

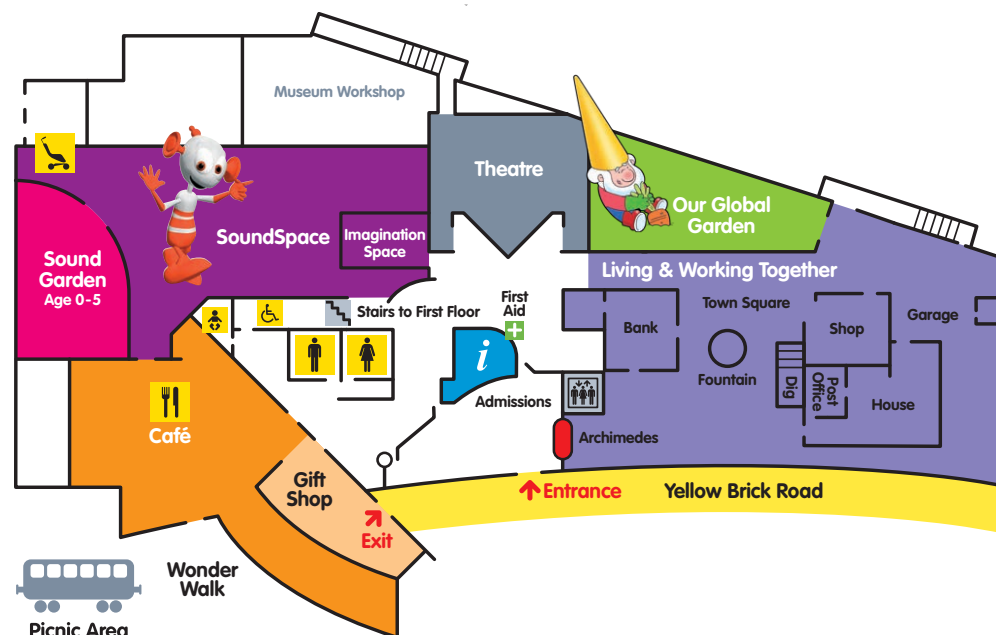
Gallery Guide

Key Stage 1

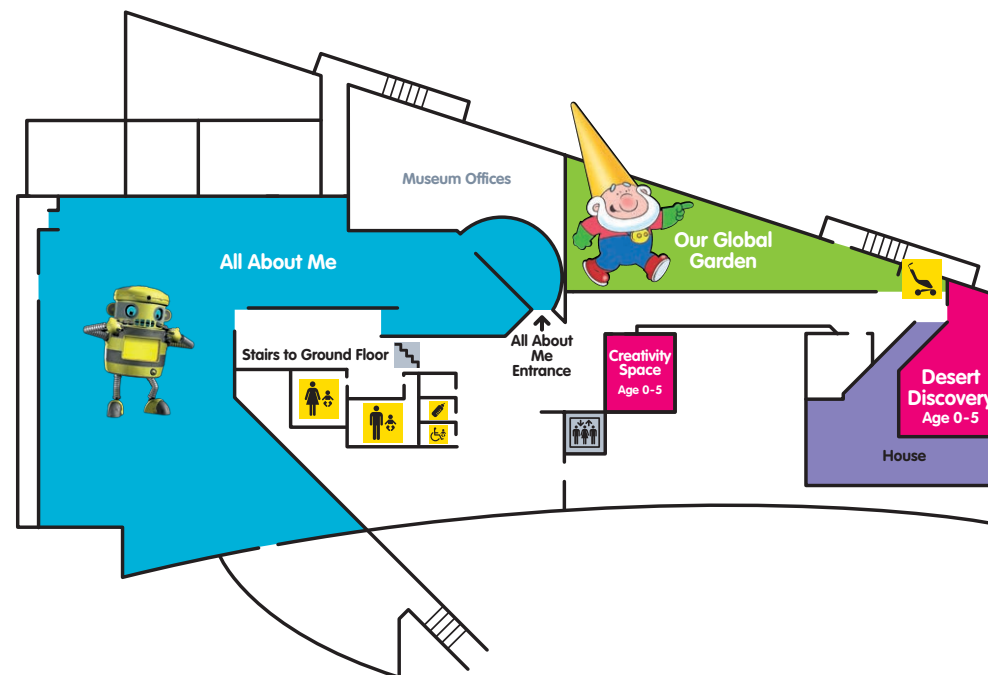
New
All About Me
is here!
More details
inside...



Ground floor



First floor



Welcome to Eureka! the UK's one and only 'must-touch' museum for children.

This gallery guide is designed to help you plan and enjoy your visit to the full.

If you have any questions regarding the guide please contact the Play & Learning department on 01422 330012, fax 01422 330275 or email bookings@eureka.org.uk

Please note that children must be supervised at all times.

For your Self Guided Gallery visit

Choose a Gallery



All About Me

(up to 3 classes at a time)

Discover how amazing and unique your body is and how and why you should keep it as healthy as possible.



Our Global Garden

(up to 2 classes at a time)

Find out about the plants and animals which live in six different environments.



The Town Square

House and Garage

(1 class at a time)

Investigate how things work in a life-sized house and garage.

Shop and Bank

(1 class at a time)

Explore the world of work; use maths in a contextual setting to count, weigh, measure, estimate and compare.



SoundSpace

(up to 2 classes at a time)

Help Orby the Alien understand and enjoy sound and music.

Or

A Learning Journey Workshop

(up to 35 children and 7 adults at a time)

A programme developed to support the Key Stage 1 curriculum and led by Eureka! enablers.

Then visit any of the above galleries in smaller groups in your discovery hour.

This booklet is designed to support a visit with simple, child-orientated descriptions of what is on offer at Eureka!. The following pages contain supporting resources for your visit.

Let's Explore

Let's Explore pages describe what you can expect to find and do in our four main galleries.

A Guide for Young Explorers

All About Me

Our Global Garden

The Town Square

SoundSpace

Music & Creativity in SoundSpace

Role Play Opportunities

Thematic Trails

Thematic Trails show how certain galleries and exhibits can be used to support learning in various areas of the curriculum.

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Trail 1 The Senses (Year 1)	10	Trail 2 Living & Growing (Year 2)	11
Trail 3 Living Things (Year 2)	12	Trail 4 Let's Shop (Years 1 & 2)	13
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At Eureka! we want visitors to make the most out of their visit. Below are some activities which you can use in the classroom before the trip to make the visit more personal and engaging for your pupils.

Share the itinerary* of the visit with the children and supporting adults

- Where are they going?
- How long is the journey?
- Why are they going?
- How long will their visit to each gallery be?
- What will they be able to do in the galleries?
- When is lunch?

* Your itinerary can be found in the confirmation pack sent through in the post.

Create opportunities for paired or individual research

Before the visit, have books, posters, artefacts and websites accessible for the children to begin discovery in an informal session. Encourage the children to bring things from home relating to the topic which could be displayed on an 'Ideas Table'. These activities will stimulate a sense of discovery, excite their curiosity and allow the children the opportunity to ask questions before the visit. This will add to the Eureka! experience and encourage the children to be in control of their own learning.

Brainstorm the main theme of your Gallery Time

This can be on a large sheet of paper in guided writing groups or as a whole class activity. Ask the children what they know about the topic already and what they would like to find out. (These can be kept and added to discussions after the visit to show what knowledge has been acquired).

