



Primary Programme Guide 2022/23

About the Royal Observatory Greenwich

The Royal Observatory at Greenwich was founded by Charles II in 1675 and is one of the most important historic scientific sites in the world. Today the Observatory is a museum and science centre which provides access to information about space to schools and the wider public. A visit to the Observatory offers inspiring, curriculum-linked experiences delivered by REAL astronomers based around REAL cutting-edge science.

What do we offer?

Whether you are looking for something to ignite the imagination and enthusiasm of your group, develop and stretch their knowledge or give them an insight into the working world of space science there will be something to suit.

Our content relates to space science and its associated branches of the STEM (Science, Technology, Engineering and Mathematics) subjects. It is not often that students get access to state of the art equipment, real scientific data and to chat to real scientists; at the Royal Observatory they do, and it is what makes our education programme truly unique. As a result of our programme being so different, we naturally get asked a lot of questions about it. Here we have answered some of the most frequently asked questions, if you have any others please do get in touch.

What does the Primary Programme consist of?

For early years and primary groups, we offer a **Discovery Day**, a **Space Spectacular Day**, or a **Digital Outreach Session**. Depending on which onsite option you choose your visit can be made of: a planetarium show, an interactive workshop or science theatre show, a self-facilitated astronomy activity, a self-facilitated visit to the historic north site and a timeslot in the lunchroom. For a digital outreach session, you can choose a virtual planetarium show, an online workshop, or both.

How much does an onsite visit cost?

Primary visits including a planetarium show with either a workshop or science theatre show carry a charge of £144 for a group of up to 30 students. If you wish to book only one of these elements, you can do so at a charge of £90 for a planetarium show (for 30 students) and £90 for a workshop or science theatre show (for 30 students).

How much does a Digital Outreach Session cost?

Primary sessions of a virtual planetarium show or an online workshop, each carry a charge of £60 for a group of up to 30 students.

Is the schools offer the same every day, all year round?

No, we understand that there are certain times of the year when it is easier and more appropriate to bring groups out on trips, so we have designed our programme to fit in with our school visitors. Therefore, we have key stage specific **Discovery Days** and **Space Spectacular Days** on certain days throughout the year and have **Digital Outreach sessions** for schools who might not be able to get to us. For information on what is on and when, please check with our bookings team or online on the website.

Our Primary Programme Explained



Below you will find answers to some of the most frequently asked questions about the schools programme. If you have any more questions, please contact the bookings team as they will be more than happy to help. **Please note, whether you're joining us for a facilitated school session, or your school is visiting the historic ROG North site as a self-guided visit, you must book your visit by contacting our bookings team.**

ONSITE SCHOOL PROGRAMME

What is a Discovery Day?

Discovery Days are designed to be very flexible visit days. It is up to you what sessions you select for your **Discovery Day**. Depending on the day you can choose from: a planetarium show, workshop or science theatre show, gallery visit, use of the lunchroom or all of these. The bookings team will be able to timetable your day so you can include all the components you want to.

What is Space Spectacular week?

Space Spectacular Days are very special as they only run during 3 weeks across the year so you will need to book fast. Visits on **Space Spectacular Days** are made of: a planetarium show (*Final Frontier* or *One Day on Mars*), the demo-filled science theatre show *Space Watch*, a visit to the ROG's historic north site and a lunchroom slot. The planetarium show on offer during our **Space Spectacular Weeks** will change throughout the year, so please consult the programme guide before booking your session.

What is the Marvellous Moon week?

December 2022 marks the 50th anniversary of Apollo 17, the final crewed mission to the Moon. In this special week of programming running from 12 – 16 December 2022, we will be celebrating the Moon and the missions that have been sent to it. We will have the following Moon-focused workshops on offer during the week: *Moon Walking* (EYFS), *Ted's Moon Adventure* (KS1) and *Our Moon: Phases and Eclipses* (KS2). The planetarium shows on offer will be *Ted's Space Adventure* (EYFS/KS1) and *Destination Moon* (KS2).

What is a planetarium show?

Think of our planetarium as a tour bus of the Universe taking you on amazing journeys to explore and experience the wonders of the night sky. Combining real images from spacecraft and telescopes with advanced CGI, all projected onto a fully immersive dome, the planetarium can fly you over the Earth, transport you to distant galaxies, show you the birth of a star or even land you on Mars.

What is a workshop?

The astronomer-led workshops are very interactive and offer plenty of opportunities to ask questions and discover new things. The workshops use a combination of sound, film, demonstrations, and activities to explain different scientific concepts.

What is a science theatre show?

A science theatre show is an interactive astronomer-led show action-packed full of demonstrations. Throughout our science theatre shows we often ask for volunteers to come and help us out with the demonstrations. They currently only run during **Space Spectacular Days**.

What else can I do on a visit day?

If a **Discovery Day** or **Space Spectacular Day** still doesn't satisfy your scientific appetite you can also visit our temporary exhibition gallery and we also have visit guides and trails for those doing self-facilitated sessions which are available for free on the website.

<https://www.rmg.co.uk/schools-communities/visit-guides-activities>



What are the bookable dates for *Discovery* and *Space Spectacular Days* in 2022-23?

Marked in the calendar below are the bookable dates for onsite *Discovery Days* and *Space Spectacular Days* in 2022-23.

Please note that dates may be subject to change – our bookings team will be able to confirm the availability of your selected dates.

