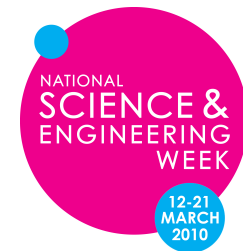


National Science & Engineering Week

12 – 21 March 2010



RESOURCES and WORKSHOPS FOR SCHOOLS

National Science & Engineering Week (NSEW) 2010 is a ten day programme of science, engineering and technology events and activities. Organised by the British Science Association it aims to encourage everyone to get switched on to science. To coincide with International Year of Biodiversity, this year's theme is *Earth* - its amazing phenomena, wildlife, place in the Universe and connections with its people. See www.britishsociety.org/web/NSEW/index.htm for more details.

In partnership with BP, the British Science Association Aberdeen Branch invites you to make NSEW 2010 a real celebration of science - using its challenge, the Air Powered Racer and the 2010 theme of 'EARTH' as a focus. There are workshops, experiments, competitions, talks and a range of online activities for you to discover. See www.britishsociety.org/aberdeen for details of the North East Scotland Programme.

NSEW Schools Week Aberdeen includes:

The NSEW Aberdeen Challenge – the Air Powered Racer

A "Great Egg Race" style activity for your class to design, create and test their very own balloon powered vehicle. Whose will travel the furthest? A *Certificate of Participation* can be sent to your class if you tell us how you get on. Please email your school and class details and the distance travelled to aberdeenbranch@britishscienceassociation.org and we will compile a 'Board of Honour'. Send us your images of the winning vehicle too!

Hands-on workshops

From nursery to S6, thirteen north east organisations have created interactive sessions especially for your pupils during NSEW – investigate electricity, see the stars, explore your school grounds and much, much more! . Most of the workshops can be brought direct to your school free of charge! Please contact each organisation directly to request a visit.

Free resource packs

There are two free resource packs for NSEW 2010, *What On Earth* and *Rockin' Crystals* . These are crammed full of activities and discussions for you to try during NSEW and beyond.

Online activities

There are four online activities for you to share your trivia, thoughts and images of our amazing living world.

Competitions, quizzes and booklists

Research endangered species, win a rooftop garden, do a quiz and read some great science books – there's so much to do during NSEW 2010!

AND don't forget the end of NSEW celebration:

SCIENCE DISCOVERY DAY Saturday March 20

At Aberdeen Maritime Museum and Satrosphere Science Centre. 10am to 4pm. Open to all pupils, their families & friends! Free admission.

Activities for Primary classes

Workshop (Organisation - listed alphabetically)	Age suitability	Available dates and venue	Contact	Details
Earth Movers and Shakers (Aberdeen City Council Countryside Rangers) www.aberdeencity.gov.uk	P1-P7	15 - 19th March Venue: outreach to city schools	Aberdeen City Rangers T: 01224 897400 E: lochinch@aberdeencity.gov.uk	Discover what our native wildlife gets up to above and below the earth with our fun new game. Up to 33 pupils. Duration around 45 minutes. FREE.
The Changing Face of the Earth (Aberdeen Forward Ltd) www.aberdeenforward.co.uk	P1 – P7	15 - 19th March Venue: Free in house workshops at 2 Poynerook Road, Aberdeen, AB11 5RW or outreach to city and shire schools – cost = £30.	Gillian Marr T: 01224 560360 E: cwe@abzforward.plus.com	Pupils will take part in a discussion examining the environmental science behind the changing face of the earth, specifically looking at the impact of pollution and climate change. The pupils will then create collage posters out of reused material from the Creative Waste Exchange. Up to 33 pupils. Maximum 2 hours. FREE in-house or £30 to city and shire schools as outreach.
Earth Matters! (Aberdeenshire Council Ranger Service) www.aberdeenshire.gov.uk	Nursery - P7	15 - 19th March Venue: outreach to shire schools	Banff & Buchan T: 01261813299 E: banffandbuchan.ranger@aberdeenshire.gov.uk Buchan T: 01771 622857 E: buchan.ranger@aberdeenshire.gov.uk Coastal T: 01358 751337 E: coastal.ranger@aberdeenshire.gov.uk Formartine T: 01358 726417 E: formartine.ranger@aberdeenshire.gov.uk Garioch T: 01467 681470 E: garioch.ranger@aberdeenshire.gov.uk Kincardine & Mearns T: 01569 768292 E: kincardineandmearns.ranger@aberdeenshire.gov.uk South Marr T: 013398 85751 E: marr.ranger@aberdeenshire.gov.uk North Marr & West Garioch T: 07768 704671 E: access.ranger@aberdeenshire.gov.uk	An opportunity to explore the rich variety of life on earth, from “ Spring Things” to “ Fossil Fun.” Topics will be tailored to meet the requirements of the group. Activity sessions and presentations can be carried out at a range of suitable sites or in the classroom. Up to 33 pupils. Please discuss requirements with your area ranger. FREE.