Create a questioning environment

A week before the visit, place a blank question poster on the wall and encourage the children to write on any questions which they would like to find answers to relating to the focus topic/area of study. Write question words (Why? What? How?) on the sheet to remind the children of question structures. Allow time for teacher lead sessions for pre-writers to contribute to this class activity. Just before the visit, review the questions and decide with the class which ones you will investigate. Appoint an adult 'ideas catcher' to whom the children can report their ideas and answers during the visit. (Be prepared for a visit to Eureka! to raise even more questions!) It can be useful to place the children into groups and assign roles such as 'explorers'.

True or False?

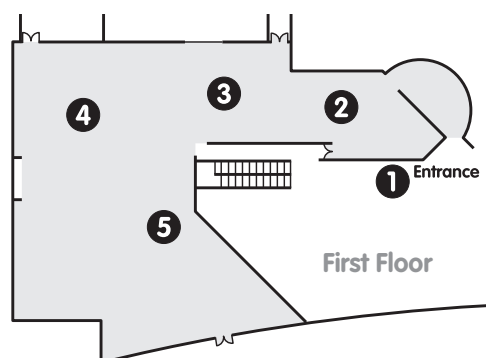
Give out a list of simple statements to the class, or one to each group, which may or may not be true. Encourage the children to gather evidence from the gallery to either support or disprove this statement. The evidence could be held by the group leader. These can be given out on the bus on the way to Eureka! to stimulate pre-visit conversations.

Exploring the answers

Allow time back in the classroom to share the answers and information discovered. This could be offered as group presentations or as an assembly to the whole school.

The new **All About Me** gallery provides an opportunity for children to discover just how amazing and unique they are and how and why they should try to keep their bodies as healthy as possible.

Look out for Zoom the Robot's passport points to complete your **All About Me passport**.



1 Exterior wall and entrance

- Look through the peep holes to discover some hidden surprises.
- Countdown with the traffic lights and meet Zoom the Robot.

2 Measuring & Looking Closer

- Investigate four magic mirrors.
- Measure your stretch, reach, step and height.
- Investigate the stuff that you and Zoom the robot are made of.
- Zoom in to see your skin close up.
- Look at the animated families to work out how they look like each other.
- Discover what you might look like when you're older.
- Stand next to the tallest man in the world.

3 Health Centre

Reception Waiting Room

- Take on the role of health correspondent.
- Pretend to be the Receptionist and/or Patient to arrange appointments.

Baby Clinic

- Pretend to be the Midwife or parent.
- Talk to the Receptionist through the Intercom.
- Scan the mum's tummy and discover what happens.
- Watch how mum's body changes as baby grows.
- Look after the play babies and weigh and measure them.
- Where does a baby get its food from?
- Watch the animation to find out where you came from and how you've grown!



Dentist

- Dress up as the Dentist – there are lots of jobs to do! Or are you the patient, ready for a check-up?
- Talk to the Receptionist through the Intercom.
- Settle your patient into the chair for a check-up, a filling or a polish.
- Explore a giant mouth and find the wobbly tooth.
- Look at the dental x-rays – can you see what's wrong?
- Watch how teeth grow.
- Find out more about how we can keep our teeth and gums healthy.

Doctor

- Pretend to be the Doctor or Patient.
- Talk to the Receptionist through the Intercom.
- Look at the X-rays – which bones are broken?
- Step into the Body scanner and see what's inside you.
- Look inside the model to find out what's at the back of an eye, inside an ear and down a throat.
- Watch the story of a Scab – ewwww! Or blood close up.
- Bandage your patient or check their weight and eyesight.

4 Let's Get Active

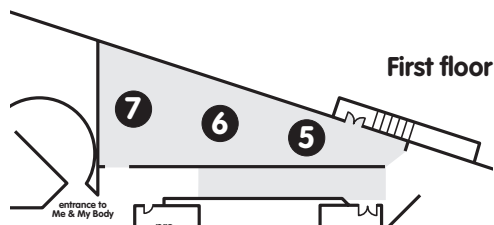
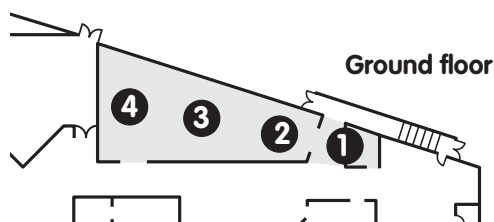
- Dance along with the jointed skeleton or get on the bike to reveal the cycling skeleton.
- Climb across the wall – how far can you go?
- Play on an interactive pond to discover what's moving.
- Copy the movements of the people on the projection wall.
- Take your place in the goal and try to 'save' the balls.
- At the Cardiovascular wall, measure your heartbeat, see how warm you are and make the skin model sweat!
- Investigate the delicious Hydration and healthy Vitamin & Mineral foods.
- Investigate the picnic tables to create healthy meals.
- Find out more about sleep at the sleep wall.
- Meet Zoom the robot to share your discoveries.

5 Our Brain & Senses

- Test your reaction skills at the drop rod game.
- Find out which part of the brain is linked to our senses.
- Test how steady your hand is with the loop and wire game.
- Work together to make a sound down the larger than life ear and to see the bones inside moving.
- Work out what the sounds are.
- Feel the hot and cold pipes.
- Investigate the giant eyeballs.
- Work out the illusions.
- Climb on the giant tongue and investigate tastes.
- Explore the giant nose bit watch out for the sneeze!
- Share your emotions and practice what they sound like.



The **Our Global Garden** gallery provides an opportunity for children to explore the similarities and differences in the places, animals and plants which are found there. **Gordon Gnome** is a friendly character who introduces the children to their journey in short cartoons on the outside walls and adds extra interest to the exploration by hiding in each garden. The gallery is divided into seven areas, the last one being Positive Steps where children can save a polar bear by making simple changes to their everyday lives.



1 Positive Steps

- An interactive game in which Nanuq, a polar bear from the Arctic, is suffering the effects of global warming as his habitat rapidly diminishes.
- Children can find out how, through changes to their use of electricity and transport, they can boost the polar bear's chances of survival.
- Nanuq will also teach them about recycling.

2 The Town Garden

- Investigate the outside wall of a town house to find out which creatures live there.
- Look through the traffic window which shows different ways to get to school.
- Turn a tap to follow the journey of water from a rain cloud to your tap.
- Put on a giant rat's head to find out how they see.
- Move the town creatures to their country home and back.
- At the recycle bins make choices about where to put materials.
- Listen to the noisy sounds of a town. Did you find Gordon?

3 The Jungle Garden

- Listen to the jungle noises and look at the colours.
- Explore the trees to find out about: events which happened during the tree's lifetime; some of the things which we take from the jungle; why we shouldn't take too much.
- Which creature is hidden in the last tree stump?
- Can you put the jungle creatures together?
- Stand on the footprints before you leave the jungle to reveal a flying creature. Where was Gordon hiding?
- Look closely at the spiders. Are you brave enough to try a feely box?

4 The Ocean Garden (The Shore)

- Explore the rock pool.
- Turn the handle to make the wind turbine work and surf on the surfboard to light up the city.
- Make your way through the sea kelp forest.

