

GOVERNMENT OF

MALTA

MINISTRY FOR EDUCATION, SPORT, YOUTH, RESEARCH AND INNOVATION PARLIAMENTARY SECRETARIAT FOR YOUTH, RESEARCH AND INNOVATION





# ESPLORA 2024 SUMMER PROGRAMME

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ESPLORA 2024

Once again, a new scholastic year comes to an end and the summer holidays are here! Esplora Interactive Science Centre offers a range of inspirational and engaging learning experiences for all students to enjoy in a fully-airconditioned space. The programme includes science shows, workshops, 200+ interactive exhibits and a planetarium experience. The list of interactive activities is designed to give students the opportunity to explore, think, imagine, appreciate and create!

WELCOME explore

esplore

esplor

think

3

Groups interested in visiting Esplora are requested to choose one from Experience 1, Experience 2 or Experience 3.

Each group will have reserved time slots in different exhibition galleries, and will be guided by an Explainer team member. Students will also have the opportunity to participate in an activity, such as a hands-on workshop, a live science show or a planetarium show/ film.

STUDENTS	Kinder 1 – Year 1	Year 2 - Year 11	Year 2 - Year 11 3			
EXPERIENCE	1	2				
EXHIBITION GALLERIES	Little Esploras Galleries:	Ground Floor Exhibition Galleries:	Upper Halls & Planetarium Exhibition Galleries:			
	Home & Garden, Ball Factory, Outdoor Playscape	Motion, Optics, Electricity & Magnetism, Human Body, Eco-Life, Earth	Media Studio, Engineering & Telecommunications, Nature of Matter, Sound & Illusion, Universe, Living in Space			
ΑCTIVITY	Interactive Storytelling, Workshop or Science Show	Hands-on Workshop or Science Show	Planetarium Live Show or Planetarium Film			

### **HOW MUCH DOES IT COST?**

- €3 per student
- Students with a disability card may benefit from a concession fee of €1.50.
- Up to 4 supervising adults per class are admitted for free. Please note that a class with less than 2 supervising adults may be refused admission to Esplora for health and safety reasons.

### From July to September, Esplora's opening hours are:

- Monday: Closed
- Tuesday Friday: 9am 3pm
- Saturday, Sunday & Public Holidays: 10am 5pm

### CLASS BOOKINGS ARE NOW OPEN!

Contact us on **bookings@esplora.org.mt** or call us on **23602299**. Our bookings officer will reply and guide you through the programme, answering any questions you might have.

### **ACTIVITY SCHEDULE**

Interactive Stoytellin

& Workshop

🖌 🛛 Science Show

AGE	DURATION OF ACTIVITY	JULY AUGUST		SEPTEMBER		BOOKED ACTIVITY WILL BE COMBINED WITH	
3 - 6 K 1 - YR 1	30 mins	Fossil Detectives	Planet Bootcamp	ţĊ;	ShapeBird		Little Esploras Exhibition Galleries
3 - 6 K 1 - YR 1	30 mins	Beautiful Bubbles 🛛 🐰	Superhero In You	2	Superhero In You	\$	Little Esploras Exhibition Galleries
6+ YR 2 and older	45 mins	Take Off!	Take Off!	2	Take Off!	3	Ground Floor Exhibition Galleries
6-9 YR 2 - YR 4	45 mins	Shadow Play	Shadow Play	ţĊ;	Shadow Play	ф С	Ground Floor Exhibition Galleries
9+ YR 5 and older	45 mins	3,2,1 Lift Off!	Climate Conundrum	ţĊ;	Stop the Hacker		Ground Floor Exhibition Galleries
9+ YR 5 and older	45 mins	Power Up!	Power Up!	<u>~</u>	Power Up!	<u>~</u>	Ground Floor Exhibition Galleries
10+ YR 6 and older	45 mins	Egg-Drop Challenge 😤	Egg-Drop Challenge	άζος:	Egg-Drop Challenge	۲ کې	Ground Floor Exhibition Galleries
6+ YR 2 and older	Plai	Upper Halls and Planetarium Exhibition Galleries					

### DESCRIPTION OF ACTIVITIES



### SHAPEBIRD 💥 (AGE: 3-6)

Become an ornithologist (bird scientist) for a day and join us on a quest to discover the nest of the mythical bird known as the 'ShapeBird'. Students will discover the colourful world of birds and explore shapes, colours and sizes, while they sort and count together.