September 2022						
Mo	Tu	We	Th	Fr	Sa	Su
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		

October 2022						
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17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

November 2022						
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14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30				

December 2022						
Mo	Tu	We	Th	Fr	Sa	Su
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19	20	21	22	23	24	25
26	27	28	29	30	31	

January 2023						
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16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

February 2023						
Mo	Tu	We	Th	Fr	Sa	Su
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13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28					

March 2023						
Mo	Tu	We	Th	Fr	Sa	Su
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13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

April 2023						
Mo	Tu	We	Th	Fr	Sa	Su
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10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

May 2023						
Mo	Tu	We	Th	Fr	Sa	Su
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15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

June 2023						
Mo	Tu	We	Th	Fr	Sa	Su
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		

July 2023						
Mo	Tu	We	Th	Fr	Sa	Su
					1	2
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10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

Key:

- KS2
- EYFS/KS1
- KS2 Space Spectacular
- EYFS/KS1 Marvellous Moon
- KS2 Marvellous Moon

DIGITAL OUTREACH PROGRAMME

What is a digital outreach session?

We run **digital outreach sessions** so that schools who might not be able to visit us can still bring astronomy with the Royal Observatory to their students in school. Our **digital outreach sessions** are run on Zoom or Teams and you can book either an online workshop, a virtual planetarium show or both!

What is an online workshop?

Delivered via Zoom or Teams, our online workshops are led by ROG astronomers and are very interactive. Each session ends with a segment for Q&A so there are plenty of opportunities to ask questions and discover new things. The workshops use a combination of sound, film, and activities to explain different scientific concepts.

What is a virtual planetarium show?

Our astronomers will take your students on a tour of the Universe from the comfort of your classroom. You'll experience the wonders of the night sky through the combination of real images from spacecraft and telescopes. You'll be transported around space with animated sequences that could fly you over the Earth, transport you to distant galaxies, show you the birth of a star or even land you on Mars.

What are the bookable dates for digital outreach sessions?

Digital outreach sessions are available on the following days in 2022-23 (Please note that dates may be subject to change – our bookings team will be able to confirm the availability of your selected dates):

- 12 October 2022
- 2 November 2022
- 30 November 2022
- 4 January 2023
- 1 February 2023
- 1 March 2023
- 19 April 2023
- 3 May 2023
- 14 June 2023
- 5 July 2023

Who develops and runs the sessions?

All of our content is developed by the astronomy education team in collaboration with the teacher's forum. All sessions are tested and evaluated with the teacher's forum and also with school groups to ensure that the content developed is exactly what teachers are looking for and what students will thoroughly enjoy! The sessions are then run by real astronomers so there is always an expert available to ask any questions.

Are there activities that can follow on from my visit?

Yes, lots. We have a large selection of classroom resources available on the website that have been developed with our teacher's forum. They can be used after your session as a follow-up or before to introduce new topics. We also have brand new videos that can be used as part of a science lesson.

<https://www.rmg.co.uk/schools-communities/all-astronomy-science-resources>

On our website you will also find information about our teacher forum, teacher training sessions and more!

Workshops – onsite session

Our interactive workshops take place in one of three purpose-built learning spaces and are designed to encourage active learning and hands-on scientific enquiry. Workshops only run on **Discovery Days**.



Workshops for Early Years Foundation Stage and Key Stage 1 students were developed in collaboration with early years specialists. These sessions are 30 minutes long and introduce basic ideas of light, dark, night and day and the seasons through physical activity, music, and story.

Key Stage 2 workshops are 45 minutes long and delivered by Royal Observatory astronomers. They focus on concepts of light and shadow and the Sun-Earth-Moon system through interactive exploration of large-scale astronomical and/or digital models and student experiment. Please speak to our bookings team about any special needs requirements for your pupils.

Supporting resources for teachers

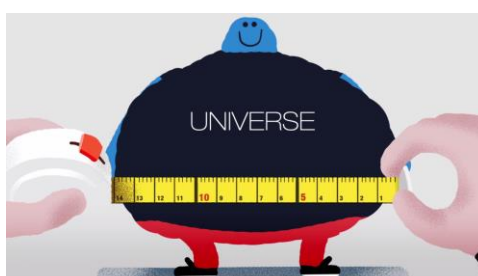
Pre- and post-visit resources linked to our workshops which include background reading for teachers, discussion questions, classroom activities and extension work for advanced students are available online on the website.

<https://www.rmg.co.uk/schools-communities/all-astronomy-science-resources>

You can find FREE trails for KS1 and KS2 on our website:

<https://www.rmg.co.uk/schools-communities/visit-guides-activities>

All you need to do is download, print, and bring along on the day! These trails are great if you are looking for help structuring your group's time during the self-directed parts of your visit.



Moon Walking Session level: EYFS Session length: 30 minutes
Key points covered - simple space science and space exploration concepts including: planets, the Sun, and the Moon. This workshop uses original music along with genuine NASA footage from the Apollo Moon missions.
Workshop summary – through the use of music, song, movement, role-play, images, and video the class will be invited to go on a fun-filled adventure to the Moon. The group will be asked to: sing along with some well-known nursery songs, build an imaginary spaceship, and role-play a journey to the Moon. They will try to imagine the rocket take-off and landing and explore the how differently their bodies would move in low gravity on the Moon.