(Under the Water)

- On the shipwreck, puff up a puffer fish, listen to the electric eel crackle and find the camouflaged fish.
- Watch the graceful jellyfish and eerie octopus.
- Listen at a conch shell to hear the sea and look through the fish-eye portholes to see like a fish.
- Watch the wooden sea wall. Some very big and scary sea creatures will appear! Who found Gordon?

5 The Country Garden

- Listen to the sounds of the country.
- Press the buttons to watch and listen as Gordon shows and tells you about the four seasons.
- Pull down on some vegetable roots to find out what grows above and below the ground.
- Place different products on the places they come from.
- Peek into a hedgerow at the plants and animals.
- See some of the different ways that land is used. Did Gordon surprise you?

6 The Ice Garden

- Listen to the sounds and look at the colours of the polar regions. Go inside an igloo and dress up.
- Build an igloo.
- Pull the lever on the seasons board to see how the creatures change from summer to winter.
- Listen to Gordon talking about water from inside an icicle.
- Make a wax rubbing of your favourite snowflake.
- Try to catch a fish like a penguin or a seal.
- Snuggle up to a polar bear and huddle with the penguins.

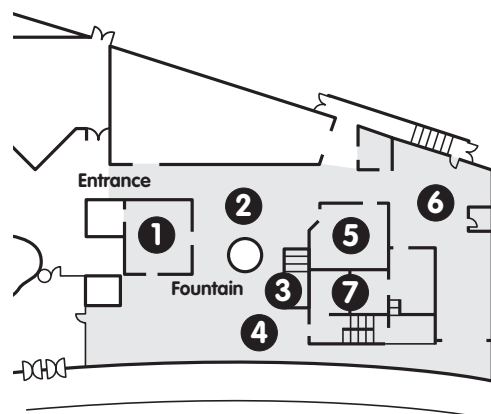
7 The Desert Garden

- Listen to the sounds and look at the colours of the desert.
- Feel the hot rocks.
- Go *inside* the Bedouin tent to see how the desert dwellers use the stars to guide them. Listen and watch as the glowing eyes, watching you, are revealed as some of the creatures in the desert.
- Go to the well and lift out buckets of water. Find out how much water you use for different activities at home.

Use the touch screen computers to find out more. Can you find Gordon?



The Town Square at Eureka! provides a wonderful opportunity for role play – a small world for small people! Children can explore the world of work as they become cashiers, postal workers and mechanics or try out some everyday grown up tasks such as visiting the cash machine, going shopping and making lunch.



1 The Bank

- Try out the cashier's counter with a ready supply of withdrawal forms and a real cash machine and bank cards to deliver Eureka! banknotes.
- Explore the huge bank vault and try to beat the alarms.
- Use the Security cameras and monitors to spy on your friends.
- Send money in a capsule to the shop or garage.
- Check out banknote security with the ultraviolet scanner.

2 The Square

- Look and listen to the wonderful musical fountain.
- Look up at the story tree to see the many strange things that have got stuck in the branches.
- Come closer and listen – the tree is telling a story!
- If you've got lots of energy you could even have a game of hopscotch.

3 The Dig

- Go down into the Dig to see underground pipes uncovered. Look through into the cellar and search the ledge for mini-beasts.
- See the crockery and bones from long ago which have been uncovered.
- Go up to the tables and take a look at the fossils.

4 Police Box

A Police Box has landed in the Town Square!

- Look inside and approach the Science Kiosk.
- Choose an adventure.
- Play the games and activities.
- Connect with other Science Centres worldwide.

5 The Marks & Spencer Shop

- Role-play being a customer, cashier or manager using the scanner tills, trolleys and baskets, buy food.
- Use your senses with the sensory boxes.
- Explore the 'Journey to my plate' to find out where everyday foods come from.

6 The Garage

- Put on an overall and become a mechanic! There's a car waiting for it's MOT and another which needs it's tyres changing.
- Fill up a tank at the petrol pumps and put a car through the car wash.
- Put your favourite design on a car using magnetic symbols and pictures.

7 The House

The Hall

- Flick the switches to see how much electricity is used. There's a Grandfather clock with a rhyme on it. Try the different door knockers out.

The Post Office

- Put on a uniform and cap, grab a post bag and start sorting and delivering.

The Kitchen

- This contains a cooker, fridge, cupboards and drawers full of pots and pans and lots of play food. What dish can you make? Use your senses at the smelly table and in the feely drawers.

The Bedroom

- Enter the world of imagination as you discover the bed of a princess and a doll's house. Explore the dream and nightmare cupboards; draw your nicest dream or worst nightmare (feed it to Baku and it won't come back!). Go through the wardrobe into the magical star-lit corridor.

The Attic

- Discover a mini theatre and dress up. Put on a show using the sunpipes to light the stage. Look at the displays of objects from the past. What do *you* recognise.

The Balcony

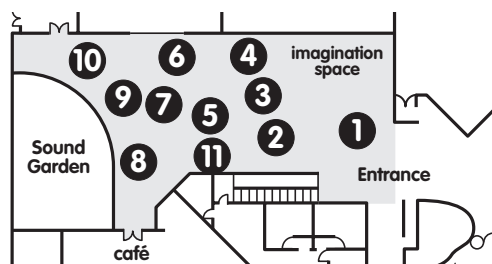
- Investigate the weather. Is it windy? What clouds can you see today?

The Bathroom

- The things in the Eureka! bathroom are transparent. Look inside the transparent toilet and bath. Press the button to start the shower. Play at the big water table. Lift the bubble sheet and see all the colours of the rainbow in the bubbles you make.



The **SoundSpace** gallery is a magical, futuristic theatre which encourages children to discover the science of sound and music. The gallery is introduced by **Orby**, an inquisitive alien with special powers from the Planet Zid. **SoundSpace** provides a questioning environment where children will be able to experiment, create their own compositions and take part in interactive performances.



1 Transportal

- Learn about the **Golden Record**, a time capsule which **NASA** sent into Space in 1977 to take messages from Earth to extraterrestrials (aliens).
- Listen to the sounds which were recorded onto the **Golden Record**.
- Meet **Orby the Alien** to discover the gallery challenge.

2 Good Vibrations

Can you see sound?

- Push/pull the giant spring to show how a sound wave travels through air.
- Pull the handle on the air cannon to see the hanging plates move.
- Feel the sound by putting your hands and body on the green speaker.
- Tap the tuning fork with the beater, watch and feel it move.

3 Make a Sound

Can you change sound?

- Play the drums and chimes and listen to the sounds they make.
- Pump air through the pipes and listen to the sounds.
- Experiment with the giant guitar to change the sounds.
- Sing into the microphone to discover how your voice can change and why.

4 Make Music

- Try to predict the sounds of the pictures on the blocks.
- Test the sounds on the Sampler Station.
- Place the sound blocks on the wall to create your own music.
- Listen to your composition.
- Move the blocks again to change the music.

5 Orby Theatre

- Interact with **Orby's** stage show.
- Find out more about **Orby's** journey.
- Experience how sound and light effects change the mood on stage.
- Help **Orby** discover more about sounds from Earth.
- Join in with **Orby's** musical routine.

6 Morph Machine

- Create your own character in this role-play area.
- Choose a costume to wear from the wardrobe box and see how you look.
- Design your character's make-up on the touch screens.

