

EDINBURGH INTERNATIONAL
SCIENCE FESTIVAL

**generation
science**

Visiting Scotland's schools



**SCIENCE SHOWS AND
WORKSHOPS – HELPING YOU
DELIVER THE CURRICULUM
FOR EXCELLENCE**

Part of the Edinburgh International Science Festival

Schools Programme 2011

TOURING JANUARY TO MAY



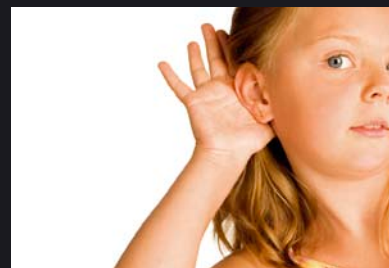
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GAME SHOW** page 4



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FIZZ, BOOM, BANG
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BOOK NOW: 0131 553 0321

www.generationscience.co.uk

WITH SPECIAL THANKS TO ALL OUR PARTNERS

Our partners fund two-thirds of the cost of our activities. Together, they allowed us to reach nearly 60,000 of Scotland's children in 2010.

THE ASTOR OF HEVER TRUST • BARCAPEL FOUNDATION • THE BINKS TRUST • CRAIGNISH TRUST • THE CRAY TRUST • THE ERNEST COOK TRUST • THE GANNOCHY TRUST • HDH WILLS 1965 CHARITABLE TRUST • THE MACROBERT TRUST • MARTIN CURRIE CHARITABLE FOUNDATION • THE ROBERTSON TRUST • SYLVIA AITKEN CHARITABLE TRUST • TAY CHARITABLE TRUST • TC CHARITABLE TRUST •

	Edina Trust is a charity registered in Scotland which supports science education projects, particularly at primary school level. It seeks to support initiatives that encourage more children to develop a keen interest in science.		Funding provided through the Office of the Chief Scientific Adviser for Scotland to open up the world of science to our young people and inspire our next generation of scientists.
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Generation Science Club members and Edina Trust ensure that inspiring science shows and workshops are available to all. Each year, they subsidise our visits to children in rural and social inclusion areas across Scotland.



Generation Science Club is a prestigious network of individuals and companies dedicated to engaging the next generation in science and technology.

GENERATION SCIENCE CLUB MEMBERS

CHAIR

Philip Young

HONORARY MEMBERS

Baroness Susan Greenfield
 Prof Anne Glover,
 Chief Scientific Advisor for Scotland
 Prof Lord Robert Winston

MEMBERS

Dugdale Bradley
 Cairn Energy PLC
 Alex Callander, Baillie Gifford & Co
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EDUCATION AMBASSADORS

Prof Jack Jackson, Strathclyde University
 Heather Reid OBE
 Walter Whitelaw, Midlothian Council



WELCOME

Hello and welcome to the Edinburgh International Science Festival's schools touring programme for 2011.

From January to May, our team of skilled science communicators will once again be heading out across Scotland and bringing science to life with a range of shows and workshops delivered in the classroom.

For more than 20 years, Generation Science has visited schools all over Scotland, inspiring and exciting more than 60,000 pupils each year with our educational and entertaining performances, and hands-on activities. We constantly develop our shows to meet the needs of teachers in line with the Curriculum for Excellence, and consistently receive great feedback. You can view or post feedback online at our Glow site.

So, why should you book?

- We make learning and teaching science simpler
- We help deliver the Curriculum for Excellence
- We constantly update and improve our programme to ensure every school enjoys an experience of the highest quality
- We come to you, making your life easier
- We make science fun

We can work together on science weeks, transition projects or individual science days in this, the International Year of Chemistry. Just get in touch with us to discuss your needs.

Book early to ensure you get your first choice of dates. Call us now on 0131 553 0321.

Best wishes



JOAN DAVIDSON
Generation Science Manager

AT A GLANCE GUIDE

Curriculum for Excellence strand

Show/Workshop name

P1-3

P4-7

PLANET EARTH

Pages 4-5

Biodiversity and interdependence

Little Giants

Underwater Explorers

Fur, Feather, Skin and Scales **NEW**

Energy sources and sustainability

Future Earth

Cosy Cosy Game Show **NEW**

Processes of the planet

Wonderful World of Water

Space

Day or Night

Starlab and Spaceshow **SPRING ONLY**

Properties and use of substances

Fizz, Boom, Bang **NEW**

Forces

Ready, Teddy, Go!

Vibrations and waves

Ella's Wobble **SUITABLE FOR EARLY YEARS**

Electricity

Electro-tastic **SUMMER ONLY**

Body systems and cells

Body Builders

Lego Mindstorms Challenge

Up, Down, Turn Around

MATERIALS

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FORCES, ELECTRICITY AND WAVES

Page 6

BIOLOGICAL SYSTEMS

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TECHNOLOGIES

Page 7

CURRICULUM FOR EXCELLENCE STRAND: PLANET EARTH

WONDERS OF THE

COSY COSY GAME SHOW **NEW** THE HOME INSULATION SHOW



The Cosy Cosy Game Show is a daytime TV-style show all about insulation and saving energy in the home. Warmly presented by your friendly hosts, Toasty Tim and Thermal Thelma, the show encourages pupils to try out different energy-saving initiatives, and turns the issue of domestic energy-use into an exciting challenge.

