SCIENCE CENTRE SINGAPORE

PRE-SCHOOL ENRICHMENT PROGRAMMES



Science Centre Singapore Group of Attractions



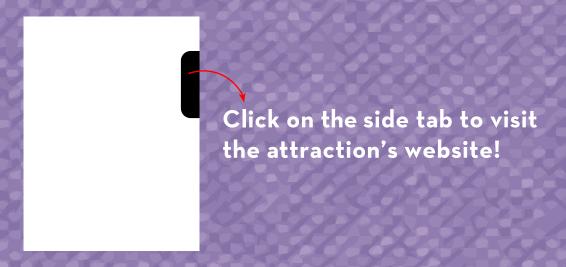






How to use this book

We have made bookings and enquiries easier for you with these interactive buttons!





Click on these interactive buttons to book or enquire about our programmes!

Note:

• All information is correct at the time of publication and is subjected to change without prior notice.



Greetings from KidsSTOP™!

Having had a fulfilling year in 2019, engaging children in STEM (Science, Technology, Engineering and Math) through various learning experiences, we are really excited to share our 2020 offerings with you!

Besides Science Play, which is a repertoire of our signature programmes devised to align with the pre-school curriculum, we have curated a slew of very interesting activities and events to engage pre-schoolers and teachers too!

Here are a few highlights to look out for:

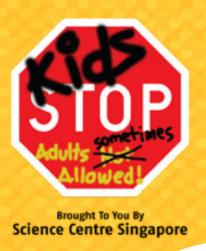
- KidsSTOP™ Comes to You! (Outreach programme conducted at your pre-school)
- Jo's Night Out (Overnight camp)
- Pre-school STEAM Learning Festival
- Abbott GROW Show You Can! Drama competition
- Teachers' Training Workshops

Guided by the Nurturing Early Learners (NEL) framework, our programmes employ the use of creative drama and hands-on activities to make science learning fun and meaningful.

Come join us in our playful journey as we explore and impart STEM topics in ways that would make the learning experiences delightful and memorable!

Do check out our offerings and reserve your slots soon!

From the KidsSTOP™ Team



About KidsSTOP™

KidsSTOP™ is Science Centre Singapore's dedicated Children's Science Centre, for children aged 18 months to 8 years old. With an exclusive 3,000 square metres gallery built to encourage playful exploration, KidsSTOP™ provides a safe and exciting learning environment for children to discover wonders of the world.

The exhibits at KidsSTOP™ are designed to introduce concepts of Science, Technology, Engineering and Mathematics (STEM) through thematic zones, where children can learn and be engaged through interactive play. Children can climb up a 9-meter dream climber, learn the origins of various foods, and uncover dinosaur fossils at a dinosaur pit. There's so much more at KidsSTOP™, where children can Imagine, Experience, Discover and Dream!



Science Play

Our Science Play programme is based on the different zones at KidsSTOP™. Creative drama and hands-on activities are used to introduce science to pre-schoolers in a positive, enjoyable and meaningful way. Our educational activities include interactive story-telling, role playing, puppetry, games, experiments and demonstrations.



3-6 years old



(45-min programme & 75-min free play)



\$12/ student \$2/ teacher



min: 15 max: 22



9.30am or 10.45am 2pm or 3pm





3-4 years old

A Fruitful Day

Children will have A Fruitful Day and learn how fresh produce keeps them healthy. They can also look forward to a multisensory experience as they feel, smell and enjoy a music making session with their favourite fruits and vegetables!

Animal Kingdom Fun

Join us on an adventure in the animal kingdom! Mimic animal movements and learn about their characteristics through storytelling and puppetry. Children will also get first-hand experience in interacting with small animals.









in-house

Fun in Motion

Go on an exciting trip across land, sea and sky! Explore places with different modes of transportation and discover how they work. Hands-on activities will allow children to learn the features of land, water and air transportation.



My Wonderful Body

Ever wondered what's inside our bodies? Embark on a journey with Stuffee® and discover what lies within! Stuffee® teaches young children about the functions of the human body, as well as nutrition and digestion.

Sport the Treasure (In collaboration with HPB)

Embark on a quest to find the secret treasure box! Children will engage in various physical activities and learn about the body's muscular system as they role-play in this adventure. Knowing what constitutes an active lifestyle can be easy and fun!











5-6 years old

Creepy Crawly Adventure

Brace yourselves and go on a creepy crawly adventure! Learn all about the characteristics of creepy crawlies like insects and arachnids. Children can also get a close-up experience with them at our Critters Room!





