

YOUR SCHOOL TRIP AT

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Council for Learning Outside the Classroom

Imagine That

SCIENCE AND DISCOVERY CENTRE

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Council for Learning Outside the Classroom

THE SCIENCE ZONE

WHAT IS GRAVITY?

FORCES

IS IT A PULL, PUSH OR TWIST?

Use the different pumps and cranks using a PULL, PUSH or TWIST force to make a SPLASH!

FOR FURTHER EXPLORATION ENCOURAGE YOUR STUDENTS TO VISIT: CATAPULT PLANE, MAGNET TABLE, GIANT BUBBLE, STOMP ROCKET, BALL WALL, HAND CRANK GENERATOR, GEARS, VORTEX



Gravity is a FORCE which PULLS objects to the centre of Earth!

The gravity well shows how GRAVITY IN SPACE works and why PLANETS ORBIT the SUN

Try the different balls in the well... notice how the steel ones drop the fastest? That's because HEAVIER objects are PULLED MORE by GRAVITY than LIGHTER OBJECTS!

FOR FURTHER EXPLORATION ENCOURAGE YOUR STUDENTS TO VISIT: THE EARTHQUAKE TABLE, THE GRAVITY MAZE, ROLLER COASTERS, BALL WALL, BALL CANNON



WHAT IS A MAGNETIC FIELD?



A MAGNETIC FIELD is the AREA AROUND a MAGNET where there is MAGNETIC FORCE

Experiment with magnets to see whether they ATTRACT or REPEL

Which materials are MAGNETIC?

MAGNETS work OVER DISTANCE (which means they don't have to touch the object) and PULL MAGNETIC objects towards them!



WHAT IS A NEWTON?

Newton's cradle demonstrates the conservation of energy and momentum

Watch how FORCE is transmitted through stationary spheres and PUSHES the end one out!

A Newton is the UNIT OF FORCE!

PRESSURE

PRESSURE is a MEASURE of how much FORCE is acting on an AREA

Use the BERNOULLI BLOWER to understand why airplanes fly!

As AIR moves around the BALL it creates DIFFERENT PRESSURES AROUND IT - the FAST MOVING AIR from the fan is at a LOWER PRESSURE than the STILL AIR surrounding it and so the ball is locked into position.

FOR FURTHER EXPLORATION ENCOURAGE YOUR STUDENTS TO VISIT: BALL CANNON, SCARF BLOWER, STOMP ROCKET

MATERIALS

SINK OR FLOAT?



Visit the SPLASH ZONE and build a town using different materials and see what will SINK and what will FLOAT

BOUYANT objects FLOAT

(they have more air in them!)

DENSE objects SINK

(they have little air in them!)

STRIKE IT RICH! Use the sieve to find SHINY Fool's Gold!

ROUGH OR SMOOTH?

Use the MICROSCOPE to closely examine materials



Do they look ROUGH or SMOOTH?

DULL or SHINY?

HARD or SOFT?

NATURAL or MAN-MADE?

BUBBLES!

The funnest liquid of all... It can be STRETCHED, PULLED and when it forms it traps AIR inside!



ELECTRICITY, LIGHT AND HEAT

ELECTRICITY

MATERIALS that DO NOT allow ELECTRICITY to pass through are INSULATORS (e.g. wood)

MATERIALS that allow ELECTRICITY to EASILY pass through are CONDUCTORS (e.g. metals)

Complete the CIRCUIT by connecting the wires and use the hand crank generator to CONDUCT ELECTRICITY

Are you a conductor? Use the electricity stick to find out!

Use the pedal power bike to GENERATE ELECTRICITY! How fast can you cycle and how much electricity can you generate?

LIGHT

Step into the WHITE LIGHT and see the RAINBOW of colours appear as your SHADOW SPLITS the white light!

For more fun with light check out the FLASH SHADOWS and WRITE WITH LIGHT

Use different prisms to bend the laser light - this is called REFRACTION

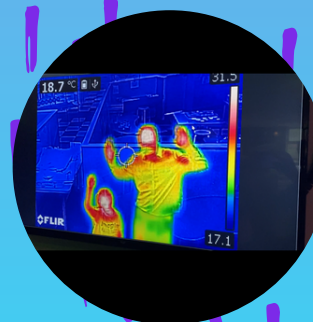
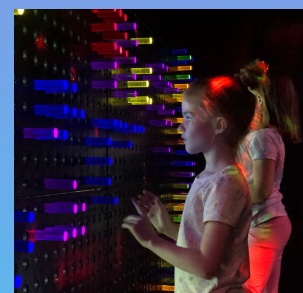
Or use mirrors to REFLECT light

Use the TRANSPARENT coloured rods to create a colourful, illuminated pattern!

HEAT

Stand in front of the INFRARED CAMERA - which is the hottest part of your body?

The camera detects and measures the INFRARED RADIATION emitted from objects



SCIENCE ZONE WORKSHOPS!

CHOOSE ONE OF OUR SCIENCE WORKSHOPS!

WATER POWERED BOATS

Make water powered boats and understand the different FORCES and why MATERIALS help it to float!



MAKE AND TAKE ITEM!

Suitable for year 2 and year 3 groups only!



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Loved by early years and KS1

CATAPULT PLANES

Understand ELASTICITY and FORCES as you make a catapult plane!



MAKE AND TAKE ITEM!

THE SLIME FACTORY PACKED FULL OF MATERIALS AND SENSES!

DRY ICE SCIENCE SHOW

Go on a SENSORY ADVENTURE in our Dry Ice Science Show...

Be amazed as DRY ICE SUBLIMATES from a SOLID TO A GAS

You'll be able to HEAR the CHEMICAL REACTION and TASTE, SMELL and TOUCH the DRY ICE AROMA CLOUDS.