## FOSSIL DETECTIVES (AGE: 3-6)

Become a palaeontologist for a day! Join our fossil investigation as we explore the wonderful Jurassic Period. Work like a real palaeontologist; dig out and analyse fossils, explore different types of dinosaurs and learn about the latest discoveries made in the field of palaeontology!



# BEAUTIFUL BUBBLES 🐰 (AGE: 3-6)

Who doesn't love bubbles? Bubbles of all sizes going up, this way, that way, and all over the place ... with a little help from the audience! Students will find out what bubbles are made of, how bubbles are formed and the shapes that bubbles can take. They might even get the chance to step inside our famous, human-sized bubble.



## PLANET BOOTCAMP

Calling all trainee astronauts! This is your chance to explore the fantastic celestial features and to meet all our solar system buddies through a series of fun facts and activities. We will explore things like the Mars Rover and Saturn's rocky rings! So, are you ready for 'Planet Bootcamp'?



# SUPERHERO IN YOU 🔏 (AGE: 3-6)

Do you want to go on a journey of discovery and explore different superpowers? Help us identify strong shapes, get up close and personal to things that are far away or very tiny, and learn about how some animals are very good at being invisible. 'Superhero In You' is designed to introduce students to scientific concepts through dazzling demonstrations that explore how scientists use science and technology to make the world a better place.



# TAKE OFF! Image: I

From seeds and birds to engineering marvels, how did nature inspire us to design and build flying machines? Fasten your seatbelt as we fly up, up and away to explore the science of flight. In this science show, students will explore how wings, engines and forces affect how things fly and how man's first attempt at flying has led to an era of powered flight and space travel.



### CLIMATE CONUNDRUM (AGE: 9+)

Join us for a climate-change murder mystery workshop! Who is responsible for the climate crisis? And what can we do to help? During 'Climate Conundrum', we'll delve into the history of climate change, investigate its present-day impact and explore practical solutions for a sustainable future.

*This workshop is supported by Robocoach and digital.com.mt.* 



# SHADOW PLAY

Make shadow puppets for your shadow theatre, create coloured shadows, and discover how light travels in straight lines. In this workshop, students will have the opportunity to manipulate light and change the way objects appear as shadows while they explore the relationship between lights, colours and shadows.



# STOP THE HACKER (AGE: 9+)

Join us for a codebreaker activity and work together in a team to help one of our science communicators 'Stop the Hacker'! In this escape-room-inspired workshop, participants must solve a series of penand-paper puzzles and race against the clock to outsmart a hacker, whilst also exploring the basics of cyber security and how to be safe online.



# 3,2,1 LIFT OFF!

Calling all aerospace engineers to join us for this fantastic new workshop! Do you love rockets? Are you ready to craft your own rocket and launch it up and away? Students participating in '3,2,1 Lift Off!' will have the opportunity to explore the fascinating science behind rocket launches.



### POWER UP! 🚲 (AGE: 9+)

Step into the world of sports science! Together we will embark on a journey to discover how our bodies are powered up with enough energy to run, jump, kick and sprint to the finish line. Through visual experiments and demonstrations, students will go through the journey of energy changes to show how athletes optimise their performance in a variety of different sports.



## EGG-DROP CHALLENGE

Join us for our 'Egg-Drop Challenge'! During the workshop, students will design and construct their own contraptions to protect an egg from a high drop. Through trial, error, and creative problem-solving, teams will explore forces and momentum to see if their egg survives the ultimate plunge!