7 Control Deck

- Press the buttons at the top or bottom to change the colour of the lights on stage.
- Follow your friends on the stage with the spotlight.
- Choose a backdrop for the stage show. Experiment with the sound effects.
- Explore the mini-theatre and experiment with lighting and music.

8 Sound Lounge

- Explore how we hear sound and how music can affect our emotions.
- Find the cheeky monkey hiding in the jungle.
- Match the music to the celebration.
- Decide how music makes you feel.
- Choose a soundtrack for a film.
- Learn about soundproofing.

9 Mix It!

- Create your own music at the DJ stations.
- Add special effects, like an echo.

10 Orby Mobile

- Travel around the world with **Orby** in her landing pod to watch and listen to children playing music in different countries.
- Join in with them!

11 Hearing

- What can you hear that a chicken can't? Explore the hearing range of different creatures.



SoundSpace supports many of the music requirements of the **National Curriculum** by allowing children to **practise, reinforce** and **develop** their musical skills in an informal, fun environment, working alongside **Orby** the curious alien from the Planet Zid. There is also an opportunity for children to work individually or collaboratively to produce performance pieces showcasing both quality and originality.

Below are some examples of how **SoundSpace** can be used to promote the **music curriculum for KS1**.

Performing Skills

Make a Sound

- Observe in detail how the voice can change the sounds it makes.
- Explore how the pitch of notes can be altered in percussion, wind and stringed instruments through experimenting on larger than life instruments.

Orby Theatre

- Sing and dance with **Orby** and explore how rhythm and beat can change, whilst being introduced to instruments from around the world.
- Children will be able to practise, rehearse and present their own performances on stage, controlling their own stage effects including backdrop, sound effects and lighting.

Composing Skills

Make Music

- Children have an opportunity to work collaboratively to compose a piece of music using instruments from around the world and sounds from nature.
- Using this cutting edge technology, children can sample the sound block and then place it on the sound wall. The children can change a number of sounds at once to contribute to this ongoing musical composition.

Mix It!

- Children can take on the role of a DJ. Using the mixing pods, they can work individually to create a piece of music using a touch screen to select the sounds they want to use.
- They are also able to change the rhythm of the music and add special effects, such as an echo using special sliders.
- It is possible to progress in complexity of composition as there are three levels of mixing.

In both these areas there is an opportunity for the children to evaluate and change their compositions.

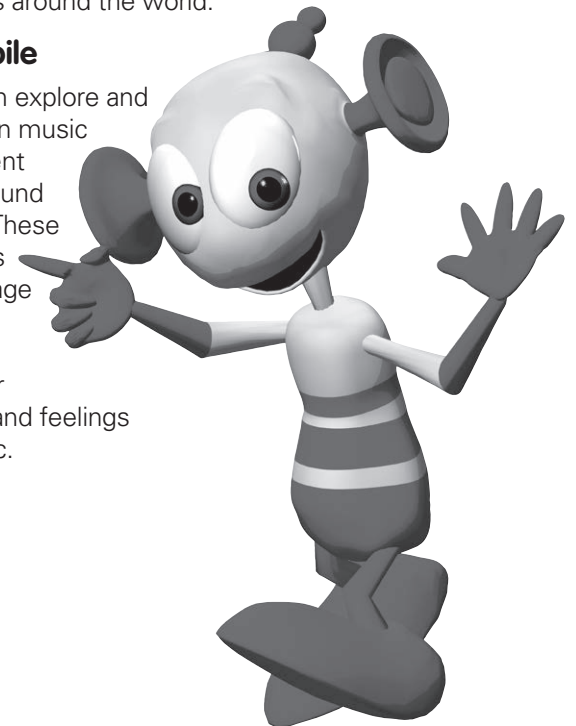
Appraising Skills

Sound Lounge

In this area, children can interact with a variety of exhibits which explore their emotional responses to music and discover how music can change the mood of a certain situation. Children discover that certain musical styles have been developed for different celebrations around the world.

Orby Mobile

Children can explore and participate in music from different cultures around the world. These experiences will encourage children to explore and explain their own ideas and feelings about music.



At Eureka! we want to encourage positive pro-active learning in all areas of the curriculum and we have several areas throughout the museum which provide the perfect opportunity for children to participate in meaningful role-play with their peers. Role-play is supported with the provision of outfits and the exciting opportunity to engage in work place tasks normally reserved for adults. This will develop Speaking & Listening skills as well as providing a space for imagination and creativity.

The Town Square

(the Shop, the Bank, the Garage, the Post Office)

Here are some questions you may wish to ask:

- Who do you meet in a shop, post office, bank or garage?
- What do these people do and how do they help us?
- What sort of questions do we ask them and how do they reply?
- Which of these jobs would you most like to do and why?
- How often do we visit these places?
- What can you see and hear there?
- What do they smell like?
- Can you touch anything?



There are many characters in the Town Square. Here are a few ideas. If possible, let the children develop their own scenarios.

- Bank Manager – inviting the customer into their office or chatting to them on the phone.
- Cashier – checking the customer's withdrawal forms and providing them with a bank card and a PIN.
- Security Guard – testing the alarms are working and keeping a close eye on the security cameras.
- Mechanic team – mending a racing car before an important race.
- Postal workers – sorting and delivering the letters before breakfast.
- Parent – Taking money out of the cash machine, then shopping for a healthy meal for that evening.



After the visit, mini role-play tables could be set up in the classroom recreating the Town Square and allowing time and space for some extension activities back at school.

- Money design
- Letter writing and sorting
- Shopping lists
- Flow charts for checking a car

All About Me Health Centre

(the Reception, Baby Clinic, Doctor, Dentist)

Here are some questions you may wish to ask:

- Who do you meet in a Reception, Baby Clinic, Doctors and Dentist?
- Why would we visit these places?
- What do these people do and how do they help us?
- Which objects can you find in the places where they work and how do they use them?
- What sort of questions do we ask them and how do they reply?
- Which of these jobs would you most like to do and why?
- How often do we visit these places?



There are many characters in the Health Centre. Here are a few ideas. If possible, let the children develop their own scenarios.

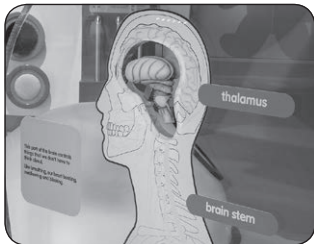
- Receptionist – meet the patients and book an appointment for them.
- Patient – who have you come to see and why?
- Doctor – find out what's wrong with your patient and provide treatment for them.
- Dentist – check your patient's teeth.
- Hygienist – give your patient's teeth a clean and polish.
- Midwife – measure the baby's weight and check a mum's tum.

After the visit, you could invite health professionals in to talk to the children about their roles and to show them some fascinating equipment which they use.

This trail in **All About Me** supports the Science curriculum SC1, SC2 and SC4.

The Brain Area

- Discover which part of our brain is linked to our 5 senses.
- Find out which part of our brain controls the things we don't have to think about like breathing and blinking.
- Discover how heavy a brain is.
- Test your reaction skills at the drop rod game.
- Watch the skull transform into its many sections.
- Test how steady your hand is with the 3 levels of the loop and wire game.



