





Secondary Programme Guide September – December 2024/25

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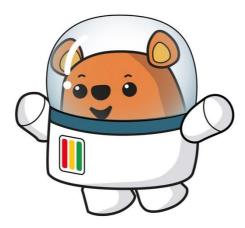
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INTRODUCTION

Thank you for expressing interest in our Secondary Programme, we would be absolutely thrilled to see your groups at our historic site and inspire them to become future astronomers! We can't wait to take you on an amazing journey through space, so buckle up and get ready for some fun.

Signed,

The Royal Observatory Astronomers, and of course Ted!



Before booking your session, please read through this document which explains the logistics of what is on offer for your groups, costs, and how to book. For detailed information about the sessions we offer, please refer to the Secondary Programme Workshops and Planetarium Shows 2024/25 document.

Should you have any questions, please don't hesitate to contact our team via email: ROGEducation@rmg.co.uk.

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.



OUR SECONDAY PROGRAMME EXPLAINED

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. We offer a flexible programme, both on site and online, which you can select and build according to your specific needs.

Our content relates to space science and its associated branches of the STEM (Science, Technology, Engineering and Mathematics) subjects, and how they can be related to our everyday lives. 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. We've included the most commonly asked questions in this document that should help answer anything you want to know, and our bookings and education teams are always on hand to answer any additional queries you may have. Please see the Contact Us section for more information.

For KS3, KS4 and Post-16 we offer a **Study Day**, a **Space Spectacular Day** (KS3 only) or a **Digital Outreach Session**. Depending on which onsite option you choose your visit can be made of; a planetarium show and an interactive workshop, a planetarium show only, 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 we have a selection of workshops available.

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 on 0208 312 6608 or email bookings@rmg.co.uk

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 **Study 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.

ONSITE SCHOOL PROGRAMME

What is a Study Day?

It is up to you what sessions you select for your **Study Day**. The sessions aim to teach curriculum science with the context of astronomy, highlighting the relevance of science learning in the real world. Delivered by our expert astronomers, it provides an opportunity for students to enquire about STEM careers from those who are in them! Depending on the day you can choose from; a planetarium show and workshop, a planetarium show only, a visit to the ROG's historic North Site, use of the lunchroom or a combination 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 (KS3 only) 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) and the hands-on Exploring Ocean Worlds workshop, the planetarium show only, a visit to the ROG's historic north site and a lunchroom slot. The planetarium show on offer during our Space Spectacular Weeks might change throughout the year, so please consult the programme guide before booking your session.

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. For more details on the content of our planetarium shows please refer to our Secondary Programme Workshops and Planetarium Shows 2024/25 document.

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. For more information on workshop content please refer to our Secondary Programme Workshops and Planetarium Shows 2024/25 document.

What else can I do on a visit day?

If a **Study Day** or **Space Spectacular Day** still doesn't satisfy your scientific appetite you can also visit our mini exhibition gallery. Stop off in the Planetarium Foyer to have a look at the images, the theme changes every so often to tie into a seasonal astronomy focus.

For those doing self-facilitated sessions, you can find FREE trails for KS3, KS4 and post-16 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.

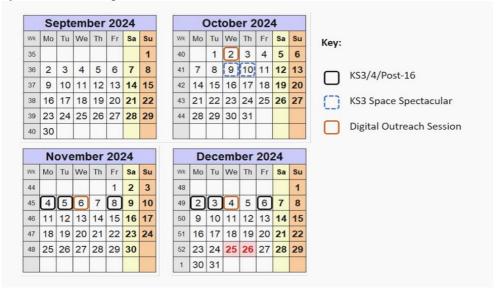
Are there activities that can follow on from my visit?

Yes, lots! Check out the Supporting Resources for Teachers section in this document.



What are the bookable dates for Study and Space Spectacular Days?

Marked in the calendar below are the bookable dates for <u>onsite</u> **Study Days** and **Space Spectacular Days** in 2024.



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

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 we have a workshop available for each key stage.

What is an Online Workshop?

Our online curriculum linked 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.

Are there activities that can follow on from my digital outreach session?

Yes, lots! Check out the Supporting Resources for Teachers section in this document.

What are the bookable dates for digital outreach sessions?

Digital outreach sessions are available on the following days in 2024-25 (Please note that dates may be subject to change – our Bookings team will be able to confirm the availability of your selected dates):

- Wednesday 2nd October 2024
- Wednesday 6th November 2024
- Wednesday 4th December 2024
- (2025 dates tbc)

SPECIAL EDUCATION NEEDS AND DISABILITIES:

AURORA DAYS – ONSITE SESSION

Aurora Days for the 2024/25 academic year will typically 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 you visit as enjoyable and as easy as possible.

We are developing our **Aurora Day** programme further throughout the 2024/25 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 our *Starry Skies* show on offer (full description in our *Secondary Programme Workshops and Planetarium Shows 2024/25* document). 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.

You can also visit our mini exhibition gallery in the planetarium foyer. The theme of the images changes every so often to tie into a seasonal astronomy focus.

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.

What are the bookable dates for an Aurora Day?