Seasonal Explorers Session level: KS1 Session length: 30 minutes
Key points covered - simple scientific concepts such as day and night, observable changes in the seasons and a basic introduction into why we have them on Earth. This workshop uses original music and bespoke models to bring the concepts covered to life.
Workshop summary – the children will go on a real adventure with Ted the Bear. Ted really needs the children’s help because Ted has been in space for a very long time and has completely forgotten what it is like on Earth! Through music, song and role-play the students will help to explain the different seasons to Ted and what each is like. They will use specially created models and songs to learn all about the seasons. They will then choose just the right clothing for each season to make sure Ted doesn’t get too hot or cold but is just right.

Ted’s Moon Adventure <i>This workshop is on offer during the Marvellous Moon week only</i> Session level: KS1 Session length: 30 minutes
Key points covered – exploring the differences between the Earth and the Moon through observations and demonstrations, concepts related to our basic survival needs.
Workshop summary – in this workshop we look at what the Moon is really like and how we would need to prepare for a trip to the Moon. Students will help Ted the Bear pack for a visit to the Moon and will need to make sure that Ted is well-equipped for a Moon adventure! They will journey to the Moon and explore features on its surface, before safely returning to the Earth.

Sun, Earth, and Moon Session level: KS2 Session length: 45 minutes
Key points covered – the Earth, Sun and Moon, their relative sizes, distances, orbital periods and motion. Bespoke equipment including a tellurium is used throughout to explain scientific concepts.
Workshop summary – in this workshop exploring the Sun, Earth, and Moon system students will be asked to think about the similarities, differences, and the relative scale and shape of these objects. Students will take part in a series of interactive elements that encourages them to think about the Earth and Moon’s motion through space and how this relates to the concept of time (days, months, years). They will investigate why the tilt of the Earth’s axis causes the seasons and will explore the seasons in both hemispheres.

Our Moon: Phases and Eclipses

Session level: KS2

Session length: 45 minutes

Key points covered – the movement of the Moon relative to the Earth, aspects of light and shadows, the Earth, Moon and Sun system. Bespoke equipment including a tellurium is used throughout to explain scientific concepts.

Workshop summary – In this workshop, students explore our closest neighbour in space – the Moon. Through the use of tactile models as well as images taken by spacecraft and the Apollo astronauts, students will explore the different features found on the lunar surface. They will use their knowledge of the motion of the Moon around the Earth to explain the observed lunar phases. Using the concepts of light, shadows and reflection, students will investigate the phenomena of solar and lunar eclipses.

Shadows and Sundials

Session level: KS2

Session length: 45 minutes

Key points covered – the Earth's rotation to explain day and night, the apparent motion of the Sun and its use as a timekeeper, longitude, shadows and other aspects of light and dark.

Workshop summary – through the use of large-scale models and images, students will explore night and day on the Earth. They will be introduced to longitude and how it allows us to calculate the local time in cities all over the world. They will investigate the relationship between the Sun's position in the sky, shadows on the Earth, and timekeeping. Students will construct their own sundial which they can use for timekeeping after their visit.

Planetarium Shows – onsite session

Planetarium shows take place in the Peter Harrison Planetarium and are delivered live by Royal Observatory astronomers. Our state-of-the-art digital planetarium provides an inspiring, immersive and interactive learning experience, allowing students to examine the day and night-time sky, fly through our solar system or enjoy visually stunning pre-recorded shows about the latest discoveries in astronomy.



Ted's Space Adventure

Session level: EYFS, KS1

Session length: 30 minutes

Key points covered – main bodies in our solar system and the differences in their environments.

Show summary - this charming, interactive show for younger visitors follows Ted the Bear and Plant on their adventures through the solar system. They explore the different environments of each of the worlds they visit to find out if they might be able to live there, learning simple facts about them along the way.

Universe On Your Doorstep

Session level: KS2

Session length: 45 minutes

Key points covered – main bodies in our solar system including the Sun, Earth, and Moon, why we see different phases of the Moon.

Show summary – this amazing, interactive show takes students on a journey around the Solar System and beyond. Starting from our own Peter Harrison Planetarium, they'll be transported to a special view of the Earth from space to see how it moves, before traveling a bit further away, to explore the Moon and its lunar phases. They'll become astro-navigators, viewing the constellations, and using Polaris to find the direction of North. Next, they'll fly out to view the Solar System, visiting a rocky planet, the asteroid belt, an outer planet, and dwarf planets in the Kuiper Belt. Venturing even further out, they'll be introduced to extrasolar planets, before being wowed by our stunning Milky Way Galaxy and its place in the local Universe.

One Day on Mars

This show runs during the October 2022 and March 2023 Space Spectacular weeks only.

Session level: KS2

Session length: 45 minutes

Key points covered – exploring the different environment, weather and surface features on Mars.

Show summary – Join our expedition to Mars and enjoy a thrilling experience as we explore the Red Planet! You'll dive into the depths of seemingly bottomless canyons and brave the violent winds that sweep across the Red Planet's icy dunes. One Day on Mars will take you to a world that humans could well visit in just a few decades in our ongoing search for life.

Final Frontier

This show runs during the June 2023 Space Spectacular Week only.

Session level: KS2

Session length: 45 minutes

Key points covered – aspects of our solar system, lunar phases, size and scale of different stars, forces in action.

