I’m pleased to introduce you to Glasgow Science Centre’s education guide for 2018/19. Our aim at GSC is to support everyone to explore and discover the world around them and to inspire the next generation of scientists and engineers.

Using our Inspire and Challenge approach, our carefully designed programme of workshops, science shows, Planetarium experiences and hands-on activities provides an exciting environment for social learning.

Every STEM learning session is underpinned by numeracy and literacy and aligned to the Curriculum for Excellence, in order to support you with delivery in the classroom.

This year we are excited to offer a range of new special events including exclusive experiences for Early Years, inspiring interactions with STEM professionals and a day especially for small schools. We can also bring science to your school with GSC On Tour. Browse the guide and speak to our helpful staff to find out more about experiences to suit every age and ability.

We look forward to welcoming you to Glasgow Science Centre.

Fiona Davies
STEM Learning Manager
PLAN YOUR VISIT

Use this handy form to note down the activities that you think would best suit your students and tear it out, scan it and email it to: education.bookings@glasgowsciencecentre.org or call our helpful bookings team on 0141 420 5003.

<table>
<thead>
<tr>
<th>School:</th>
<th>Class/Age Group:</th>
<th>Dates:</th>
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</table>

What is the purpose of your visit?

What would you like to do when you visit?

<table>
<thead>
<tr>
<th>Science Mall +</th>
<th>Activity 1 (£4)</th>
<th>Activity 2 (+£2)</th>
<th>No. of Students</th>
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</thead>
<tbody>
<tr>
<td>Workshops</td>
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<tr>
<td>Science Shows</td>
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<tr>
<td>Planetarium Shows</td>
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<td>IMAX Films</td>
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<tr>
<td>Other activities</td>
<td>Special Events</td>
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<td></td>
<td>Masterclasses</td>
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</tbody>
</table>

How to use this guide

We’ve included a visit planner to help you decide what’s right for you, so please tear that out and jot down what appeals, we can then discuss this over the phone!

Keep this page folded out to refer to the topic and activity key. The guide is organised by age-group to identify which of our activities are best suited to your students’ needs.

How to book

When you’ve had a chance to look over the guide, give our helpful team a call on 0141 420 5003 and they will be able to discuss the detailed requirements of your trip and get you booked in.

Getting here

Directions to GSC are all on the ‘Visit’ section of our website. Coaches can pick-up, drop-off and park on site. We also have some spaces for mini-bus parking.

Prices

Science Mall +1 activity | £4.00 per student
Science Mall +2 activities | £6.00 per student

On Tour Visit

Full Day Visit | £300 +VAT

Thanks to support from our partners we are able to offer a reduction in costs for On Tour visits to some schools. To find out if your school is eligible, please call us on 0141 420 5003.

Transport Grants

The Scottish Government provides transport funding for some schools to support visits to Glasgow Science Centre. This grant is available from September onwards for visits throughout the year. To find out if your school is eligible please call us on 0141 420 5003.
### Science Mall Exhibitions

With over 300 incredible interactive exhibits to explore, spending time in our Science Mall exhibitions will fill your students with curiosity and wonder.

<table>
<thead>
<tr>
<th>Title</th>
<th>Age</th>
<th>Topics</th>
<th>Floor</th>
<th>Page</th>
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</thead>
<tbody>
<tr>
<td>The Big Explorer</td>
<td>N1–P3</td>
<td>All Ages</td>
<td>Floor 1</td>
<td>29</td>
</tr>
<tr>
<td>A Question of Perception</td>
<td>All Ages</td>
<td></td>
<td>Floor 1</td>
<td>29</td>
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<tr>
<td>Explore, Discover</td>
<td>All Ages</td>
<td></td>
<td>Floor 1</td>
<td>29</td>
</tr>
<tr>
<td>Space Zone</td>
<td>All Ages</td>
<td></td>
<td>Floor 1</td>
<td>29</td>
</tr>
<tr>
<td>My World of Work Live!</td>
<td>All Ages</td>
<td></td>
<td>Floor 1</td>
<td>29</td>
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<tr>
<td>QuantIC Technologies: Making the invisible visible!</td>
<td>All Ages</td>
<td></td>
<td>Floor 2</td>
<td>29</td>
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<tr>
<td>Powering the Future</td>
<td>All Ages</td>
<td></td>
<td>Floor 2</td>
<td>29</td>
</tr>
<tr>
<td>Our World, Our Impact</td>
<td>All Ages</td>
<td></td>
<td>Floor 2</td>
<td>29</td>
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<tr>
<td>BodyWorks</td>
<td>All Ages</td>
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<td>Floor 3</td>
<td>29</td>
</tr>
</tbody>
</table>

### On Tour Activities

Can’t come to us? We’ll visit you and deliver a full, or half day of activities. Our On Tour team are dedicated to tailoring activities to each age group.