Dino Rumble

ROAR!! Travel back in time and meet the dinosaurs! Not only will children learn about prehistoric reptiles and compare them with modern ones, they also get to be junior palaeontologists and uncover fossils at the Dino Pit.



Healthy Kitchen (In collaboration with HPB)

What happens when two famous chefs meet in the kitchen? Through creative drama and hands-on experiences, children will learn the importance of having a balanced diet. Using My Healthy Plate guidelines, they will also get the opportunity to create their very own 'meals'!







KidsS

Jobs Express

Build a tower or experiment with safe chemicals! Children become adults for a day as they take on different occupations. This programme includes fun-filled activities that enhance inquiry skills and encourage self-expression.



Sky Explorer

Fly high and watch the clouds go by! Learn about natural and manmade fliers and find out how they fly. Children will also create their own fliers and put them to test at our Flight and Space's powerful wind tubes.





Watt's Electricity

Amp up for an electrifying experience! Children will investigate how current flows in a circuit while experimenting with conductors and non-conductors of electricity. They will also get to tinker with circuits!





Wholegrain, Healthy grain (In collaboration with HPB)

Let's go to the fields to harvest some wholegrains! Children will learn more about wholegrains and the benefits of eating them! They will also get to see the different grains in a micro viewer and have fun coding with our sandwich robot!

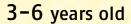




KidsSTOP™ Comes to You!

KidsSTOP™ Comes to You! is an outreach programme that aims to spark young childen's interest in learning about STEM concepts in an enjoyable way. Each edutainment programme comprises a 15-minute performance and 30-minute hands-on activity. Young children can encounter and understand STEM concepts through bite-sized sessions of music, drama and play with the founders of KidsSTOP™. KidsSTOP™ Comes to You! will be conducted at the comfort of your school, and is curated for young children.







1 hour



\$550/ show



max: 60



10.30am 1.30pm

The Amazing Cabbage

Miss Train Conductor brings Win and Pepper to her kitchen after a fun and long day at KidsSTOP™. While waiting for Miss Train Conductor to whip up a feast, Win gets into trouble by messing up the Cabbage Soup prepared by Miss Train Conductor. Witness Win try to salvage the situation with the help of Pepper.

Children will be exposed to pH indicators and acquire skills such as observing, identifying and predicting.



Food Fun

I Spy with My Eyes

Miss Train Conductor has misplaced her Golden Spectacles! Her vision is blurred without it, and she needs to have it back! Join Win, Pepper and Miss Train Conductor as they head to the magical playground to search for the missing spectacles!

Children will discover more about the human eye, as well as ways to take good care of the eyes.



The Human Body









in-house programme

Jo's Night Out

(Overnight Camp)

Spend the night at KidsSTOP™ and have loads of fun participating in our camp activities! Children will get to work in teams to complete challenges and engage in science activities. These camp programmes also aim to increase problem-solving and social-emotional competencies!



5-6 years old



3pm - 11am the next day



\$150/ child \$50/ adult



min: 20



Highlights



Exclusive free play at KidsSTOP™



Customisable programme



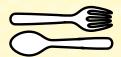
Exciting team bonding activities



Wide selection of hands-on science activities



Fun at waterworks



All meals included (Dinner, supper & breakfast)





in-house programme

Curious Explorer (Hands-on Activity based programme)

The Curious Explorer programme is specially curated based on a child's inquisitive nature to learn. Structured around different themes, children will work in small groups at different activity stations and be given the opportunity to engage in multi-sensory experiences to understand science concepts, guided by our dedicated educators.

Through enthralling experiments and demonstrations, we aim to make learning positive, enjoyable and impactful for all groups of children!

This programme is also available for SPED school bookings.











min: 20^{*} max: 22^{*}



Enhance children's learning

Through scaffolding and small group-based learning

With three hands-on activities in one theme



^{*}For SPED school booking, kindly reach out to us for more information.

Professional Development For Preschool Teachers

Interested in professional development workshops to inspire and equip your teachers for STEM learning?

Innovation Guidance Project

The ECDA Innovation Guidance Project (IGP) is initiated to improve the quality of pre-school programmes, teaching-learning practices and to foster a culture of innovation and reflective practices.

Refer to the Innovation Projects Grant on ECDA's website for more information about this initative



Take Flight!