Show summary – Final Frontier is a show all about space exploration – amazing! This action-filled show packs a lot, so buckle up and get ready to do some serious exploring. It looks at the challenging conditions of space, the types of things we must be prepared to encounter should we travel there, and the distances and scales involved in going on such a mission. This show also highlights the people involved in space science and showcases some of the greatest contributions and ambitions of scientists and engineers. Final Frontier shows us just why using our imagination is very important when it comes to heading out on our adventure into space.

Destination Moon

This show runs during the Marvellous Moon week only.

Session level: KS2

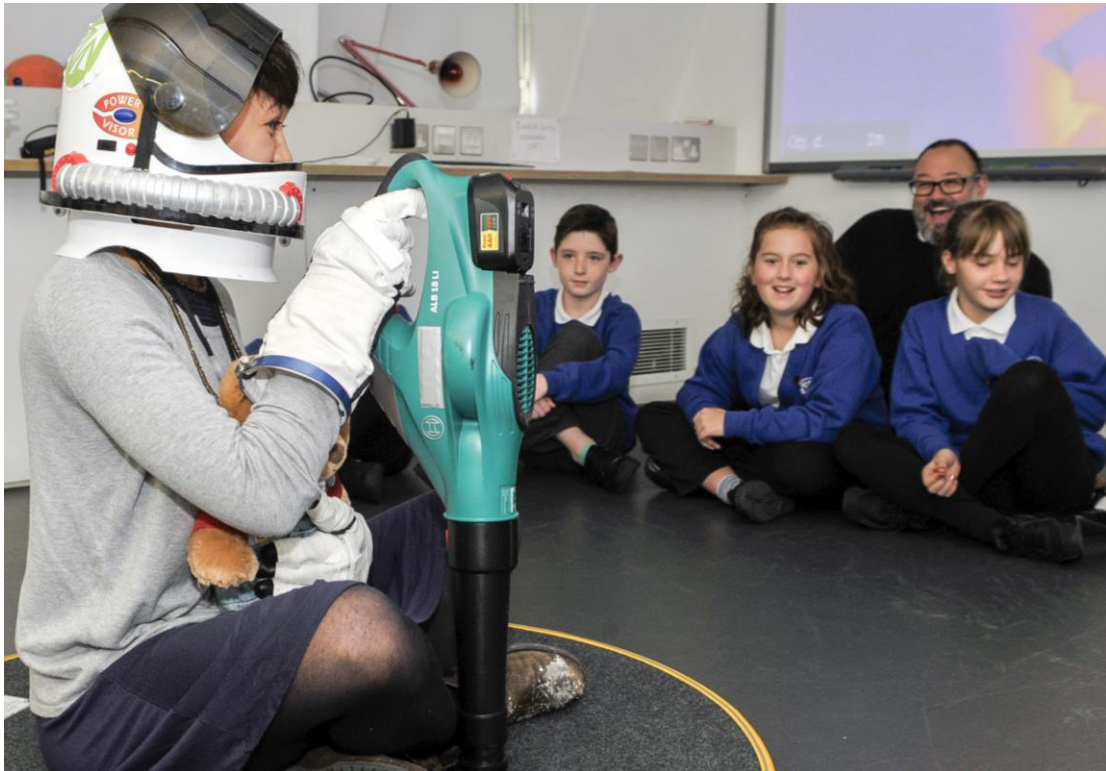
Session length: 45 minutes

Key points covered – formation and geology of the Moon, lunar phases, solar and lunar eclipses, human exploration of the Moon, the Moon compared to other moons in the solar system.

Show summary – in this show, your students will get the opportunity to explore our closest companion in space – the Moon! Starting on the Earth, they'll learn about the changing appearance of the Moon in the sky, and how it plays its part in some of the most spectacular events we get to see – solar and lunar eclipses. Journeying back in time, they'll watch how the Moon formed and ended up the way it is today. Students will discover a bit more about the geology of the Moon before setting foot on the Moon alongside the Apollo astronauts. After learning about human and robotic exploration of the Moon, we'll then go on to compare our Moon to some of the other moons in the solar system.

Science Theatre Shows – onsite session

Our science theatre shows take place in one of three purpose-built learning spaces and only run on **Space Spectacular Days**.



Science theatre shows are interactive, astronomer-led shows action-packed full of demonstrations that explain scientific concepts. Throughout our science theatre shows we often ask for volunteers to come and help us out with the demonstrations.

Space Watch

This show runs during Space Spectacular Weeks only.