<table>
<thead>
<tr>
<th>Title</th>
<th>Age</th>
<th>Topics</th>
<th>Time</th>
<th>Page</th>
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</thead>
<tbody>
<tr>
<td>BodyVision Exhibits</td>
<td>P1–S3</td>
<td></td>
<td>45 mins</td>
<td>30</td>
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<tr>
<td>FitLab Exhibits</td>
<td>P1–S3</td>
<td></td>
<td>45 mins</td>
<td>30</td>
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<tr>
<td>FitLab: Maxed Out</td>
<td>P4–S2</td>
<td></td>
<td>45 mins</td>
<td>30</td>
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<tr>
<td>Disgusting Digestion</td>
<td>P4–S2</td>
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<td>45 mins</td>
<td>30</td>
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<tr>
<td>Get Active</td>
<td>P4–S2</td>
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<td>45 mins</td>
<td>30</td>
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<tr>
<td>BodyVision 3D</td>
<td>P6–S3</td>
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<td>50 mins</td>
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<tr>
<td>Journey Through My Body</td>
<td>P1–P3</td>
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<td>35 mins</td>
<td>30</td>
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<tr>
<td>Go Oxygen Go!</td>
<td>P1–P3</td>
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<td>35 mins</td>
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<tr>
<td>Careering Into Science</td>
<td>S1–S3</td>
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<td>45 mins</td>
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</table>
## ACTIVITIES CALENDAR 2018/19

<table>
<thead>
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<tbody>
<tr>
<td><strong>SEPTEMBER</strong></td>
<td></td>
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<tr>
<td>Mission Control!</td>
<td>P1–P3</td>
<td></td>
<td>30 mins</td>
<td>11</td>
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<tr>
<td>Electric Detective</td>
<td>P4–P7</td>
<td></td>
<td>45 mins</td>
<td>13</td>
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<tr>
<td>18th–19th Bright Sparks (Free Places)</td>
<td>P4–S2</td>
<td></td>
<td>All day</td>
<td>16</td>
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<tr>
<td>Future Fuels</td>
<td>P4–S2</td>
<td></td>
<td>45 mins</td>
<td>18/23</td>
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<tr>
<td>PCR Masterclass</td>
<td>S5–S6</td>
<td></td>
<td>10am - 3pm</td>
<td>24</td>
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<tr>
<td><strong>OCTOBER</strong></td>
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<tr>
<td>Mission Control!</td>
<td>P1–P3</td>
<td></td>
<td>30 mins</td>
<td>11</td>
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<tr>
<td>Space School</td>
<td>P4–P7</td>
<td></td>
<td>45 mins</td>
<td>14</td>
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<tr>
<td>Secret World of Gases</td>
<td>P4–S2</td>
<td></td>
<td>45 mins</td>
<td>18/23</td>
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<tr>
<td><strong>NOVEMBER</strong></td>
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<tr>
<td>Journey Through My Body</td>
<td>P1–P3</td>
<td></td>
<td>30 mins</td>
<td>11</td>
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<tr>
<td>Marvellous Materials</td>
<td>P4–P7</td>
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<td>45 mins</td>
<td>14</td>
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<tr>
<td>9th–11th Curiosity Live</td>
<td>P5–S6</td>
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<td>All day</td>
<td>20</td>
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<tr>
<td>14th–16th You Are Here!</td>
<td>P2–P4</td>
<td></td>
<td>45 mins</td>
<td>11</td>
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<tr>
<td>23rd Little Explorer Day</td>
<td>N1–P1</td>
<td></td>
<td>All day</td>
<td>12</td>
</tr>
<tr>
<td>BodyWorks: The Vitals</td>
<td>P4–S2</td>
<td></td>
<td>45 mins</td>
<td>18/23</td>
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<tr>
<td><strong>DECEMBER</strong></td>
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<tr>
<td>Christmas Fun with Forces</td>
<td>P1–P3</td>
<td></td>
<td>30 mins</td>
<td>11</td>
</tr>
<tr>
<td>Santa's Sleigh Challenge</td>
<td>P4–P7</td>
<td></td>
<td>45 mins</td>
<td>14</td>
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<tr>
<td>Santa's Starry Adventure</td>
<td>N1–P3</td>
<td></td>
<td>30 mins</td>
<td>10</td>
</tr>
<tr>
<td>The Christmas Show</td>
<td>P4–S2</td>
<td></td>
<td>45 mins</td>
<td>18/23</td>
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<tr>
<td><strong>JANUARY</strong></td>
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<tr>
<td>Fun With Forces</td>
<td>P1–P3</td>
<td></td>
<td>30 mins</td>
<td>13</td>
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<tr>
<td>Hands on DNA</td>
<td>P4–S2</td>
<td></td>
<td>45 mins</td>
<td>16</td>
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<tr>
<td>23rd Small Schools Day</td>
<td>P1–P7</td>
<td></td>
<td>All day</td>
<td>16</td>
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<tr>
<td>25th Little Explorer Day</td>
<td>N1–P1</td>
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<td>All day</td>
<td>14</td>
</tr>
<tr>
<td>Fantastic Forces</td>
<td>P4–S2</td>
<td></td>
<td>45 mins</td>
<td>18/23</td>
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</tbody>
</table>