What on Earth? (Buchan Countryside Group) www.bcggroup.freereserve.co.uk	P1 – P7	16 – 19th March, other dates available out with main week. Venue: outreach to city and shire schools	Kath Hamper T: 01771 637394 E: admin@bcgroup.freereserve.co.uk	A wide variety of environmental topics available, please contact to discuss! Up to 33 pupils. Duration around 45 minutes, but can be flexible. FREE.
A Convenient Truth? (Forestry Commission) www.forestry.gov.uk/scotland	P4 – P7	15 - 19th March Venue: outreach to city and shire schools	Liz Wallace T: 01224 441662	An active workshop to find out why trees could be part of the answer to climate change. Up to 33 pupils. Duration around 45 minutes. FREE.
It's not Rocket Science! (K'NEXT Generation) www.knextgeneration.co.uk	P4 – P7	15 – 19th March Venue: outreach to city and shire schools	Ann Larkham T: 01779 813097 E: info@knextgeneration.co.uk	This workshop introduces forces in relation to space travel. Teams of 3 pupils will design and build a rocket-powered K'NEX vehicle, demonstrate their vehicle, explain any problems they encountered, how they were solved and then review and improve their design. Up to 33 pupils. 90 Minutes. FREE.
Earth - whose home is it anyway? (RSPB) www.rspb.org.uk	P1 – P7	15 – 19th March Venue: outreach to city and shire schools	Nicola Fowlie E: nicola.fowlie@rspb.org.uk	An interactive session in your schools grounds looking for plants, animals, birds and insects - how did they get there and why do they stay! Up to 33 pupils. Up to 60 minutes. Cost - £1 per child.
World in Motion (Satrosphere Science Centre) www.satrosphere.net	P1 – P7	15 – 19th March Venue: Satrosphere Science Centre, Aberdeen	Dr Gemma Catton T: 01224 640340 E: gemma.catton@satrosphere.net	This interactive show looks at the history and background of animation and complements the Animated Adventures exhibition featuring Wallace and Gromit. 30 minute show plus 1-2 hours exhibition time. Free entry for school groups thanks to funding from Shell. Travel subsidy thanks to funding from the Scottish Government.

<p>Where in the World (SCARF (Save Cash & Reduce Fuel)) www.scarf.org.uk</p>	<p>P5 – P7</p>	<p>16th, 17th and 18th March</p> <p>Venue: outreach to city and shire schools</p>	<p>Julia Dunkerley T: 01224213005 E: jdunkerley@scarf.org.uk or Abbie Cumming T: 01224213005 E: acumming@scarf.org.uk</p>	<p>An interactive floor game using a map of the world to investigate climate change – what has happened and where in the world has it happened. Children place flags on the map on the country to answer the question to complete the game. Up to 10 pupils play at a time. FREE.</p>
<p>Electricity (Shell Education Service)</p>	<p>P1 – P3</p>	<p>15 – 19th March, other dates may be available by request</p> <p>Venue: outreach to city and shire schools</p>	<p>Liz Robertson T: 013397 41040 E: e.m.robertson@tesco.net</p>	<p>A series of fun investigations that cover aspects of electrical circuits and conductivity. Up to 33 pupils (additional adult help may be required depending on class size). Hall or large classroom required. 75 minutes. FREE.</p>
<p>More Electricity (Shell Education Service)</p>	<p>P4 – P7</p>	<p>15 – 19th March, other dates may be available by request</p> <p>Venue: outreach to city and shire schools</p>	<p>Liz Robertson T: 013397 41040 E: e.m.robertson@tesco.net</p>	<p>An opportunity for children to investigate different electrical circuits using Solar Cells in lieu of batteries. Up to 33 pupils. Classroom and outdoors (weather permitting) – lamps used in bad weather. 75 minutes. FREE.</p>
<p>NOVA – knowledge & investigation in astronomy (Shell Education Service)</p>	<p>P4 – P7</p>	<p>15 – 19th March, other dates may be available by request</p> <p>Venue: outreach to city and shire schools</p>	<p>Liz Robertson T: 013397 41040 E: e.m.robertson@tesco.net</p>	<p>A series of simple investigations exploring the solar system, stars and planets. Up to 33 pupils (additional adult help may be required depending on class size). Hall or large classroom required. 90 minutes. FREE.</p>