### PLANETARIUM EXPERIENCE (AGE: 6+)

The EsploraPlanetarium is your gateway to the stars! With a 10.7 metre diameter, the EsploraPlanetarium is a colour-space 4K theatre hosting entertainment and educational shows related to the Planets, the Solar System as well as the whole Universe. Planetarium films vary in topic, age recommendation and length. Please visit our <u>website</u> to view the trailers.



EsploraPlanetarium is equipped with a hearing loop system for the benefit of people making use of hearing aid devices. Users would need to switch their hearing aid devices to Telecoil mode to benefit from this system. The Hearing Assistance System is accessible from row 2 to 5.

### **EXHIBITION GALLERIES**

### LITTE ESPLORAS EXHIBITION GALLERIES

### HOME & GARDEN/BALL FACTORY/OUTDOOR PLAYSCAPE

Our delightful 'Little Esploras' area is ideal for students from Kinder 1 up to Year 1. The Home & Garden gallery encourages cooperative learning, while the Ball Factory gallery brings out budding engineers. Don't miss the Outdoor Playscape's water exhibits and pirate ship!



### **GROUND FLOOR EXHIBITION GALLERIES**

### MOTION

One of our most popular galleries, Motion, is also one of the loudest! Watch your students light up as they internalise Newton's laws of motion, while engaging with our compelling exhibits. Linear motion, inertia, conservation of energy, volume displacement, friction, aerodynamics, gravity & mechanical advantage – We've got them all!

### **OPTICS**

Your students will step into a world of light, and will explore reflection, refraction, colour, vision, absorption, spectroscopy, and even peer into an invisible world, thanks to our infrared video livestream!

### **ELECTRICITY AND MAGNETISM**

Electricity and magnetism can be tricky concepts to explain, but our exhibits allow students to explore them hands-on! Learners can connect an intruder-alarm circuit, explore magnetic fields, convert electricity to magnetism and back again, and interact with the plasma globe.



#### **HUMAN BODY**

The 'Human Body' gallery is all about human life science. Evaluate your diet, view your heart rate, put together a 3D heart, examine different body cells and trace your way through the digestive system.

### **ECO-LIFE**

In the 'Eco-Life' gallery, learners can take quizzes about product materials and energy use at home, build their dream home and play a waste-sorting game (mind the dog poo!).

### EARTH

The 'Earth' gallery brings earthquakes, volcanoes and tornados to your students' fingertips. Use our amazing 'Planet Earth' exhibit to explore the surface of Earth and even other planets!



# UPPER HALLS AND PLANETARIUM EXHIBITION GALLERIES

### **MEDIA STUDIO**

The Media gallery is a hands-on experience with sound looping, stop-motion animation, dubbing and even a green screen (mind the zombies!).

### **ENGINEERING AND TELECOMMUNICATIONS**

Telecommunications exhibits raise issues of hacking and privacy whilst the Engineering gallery is full of opportunities for building and creating. The '3-D Thinking' exhibits, on the other hand, get students to engage with geometry, topology, recursion, logic and spatial puzzles.

### NATURE OF MATTER

This gallery is all about chemistry and allows students to investigate materials science by constructing molecules (including DNA!), to learn about smart materials, design their own fireworks display and explore an interactive digital periodic table.





#### SOUND AND ILLUSIONS

These two rooms explore our senses. Create music and watch its waveform on the screen in the 'Sound' gallery, and be astounded while your perception is tricked in the 'Illusion' gallery.

### UNIVERSE

Use the interactive exhibits in the planetarium building to explore the wonders of nebulae and black holes, and challenge your friends to the Solar System quiz. But be quick... to win, you need to run and be the first to stand on the correct answer!

### LIVING IN SPACE

Get a taste of life in space including finding out how astronauts use the toilet on the International Space Station, and identify planets that may host extra-terrestrial life!



#### www.esplora.org.mt

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