In addition to these timetabled programmes, Planetarium shows and IMAX Films are available all year round. Check the list on page four for more information.

We have included a handy form at the back of this guide that can be folded out, and used to note down the activities that suit your students' needs. This can then be torn out, scanned and emailed to education.bookings@glasgowsciencecentre.org, or used when you call us!
Glasgow Science Centre is proud to support the Scottish Government’s vision of a Scotland where everyone is encouraged and supported to develop STEM skills throughout their lives.

Our education strategy has four key aims:

- To **inspire** and encourage the next generation of scientists and engineers;
- To **connect** people with science and help them understand its relevance in their lives;
- To **support** delivery of excellence in STEM learning and teaching;
- To **excite** everyone with the wonder of science.

“It definitely inspired them to go on and study STEM further - very inspirational”

“Our visit helps us deliver Curriculum for Excellence”

“I had so much fun and I felt like a mini scientist!”

– Feedback from teachers & students
N1–P3 ACTIVITIES

We have put together a range of shows and workshops that are aimed at inspiring young minds to explore the world around them.

N1–P3 | On Demand | Planetarium Show
**Space and Back Again** (30 mins)
Young pupils are invited to ‘stay up past your bedtime’ and explore a beautiful star-filled night. They’ll learn about the daily patterns of the sky before visiting the spectacular Sun and Moon up close.

N1–P3 | December | Planetarium Show
**Santa’s Starry Adventure** (30 mins)
Using the stars as our guide we will follow Santa around the world and into space as he delivers Christmas gifts. Help him find his way back to the North Pole using the North Star.

N1–P1 | On Demand | Workshop
**My Senses and Me** (30 mins)
Investigate your senses through a range of fun and exciting activities and find out why our senses are so important.

P1–P3 ACTIVITIES

These fun, interactive activities and shows are best suited for pupils aged 4-7 years old and are sure to spark their curiosity.

N1–P1 | On Demand | Workshop
**Mission Control** (30 mins)
Join us for an exciting journey to the International Space Station! We’ll launch rockets, get some expert help for travelling to and living in space and experience life in orbit through a series of challenges!

N1–P1 | On Demand | Workshop
**Christmas Fun with Forces** (30 mins)
In a festive twist on our Fun with Forces activities, get hands on as we investigate gravity, friction and launch rockets into space.

P3 | On Demand | IMAX Film
**Under the Sea 3D** (45 mins)
Explore the wonders of the most exotic and isolated undersea locations on Earth. Your students will experience face-to-face encounters with some of the most mysterious creatures of the sea.

N1–P3 | Programme
**Into Space** (45 mins)
Your students will leave Earth and take a trip into Space to answer some big questions: Why does the Moon change shape? Why do we have day and night? And what causes the seasons?

P2–P4 | 14th–16th November 2018
**SPECIAL EVENT**
**You Are Here!**
Combining live performance with full-dome Planetarium film, You are Here! is a unique new show presented in conjunction with WOW Tours. After an unexpected disappearance of the stars - and The Professor - Wow Tours need your help as they explore our Solar system to solve the mystery.

P1–P3 | Programme
**The Bug Count** (75 mins)
Discover the creepy crawlies living in Glasgow’s wild places as we leave Glasgow Science Centre for a minibeast safari in Festival Park.

P1–P3 | Programme
**Fun With Forces** (30 mins)
Get hands on as we investigate the forces of gravity and friction and launch rockets into space.