<p>The Primary Engineering Challenge (TechFest-Setpoint) www.techfestsetpoint.org.uk</p>	<p>P7</p>	<p>16th March</p> <p>Venue: Elphinstone Hall, University of Aberdeen</p>	<p>Val Casely E: techfestsetpoint@adn.ac.uk</p>	<p>The Primary Engineering Challenge, organised by TechFest-SetPoint and sponsored by KCADEUTAG, takes place on Tuesday 16 March at Elphinstone Hall, University of Aberdeen. 24 teams from primary schools in Aberdeen City and Aberdeenshire will take part. This year's challenge is open to P7 pupils and focuses on energy transfer and movement.</p>
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Activities for Secondary classes

<p>Earth: Our place among the stars (Aberdeen College) www.abcol.ac.uk</p>	<p>S1-S6</p>	<p>Tuesday 16th Thursday 18th 10-12 am or 1 to 3 pm</p> <p>Venue: The Planetarium, Aberdeen College, Gallowgate Centre, Aberdeen</p>	<p>Dr Douglas Fraser Curriculum Leader – Science Aberdeen College T: 01224 612190 E: douglas.fraser@abcol.ac.uk</p>	<p>An enthralling presentation in the Aberdeen College Planetarium, the only permanent planetarium in NE Scotland, will give fascinating insights into Earth's place among the stars. The presentation can also be combined with stimulating laboratory activities.</p> <p>Only suitable for persons comfortable with very low light conditions. All groups must be accompanied by a member of school staff</p> <p>Up to 40 pupils per session. 1 hour for planetarium only, 2 hours for planetarium/laboratory. FREE.</p>
<p>Make a DNA pendant (Aberdeen College) www.abcol.ac.uk</p>	<p>S3-S6</p>	<p>Wednesday 17th Thursday 18th 10-12 am or 1 to 3 pm</p> <p>Venue: Aberdeen College, Gallowgate Centre, Aberdeen</p>	<p>Dr Douglas Fraser Curriculum Leader – Science Aberdeen College T: 01224 612190 E: douglas.fraser@abcol.ac.uk</p>	<p>Pupils will use established techniques to extract a sample of their own DNA, which they will place in a pendant to wear and take away. Up to 20 pupils. 2 hours. FREE.</p>