Session level: KS2

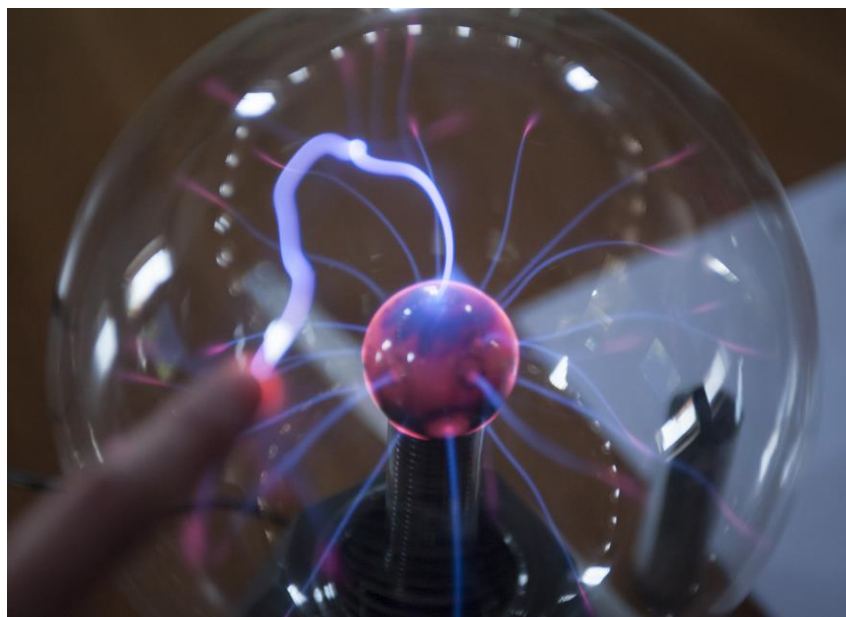
Session length: 45 minutes

Key points covered – forces, gravity, and motion, our solar system, environments.

Show summary – satellites play a vital role in observing not just our home planet but other planets in our solar system too. In this demo-filled workshop, students will discover how satellite observations are used to study the Earth's environment. They'll use this knowledge to become planetary scientists and explore the similarities and differences between the Earth and Mars. They will then go on a journey beyond our solar system to find out if there is a world out there in the depths of space that might be like the Earth, so buckle up for an out of this world adventure!

Special Educational Needs and Disabilities: *Aurora Days* – onsite session

Aurora Days for the 2022/23 academic year will run twice a term and include specially designed sessions for SEND groups.



While you are of course welcome to visit at any time with SEND groups ***Aurora Days*** are dedicated slots where we hand the Observatory over to you without any other school groups on site. This means that we are able to dedicate more time to you answering your space questions and making your visit as enjoyable and as easy as possible.

We are developing our ***Aurora Day*** programme further throughout the 2022/23 academic year and have a SEND forum to help inform the programme. If you would like to join, please take a look at our website for more details (<https://www.rmg.co.uk/schools-communities/networks-forums>), we would love to have you with us. ***Aurora Days*** are made up of the following components where you can choose one workshop and one planetarium show.

Planetarium show

Planetarium shows take place in the Peter Harrison Planetarium and are delivered live by Royal Observatory astronomers. On ***Aurora Days*** we have:

Show Name: Starry Skies

Session Level: there is flexibility to tailor this show to fit your needs.

Session length: 45 minutes

Show summary – this show takes the audience on a tour of some of the most beautiful aspects of our solar system. It was developed in collaboration with our local autism spectrum disorder visitors and their families and has consistently received fantastic feedback since it launched. It is presented live by one of our astronomy team and runs at a much calmer pace than many of our other school shows. The lighting levels used are higher for this show, so the planetarium never becomes pitch black, and the music and narration is kept to a minimum. If your students have any questions about space at the end, our astronomer will be there to answer them.

If your students are working at KS2 level and are able to access a show that runs at a more moderate pace with more content, then speak to our astronomers who can talk to you about an alternative offer.

Workshops

Our multi-sensory, interactive workshop takes place in one of three purpose-built learning spaces and is designed to encourage active learning and hands-on scientific enquiry.

Workshop Name: Searching the Solar System

Session level: these workshops are linked to the KS2 curriculum

Session length: 30 minutes

Workshop summary – in this workshop students will be encouraged to compare the similarities and differences between our planet Earth and other planets in our Solar System. We will explore parts of the solar system using multi-sensory demos and practical activities to help students understand more about some of their closest neighbours in space. There are a number of different activities that can be done as part of this workshop, and you are able to choose a selection which will be the most interesting and applicable to your students. Different activities are pitched at different levels, from KS1 up to KS3, so we can tailor this workshop to suit your needs. Please be sure to chat to a member of the ROG education team when you are planning your visit so they can advise.

How much does an onsite visit cost?

Visits including a planetarium show and SEND workshop carry a charge of £48 for a group of up to 10 students (maximum capacity). If you wish to book only one of these elements, you can do so at a charge of £30 for a planetarium show (for up to 10 students) and £30 for the SEND workshop (for up to 10 students).

If you would like to chat about bringing a group to an **Aurora Day** or coming along for a pre visit, please do get in touch with the ROG education team ROGEducation@rmg.co.uk

What are the bookable dates for an Aurora Day?

Aurora Day sessions are available on the following days in 2022-23 (Please note that dates may be subject to change – our bookings team will be able to confirm the availability of your selected dates):

- 17 October 2022
- 5 December 2022
- 6 February 2023
- 27 March 2023
- 22 May 2023
- 17 July 2023

Online workshops – digital outreach session

Our interactive online workshops are delivered via Zoom or Teams and are designed to encourage learning and scientific enquiry through participation.



Key Stage 2 digital workshops are 45 minutes long and delivered by Royal Observatory astronomers. They focus on the contents of our solar system and the Sun-Earth-Moon system through interactive elements like video clips and activities to help get your students thinking and inquiring about space.

Supporting resources for teachers

Resources linked to our workshops which include background reading for teachers, discussion questions, classroom activities and extension work for advanced students are available online on the website.