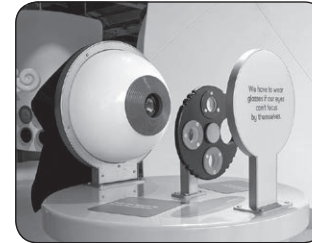
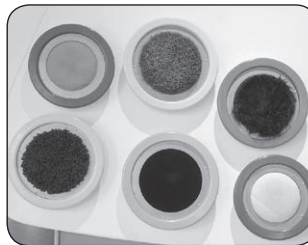
Hearing

- The large ear: work together to make a sound down the huge ear and to see the bones inside moving.
- Balance beam: our ears help us to balance – balance on the beam to find this out.
- Sound recognition: listen to the sounds and work out from the pictures what you think it is.



Touch

- Hot and cold pipes: put your hands on the hot and cold pipes and then both on the one in the middle to discover the surprising effect of different temperatures on your skin.
- Humunculus: this amusing model shows which bits of our body are the most sensitive.
- Touch wall: a range of textures which you can feel and describe.



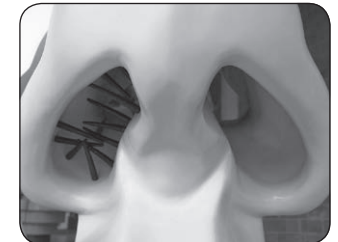
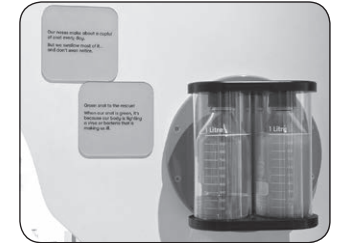
Sight

- Eye muscles and movement: play with the larger than life remote-controlled eye to investigate how many muscles it takes to make an eye move.
- Eye anatomical model: look closer at a model of the eye to discover more about its different parts.
- What do you think it is?: work out what the objects are from close up projections before the camera pans out.
- Blinking eye: watch the eye blink and look out for the tear.
- Illusions: work out the illusions housed in the quadroscope mirrors.
- Focusing eye: turn the lenses to focus the picture and discuss why some people need to wear glasses.



Taste

- Large tongue: climb and slide on the large tongue, feel the taste buds and discover whether you are yuck or yummy.
- Small tongue: move different models of flavoursome objects around the tongue so they can be 'tasted'.
- Discover what umami is.
- Taste tester: vote on whether you think a particular food item is yuck or yummy. How have other children voted?



Smell

- Giant nose: peek up the nostrils to see the nose hairs, bogey, pollen and mucus. Listen to the build-up and feel the nose sneeze. Investigate the snot tanks to find out what happens when we have an infection. Look up to see the olfactory bulb which links what we smell to the brain.
- Smell and memory: match the picture to the smell and decide which is your favourite.

This trail in **All About Me** supports the Science curriculum SC1 and SC2.

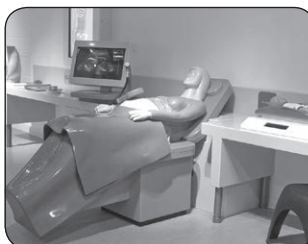
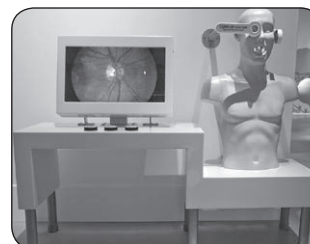


Baby Clinic

- Ultrasound scan: scan the mum's tummy and watch the baby moving on the ultrasound machine, listen to its heartbeat and feel it moving.
- Make room for baby: turn the dial to look at how baby grows and how this affects mum's body.
- Sink: wash your hands and find out why you need to keep them clean.
- Baby Health Check: look after the play babies and weigh and measure them.
- Projection wall: watch fascinating projections on the wall which show how younger babies play. Watch what happens over time to someone from the age of 0 to 11.
- Where does a baby get its food from?: look at images which show where a baby gets its food from, from inside mum to when it starts feeding independently.
- Where do you come from?: a five minute video presented by Zoom which shows what happens before we're born to when we go to school and all the wonderful stages on the way!

Measuring & Looking Closer

- Magic mirrors: look in the mirrors to see what you look like in many different and fun ways.
- Measure me!: four exhibits which help you to understand that you're growing. Take the biggest step, reach out, stretch up and discover how tall you are.
- The Stuff we're made of: explore the fascinating collection of objects which reveal the 'stuff' we're made of.
- The Stuff Zoom the Robot is made of: explore the fascinating collection of objects which reveal the stuff Zoom is made of.
- Zooming in and zooming out: use a giant microscope to zoom in to see your skin close up. Look out for the hair follicles, sweat, dead skin and bacteria.
- Special code: work out which characteristics the animated families share.
- What will I look like when I'm older?: enter a few details, say cheese for the camera and watch as you're magically transformed into an older or much older version.
- Compare yourself with animals: compare how you measure up to different animals including a gibbon, anteater, grasshopper, snake and dog.
- Who is the tallest man alive?: Stand in front of his HUGE photo and try on his shoes.

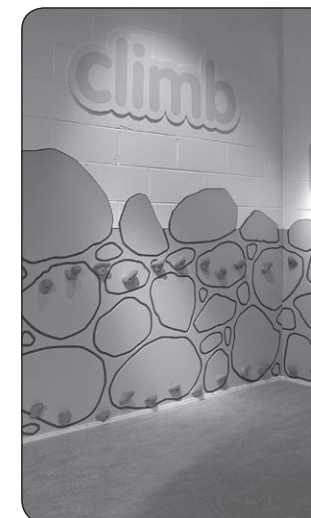
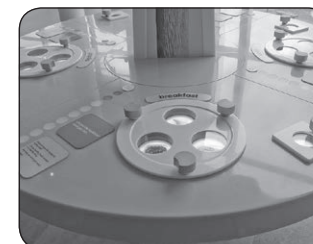


Doctor

- Medicine cupboard: Investigate common childhood medicines and refer your patients to them when you've made a diagnosis. Discuss what they might be used for, why and how. These include liquid amoxicillin, eczema cream, eye infection drops, an inhaler and ear infection drops.
- Measurement Area: find out your weight and test your eyesight.

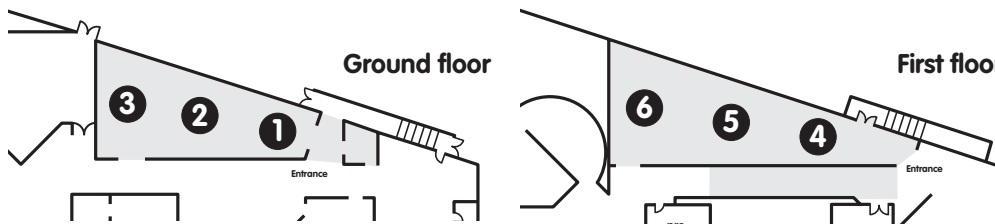
Let's get active

- Climbing wall: pull yourselves along using the hand and foot holes.
- Interactive pond: play on an interactive pond to discover what's moving.
- Interactive video wall: copy the actions of the children and adults.
- How many goals can you save?: take your place in the goal and try to 'save' the balls.
- Body sound beams: invisible and amusing sounds beams which you can play with to create a body sounds orchestra.
- Cardiovascular wall: measure the impact of activity on your body. Take your pulse, discover which parts of your body are the warmest and make the skin model sweat.
- Hydration foods: investigate the hydration foods.
- Vitamins and minerals: investigate the foods which show you the best sources of vitamins and minerals.
- Picnic table A: make choices about the healthiest food and drink for breakfast, lunch, tea and snacks.
- Picnic table B: make healthy choices linked to the different food groups.
- Sleep wall: turn some things off so that the giant eye closes and sleeps while the clock hands move round.