Take Flight! is a professional development workshop led by KidsSTOP™ for ECDA's IGP. We aim to build confidence in early childhood educators with hands-on activities methods to deliver abstract concepts.

Explore drones-appropriate workshops for preschool and have a go at flying them!

Customised Training Workshops

Our customised Training Workshops are designed to integrate early childhood pedagogies and science concepts to equip educators with the confidence and knowledge to approach Science. Educators will

explore Science topics through interesting hands-on activities and experiences.

Training workshops are aligned with the learning areas and teaching strategies of Discovery of the World (NEL framework).







Science Centre Singapore is an award-winning attraction that promotes interest and creative learning in science and technology. Here, science is fun with over 1,000 interactive exhibits to spark your students' curiosity. Check out the galleries that are suitable for your groups.



Butterflies Up-Close Singapore's First Indoor Butterfly Sanctuary

Bring your students to a safe, cosy and air-conditioned butterfly sanctuary! They will be transported into a "jungle" setting to learn about the life cycle of a butterfly, observe their unique characteristics, study butterfly body parts through a microscope, view real pupae and marvel at the specimens and live butterflies.

In addition, your group can also continue their learning adventure at the Animal Zone and Ecogarden.

This field trip promises to be an adventure where your students will delight in observing exotic butterflies from around the region at close range! There may be seasonal highlights such as the display of stick insects or beetles. Please check with us closer to your visit date.



Life cycle of a butterfly, differences between butterfly and moth, distinctive features of seasonal insects.







3-6 years old 45 mins



min: 20 max: 40



11am 2.30pm

Fee includes free guided tour and enrichment booklet. Usual Science Centre Singapore admission applies.





Animal Zone

Check out the live animal area with the ever popular chick hatchery, and meet other new furry, scaly, fluttery and crawly friends.



Water Works

From the Circular Rainbow to the Water Jets and Water Maze, students will learn about water, our most important resource and have lots of fun at the same time. Remember to bring along extra clothing!





Ecogarden

The Ecogarden is filled with living wonders waiting to wow your students. Learn about fruits and crops in the mini Orchid and lime tree corner or scramble up the tree house to enjoy the best view.



The Mind's Eye

Head down to The Mind's Eye to get your eyes (and mind) tricked by the series of optical illusions as well as other interactive motion-based exhibits. Our exhibition is curated to inspire you with a fresh perspective.



My Senses

Our understanding of the world comes through the use of our senses but how much do we know about them? Come discover the roles and importance of our eyes, nose, ears, tongue and skin with our friendly facilitators. Through a series of activities, students will find out how their senses facilitate them in their daily lives!



Senses and part of the human body



\$8/ student



5-6 years old





45 mins



9.30am 2.30pm













Types of plants, Uses of plants, Garden animals, Relationship and interactions between plants and animals.







min: 20



1 hour



9.30am 2.30pm



\$8/ student



In the Garden

The lesson has been developed to be utilised as part of the "Discovery of the World" theme of the revised kindergarten curriculum framework. Be amazed by the many plants found in our tropical climate, and learn about how they form an ecosystem with the animals around the garden. You can even meet some of these animals up close and personal!





Ahoy! Captain Cook!

Who says kids can't cook? In this lesson, pre-schoolers will use common ingredients to whip up a dish that looks too good to be eaten. They will also learn where food comes from and create a masterpiece that tells a story about nature.



Marine habitat



\$8/ student



5-6 years old



min: 20



45 mins



9.30am or 2.30pm









Discovery of the world



\$8/ student



5-6 years old



max: 30



1 hour

9.30am or 2.30pm

Weather permitting





The Enchanted Garden

Through this workshop, pre-schoolers will get to identify the different sounds made by

nature and be introduced to the different types of percussion instruments that mimic

the sounds of nature.



Wind Table Activity @ The Tinkering Studio

Join our Educators at the Tinkering Studio for the wind table activity which encourages children to explore moving air with a variety of everyday objects. Provided with just simple materials like paper and balloons, children will design and create their own flying contraption that is able to fly and hover above the wind table.



Tinkering



\$7/ student



5-6 years old



min: 10



45 mins



or 2.30pm







Biology- insects, Physics- Electronics



5-6 years old





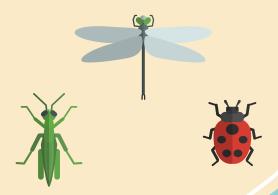
45 mins



9.30am or 2.30pm

Feeling Bugged

What various bugs have you seen around? Let's learn about the basics of insect biology and be introduced to LED lights.