<p>Earth Matters! (Aberdeenshire Council Ranger Service) www.aberdeenshire.gov.uk</p>	<p>S1 – S2</p>	<p>15 - 19th March</p> <p>Venue: outreach to shire schools</p>	<p>Banff & Buchan T: 01261813299 E: banffandbuchan.ranger@aberdeenshire.gov.uk Buchan T: 01771 622857 E: buchan.ranger@aberdeenshire.gov.uk Coastal T: 01358 751337 E: coastal.ranger@aberdeenshire.gov.uk Formartine T: 01358 726417 E: formartine.ranger@aberdeenshire.gov.uk Garioch T: 01467 681470 E: garioch.ranger@aberdeenshire.gov.uk Kincardine & Mearns T: 01569 768292 E: kincardineandmearns.ranger@aberdeenshire.gov.uk South Marr T: 013398 85751 E: marr.ranger@aberdeenshire.gov.uk North Marr & West Garioch T: 07768 704671 E: access.ranger@aberdeenshire.gov.uk</p>	<p>An opportunity to explore the rich variety of life on earth, from “ Spring Things” to “ Fossil Fun.” Topics will be tailored to meet the requirements of the group. Activity sessions and presentations can be carried out at a range of suitable sites or in the classroom. Up to 33 pupils. Please discuss requirements with your area ranger. FREE.</p>
<p>World in Motion (Satrosphere Science Centre) www.satrosphere.net</p>	<p>P1 – S2</p>	<p>15 – 19th March</p> <p>Venue: Satrosphere Science Centre, Aberdeen</p>	<p>Dr Gemma Catton T: 01224 640340 E: gemma.catton@satrosphere.net</p>	<p>This interactive show looks at the history and background of animation and complements the Animated Adventures exhibition featuring Wallace and Gromit. 30 minute show plus 1-2 hours exhibition time. Free entry for school groups thanks to funding from Shell. Travel subsidy thanks to funding from the Scottish Government.</p>
<p>Positive about Science Open Doors Day (College of Life Sciences and Medicine, University of Aberdeen) www.abdn.ac.uk/science/schools/clsm_schools.html</p>	<p>S1 - S2</p>	<p>12th March</p> <p>Venue: College of Life Sciences and Medicine, University of Aberdeen</p>	<p>The University of Aberdeen supports the Scottish Government Positive About Science Campaign. Come for a behind the scenes tour of the University of Aberdeen science departments and meet some real-life scientists. Curiosity, participation and questions compulsory!</p> <p>Contact Melanie McCann for more details, E: m.mccann@abdn.ac.uk</p> <p>Contact Marie Labus for more details, E: m.labus@abdn.ac.uk</p>	<p>Aberdeen Sports Village Visit Aberdeen’s centre for sporting excellence and let our biomedical scientists take you through a workout of the latest sports science!</p> <p>Clinical Research Facility Taking place during Healthcare Awareness Week and National Health Science and Engineering Week S4 to S6 pupils and the public are invited to our Open Day to learn more about health and medical research. Listen to</p>

				talks, take part in a Question Time event and experience interactive displays – all with clinical research experts on hand to answer your most challenging questions!
			Contact Melanie McCann for more details, E: m.mccann@abdn.ac.uk	Environmental Science In International Year of Biodiversity explore how biologists within the School of Biological Sciences investigate environmental change and its effects on our living world.
			Contact Liza Young for more details, E: liza.young@abdn.ac.uk	Institute of Medical Sciences From cancer medicine to biomedical imaging, neurobiology and immunology, discover more about the recent advances in molecular and cell biology research by touring one of the university's most impressive facilities.
			Contact Liza Young for more details, E: liza.young@abdn.ac.uk	OceanLab Take a tour of the university's award-winning deep sea research facility at Newburgh, Aberdeenshire and learn how science and engineering work together to solve mysteries from the deep.
			Contact Melanie McCann for more details, E: m.mccann@abdn.ac.uk	Psychology Find out about recent developments in psychology research, tour the labs and if you're feeling brave enough take part in some fun experiments!
			Contact Liza Young for more details, E: liza.young@abdn.ac.uk	Rowett Institute of Nutrition & Health The Human Nutrition Unit investigates the relationship between diet and health in humans. Let staff take you on a tour to find out more about food composition, energy expenditure and lab analysis techniques.
50 Years of Medicine and Medical Sciences (College of Life Sciences and Medicine, University of Aberdeen) www.abdn.ac.uk/science/sch	S5	16 th March Venue: College of Life Sciences and Medicine, University of Aberdeen	Morna Annandale E: morna.annandale@abdn.ac.uk College of Life Sciences and Medicine, University of Aberdeen	A conference for S5 pupils interested in pursuing a career in Medicine or Medical Sciences. Doctors and researchers from the University of Aberdeen's School of Medical Sciences and School of Medicine and Dentistry will discuss the main advances in recent times in their fields of surgery, forensic medicine,