This trail in **Our Global Garden** supports the Science Curriculum Sc2 Life Processes and Living Things.



1 The Town Garden

- Which animals and plants would you find in the town garden? There are lots of people living in towns. Which kinds of animals live with people?

The Wall of The House

- What might live in or on the wall of a house? Explore the wall to see which creatures you can find. What did the baby birds come from? What did the caterpillar come from? How will the baby birds change as they get older? How will the caterpillar change as it gets older?
- Can you think of any other animals that lay eggs?

Minibeast Slab

- What might live under a paving slab?

Match The Creature to its Home

- Find the route to move the 4 creatures from their town homes to their country homes? Which two creatures lay eggs? Which two creatures have fur?
- Why do the animals move home?



2 The Jungle Garden

- Why do you think there are so many plants in the jungle?
- There are many trees in the jungle. Which kinds of creatures like to live in trees?
- Look around and see how many jungle creatures you can spot.
- Look at the spiders. How are they different to the spiders in your house?



3 The Ocean Garden

The Rock Pool

- Which creatures might you find in a rock pool on the seashore? Look in the rock pool and discover what's hiding there.

Flatfish

- Which kinds of creatures live in the ocean? Look at the wooden wall and a really big fish will appear. What is it? Can you find any other fish?



4 The Country Garden

Seasons

- Press the buttons and watch and listen as Gordon tells you about the 4 seasons.

What Grows Above and Below The Ground?

- What part of a plant grows below the ground? Pull up to find out which vegetables are parts of a plants root. Which parts of a plant are green? Pull down to find some green vegetables. Which part of a plant is a tomato? What are the seeds for?
- Can you think of any other plants we eat? Which is your favourite?

The Hedgerow

- Search the hedgerow to find the creatures that are hiding there. Touch the hedgehog. How are they different?
- Can you spot any of the creatures you saw in the town garden? (caterpillar and fox)



5 The Ice Garden

- How do animals keep warm in such cold temperatures? (fur, fat)
- Why do you think their fur or feathers change colour?



6 The Desert Garden

- How do animals survive in such hot temperatures?
- Where might they get their water from? (water droplets and beneath the ground).

Extra! Extra!

Mini-beasts

Put a square of carpet down in a quiet place outside and leave it for a few weeks. When you peep underneath you should be able to spot some of the creatures that have made their home there.

Where in the world?

Get an Atlas or a globe of the world and find out where the jungles or rainforests are! Find out where the deserts are. Where are the Polar Regions? The hottest places are around the middle of the Earth and the coldest places are at the top and bottom. Look at how much of the Earth is covered in oceans and seas. Where is England?

Making mobiles

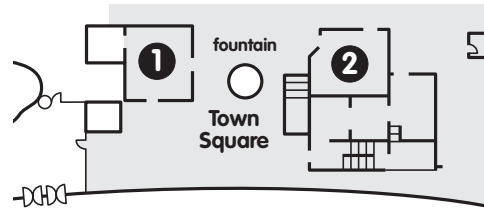
Put the children in to groups, one group for each garden. Let each child choose a creature or plant that would live in that environment and create a picture of it. Once all the pictures are finished use them to create a mobile to represent the plants and animals of that region.

Collecting creatures

Ask the children to collect as many pictures as they can of different creatures from magazines, add all the ones you can find too. Now tell the children they will be making a set of creatures each. First they must think of a title for their set e.g. animals with fur, tiny animals, creatures with feathers, creatures that swim, animals with hooves, creatures which live in a tree. How many different ways will they think of to sort creatures? Once they have a set of creatures that have something in common, perhaps they could think about the differences. Find out more about animals at www.nationalgeographic.com/kids



This trail in **The Shop** and **The Bank** supports the English and Maths Curriculum.



1 The Bank

Being a Customer

- As you enter the Bank you will see the cashier's desk and a selection of withdrawal forms. Your first job is to write a withdrawal form for twenty pounds. You will need to write – your name, the number '20.00' and a description of what you will spend it on; eg. 'shopping for groceries at Marks & Spencer'. Hand it to the cashier and he/she will check it, stamp it and give you your secret code and a bank card. Why do you think you need a secret code?

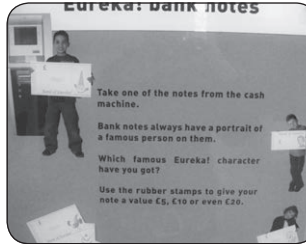
Now take your card and secret code to the cash machine. Put in your card and enter your secret code. When the Eureka! bank note comes out, don't forget to stamp '£20' on the note with the ink stamp.



Working in the Bank

- Dress as a cashier or a bank manager and serve your customers. Help them withdraw money or pick up the phone and answer their questions. Send some money to the shop or the garage using the air tube system.

Put on a security guard's uniform and check out the bank's security. Can you get to the safety deposit in the vault without setting off the alarms? Try jumping over the pressure pads. Can you crawl under the invisible beams? In the vault there are safety deposit boxes belonging to people you may know. Can you use the clues to work out the combinations and peek inside? Check out the security cameras. Can you spot some of your class mates?



Coins and Banknotes

- Which different coins are used in England? How many can you think of? Look for the giant coins? Did you remember all of them? Go across to the bank notes security section where you can look at bank notes from around the world using an ultra violet scanner.

Have you withdrawn a Eureka! bank note? What famous Eureka! character features on your bank note?

Do you know whose picture appears on all British bank notes?

2 The Shop

Getting Your Shopping

- After you have collected your £20 from the Bank, take it across to the Marks and Spencer Shop.
- You can take turns in being the shopper and the till operator.
- Collect a trolley or a basket and choose your 5 items.
- Take them to the till where the operator will scan the cards and total up your bill (the till instructions are on the wall).
- When you give your twenty pounds the till operator will enter it into the till. How much change do you need? (the till will tell you).
- You will receive a banknote for your change (if you write on it how much change you should have had, including the coins, you will be able to find out who spent the most when you get back to school).



Fruit and Vegetables

- How many portions of fruit and vegetables should you eat every day? (5). Choose 5 fruits and vegetables. Is a tomato a vegetable? (no it is a fruit because it has seeds). Find a vegetable that grows under the ground. Find a fruit with a stone.

Smelly, feely, looky boxes

- Use your nose, your fingers and, lastly, your eyes to work out what food items are in the boxes.

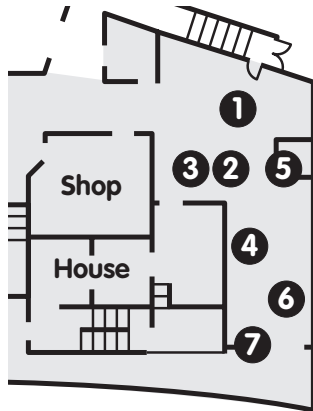


Journey to my plate

- Discover some amazing facts about food then scan the barcodes on the shelves to find out more about where some of the foods you eat every day come from.