Moon Phases

The Moon is a beautiful rock that changes shape in our night sky on different days. Join us on a journey out of this Earth inside the planetarium dome to see why that is so.



Moon, Moon Phases, The Sun





Earth & Planets

Join us on a tour around the solar system inside the planetarium dome and discover the beauty out of this world.



Solar System and Constellation



Power Forever

For generations, humans have depended on petroleum for their energy needs. But as oil wells run dry, we must look for other sources to fuel our power-hungry devices. In this workshop, find out how the sun and wind can be tapped as clean and green energy sources for centuries to come!



Renewable Energy, Solar Energy, Wind Energy

Properties of Materials

Wonder why we use certain materials for different objects? In this lesson, we will combine story-telling with science. Learn about hardness, texture, and waterproof materials through a series of hands-on activities.



Properties of Materials



1 hour



\$6.50 /student



min: 20 max: 30



9.30am or 2.30pm



Earth. **Our Untamed Planet**

Let's take a journey to the centre of the Earth and explore the dynamics of our untamed planet.



Layers of Earth, Types of Natural Disasters

What's on Your Plate?

Ever wondered why you need fruits and vegetables on your plate? Join us for a tour in the garden to learn more about the vitamins found in fruits and vegetables!



Types of fruits and vegetables and their nutritional value.

Weather permitting

Little Inventors

Gear up to become a little inventor as we learn about the designthinking process that can be used to create useful inventions.



Design thinking process -Define, Imagine, Choose, Test, Improve, Create

My Simple Machines

Simple machines make our work easier by using forces in various ways. Join us to explore the 6 different types of simple machines we use every day!



Wheel and Axel, Pulley, Wedge, Inclined Plane, Lever, Screw.

Weather permitting

Hygiene is the key to clean living yet many has taken granted of it. Take a tour through the sanitation exhibition to understand the importance of cleanliness for us and the environment.



Digestion process, Spread of diseases, Good hygiene practices

Hygiene Heroes



min: 20 max: 30

5-6 years old

45 mins

\$6.50

/student



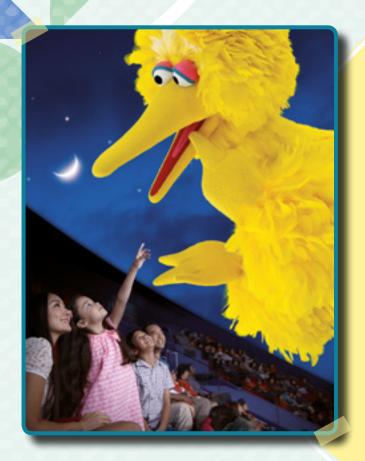
11.15am





Students will enjoy a highly immersive learning experience at Southeast Asia's First 8k Digital Dome Theatre - Singapore's only digital dome theatre equipped with the latest state-of-the-art digital projectors and digital planetarium software.





Digital Movies

One World One Sky: Big Bird's Adventure

Students will be thrilled when they find themselves on Sesame Street with their famous friends, Big Bird and Elmo. The fun begins when Elmo's friend, Hu Hu Zhu, visits from China and they go on an exciting journey of discovery to learn about the Sun, moon, stars, and Big Dipper.

This movie is specially produced for preschoolers and is a wonderful bilingual show which features a few key terms and a song in Mandarin. (30 mins)

Live Planetarium Show

Exploring the Planets

From the Earth, most planets look simply like bright stars moving across the night sky. But as you get up close, they are all as different as you and me! What lies below the clouds of Venus? What does it look like to stand on Mars? What makes up the beautiful rings of Saturn? Let our Science Educator bring your students on an interplanetary journey through our Solar System! (30 mins)







Experience real snow and a sub-zero climate at Snow City

– the only indoor snow centre in Singapore!

Students can slide down snow slopes,
build their own snowman, and learn from fun workshops.





3-6 years old







\$14.98 /student



nin: **20**



Oam - 12pm 2pm - 4pm



Snow Chamber & Workshop room

Free admission extended to 1 teacher for every 10 students (additional adult will be at \$10.70 each). Course fee includes gloves, boots, and jackets for the students. Only boots and jackets will be provided for adults. It is compulsory to wear long pants and socks.



Clouds of Fun

This workshop is composed of experiments using dry ice. When dry ice gets in contact with water and soap, it produces cloud-like formations and mists. Get ready to be awed by the science behind these simple demonstrations!