<https://www.rmg.co.uk/schools-communities/all-astronomy-science-resources>

We also have a number of FREE digital blogs

<https://www.rmg.co.uk/stories/2022-guide-night-sky>

and podcasts with guest scientists and astronauts

<https://www.rmg.co.uk/schools-communities/royal-observatory-greenwich-schools-podcasts>

to keep your students excited and intrigued with all things space science and astronomy.

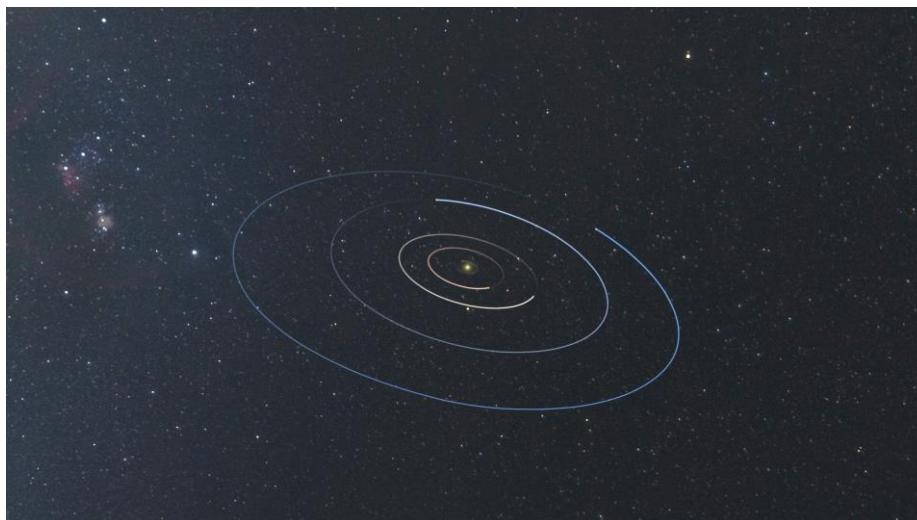


Exploring our Solar System Session level: KS2 Session length: 45 minutes
Key points covered – contents of the solar system: planets, sun, moons, and other space rocks.
Workshop summary – Students take a journey through our amazing Solar System in this interactive digital session. Together with a Royal Observatory Greenwich astronomer they will explore the different types of space objects from the Sun all the way through to space rocks and learn a little more about them along the way. This session will include a number of interactive elements such as video clips and activities to help get students thinking and talking about the wonders of our Solar System. A question-and-answer segment will finish up the session so they can ask any big space questions they may have. The session will then be followed up with activities for students to try afterwards to give their brains a real workout.

Sun, Earth, and Moon Session level: KS2 Session length: 45 minutes
Key points covered – the Earth, Sun and Moon, their relative sizes and motion. Days, months, years.
Workshop summary – In this digital session, students will explore the Sun, Earth, and Moon system with a real Royal Observatory Greenwich astronomer. Together they will investigate the similarities, differences and the relative scale and shape of these amazing objects. The Earth and Moon’s motion through space and how it relates to the concept of time (day, month, year) will also be explored. The session will include a number of interactive elements such as video clips and practical activities to encourage students to think about how the Sun, Earth and Moon system works. A Q&A segment is included as part of the session so they can ask any big space questions they may have. The session will then be followed up with activities for students to try afterwards to test what they have learned.

Virtual planetarium shows – digital outreach session

Our interactive online planetarium shows are delivered via Zoom or Teams. Delivered live by Royal Observatory Greenwich astronomers, they are designed to provide an inspiring and interactive learning experience, allowing students to examine the day and night-time sky, fly through our solar system and enjoy learning about the latest discoveries in astronomy.



Our Solar System

Session level: KS2

Session length: 45 minutes

Key points covered – Main bodies in our solar system including the Sun, Earth, and Moon; why we can see the phases of the Moon.

Show summary – Let us take you and your students on an amazing journey to explore the wonders of the Solar System. Combining real images from spacecraft and telescopes our Royal Observatory Greenwich astronomers will fly you around the Solar System and beyond – wow! All sessions will finish with a question-and-answer session so students can ask their big space questions. You will also then get follow-up activities so students can give their brains a real workout and test what they have learned.

Home Educator Sessions – onsite and digital outreach sessions

Here at the Royal Observatory Greenwich, we engage all types of learners in the formal learning programme and home education groups are welcome to take part in our school programme. Below you will find some useful guidelines to help you make the most of your visit.



What is the home education group offer?

Home education groups can book into one of our **Discovery Day** sessions. **Discovery Days** are designed to be flexible visit days. It is up to you which sessions you select for your **Discovery Day**. You can choose from: a planetarium show, an *Ask the Astronomer* session, a visit to the historic north site, use of the lunchroom or all of these!

Alternatively, home education groups can book **digital outreach sessions** – including a virtual planetarium show and an online *Ask the Astronomer* session which are delivered through Zoom or Teams.

What is the *Ask the Astronomer* session?

During this session one of the Royal Observatory Greenwich astronomers will chat about their career path and any research they have done. They will then open the session up to questions from the students and parents. These questions can be based around careers, recent discoveries, something they have found out that day and want to know more about or even something they have always wanted to know about space science.

How much does an onsite visit cost?

Visits including a planetarium show and an *Ask the Astronomer* session carry a charge of £144 for a group of up to 30 students (maximum capacity). If you wish to book only one of these elements, you can do so at a charge of £90 for a Planetarium show (for 30 students) and £90 for an *Ask the Astronomer* session (for 30 students). The minimum number of students required to book a home education visit is 10. The entire group (inclusive of all extra adults/siblings) must be at least 15. Our bookings team will be able to provide information on costs for groups smaller than 30 students.