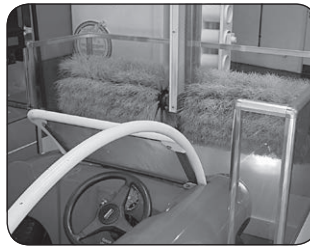


This trail in **The Garage** supports the Design & Technology Curriculum.



1 Lorry Cab

- Climb inside the lorry cab.
- How is it different from a car? (It's very high up and the steering wheel is huge!)
- Is there a lot of space for passengers? A lorry doesn't carry many people but it can carry lots of 'things' in the back.
- What's the biggest lorry or truck that you've ever seen?
- What do lorries carry?
- Some lorries have re Fridgeration on board. Why do you think this is?



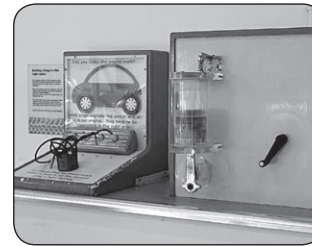
2 Car Wash

- Wind the handle to work the car wash.
- Look at how the gears and chains work to move the brushes.
- Cars have gears too. What might you ride which has gears and chains?



3 Petrol Pumps

- Use the petrol pumps to fill up the tank in one of the cars.
- How many litres do you need? Why does a car need petrol?



4 Assembly Bench

- Can you connect the spark plugs to start the car?
- Wind the handle to see how a piston works.
- Check out how the brakes work on a car.

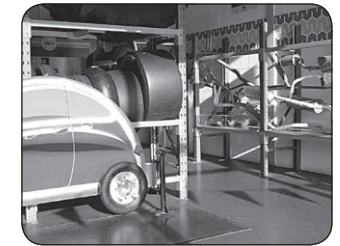
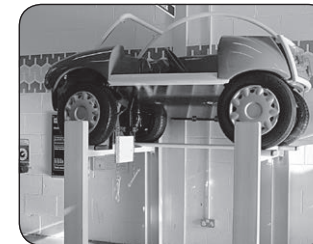


5 The Office

- You can zero the petrol pumps in the office ready for the next customer.
- Look at the wall to see lots of spare car parts.
- Where else can you find a radiator.
- Can you see the radiator? Which other parts do you recognise?
- Do you know what they do?

6 The Service Bay

- Put on a mechanics overall and examine the underneath of the car.
- Do you know what an MOT is?
- What do you need to check?
- What comes out of the exhaust in a car?

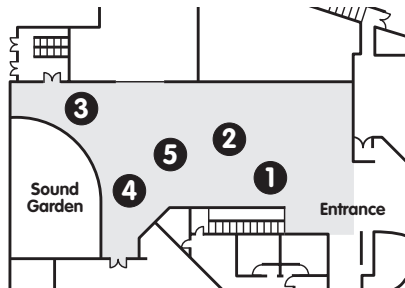


7 Tyre and Exhaust Bays

- Look at the car exhausts and find out what a car silencer looks like.
- Use the car jack and change over the tyres on the car.
- How many wheels do most cars have?
- Look at the tyre rack. There are so many different types of tyres.
- What are they all made from? (rubber) Which tyre belongs to the tractor?
- Which belongs to the racing car?
- Why are they different?
- Most cars use petrol or diesel for fuel. Could you design a car that uses wind power?
- Vehicles come in many different shapes and sizes. Can you design one that could travel on land and water.

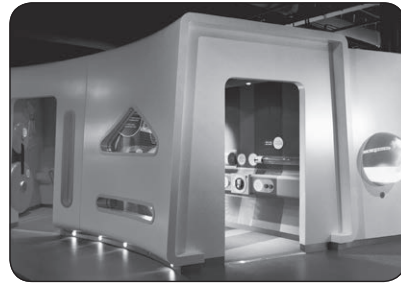


This trail in **SoundSpace** supports the Science Curriculum Sc4 Physical Processes.



1 Transportal

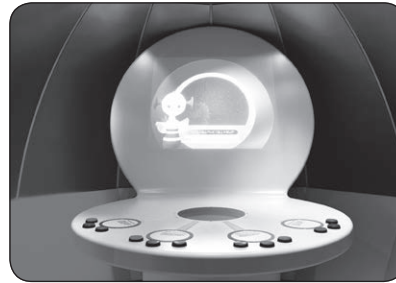
- Meet **Orby** the inquisitive alien in the Transportal and find out how you can help her discover more about vibrations, sounds and music.



2 Sound Sampler

Good Vibrations, Make a Sound and Make Music

- Listen to all the different noises and sounds.
- Can you describe how they are made?
- Can you make them louder and quieter?
- Play the giant guitar and see if all the strings make the same sound.
- Look at the pictures on the music cubes. What sound do you think they will make?

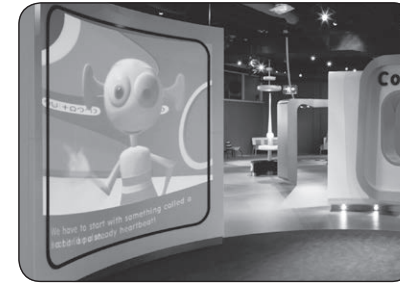


3 Orby Mobile

- Join in with children playing music around the world.
- What sort of music do you enjoy playing or listening to?
- If you could travel anywhere in the Orby Mobile, where would you go to and why?

4 Sound Lounge

- Discover how humans and other animals sense sound.
- Play the cheeky monkey game to find out why we have two ears. Can you think of any animals that have really big ears and why they might need them?
- Cover one ear up and play again. Do you notice any difference?
- Which material do you think will be the best at muffling the irritating noise? Can you think of any other sounds that are annoying?



5 Orby Theatre

- Join **Orby** on stage.
- Orby introduces you to lots of different sounds. Can you recognise them?
- Make sounds with your body.
- Can you clap and stamp to the beat with **Orby**? Join in her dance.
- Discover more about instruments from around the world. Can you name any other instruments? How do you play them?

Extra! Extra! Back in class

- Make a telephone with two plastic cups connected by some string. Try experimenting with different types of string or different lengths.
- Record a sound effects tape using noises around your school. See how many your friends can recognise.
- Make up symbols for the sounds you can make with your body. Use these symbols to compose a piece of music that your whole class can perform.





This trail in **Our Global Garden** and **All About Me** supports the Science Curriculum Sc4 Physical Processes.

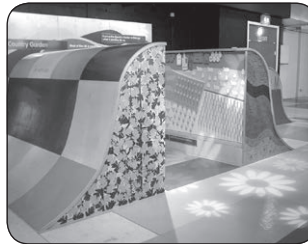
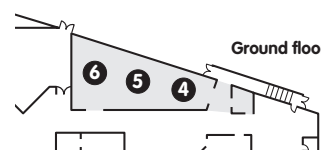
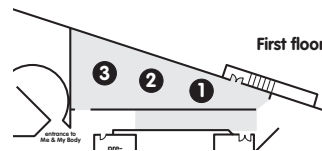
How do you hear sounds in All About Me?

Hearing

- The large ear: work together to make a sound down the larger than life ear and to see the bones inside moving.
- Sound recognition: listen to the sounds and work out from the pictures what you think it is. For example, is it bubble wrap or popcorn popping?