Aurora Day sessions are available on the following days in 2024-25 (please note that dates may be subject to change – our Bookings team will be able to confirm the availability of your selected dates):

- Tuesday 12th November 2024
- Tuesday 10th December 2024
- (2025 dates TBC)

HOME EDUCATOR SESSIONS - ONSITE AND ONLINE

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 **Study Day** sessions. **Study Days** are designed to be flexible visit days. It is up to you which sessions you select for your **Study 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! You can also visit our mini exhibition gallery in the planetarium foyer. The theme of the images changes every so often to tie into a seasonal astronomy focus.

Alternatively, home education groups can book an online *Ask the Astronomer* session which can be 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.

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

Yes - lots! Check out the Supporting Resources for Teachers section in this document.

SUPPORTING RESOURCES FOR TEACHERS

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. 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. We also have videos that can be used as part of a science lesson:

https://www.rmg.co.uk/schools-communities/all-astronomy-science-resources https://www.rmg.co.uk/schools-communities/learning-home-royal-observatory https://vimeo.com/royalobservatory

If your group wants to get more involved after their **Study Day**, you can bring them back to one of our Think Space lectures. Pitched at students at KS4 and above, the lectures are led by a guest researcher from in the field of astronomy and space science. They run on selected evenings after school from autumn through spring. Places are limited so booking is essential. Think Space Lectures may take place online, but you'll find more details on the website. https://www.rmg.co.uk/whats-on/online/think-space-lectures

We also have a number of FREE digital blogs written by our astronomers and podcasts with guest scientists and astronauts to keep your students excited and intrigued with all things space science and astronomy:

https://www.rmg.co.uk/stories/topics/space-astronomy-highlights-2024 https://www.rmg.co.uk/schools-communities/royal-observatory-greenwich-schools-podcasts

You can also find FREE trails for KS3, KS4 and post 16 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.

For more information on accessibility please have a look at our website (https://www.rmg.co.uk/plan-your-visit/facilities-access) as well as our dedicated Aurora Day page which contains our visual story for anyone that would like to show see in advance what to expect when visiting the site:

https://www.rmg.co.uk/schools-communities/special-educational-needs-aurora-days

VISITING 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 KS3, KS4 and post-16 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-quides-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 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 was the largest telescope of its type in the UK when it was made in the 1890s and remains within the top ten largest surviving refracting telescopes in the world today. It was designed to keep the Royal Observatory at the forefront of contemporary astronomy.

PROGRAMME PRICING:

Onsite session prices:

Planetarium show		W	£100 for a class of up to 30	£50 for a class of up to 15
Workshop	+	planetarium	£160 for a class of up to 30	£120 for a class of up to 15
show			(20% discount)	(20% discount)

Aurora Days:

Planetarium show	£30 for a class of up to 10
Workshop + planetarium show	£48 for a class of up to 10 (20% discount)

Home educator prices:

Planetarium show		V	£100 for up to 30 students	£50 for up to 15 students	
Workshop show	+	planetarium	£160 for up to 30 students	£120 for up to 15 students	

Digital outreach session prices:

Solo Workshop	£70 for a class of up to 30

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, or looking around the site. Please ensure that you have sufficient staff with your group when you arrive and throughout the visit. If there aren't enough adults present for your group you may not be granted access to the Royal Observatory Greenwich

- KS3 and KS4 1 adult per 10 students.
- Post-16 1 adult per 16 students.

Arrival and Departure

On arrival you will be greeted by a member of our Visitor and Sales team, who will check your schedule and provide you with orientation of the site. They will assist you throughout your visit, making sure you are in the right place at the right time. If you would like somewhere to store coats and bags during your visit, let the team know on arrival and they will arrange this with you.

Storage Facilities for Bags and Coats

Bags and coats can be 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. 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

An accessible 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 mini exhibition gallery. An early morning toilet stop is advised before programmes commence.

Accessibility Onsite

There is an accessible toilet on level -1 and level +1 of the Astronomy centre. All spaces within the astronomy centre are accessible via lift, but parts of the Historic site are only accessible via stairs.

There's more information on our access page here: https://www.rmg.co.uk/plan-your-visit/facilities-access

You can also contact the team via ROGEducation@rmg.co.uk with any questions about accessibility.

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 always legally responsible for your group. 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:

7-13 years, they must have an adult within the same social space of their home at all times. 14-18 years, they must join the session from a social space in their home. Find more information about keeping students safe during a digital session in our <u>online safeguarding policy</u>.

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 at least 10 minutes prior to the scheduled start time to prevent delays.

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.

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 <i>Discovery Day</i> or <i>Space Spectacular Day</i> ?	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 <u>visit us at the Observatory</u> for your session, please complete the <u>onsite school sessions</u> <u>booking webform.</u> Our Bookings team will get back to you once they've received your completed webform.

Alternatively, if you're looking for a <u>digital outreach session</u>, please complete the digital school sessions booking webform.

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.	
Have you ensured that you have enough staff to supervise each group?	See the <i>Programme Guide</i>	

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 previsit?	Ask the Bookings team for details.	
Have you read the health and safety requirements?	For onsite sessions: https://www.rmg.co.uk/schools-session 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?		
Have you notified the Bookings team whether your groups have any additional needs that we should be aware of?		

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	

CONTACT US

For any queries regarding the booking process or making any changes to your booking, please contact the Bookings team on <u>bookings@rmg.co.uk</u> or call 0208 312 6608.

For content related questions please contact the Astronomy Education team on rogeducation@rmg.co.uk.