How much does a digital outreach session cost?

The virtual planetarium show and *Ask the Astronomer* session each carry a charge of £60 for a group of up to 30 students.

How do I book an onsite or digital session?

Please send an email to ROGEducation@rmg.co.uk to book your session.

Are there resources I can use before and after the session?

Yes - lots! We have a large selection of resources available on the website that can be used either before a visit to introduce new topics, or as a follow-up afterwards. You'll find them here on our Astronomy learning at home page: <https://www.rmg.co.uk/schools-communities/learning-home-royal-observatory>

Temporary Exhibition gallery

On your way to the planetarium, stop off to have a look at the images in this temporary gallery – the theme of which changes every so often to tie into a seasonal astronomy focus.

The Historic Observatory

A visit to the historic ROG North site is free to schools that have booked onto one or more of our education sessions. The Royal Observatory at Greenwich, was founded by Charles II in 1675 and is one of the most important historic scientific sites in the world so don't forget to have a look around and soak up some of the history too. We have developed visit guides and trails for KS1 and KS2 which you can find on our website to download and print before your visit if you would like extra activities to do. <https://www.rmg.co.uk/schools-communities/visit-guides-activities>



Please note, whether you're joining us for a facilitated school session, or your school is visiting the historic ROG North site as a self-guided visit, you must book your visit by contacting our bookings team.

The Prime Meridian - every place on Earth is measured in terms of its distance east or west from the Greenwich Meridian, which divides the eastern and western hemispheres of the Earth, just as the Equator divides the northern and southern hemispheres. Since the late 19th century, the Prime Meridian at Greenwich has served as the reference line for Greenwich Mean Time. It can now claim to be the centre of world time and was the official starting point for the new Millennium.

Flamsteed House – this is the original Observatory building at Greenwich, designed by Sir Christopher Wren in 1675 on the instructions of King Charles II. Take a fascinating glimpse into the apartments where the Astronomers Royal and their families lived and worked. Tour the beautiful Octagon Room, designed to observe celestial events including eclipses, comets and planetary movements then see one of the world's earliest public time signals, the bright red Time Ball, on top of Flamsteed House.

Time Galleries - The award-winning time galleries explore our need for accurate timekeeping and the role it plays in our everyday lives. Find out about two British solutions to the longitude problem, including Harrison's famous chronometers. Watch our horology conservators at work and learn about the provision of accurate timekeepers for the Navy. Explore the history of the development of timekeeping and find out about the role of time in our everyday lives.

The Meridian Galleries and Great Equatorial telescope - explore a display of historic telescopes, including the Great Equatorial Telescope, which is the largest of its kind in the UK and the seventh largest in the world. Completed in 1893, it was designed to keep the Royal Observatory at the forefront of contemporary astronomy.

Onsite visit Information

Supervision

You are legally responsible for your group at all times, whether they are visiting the shop; having lunch; in a planetarium show, workshop, science theatre show or looking around the site. Please ensure that you have sufficient staff with your group when you arrive and throughout the visit:

- EYFS/KS1 – 1 adult per 5 students.
- KS2 - 1 adult per 8 students.

Arrival and Departure

On arrival you will be greeted by a member of our schools hosting team, who will provide you with orientation and take you to a place where you can store bags and coats. You may visit the PHP foyer to collect bags and coats at the end of your programme before you leave the Royal Observatory. Note that if you intend to visit the historic site you may leave your bags and coats and collect them later.

Storage Facilities for Bags and Coats

Bags and coats are stored in cages in the Planetarium Foyer for groups who have booked a lunch space, with one cage used for bags (lunches) and another for coats. At lunch time you are responsible for transporting the cage in which lunches are stored to the lunchroom. These cages must be returned to the Planetarium Foyer after lunch. The space is permanently occupied, so possessions are secure. However, many students like to take small bags and valuables with them.

Lunch Facilities

If you require a lunch space, please make sure you have one booked prior to your visit. Due to limited space, lunchrooms are only offered to schools who have booked a full science programme. Lunch facilities are provided on the first floor of the Astronomy Centre. Capacity is limited and groups must adhere strictly to the lunchtime listed on the Visit Schedule. Please ensure the lunchroom is left clean and tidy after use. In good weather, many groups choose to enjoy a picnic in Greenwich Park.

Toilet Facilities

A disabled toilet is available next to the lunchroom for emergencies or use during lunch time. The main toilets are on the lower ground floor, next to the Temporary Exhibition gallery. An early morning toilet stop is advised before programmes commence.

The Shop

The shop is also on the lower ground floor. If you would like to visit the shop you are advised to do so at the end of your visit. You are strongly advised not to visit the shop just prior to your planetarium show, as show start times cannot be delayed to accommodate students in the shop.

The Café

Hot drinks and food are available for teachers in the café. In the event the café is closed, the Pavilion Café located in Greenwich Park directly across from the Astronomy Centre, offers a selection of food and drinks. However, please note that you are legally bound to ensure that the requisite number of teachers remain with your groups. Older students are welcome to make purchases from the café if they so desire.