CfE links: Energy sources and sustainability

Max: 30 pupils • Duration: 1 hour
£155 per show, £290 for 2, £425 for 3

P4-7



Developed with support from:

FUTURE EARTH THE MATERIALS AND RECYCLING SHOW



Many years from now, the world has run out of resources. Alu is here on a rescue mission for future generations. Join her on a magical journey through time and space to discover

what things are made of and how we're using too much too fast. Learn about recycling, reusing and reducing.

CfE links: Energy sources and sustainability

Max: 70 pupils • Duration: 1 hour
£155 per show, £290 for 2, £425 for 3

P3-6



Supported by:

“

Very well prepared – delivery aimed at exactly the right level.”

GLENCOATS PRIMARY
PAISLEY

STARLAB AND SPACESHOW **SPRING ONLY** THE STARS AND THE SECRET OF LIVING IN SPACE



The Starlab has landed in your school! Take a tour of the stars in our inflatable planetarium, where the constellations appear as they do in the darkest night sky. In Spaceshow, enjoy some spectacular stunts as our space cadets explore the extremes of temperature, pressure and gravity that exist in outer space.

CfE links: Space

Max: 30 pupils • Duration: 1 hour
£155 per show, £290 for 2, £425 for 3

P4-7

DAY OR NIGHT? THE SUN, MOON AND EARTH SHOW



An entertaining storytelling introduction to night and day that looks at the Sun, Moon and Earth. Join Benny and Jack on a journey of discovery while they learn what children in different places around the world are doing at exactly the same time. Why is one child getting up just as another goes to bed? Mind-boggling questions answered in a colourful and interactive show.

CfE links: Space

Max: 70 pupils • Duration: 1 hour
£155 per show, £290 for 2, £425 for 3

P1-3

WORLD



This is the way to teach science in the primary school. This session was ACE in action!"

ST BOSWELLS PRIMARY
ST BOSWELLS

WONDERFUL WORLD OF WATER THE WATER CYCLE AND WEATHER SHOW



Join Walter and Wilbur, our wacky weathermen, on their intrepid journey through the water cycle. Brave snowstorms, downpours and thick fog to discover how water changes

from one state to another. Pupils can participate in some seriously fun water chemistry – with hilarious results.

CfE links: Processes of the planet

Max: 70 pupils • Duration: 1 hour
£155 per show, £290 for 2, £425 for 3

P4-7



Supported by:

UNDERWATER EXPLORERS THE INVESTIGATION INTO MARINE LIFE AND POLLUTION



In this hands-on workshop, pupils will actively learn all about marine life in our mobile rock pool – with live coastal creatures. Pupils will be supported to observe, discuss and discover how we can protect marine life, and encouraged to understand the effects that pollution can have on this environment.

CfE links: Biodiversity and interdependence, Topical Science

Max: 30 pupils • Duration: 1 hour
£425 for 3 workshops, £560 for 4
(minimum 3 workshop booking)

P1-7



Supported by:



Delivered by:

FUR, FEATHER, SKIN AND SCALES **NEW** THE CLASSIFICATION WORKSHOP WITH WILD ANIMALS



Discover the differences between the five vertebrate groups through an interactive and hands-on experience. Pupils will be supported to explore and discuss the diversity of life through real life investigation. They will discover how groups differ through the four Bs: Body covering, Blood temperature, Breathing and Babies. This is classification with real animals!

CfE links: Biodiversity and interdependence

Max: 30 pupils • Duration: 1 hour
£290 for 2 workshops, £425 for 3, £560 for 4
(minimum 2 workshop booking)

P1-7



Delivered by:

LITTLE GIANTS THE SHOW ABOUT BEES



Bee populations in the UK are declining rapidly. In this highly interactive show, children learn all about bees and why it's so important to help save them. Buzzy, the giant honey bee, will lead a journey into the wonderful world of bees and explain how bees and flowers work together to make seeds, and how their bodies are different from ours.

Join our Bee Keeper on a magical mystery tour of a bee hive and follow Buzzy on a trip to our giant flowers.

CfE links: Biodiversity and interdependence

Max: 30 pupils • Duration: 1 hour
£155 per show, £290 for 2, £425 for 3

P1-3

CURRICULUM FOR EXCELLENCE STRAND: MATERIALS

IN THE MIX

FIZZ, BOOM, BANG **NEW** THE CHEMISTRY WORKSHOP



Come and meet our potion explosion specialists! Pupils will explore the mysteries of concoctions and mixtures covering colours, changes and solutions. Developed to meet the aims and outcomes of the CfE and to celebrate the International Year of Chemistry – with a fizz, a boom... and a bang!