The children will delight as they receive a DRY ICE SHOWER and are gifted a DRY ICE BUBBLE!



MAKE AND TAKE ITEM!

SUPER SLIME

Add ACTIVATOR (BORAX) to your glue and food colouring to turn it from a LIQUID into SLIME which is a NON-NEWTONIAN FLUID (which means it is neither a SOLID, LIQUID or GAS!)

GIANT SLIME

Get really hands on in our GIANT SLIMES

STRETCH, FOLD, POKE and MOULD all of the different slimes

Describe the different colours, textures and scents!



Loved by early years and KS1!



MAKE AND TAKE ITEM!

Suitable for Y3 only!

Understand ENDOTHERMIC and EXOTHERMIC reactions as you create your own colourful, scented, fizzy bath bomb with our Professor!

*(Workshop instead of Giant Slime Tubs)

THE 5 SENSES



ART BEATZ

Enhance your S.T.E.A.M learning in the Art Beatz zone and expand your painting, drawing and design techniques...

PAINTING

MAKE AND TAKE ITEM!

MIX and BLEND colours to PAINT a COLOURFUL fridge magnet.



CULTURE AND COLOUR



3D ART

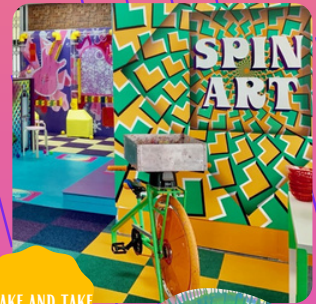
Step into the giant PIN WALL to produce your own 3D ART of YOURSELF!



POINTILLISM - Originated in the late 1800's by Seurat and Signac in Paris and is where SMALL DOTS are used to create a picture

WEAVING - Use ribbons to weave a colourful pattern on the butterfly. Weaving is used to make different TEXTILES and is thought to have begun in Ancient Egypt in 3400BC.

SPIN ART - It was invented by Hirst in London in the 1990's. Create your own art by choosing your different colours and cycling on the spin art bike



MAKE AND TAKE ITEM!



GRAFFITI ART

Use our digital screen to create your very own graffiti art on a portrait of yourself and take a souvenir photo back to school!

SPIN ART OPTIONAL FOR YEAR 2 OR YEAR 3 ONLY!

*1 optional art workshop may be chosen by Y3 or Y2 groups

MUSICAL WALL

Use the balls and our music wall to create a MELODY of different INSTRUMENTS and different SOUNDS!

What instruments do you hear?
What colour lights do you see?



Loved by early years and KS1!

PAINT THE CAR

Create an explosion of colour and paint our REAL-LIFE CAR!

Use your IMAGINATION, COLLABORATION and TEAMWORK skills to create a masterpiece!



GRAFFITI ART OPTIONAL FOR YEAR 3 ONLY!

*1 optional art workshop may be chosen by Y3 or Y2 groups

MAKE AND TAKE ITEM!

OUTDOOR AREA

OPEN ON FAIR WEATHER DAYS

THE DINO DIG

Search for ancient fossils using a SIEVE and clean them with BRUSH and closely inspect the AUTHENTIC FOSSILS using a MAGNIFYING GLASS

Visit our explorers hut to discover some interesting dinosaur facts and learn about the different HABITATS and PERIODS these dinosaurs lived in!



KIT KAMP

Test your TEAMWORK and BUILDING SKILLS and try and build a fort out of the Kit Kamp set!



BUILDERS BOOTCAMP

Test your AGILITY as you race against the clock to complete the builder's bootcamp! You need to have good BALANCE, fast SPEED and be able to JUMP!

IMAGINATION VILLAGE

PEOPLE WHO HELP US

Play a vital role in the community and become a POLICE OFFICER, LOLLIPOP PERSON, MAIL PERSON, FIRE FIGHTER or even a YETI! How do these important people help YOU and YOUR COMMUNITY?



WHERE WE LIVE

STOP! LOOK! LISTEN! THINK! and use the zebra crossing to enter Imagination Village! What do you HEAR and SEE in this village? Is it similar to WHERE YOU LIVE?



THE SEASONS

Become a news reporter and create different weather reports for the different SEASONS using the WEATHER SYMBOLS on the map of the United Kingdom!



SUPERMARKET

Practise your NUMERACY skills on the shop till or be a customer and try and gather HEALTHY FOOD in your trolley!





FORCES

Experiment with FORCES as you use TEAMWORK and COMMUNICATION SKILLS in the construction site! Use different PUSH, PULL and TWIST forces to construct towers and transport bricks across the site!

THE SCIENCE BUSKER!

OPTIONAL FOR YEAR 3 ONLY!



Our science busker will cover topics such as PRESSURE, FORCES, ELECTRICITY and more!



Also enjoy making a balloon-powered car with our Professor!



WHAT TEACHERS SAY...

★ ★ ★ ★ ★ **WONDERFUL MEMORIES**
We brought Nursery and Reception on their first ever school trip and it didn't disappoint. The look on their faces when they saw the science show, played in the snow and made slime was just amazing. Thank you for providing them with such wonderful memories.

★ ★ ★ ★ ★ **EDUCATIONAL**
Thank you to your enthusiastic staff for providing such a fun and educational school trip for our Year 3's! The catapult airplane workshop and science busker were perfect for our forces topic!

★ ★ ★ ★ ★ **S.T.E.A.M**
We loved our school trip, our Y1 and Y2 classes were able to use their imagination, engineering and creativity skills across all of the different workshops and activities! Thank you for inspiring the explorers and scientists of the future!

BOOK YOUR TRIP!

FOR FURTHER INFORMATION OR TO BOOK YOUR VISIT:

Visit our website:

www.imaginethat.org.uk

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