore the weather and clouds and make rain gauges and anemometers to take measurements.



### **PITCH PERFECT**

Explore how sounds are made and investigate pitch and vibrations making our own instruments.



### **WHAT'S IT MADE OF?**

Explore what things are made of, investigating and sorting materials by their properties, including absorption.



### **BODY BUDDIES**

Explore the human body including our hearts, our digestive systems and our skeletons.



### **GRAVITY PLAYGROUNDS**

Explore gravity, make our own slides, create artwork with swings and use magnets to defy gravity.



### **SINK IT!**

Explore floating and sinking with counting, weight and problem solving challenge games.



### **SOUND SCIENCE**

Explore the science of how sounds are made with shakers and drums and a fun way to see vibrations.



### **WHEN THE EARTH MOVES**

Explore basic earth science with earthquake towers, tsunamis and volcanic eruptions.



### **A SHADOW SHOW**

Explore how shadows are made, different ways to change shadows and make a shadow puppet show.



### **CRAZY CATERPILLARS**

Explore the life cycle of caterpillars with maths games, science reactions and zip line butterflies.



### **STATES THAT MATTER**

Explore solids, liquids and gases, how to move between states and make a non-Newtonian fluid.



### **ELECTRIFYING SCIENCE**

Explore electricity, including where objects get their energy, lots of static experiments and a circuits demo,



### **ENVIRO WARRIORS**

Explore what it means to save the planet by sorting rubbish, saving polar bears and cleaning oil spills.



# ENGINEERING-BASED TOPICS



## **BOAT BUILDERS**

Explore floating and buoyancy, making boats and testing them out in a scientific way.



## **BRIDGES ENGINEERING**

Explore building bridges from different materials including books, straws and craft sticks.



## **AMAZING ARCHITECTS**

Explore different building designs and how we can replicate these using things in our home.



## **FLYING FUN**

Explore flying and make planes to test how weight and shape affect how well something flies.



## **TOWERS UP**

Explore engineering and strong foundations to build tall towers with blocks and other materials.



## **RAMP RACERS**

Explore ramps, gradients, speed and friction to race cars and other objects using fair tests.



## **MAGNIFICENT MACHINES**

Explore engineering with simple machines, specifically the inclined plane using fun games and activities.



## **PULLEY ME UP**

Explore pulleys and why they are useful and make a few different pulleys to investigate.



## **CLEVER LEVERS**

Explore another simple machine: the lever to make seesaws, lift things and build and test catapults.



## **COOL CARS**

Explore cars for imaginative play, make car artwork and learn about wheels and axles.



# MATHS & TECHNOLOGY-BASED TOPICS



## WEIGHT'S UP?

Explore weight, build our own seesaws and weighing scales and weigh and compare different objects.



## CODING UNPLUGGED

An introduction to coding and logic, ordering with numbers and rhymes and giving instructions.



## A CIRCUS OF SHAPES

Explore 2D shapes, identifying and hunting for shapes, making our own shapes and pictures.



## HOW MUCH SPACE?

Explore and compare volume with solids and liquids and investigate water displacement.



## CODING PLAYMATES

Explore robots and learn skills needed for coding: logic, sequencing and problem solving.



## PATTERN PICKERS

Explore maths and science with patterns and matching including messy art and bubble patterns.



## CREEPY CRAWLY SYMMETRY

Explore symmetry with loose parts artwork, butterfly paintings and use mirrors to be symmetry detectives.



# THEMES & TIME OF YEAR TOPICS



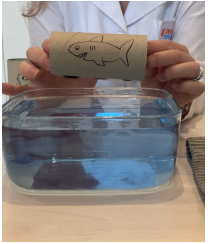
## **DISCOVER DINOSAURS**

Explore dinosaurs by making fossils, digging like paleontologists and making dinosaur skeletons.



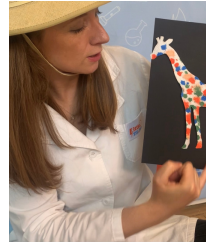
## **SPACE EXPLORERS**

Explore space by creating star constellations, launching a rocket and printing the Moon surface.



## **UNDER THE SEA**

Explore the sea including saltwater, what stops sharks sinking and a fishing trip with magnets.



## **SAFARI STEAM**

Explore science and maths tied to animals with habitats, tracks and absorption giraffe skin.



## **FANTASTIC FIREWORKS**

Explore fireworks by mixing oil and water, making firework launchers and messy art.



## **HOCUS POCUS POTIONS**

Explore potions for Halloween by mixing and combining and separating mixtures and making lava lamps.



## **CHRISTMAS SPECIAL**

Explore Christmas-themed STEAM with toy chutes, ice lanterns and engineered Christmas trees.



## **WINTER WONDERING**

Explore science with a winter theme with snow in a jar, icy snowmen and snowflake patterns.



## **PLANTING SPRING**

Explore plants by growing from beans, making art from the outdoors and making celery change colour.



## **NEW YEAR'S STEAM**

Explore New Year with shaving foam firework pictures, confetti launchers, and 2021 printing pictures.



## **SUMMER STEAM**

Explore with some activities to take outdoors including bottle rockets, solar ovens and water balloons.



## **EASTER EGGS-PERIMENTS**

Explore on an Easter theme to decorate eggs, experiment with eggs and investigate properties of chocolate.