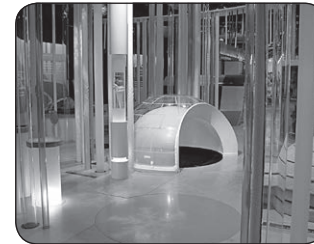


Recognising and describing sounds in Our Global Garden



1 The Country Garden

- Listen to the sounds. What can you hear? Do all the birds sound the same? What does a cuckoo sound like? What does a hen sound like?



2 The Ice Garden

- Listen to the sounds. Do you think it is noisier or quieter than the other gardens? Why?

3 The Desert Garden

- What can you hear? Why does the rattlesnake make that sound? (It is a warning) People use sounds as a warning sometimes too. What do emergency vehicles use to warn you they are in a hurry?

4 The Town Garden

- Sit down and listen to the sounds of the town. How many sounds can you recognise? What makes it so noisy?
- How can we reduce the noise in our town?

5 The Jungle Garden

- Listen to the sounds of the jungle. What so you think might be making the sounds? Go into the jungle hut and have a go at playing the musical instruments. How do you play them? (bang, shake and scrape) Back outside, turn the rain-stick and listen to the sound. Why is it called a rain-stick?



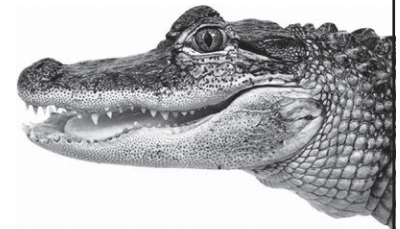
6 The Ocean Garden

- Listen to the sounds. Can you hear under water?

Extra! Extra!

More 'sound pictures'

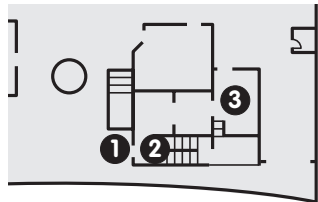
Put the children in to six groups and give each group the name of one of the global gardens. Their task is to make a 'sound' picture of that garden. Can they remember the sounds they heard in that garden at Eureka! Can they think of any other sounds that might be heard in the jungle/desert etc.? What kind of sound might a camel or a crocodile make?



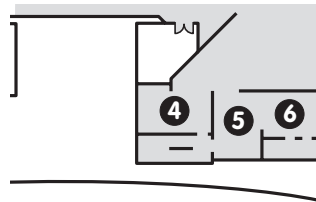


This trail in **The House** and **Our Global Garden** supports the Design & Technology curriculum. The main focus of the trail is covered in the House and Garage areas with further suggestions for your discovery hour in Our Global Garden.

Ground floor



First floor



The House

How many rooms may be in a typical house? How will you get into the House?

1 The Front Door

- What is the front door made from? What shape is it? Do all homes have a front door? What can you see on the door? Who can spot what is missing from the door? Try out the door knockers. Which is your favourite?

2 The Hall

- Can you see the gas and electricity meters? Which things use electricity? Press the switches to light some up. Do you think all homes have gas and electricity? Go up the stairs. Do all homes have stairs. Do you know what a house is called without an upstairs?



3 The Kitchen

- Which things are in the kitchen? Is it like your kitchen at home? Can you see any windows? What do we do in a kitchen? Use the crockery, pans and play food to do some kitchen activities.

4 The Bedroom

- What is a bedroom used for? How many bedrooms do you have at home? What is special about the princess' bed? Can you choose the right furniture for the different rooms in the doll's house?



5 The Bathroom

- Which things do you find in a bathroom? In the Eureka! bathroom all the things are see-through! Press the button on the bath – what happens? Flush the toilet to see how it works. Press the button to work the shower.

6 The Attic

- Do you have an attic in your house? What is it used for? Look at all the interesting things from the past that you can see here. Have a go at dressing up and put on a show. Use the sunpipes to light up the stage. Look up at the ceiling. Do you know why there is wolly stuff under the roof?



Our Global Garden

Ground floor

The Town Garden

- Look at the outside wall of the house. What is it made from? What shape is it? How have different creatures made a home in the wall? Look behind the wall to find out how other animals have made their homes.

The Jungle Garden

- Go to the jungle hut. What would a jungle hut be made from? What shape is it? How many rooms are there in the jungle hut? Who would live there? Go inside and look up at the ceiling. What shapes can you see? The roof of this jungle hut is made from big leaves.

First floor

The Ice Garden

- Go and sit inside the igloo. What is an igloo made from? What shape is it? Does it have an upstairs? How many rooms does it have?

The Desert Garden

- Look at the Bedouin tent. Can you guess what it might have been made from? What shape is it? Why is a Bedouin tent a bit like a caravan?

Extra! Extra!

Design a home

Cut out lots of pictures from catalogues and magazines of items you would find in a home. Ask the children what rooms they have in their homes. Put the children into groups, one group for each room, ask them to discuss the purpose of their room and what things might be found in that room. They can then choose or draw pictures to make a collage of their room. All the collages could be put together to make a house, letting the children decide where each room should go.



My Bedroom

Ask the children to write about their bedroom at home. Is it big or small? What furniture do they have? What colours are the walls? Do they share with anybody? What is their favourite thing about it? What would they do to improve their bedroom?

Making a house

Can the children remember the different kinds of homes they saw at Eureka! Lots of them had only one room. They were different shapes and made out of different materials. Put the children into groups and give each group the task of building a home but give each group different building materials. Later discuss the merits and disadvantages of each material. Which group had the easiest time? Which group made the strongest building or the most inventive?

Suggestions for materials: Lego bricks; wooden blocks; cartons, packets and sticky tape; playdough card and sticky tape; fabric, lolly sticks and tape or glue; straws and sticky tape.

Animal homes

Supply the children with sheets of paper with different titles (eg. "I live in a nest" "I live in a burrow" "I live in a shell") and ask them to draw a picture of a creature that fits that title then add the line "I am a" to name their creature.



Eureka! values outdoor play and the park is even more exciting this year with a range of play and active learning opportunities:

Outdoor Activity Boxes

Time spent in the Eureka! park can be educational and fun with Eureka! Activity Boxes, with games and props to encourage individual skills, group dynamics and creative play. Boxes are available outside from 11.00am to 3.00pm every term except December, January and February.

Giant Sand Pit

The natural tactile qualities of the giant sand pit at Eureka! make it ideal for play-based and active learning – and of course for building huge sand castles!



The PlayScape

This outside area, built in partnership with Suma, provides a space for child-led, free play for children of all ages in a natural environment. It is designed to reflect nature, using natural materials and recycled industrial products. The PlayScape positively encourages imaginative and co-operative play.



Suma is the UK's largest independent wholefood wholesaler-distributor.
www.suma.coop



The Wonder Walk

Eureka!'s outdoor exhibition, a trail to delight your senses and give you the chance to get close to the natural world.

EUREKA!
the national children's museum •

The Play & Learning Department
Discovery Road, Halifax, West Yorkshire, HX1 2NE
Telephone: 01422 330012
Fax: 01422 330275
www.eureka.org.uk



Eureka! reserves the right to change details should it become necessary.

Eureka! is an Educational Charity No. 292758.

Life President: Dame Vivien Duffield DBE

Patron: HRH The Prince of Wales

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