ools/clsm_schools.html				diabetes, microbiology and cancer genetics. Presentations, discussion sessions and interactive voting, using the University's state-of-the-art Personal Response System, will allow students to select what they consider to be the most outstanding development.
Big Questions in Life Sciences (College of Life Sciences and Medicine, University of Aberdeen) www.abdn.ac.uk/science/schools/clsm_schools.html	S4	17 th March Venue: College of Life Sciences and Medicine, University of Aberdeen	Morna Annandale E: morna.annandale@abdn.ac.uk College of Life Sciences and Medicine, University of Aberdeen	To celebrate National Science and Engineering Week the College of Life Sciences and Medicine is presenting a 'Big Questions in Life Sciences' event for S4 pupils to ask a panel of experts their questions about life sciences.
Biodiversity Roadshow (University of Aberdeen Natural History Centre) www.abdn.ac.uk/nhc	S1	15 – 19 March Venue: outreach to city schools	Natural History Centre T: 01224 274545 E: nat.hist@abdn.ac.uk	To celebrate the International Year of Biodiversity the Natural History Centre is taking hands-on workshops, talks and films out to S1 groups in Aberdeen City. If you think that you might be interested please contact the centre to discuss. FREE.

Activities to run in school

Free resource packs				
What On Earth (British Science Association) www.britishtscienceassociation.org	P1 – S6	Online resource activity pack	You need to register with NSEW to view and download these two and a further twelve resource packs.	A source of ideas for classes of all ages. Themes include weather, gravity, plants, movement, energy and soil. Activities can be accredited to CREST Star Investigator awards.
Rockin' Crystals (British Science Association)	S1 – S6	Online resource activity pack	Click on the "Sign Up" at http://www.britishtscienceassociation.org/web/NSEW/GetInvolved/ResourcesandActivities/Acti	An engineering-themed activity pack for 11 to 16 year olds to grow, model and investigate the properties of crystals.

www.britishecienceassociation.org			vityPacks.htm to register.	
International Year of Biodiversity	P1 – S6	Online resources	See the official UK site at: http://www.biodiversityislife.net/	2010 is the official International Year of Biodiversity. This website is full of information and ways for you to get involved with biodiversity.
Online activities				
It's a Wonderful World!	P1 – S6	Interactive online discussion	See http://www.britishecienceassociation.org/web/NSEW/WhatsOn/OnlineActivities/index.htm for links to these four projects.	Tell us your amazing <i>Earth</i> trivia and fascinating facts.
News and Views on Biodiversity	P1 – S6	Interactive online discussion		Share your opinions on nature and biodiversity.
Save our Species	P1 – S6	Interactive online discussion	See http://www.britishecienceassociation.org/web/NSEW/WhatsOn/OnlineActivities/index.htm for links to these four projects.	Vote for your favourite 'Star Species' in the online National Science and Engineering Week poll.
What on Earth?	P1 – S6	Interactive online discussion		Rediscover your surroundings and tell us what's in your park or garden...
Competitions, quizzes and booklists				
Endanger Rangers School Competition	P1 – S4	UK-wide poster competition	See http://www.britishecienceassociation.org/web/NSEW/GetInvolved/ResourcesandActivities/SchoolCompetition.htm for more details.	The British Science Association, with support from The Zoological Society of London (ZSL) and WWF-UK, are launching a nationwide poster competition for schools to highlight the plight of some of the world's most endangered species.
Win a green roof for your school	P1 – S6	UK-wide competition	Information at: http://www.britishecienceassociation.org/web/NSEW/GetInvolved/ResourcesandActivities/rooftopgarden.htm .	Win a rooftop garden for your school with the help of your local community!
Quizzes	P1 – S6	Online and paper quizzes for younger and older classes.	More details at: http://www.britishecienceassociation.org/web/NSEW/GetInvolved/ResourcesandActivities/Quizzes/Quiz2010.htm .	Two online and paper multiple choice quizzes with <i>Earth</i> related questions.

Booklist	Nursery – S6	Online resource	List is at: http://www.britishtscienceassociation.org/web/NSEW/GetInvolved/ResourcesandActivities/nsewbooklist.htm .	A collection of books for nursery to S6 to read during NSEW 2010 and beyond!
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Mandy Tulloch

British Science Association Aberdeen Branch Secretary

E: mandy@mandytulloch.co.uk

M: 07929 465680

5 February 2010