N1–P3 | Programme
**Journey Through My Body** (30 mins)
Take a journey through the amazing human body! Discover the digestive system and your skeleton with fun, exciting and hands-on activities.

P1–P3 | Programme
**Magnificent Minibeasts** (30 mins)
Fascinated by invertebrates? Learn more about our creepy-crawly companions as you come face-to-face with our giant cockroaches and other exciting minibeasts to explore the features that help us to sort them into family groups!
NEW! SPECIAL EVENTS

Early Years
Dino Dig | 23rd November
Build It | 25th January
Up, Up & Away! | 22nd February

These themed special event days, designed for early years are packed with activities for curious wee minds. Nursery and Primary 1 pupils can enjoy a Planetarium show and a variety of hands-on workshops.
P4–P7 WORKSHOPS

Get creative, discover new skills and explore scientific concepts or the latest tech in the workshops that take place every day at Glasgow Science Centre.

**Space School** (45 mins)

**October**

Join us as we recruit and train the next generation of space explorers. Packed with experiments, investigations and problem-solving activities linked to human space flight, young crew members will leave inspired.

**Marvellous Materials** (45 mins)

**November & March**

From super absorbent polymers to colour changing pigments, join us to create and investigate some marvellous materials with fascinating and unusual properties. Find out how they’re used, and what happens to them once we’re finished with them.

**Santa’s Sleigh Challenge** (45 mins)

**December**

In this exciting and involving seasonal workshop pupils will be tasked with designing and constructing an alternative sleigh for Santa.

**Hands on DNA** (45 mins)

**January & February**

Pupils will extract and observe their own DNA using specialised lab equipment and take away their own DNA strand. Discover how your DNA traits make you unique.

**Electric Detective** (45 mins)

**September & April**

Investigate electrical circuits, discover which materials conduct electricity, and build a battery!

**Waterworks** (45 mins)

**May**

Discover the murky world of water science by exploring the processes used to treat dirty water. Get hands on and investigate using everyday materials to construct a filter that will provide us with clearer water.

**Car-azy Construction** (45 mins)

**June**

Construct and race a battery powered car. Find out how we can reduce friction and how aerodynamic shapes improve performance in this exciting team building activity.

P6–P7 DIGITAL WORKSHOPS

Skills Development Scotland and GSC present *My World of Work Live!*. Every free, hands-on experience utilises the latest technology to inspire young people’s interest in STEM careers.

**LEGO® Renewables** (60 mins)

**P6–P7 | On Demand**

Using LEGO® MINDSTORMS® technology, your pupils will explore different forms of renewable energy. They will experience what it’s like to work as an engineer in the renewable energy industry by discovering how different factors affect the energy generated.

**Cracking Cryptography** (60 mins)

**P6–P7 | On Demand**

Try out your skills as an Ethical Hacker by using programs to encrypt and decrypt messages. This activity is the perfect introduction to Cyber Security.

**Laser Cutting** (60 mins)

**P6–P7 | On Demand**

Find out more about how we use technology to design and manufacture everyday items. You will learn how to use vector graphics software to design your own model and watch it being cut out on the laser cutter. Pupils will then assemble their creation to take home.

**DIY Gamer** (90 mins)

**P6–P7 | On Demand**

Program a handheld games console to display your own animation in this fun and easy introduction to programming. Where next - Games Designer?

**LEGO® MINDSTORMS® Driving Test** (90 mins)

**P6–P7 | On Demand**

Programme LEGO® MINDSTORMS® robots to simulate driverless car technology. Find out what it’s like to be a Robotics Engineer as you use your problem solving skills to complete a series of challenges.

SPECIAL EVENT

**Small Schools Day**

**P1–P7 | 23rd January 2019**

Take part in a special day of hands-on activities for primary schools whose pupil roll is less than 20. There will be a range of workshops to choose from shared with other small schools, giving your pupils the opportunity to learn with other children their own age.

SPECIAL EVENT

**Power Planet**

**P4–S2 | 25th–26th April 2019**

Meet researchers and industry professionals from the energy sector and take part in their exciting, interactive activities as you learn more about energy generation and use!
SPECIAL EVENT (Free places)
P4–S2 | 18th –19th September
Sponsored by ScottishPower, Bright Sparks is a special event giving your pupils the opportunity to take part in energy themed workshops and shows. They will also meet professionals to learn about research, technologies and careers in the energy sector.
P4–P7 SCIENCE SHOWS
Roll up, roll up for the theatre of science and get involved as our science communicators astound and entertain you with spectacular live science.