CfE links: Properties and use of substances

Max: 30 pupils • Duration: 1½ hours • £155 per workshop, £290 for 2, £425 for 3 **P1–7**

CURRICULUM FOR EXCELLENCE STRAND: FORCES, ELECTRICITY AND WAVES

FEEL THE POWER

READY, TEDDY, GO! THE FORCES AND MOTION WORKSHOP



The teddy bears' team is coming to your school. Investigate the relationship between forces and movement in a series of fun and engaging activities. How can teddy's car move faster and further? Who will win in a contest between push and pull?

CfE links: Forces

Max: 30 pupils • Duration: 1½ hours **P1–3**
£155 per workshop, £290 for 2, £425 for 3

ELECTRO-TASTIC **SUMMER ONLY** THE HANDS-ON ELECTRICITY AND ELECTRONIC WORKSHOP



Curious about currents? Design and build your own gadget, and learn about conductors, insulators and how simple circuits work. This fun and engaging workshop will give pupils a buzz about electricity!

CfE links: Electricity

Max: 30 pupils • Duration: 1½ hours **P4–7**
£165 per workshop, £310 for 2, £455 for 3

ELLA'S WOBBLE **SUITABLE FOR EARLY YEARS** THE MAKE & KEEP SOUND WORKSHOP



Join Ella on her rhyming journey into the wonderful world of sound. This interactive show allows even the youngest pupils to build their own instruments and become an integral part of the story, discovering how sounds are made and how they move.

CfE links: Vibrations and waves, Materials

Max: 30 pupils • Duration: 1 hour **Nurseries & P1–3**
£155 per workshop, £290 for 2, £425 for 3 (limited availability)

Supported by:



“

Fantastic workshop lead by enthusiastic and talented workshop leaders. Even I learned something! Great fun.”

**MILE END PRIMARY
ABERDEEN**

CURRICULUM FOR EXCELLENCE STRAND: BIOLOGICAL SYSTEMS

INSIDE OUT

BODY BUILDERS

THE BONES, ORGANS AND BODY SHOW



Learn how the body is put together in this fast-paced, funny, interactive show, and discover why it's so important to keep it in good shape. In the Teaching Hospital, meet Dr Watson and Nurse Treat It Better, who will illustrate common ailments and show you how to stay healthy.

CfE links: Body systems and cells

Max: 70 pupils • Duration: 1 hour
£155 per show, £290 for 2, £425 for 3

P4-7

Supported by:



CURRICULUM FOR EXCELLENCE STRAND: TECHNOLOGIES

GET TECH

LEGO MINDSTORMS CHALLENGE

THE FUN PROGRAMMING WORKSHOP



programming and robotics. The session will end with the ever-popular hip-hop dancing robots!

CfE links: Technologies

Max: 30 pupils • Duration: 1½ hours
£155 per workshop, £290 for 2, £425 for 3

P4-7

UP, DOWN, TURN AROUND

THE MAKE & KEEP MECHANICAL WORKSHOP



Using tools and materials, pupils will construct their own simple machines with moving parts. Through the workshop they will explore the principles and roles of friction, levers and energy transfer in the world of motion. Engineering has never been this fun!

CfE links: Technologies, Forces

Max: 30 pupils • Duration: 1½ hours
£155 per workshop, £290 for 2, £425 for 3

P1-7

BOOK NOW

TOURING ALL OF SCOTLAND

The best way to book is to call us on **0131 553 0321**. We can advise on when the tour is near you, and answer any questions you may have about the shows and workshops.

You can also contact us by email:
generationscience@scifest.co.uk

There is more information, including downloadable resource packs and an email enquiry form, online:
www.generationscience.co.uk

Our opening hours are
Monday–Friday, 8.30am–4.30pm

TOURING DATES

SPRING TOURING DATES 31 JANUARY–1 APRIL

SUMMER TOURING DATES 3 MAY–27 MAY

Please note that some shows or workshops are only available in the spring or summer term.

We come to you, when you want us to. We are trying to lighten our carbon footprint so we may suggest dates when a show is in your area.

AT THE READY

Before calling us, you might find it useful to have the following information:

- **Title of show/workshop**
- **Number of performances required**
- **Number of pupils**
- **Class (e.g. P1–7)**
- **Preferred dates**
- **Dates that are not suitable**
- **Email address (preferably a class teacher)**



Look for the Generation Science Glow group in your My Glow groups and add it to your favourites. Get teachers' notes and web-links, give us feedback and post examples of any work you've been doing with your class that's related to our shows.



The shows and workshops complement the school's science curriculum by reinforcing class-work, and providing pupils with first-hand experiences of innovative and exciting science activities, as well as allowing them to use equipment, resources and expertise that are not normally available in schools."

PROFESSOR JACK JACKSON
HM INSPECTORATE
OF EDUCATION

WHO WE ARE

Generation Science is the Edinburgh International Science Festival's schools touring programme. As an organisation, the Festival's mission is to inspire, encourage and challenge people of all ages and backgrounds to explore and understand the world around them – and to communicate the educational, social and economic benefits of science and technology.

The next Edinburgh International Science Festival will take place from **9–22 APRIL 2011**. To find out more about what we do, visit our website www.sciencefestival.co.uk
Scottish Charity Registration No: SC003790

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