Digital Outreach Session Information

Supervision

You are legally responsible for your group at all times. Please ensure that you have sufficient staff on every digital session with your group. If students are joining from home, please be sure to pass all relevant information on to their parents:

Sessions to be streamed in school - At least one member of teaching staff must be in the session at all times. Pupils will not be allowed access into sessions until there is sufficient teacher or group leader supervision.

For students joining a session from home aged:

0-7 years, they must have an adult with them at all times.

7-13 years, they must have an adult within the same social space of their home at all times.

Find more information about keeping students safe during a digital session in our [online safeguarding policy](#).

Joining a session

Our sessions are delivered via Zoom and Teams. Once your booking is confirmed, you'll be sent the joining link along with a tech support guide. Not only will it help you setup and troubleshoot any issues you might come across, but it will also outline how you'll be able to communicate and interact with us on the day.

Be sure to join the session no less than 10 minutes in advance of your session to ensure it begins on time.

How to Organise A Visit

There can be a lot to think about when organising a school trip, so we have come up with a 'to-do' list to help you to make sure you have everything you need to make your visit to the Royal Observatory Greenwich as enjoyable as possible. If you have any questions don't hesitate to get in touch with the bookings team or take a look at the website.

Step one – choosing your sessions.

Top tip – book early. Our sessions are very popular, time slots are limited, and all sessions must be booked in advance. We recommend choosing your sessions and booking them as early as possible to avoid disappointment.

Payment of sessions

Onsite school sessions

To make sure your day runs as smoothly as possible we would highly recommend paying for your session when you book. Payment in advance can be taken by credit or debit card only. If you choose to pay on the day, payment by cash, cheque, credit/debit card will be accepted. Please note that failure to pay for sessions prior to them commencing will result in your group not being allowed to take part in the session.

Please also note that we do not invoice schools for the onsite school sessions.

Digital outreach school sessions

Payment in advance can be taken by credit or debit card only. Please note that failure to pay for sessions prior to them commencing will result in your group not being allowed to take part in the session.

Please also note that we do not invoice schools for the digital outreach school sessions.

Step 1 Checklist Questions	For more information	Complete?
What date and time would you like to visit? Do you have some alternatives?		
How many students and accompanying adults will be visiting?	See the <i>Programme Guide</i>	
Would you like to book a Discovery Day or Space Spectacular Day?	See the <i>Programme Guide</i>	
What sessions would you like your visit to be made up of?	See the <i>Programme Guide</i>	
Would you like to book some time in the lunch space?		

Step 2 – booking.

If you'd like to visit us at the observatory for your session, please complete the **onsite school sessions booking webform**. Our bookings team will get back to you once they've received your completed webform. For home educator sessions, please send an email to ROGeducation@rmg.co.uk to book your session.

Alternatively, if you're looking for a **digital outreach session**, please send an email to our schools team at ROGeducation@rmg.co.uk and a member of our team will get back to you.

Step 2 Checklist Questions	For more information	Complete?
Have you read and agreed to our safeguarding policy?	See booking webform	
Have you read and agreed to the cancellation policy outlined in our terms and conditions?	See booking webform	
If you have more than one class visiting at once, have you split them up into groups of 30 and labelled them A, B, C, D?	See booking information you have been sent.	

Step 3 – planning your onsite visit.

Top tip – prepare for each of your visits carefully to ensure it runs smoothly on the day.

Your journey - while we will do all we can to accommodate school groups who are delayed in transport, it is not always possible to reschedule learning sessions and planetarium shows for groups who arrive late for their sessions.

Your staff - please provide all accompanying adults with a copy of the timetable for the day and make sure you have enough supervising adults to satisfy the safety requirements.

If you have more than one class, before you arrive split your students into the relevant number of groups as indicated on your booking sheet.

Your students - please remind students to act responsibly while on site and ensure they know what to do if they get lost. Site staff are fully briefed on 'lost child' procedures and are always on hand to help. [Risk assessment information can be found on the website](#). You can also prepare your students for learning - full information on each of our pre- and post-visit resources and extension activities is available [on the website](#). Please check back frequently as this webpage is regularly updated.

Step 3 Checklist Questions	For more information	Complete?
Would you like to do a pre-visit?	Ask the bookings team for details.	
Have you read the health and safety requirements?	For onsite sessions: https://www.rmg.co.uk/schools-communities/booking-onsite-schools-session For digital sessions: https://www.rmg.co.uk/schools-communities/booking-digital-learning-session	
Would you like your class to complete any of the challenges in the visit guides?	These are available to download free from the website. https://www.rmg.co.uk/content/visit-guides-activities	
Do you have all the information you need to plan your journey?	See the website for details.	
Have all accompanying staff been briefed?		

Step 4 – following on.

Top tip – tell us how we did and get more involved with our teacher forum.

Step 4 Checklist Questions	For more information	Complete?
Would you like to get more involved with the teacher forum?	Sign up to our teacher forum: https://www.rmg.co.uk/schools-communities/networks-forums	
Would you like to keep updated about the ROG's schools offer, resources and events?	Subscribe to our monthly e-newsletter: https://www.rmg.co.uk/schools-communities/get-involved	
Have you seen the Classroom Resources?	https://www.rmg.co.uk/schools-communities/all-astronomy-science-resources	
Tell us what you thought, please get in touch, and tell us what you thought of your visit.	Follow the link to our online evaluation on your bookings sheet: https://www.rmg.co.uk/form/school-session-feedback	