To demonstrate what happens when dry ice gets in contact with water and learn how to form 'clouds' and mist using dry ice.



Learn experiments that are fun yet simple enough to be replicated at home. With adult supervision, kids can show off their 'magic' skill to their friends.



Perform simple 'magical' tricks such as spinning a ping pong ball without touching it and freezing water in just few seconds. Learn through observation and dare to try.

Dancing Lights and Coloured Ice

Watch a spectacular Northern Lights video, draw one as a take-home souvenir, and discover how coloured ice melts in water and oil.



Learn to mould coloured ice and melt them in water and oil. Learn the basic colours and shapes. Enhance their fine motor skills through this play experience.





Frozen

Find out what happens if things such as flowers and balloons get in contact with liquid nitrogen. Learn how to instantly freeze an ice cream in just minutes.



Children will discover what liquid nitrogen is and its 'magical' effect on things; how liquid nitrogen instantly freezes ice cream so quickly.



Fun with Snowman

Create your own snowman and have fun dressing them up!



Learn the basic body parts. Enhance children's creativity. Teamwork.

Ice-Capades

Get ready to self-inflate balloons, make Ziploc poppers, and hear metals scream. You will be surprised that most of the materials and ingredients used can be found in the comfort of our own homes and schools.



Learn to perform more scientific tricks using dry ice and other ingredients and materials easily available at home.

Ice Cream in a Bag

Make ice cream using ordinary things found at home (kitchen) such as salt, ice, cream, and Ziploc bags.



Learn to make ice cream with ingredients and materials easily available in the kitchen.







Ice Fishing

Understand the idea of fishing in a frozen body of water.



What is ice fishing and how do the Inuit do it? Children will be taught how to do ice fishing in this funfilled session.



The Arctic Avengers

Get to know Snow City's Arctic Avengers- Oki (the Inuit boy). Nooka (polar bear), Ila (husky), Suki (magical owl), and Koko (arctic fox) - using 3D cubes and learn how they survive the freezing temperature of the Arctic.



Know the different animals living in the Arctic and their survival mechanism.



Water is life. Every day, our water gets dirty because of things we use and throw in it. Children will find out how simple objects such as papers, plastic bottles, straws, oils, and others contribute to water pollution.



Find out what causes water pollution, who are responsible for it, and its effect on life and the environment.

Whose House is it?

Learn about the different places that people call home and introduce the unique houses and transportation used by the Inuit.



Learn about the typical houses of the Inuit and why they live in such houses.

Please note:

- Each session runs for 2 hours. (45 mins classroom workshop, 45 mins snow play, and 30 mins changing of
- Each classroom workshop has an educator provided. Teacher assistance is needed.
- Adult gloves are optional for rent at \$2.90/ pair.
- Waterproof pants rental for adult is \$4.90, and \$3.90 for child. Socks are available for purchase at \$3.50 for adult, and \$2.90 for child.
- Photo services are available. No cameras are allowed in the Snow Chamber.
- Bookings are to be made at least 2 weeks in advance and depends on the availability.









The Cliff @ Snow City

Kindie Fun Climb

Chidlren will get to try sports climbing at TY boulder and learn 3 types of knots (reef, figure of eight, and thumb knots) which are essential in climbing activities and the outdoors.



Improve coordination and flexibility.

Build trust and confidence.

Build psychomotor skills and balance during climb.

Children learn to work with friends to accomplish a task.









\$15/ student



min: **20**

max: **30**



10am - 12pm 2pm - 4pm

Free admission extended to 1 teacher for every 10 students (additional adult will be at \$10.70 each).

It is compuilsory to wear sports attire and sports shoes.





Teachers Professional Development Workshops

Early childhood educators play an important role in exposing the students to various topics at a young age and fostering their interest. Want to teach Science in your class but not sure how? Science Centre Singapore offers teacher professional development workshops to equip teachers with scientific knowledge and skills to guide students to explore and spark their interest in Science. These workshops are endorsed by Early Childhood Development Agency (ECDA).



Discovery of the World through Inquiry-Based Learning

Children are natural scientists as they constantly explore the world around them. Using their senses, they discover and develop new ideas about how things work. In this 2-day workshop, learn what you can do in the classroom to facilitate, encourage and guide this exploration. You will also learn the basic approaches of incorporating inquiry into hands-on activities conducted in the classroom. Come and be amazed!