P4–P7 PLANETARIUM & IMAX
Passport to the Planets (45 mins)
P4-P6 | On Demand | Live Show
Leave the school bus and get aboard for our incredible tour of the solar system. Students get a spacecraft’s eye view of other planets and explore the possibility of life beyond Earth.

The Solar System and Beyond (45 mins)
P7 | On Demand | Live Show
View the universe in a new light as you voyage beyond the solar system, into the galaxy we call home. Discover what makes a planet a planet and join the search for Earth-like exoplanets orbiting distant stars.

We Are Aliens (45 mins)
On Demand | Fulldome Film
Are we alone? Is it possible to find life beyond Earth? Take a journey of discovery in this Rupert Grint narrated 360° Planetarium film from the award-winning NSC Creative team.

Cell! Cell! Cell! (45 mins)
P7 | On Demand | Fulldome Film
This is the story of the trillions of cells that form our bodies, from our beginnings as a single cell to the complexity of a whole body: it’s the story of who we are.

Under the Sea 3D (45 mins)
On Demand | IMAX Film
Explore the wonders of the most exotic and isolated undersea locations on Earth. Your students will experience face-to-face encounters with some of the most mysterious creatures of the sea.

To the Arctic 3D (30 mins)
On Demand | IMAX Film
In one of Earth’s harshest environments see the effect of humans and the resulting challenges facing wildlife. Following the lives of Arctic polar bears this film will show you what it takes to survive in the wild.

Born to be Wild 3D (45 mins)
On Demand | IMAX Film
A truly inspiring and heart-warming film demonstrating how orphaned orang-utans and elephants are rescued, nurtured, and released back into the wild. Set in Borneo you will see the remarkable bond between humans and animals.

A Beautiful Planet 3D (45 mins)
On Demand | IMAX Film
A Beautiful Planet is a breathtaking portrait of Earth from space, providing a unique perspective and increased understanding of our planet as never seen before. It presents an awe-inspiring glimpse of Earth and a hopeful look into the future of humanity.

Hidden Universe 3D (45 mins)
P7 | On Demand | IMAX Film
This is the most up to date 3D film that shows the depths of the Universe in stunning images and colours. For the first time see the farthest reaches of time and space and meet some of the astronomers that delivered these images.

Future Fuels (45 mins)
September & April
Join us on an exciting mission to explore how we could power transport in the future. Pupils will learn about the different types of energy sources, including fossil fuels and renewables, and the ways that these can be harnessed for transportation.

The Secret World of Gases (45 mins)
October
Discover the amazing stories and science of gases, investigating the latest innovations, dispelling myths and exploring how gases will be used for a greener future through spectacular demonstrations using liquid nitrogen, dry ice and more!

BodyWorks: The Vitals (45 mins)
November & June
The human body is amazing. Join us to discover the workings of essential organs in our live science show. Explore the roles of digestion, circulation, respiration and the nervous system in helping you, be you!

The Christmas Show (45 mins)
December
’Tis the season to be jolly! Join us for our Christmas science show! With exhilarating demonstrations and plenty of festive cheer, this is one show you won’t want to miss.

Fantastic Forces (45 mins)
January & February
Discover Newton’s three laws of motion using balloons, bricks, rockets and a bed of nails as we investigate forces including gravity and friction.

Who Needs Science? (45 mins)
P6–P7 | March
Take part in our live science show, designed to inspire pupils as they discover the vital role of science in their everyday lives and future careers. This interactive experience features spectacular demonstrations in science, technology, engineering and maths.

Water Water Everywhere (45 mins)
May
Through a series of exciting demonstrations, your pupils will follow the journey of water from rainfall to our taps. Find out where it comes from, where it goes and why it is vital for supporting life.

BodyWorks: Dissection (45 mins)
P5–P7 | On Demand
Prepare to be amazed in our presenter-led dissections to explore the structure, individual parts and function of the lungs or heart. Pupils will observe a dissection and then have the opportunity to touch and see the tissue up close.

P4–P7 PLANETARIUM & IMAX
Passport to the Planets (45 mins)
P4-P6 | On Demand | Live Show
Leave the school bus and get aboard for our incredible tour of the solar system. Students get a spacecraft’s eye view of other planets and explore the possibility of life beyond Earth.