Learning Objectives:

- Appreciate the need and importance of encouraging curiosity and nurturing an inquiry mind in young children, so as to understand the world around them.
- Understand methods of inquiry-based teaching and learning.
- Be equipped with knowledge of scientific concepts, and skills to scaffold its learning through inquiry methodologies.
- Develop/design appropriate hands-on, inquiry-based science activities.

The Earth We Share

Earth, the beautiful planet we call home is the only place in our solar system which we know contains life. Why is Earth the only planet where living things thrive?

The Earth We Share is a training programme that reaches out to N2, K1 and K2 educators to encourage them to question and explore the place they call home. Hands-on activities will cover concepts on land and structures of buildings as well as water, our source of life.

Learning Objectives:

- Basic content knowledge on Earth Sciences focusing on topics related to land and water
- Resources and strategies to introduce Earth Sciences to children
- Materials for hands-on activities in classroom



Curious Creative Thinkers

Invitation to children to encourage curiosity, experimentation and discovery of the world through the process of multi disciplinary Making. Teachers will be guided on setting up a tinkering space in school and activities that can potentially be implemented in the space.

The aim is to set up a Tinkering space in pre schools, which can be used by children in free tinkering exploration activities as well as by teachers for facilitated activities. Exploring in the tinkering space will engages the curiosity of the child, making him wonder about the hows and the whys as well as encourages tinkering and discovery of the world.

Learning Objectives:

- Setting up a tinkering space to allow for creative exploration
- Using the tinkering space to facilitate activities on the following topics: Movement, Music, Art, Games, Light
- Science, Math, Language and Art concepts that can be incorporated through activities using the tinkering space.

*Funding for this course is available under the Skills Connect System for Singaporeans and Permanent Residents (PRs). For non-Singaporeans/ PRs, subsidy from ECDA is available.

To register, please log on to one.ecda.gov.sg.



Children's Day Special Event (In conjunction with Young Learners Festival)

Young Learners Festival is an annual Children's Day Special Event curated for young children. It emphasises on using Performing Arts as a platform to introduce Science concepts to younger children. Our audience will be brought through a journey filled with a meaningful story, simple science facts, visual effects and lots of interactive moments!

The enthralling theatrical experience will end off with a complimentary hands-on activity, with a theme related to the performance.



Further Enquiries



Abbott GROW Show You Can!

Show You Can! is an annual drama competition which allows pre-schoolers to showcase their talents through integrating science knowledge with dramatic flair. This drama competition aims to explore the different socio-scientific topics, encourage young children to engage in issues pertaining to the impact of science has on their daily lives and making conscious efforts in addressing these issues.



3-6 years old



5-min performances



Up to **10** children per team



Audition: 30th Jun - 3rd Jul Finals: 30th Jul



Goodie bag and certificate for every child!





Transforming communities through STEAM

Annual Preschool STEAM Learning Festival (In conjunction with Science Festival 2020)

Immerse in the world of STEAM (Science, Technology, Engineering, Arts and Mathematics) with KidsSTOP™. Look forward to a festival of fun-filled experiential learning and a galore of STEAM-based activities for young children!



Educational Resources Let's Explore

Let's Explore is a series of specially designed science experimental kits developed by Science Centre Singapore for children to explore amazing Science facts in a fun way. The experiments can be carried out in school with the teacher and classmates or even at home with family and friends; and in the process learn the skills scientists use to study and make sense of the world around them.

These kits are self-contained with step-by-step, well-illustrated instructional guidebooks created to support teachers, parents and children in the learning of science concepts in an interesting way. Through these kits, it is hoped that children will eventually develop positive attitudes and passion for learning science.





Fun with Shadows Learning Outcome

- The length and position of shadows change as the sun moves across the sky
- Shadows are longest in the morning and evening
- Shadow is shortest at midday
- Shadows are always on the opposite direction to where the sun is shining
- Telling the approximate time of the day by looking at the images of shadows

Let's Explore Air Learning Outcome

- Air is matter, it has weight and occupies space
- Air is a gas, it does not have fixed volume and shape
- Air expands and takes up more space when heated
- Air can exert a force to do work





Let's Explore Simple Machines Learning Outcome

- Simple machines are broadly divided into lever, pulley, inclined plane (including wedge and screw), wheel and axle and gears
- Simple machines can be combined to make complex machines
- Simple machines change the direction of force and help to make work easier, less force (strength) is needed