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NEW!
SPECIAL EVENTS

P5–S6 | 9th November
13th–15th March (British Science Week)

A celebration of talent, research, innovation and creativity. Come and participate in research that’s happening right on our doorstep with people who are carrying out ground-breaking work in their specialisms of Science, Technology, Engineering, Arts and Mathematics.

Meet scientists from a variety of organisations and backgrounds, take part in fun activities related to their work, and find out more about their careers!
SPECIAL EVENT
BRIGHT SPARKS (FREE!)
S1–S2 | 18th–19th Sept
Sponsored by ScottishPower, Bright Sparks is a special event giving your pupils the opportunity to take part in energy themed workshops and shows. They will also meet professionals to learn about research, technologies and careers in the energy sector.

DIY Gamer (60 mins) S1–S3 | On Demand
Program a handheld games console to display your own animation in this fun and easy introduction to programming. Where next - Games Designer?

LEGO® MINDSTORMS® Driving Test (60 mins) S1–S3 | On Demand
Programme LEGO® MINDSTORMS® robots to simulate driverless car technology. Find out what it’s like to be a Robotics Engineer as you use your problem solving skills to complete a series of challenges.

LEGO® Renewables (60 mins) S1–S3 | On Demand
Using LEGO® MINDSTORMS® technology, your pupils will explore different forms of renewable energy. They will experience what it’s like to work as an engineer in the renewable energy industry by discovering how different factors affect the energy generated.

Cracking Cryptography (60 mins) S1–S3 | On Demand
Try out your skills as an Ethical Hacker by using programs to encrypt and decrypt messages. This activity is the perfect introduction to Cyber Security.

Laser Cutting (60 mins) S1–S3 | On Demand
Find out more about how we use technology to design and manufacture everyday items. You will learn how to use vector graphics software to design your own model and watch it being cut out on the laser cutter. Pupils will then assemble their creation to take home.

Hands on DNA (45 mins) S1–S2 | Jan & Feb
Pupils will extract and observe their own DNA using specialised lab equipment and take away their own DNA strand. Discover how your DNA traits make you unique.

BodyWorks: Dissection (45 mins) S1–S6 | On Demand
Prepare to be amazed in our presenter-led dissections to explore the structure, individual parts and function of the lungs or heart. Pupils will observe a dissection and then have the opportunity to touch and see the tissue up close.

Future Fuels (45 mins) S1–S2 | September & April
Join us on an exciting mission to explore how we could power transport in the future. Pupils will learn about the different types of energy sources, including fossil fuels and renewables, and the ways that these can be harnessed for transportation.

The Secret World of Gases (45 mins) S1–S2 | October
Discover the amazing stories and science of gases, investigating the latest innovations, dispelling myths and exploring how gases will be used for a greener future through spectacular demonstrations using liquid nitrogen, dry ice and more!

BodyWorks: The Vitals (45 mins) S1–S2 | November & June
The human body is amazing. Join us to discover the workings of essential organs in our live science show. Explore the roles of digestion, circulation, respiration and the nervous system in helping you, be you!

The Christmas Show (45 mins) S1–S2 | December
Tis the season to be jolly! Join us for our Christmas science show! With exhilarating demonstrations and plenty of festive cheer, this is one show you won’t want to miss.

Fantastic Forces (45 mins) S1–S2 | January & February
Discover Newton’s three laws of motion using balloons, bricks, rockets and a bed of nails as we investigate forces including gravity and friction.

Who Needs Science? (45 mins) S1–S3 | March
Take part in our live science show, designed to inspire pupils as they discover the vital role of science in their everyday lives and future careers. This interactive experience features spectacular demonstrations in science, technology, engineering and maths.

Water Water Everywhere (45 mins) S1–S2 | May
Through a series of exciting demonstrations, your pupils will follow the journey of water from rainfall to our taps. Find out where it comes from, where it goes and why it is vital for supporting life.

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S5–S6 | 3rd–5th September

Share in the expertise of practising virologists from the MRC-University of Glasgow Centre for Virus Research. Gain genuine insight into the world of work as students use cutting edge equipment to diagnose virus infections. Students will be guided through the process of using the Polymerase Chain Reaction and other molecular biology techniques.

Supported by ThermoFisher Scientific

CHEMISTRY

S5–S6 | 18th–22nd February

Students will gain practical lab experience working alongside practising chemists from universities and industry in a workshop designed to enhance students’ practical ability and understanding of preparative and analytical techniques used in the Researching Chemistry units. Students will be guided through the preparation and identification of organic and inorganic compounds and gain insight into life in a working chemistry lab.
**THE SOLAR SYSTEM AND BEYOND** (45 mins)

S1–S2 | On Demand | Live Show

View the universe in a new light as you voyage beyond the solar system, into the galaxy we call home. Discover what makes a planet a planet and join the search for Earth-like exoplanets orbiting distant stars.

**WE ARE ALIENS** (45 mins)

S1–S4 | On Demand | Fulldome Film

Are we alone? Is it possible to find life beyond Earth? Take a journey of discovery in this Rupert Grint narrated 360° Planetarium film from the award-winning NSC Creative team.

**CELL! CELL! CELL!** (45 mins)

S1–S4 | On Demand | Fulldome Film

This is the story of the trillions of cells that form our bodies, from our beginnings as a single cell to the complexity of a whole body: it’s the story of who we are.

**THE SKY’S THE LIMIT?** (45 mins)

S3–S6 | On Demand | Live Show

By asking the right questions our knowledge of the universe has evolved dramatically. Join us to discover how we know that our tiny planet is only one of billions within an average galaxy within an expanding universe.

**PHANTOM OF THE UNIVERSE** (45 mins)

S4–S6 | On Demand | Fulldome Film

From the journey of protons racing through the world’s largest particle collider to up-close views of the Big Bang and emergent cosmos, Phantom of the Universe is a new fulldome planetarium show designed to immerse audiences in the search for dark matter. Narrated by Tilda Swinton.

**TO THE ARCTIC 3D** (45 mins)

S1–S4 | On Demand

In one of Earth’s harshest environments see the effect of humans and the resulting challenges facing wildlife. Following the lives of Arctic polar bears this film will show you what it takes to survive in the wild.

**BORN TO BE WILD 3D** (45 mins)

S1–S4 | On Demand

A truly inspiring and heart-warming film demonstrating how orphaned orang-utans and elephants are rescued, nurtured, and released back into the wild. Set in Borneo you will see the remarkable bond between humans and animals.

**A BEAUTIFUL PLANET 3D** (45 mins)

S1–S4 | On Demand

A Beautiful Planet is a breathtaking portrait of Earth from space, providing a unique perspective and increased understanding of our planet as never seen before. It presents an awe-inspiring glimpse of Earth and a hopeful look into the future of humanity.

**HIDDEN UNIVERSE 3D** (45 mins)

S1–S4 | On Demand

This is the most up to date 3D film that shows the depths of the Universe in stunning images and colours. For the first time see the farthest reaches of time and space and meet some of the astronomers that delivered these images.
The Big Explorer
N1–P3 I Floor 1
The Big Explorer is a must see for 7 and unders. It’s all hands on deck as there is plenty to do to keep our busy cargo ship in calm waters. Operate the crane and load the cargo, man the Captain’s bridge, have a splish splash in Water Ways, investigate the crates and see what’s inside?

A Question of Perception
Floor 1
Intriguing illusions and strange experiences will delight all ages in this exhibition. You can have your whole universe tilted in the Wacky Salon or grow and shrink in the Ames room. You can even look into infinity. You will be left wondering if you can trust your eyes, brain or senses.

Explore, Discover
Floor 1
Make shapes with your coloured shadows, use magnets to send a metal ring skyward. This gallery is home to many visitor favourites.

Space Zone
Floor 1
Connect with the cosmos and explore the universe from the comfort of this gallery. See the planets of our solar system in a different light, detect some atomic particles or take a selfie from the International Space Station. It’s an out of this world experience!

My World of Work Live!
Floor 2
Find out how your personality and interests match you to careers in science and then explore where science can take you on the giant wall of touchscreens.

QuantIC Technologies: Making the invisible visible!
Floor 2
Get hands-on with the exciting physics and engineering behind quantum technologies in this exhibition. This fast emerging field of previously hidden physics is going to have a huge impact on future technologies.

Powering the Future
Floor 2
Get charged-up for an adventure into this interactive exhibition all about the future of energy. Power a selfie on the energy dance floor, become energy minister for the day and launch a hydrogen powered rocket while exploring ways we can make the generation and use of energy more affordable, secure and sustainable.

Our World, Our Impact
Floor 2
In this space you can explore environmental science by inspecting real lichen samples under a UV light or by discovering how scientists measure the quality of the air around us.

BodyWorks
Floor 3
Test your abilities, explore the secrets of the human body and discover the latest biomedical advances – the science of health is a story about you. You will never look at your body in quite the same way.
GSC ON TOUR

BodyVision Exhibits (45 mins) P1–S3 | On Demand | Exhibition
Participants will get hands-on with a range of engaging anatomy themed exhibits. They will address topics like cardiovascular fitness, body composition and the effects of lifestyle choices like smoking.

FitLab Exhibits (45 mins) P1–S3 | On Demand | Exhibition
Your pupils can explore their endurance, power, agility, speed and coordination through a range of zoned exhibits. They will be invited to become scientist and subject in a personalised investigation designed to test their limits.

FitLab: Maxed Out (45 mins) P4–S2 | On Demand | Workshop
Investigate the limits of physical fitness in this laboratory workshop. Be guided through hands-on experiments that will reveal some of the ways in which sports scientists are working to optimise athletic performance.

Get Active (45 mins) P4–S2 | On Demand | Science Show
What happens to your body when you exercise? Why does it hurt? Find out when you get up and get active with us.

Journey Through My Body (35 mins) P1–P3 | On Demand | Science Show
Follow your food’s journey through the amazing body. Find out where and how food travels through the body and the importance of diet and making healthy choices.

Go Oxygen Go! (35 mins) P1–P3 | On Demand | Science Show
On your marks, get set, go and investigate our very busy bodies. This show will have the whole class getting active while learning about oxygen’s role in a healthy body!

Disgusting Digestion (45 mins) P4–S2 | On Demand | Science Show
The human body is an incredible machine. Be involved in one of Glasgow Science Centre’s most popular shows to find out how diet can make a difference to your body’s function and overall wellbeing.

BodyVision 3D (50 mins) P6–S3 | On Demand | Science Show
Let us show you a cinematic experience that will take your breath away. Our 3-Dimensional journey through a virtual human body is a unique opportunity for learners to explore the unseen aspects of human anatomy and physiology.

Careering Into Science (45 mins) S1–S3 | On Demand | Science Show
Where could science take you? With memorable demonstrations, this stimulating show highlights how everyone can benefit by studying science, technology, engineering and maths.

“The resource is invaluable for rural communities who cannot attend the science centre due to transportation costs.”

– Teacher comment

Can’t come to us? We’ll visit you and deliver a tailored full day set of activities. We are currently developing a set of Powering the Future On Tour exhibits & activities, so watch this space for even more On Tour activities.
MORE FOR TEACHERS

Free planning visits
Be our guest free of charge, before your pupils visit, and explore what we have on offer at Glasgow Science Centre. You can experience a live science show, explore the exhibitions relevant to your current topic or create pre-visit activities to enhance your pupils’ time at GSC. Please book your visit at least 24 hours in advance and bring ID with you on the day.*
*Fair use policy applies.

Professional learning
Inspire and Challenge is our unique training programme designed to support primary teachers with delivery of STEM learning. Our specialised methodology focuses on social learning and scientific thinking rather than knowledge alone. Teachers are guided through curriculum-linked activities designed to build pupils as scientists. Initial training can be extended to include twilight sessions and a range of lesson plans with associated resource kits.
Prices from £140. Call us on 0141 420 5003 to find out more.

“They have seen the real value of science.”
“The children are more positive towards science as a result of their visit.”
— Feedback from teachers
Specific needs and accessibility
We are committed to supporting visits for everyone. Please let us know about any relevant access and learning needs when you book, or ask us for further details of what we can do to help. Glasgow Science Centre is fully accessible for wheelchair users with free admission for all 1:1 assistants. Assistance dogs welcome. Hearing loops available. Ear defenders and weighted blankets are also available on request.

Risk assessments
All our activities and exhibits are fully risk assessed. Risk assessments are available on our website along with our “make the most of your visit” advisory document. We also have a first aid room on site.

Snacks, lunch and storage
On arrival you will be met by one of our team who will arrange for you to store jackets and packed lunches. We recommend that all valuables are kept with you and any money is kept with pupils or with a teacher. There will be a time and area on your itinerary for a snack (if you wish to use it) and lunch, if you’re having packed lunches, they will be brought to your tables.

Shop visits and goody bags
You will be offered a dedicated time slot to visit the shop at time of booking. Alternatively, you can pre-order ‘goody bags’ to suit a range of budgets.

Our partners
At Glasgow Science Centre, we’re proud to work with some fantastic partners. They help us deliver our amazing programme of learning experiences, all carefully aligned with the Curriculum for Excellence and National Qualification Stages.

THANK YOU
Every visit helps to further our mission to inspire people to explore and discover science and to understand its relevance in their lives.

GET IN TOUCH
0141 420 5003 | glasgowsciencecentre.org