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# Dundee Science Centre

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A public  
engagement and  
science learning  
resource for our  
community

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2009-2010  
annual report

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## **Our vision**

A culture of curiosity, confidence and engagement with science for the Tayside community.

## **Our mission**

Dundee Science Centre's mission is to be a community resource, which:

- provides a high quality, inspiring social venue for learning for the whole community
- contributes to the development of a culture of engagement with science, and promotes science as an aspect of local culture
- engages the wider community with Dundee's science research community, raising local pride in local discovery
- raises the profile of Dundee as a city of science and scientific discovery
- supports the formal 3-18 curriculum
- is an efficient, responsible and trusted organisation

## **Our values**

- we aim to inspire learners, and we act as learners ourselves, in everything we do
- we aim to inspire excitement about science and learning, and we are excited about our work
- we act ethically and as responsible citizens
- we are proud of Dundee and our region's discoveries
- we aim to be a trusted resource for the community

As a team, we commit to this mission and values, and aim to raise the profile of Dundee Science Centre for our work, both locally and internationally, and of Dundee as a city of many discoveries.

## **Introduction**

2010 marks the tenth anniversary and maturity of Dundee Science Centre, enjoying a rich series of programmes for lifelong learners across Dundee and Tayside. This report outlines the work of Dundee Science Centre in its tenth year.

Over the last ten years, Dundee Science Centre has matured, expanded and 'grown up' into a community learning resource, inspired by the examples of the world's best science centres, and responding to the needs of local people.

Dundee Science Centre's mission, which has also grown and matured, now encompasses a very broad remit to be a resource for the community, supporting learning – and learning together – for families, children, adults, students, and teaching and science professionals.

Inspected by HMIE, and operating as responsible and reflective practitioners, Dundee Science Centre's team delivers the many programmes and activities with quality, efficiency and effectiveness.

This report addresses Dundee Science Centre's work in 2009-10, under the headings of each of the six elements of our broad and ambitious mission.

## **Our team**

Dundee Science Centre's achievements and aspirations are the results of the combined effort and shared vision of its team.

Our team comprises professionals from the diverse fields of science, science communication, event management, administration, retail, catering, exhibit management, tourism and education, together creating a vast resource of expertise and experience.

Our values are manifested in our team management systems and procedures, aiming to be a true 'learning organisation' which values continuing professional development of all colleagues. A very significant number within our team have been with the organisation for many years, and as the centre celebrates its tenth anniversary, three senior team members also celebrate ten years of service.

As a learning organisation we also celebrate the achievements of those who progress to new challenges, and recent 'graduates' of our part-time employment programmes have taken their science centre experiences with them to as they move on to further – undergraduate and PhD – study and teacher training.

This report documents the efforts and achievements of the highly capable yet ambitious team of Dundee Science Centre.

## **Dundee Science Centre: providing a high quality, inspiring social venue for learning for the whole community**

To be a true community resource, we need to attract learners and visitors with a rich series of changing experiences, widen access through focused programming for our many audiences, and offer a welcoming and comfortable space to meet and learn.

### *Reimagining Dundee Science Centre for different audiences*

- In September 2009, we launched **Reclaim**: a chance for adults to reclaim the science centre from the kids – a monthly evening event with all the usual inspiring and enjoyable activities, but just for grown-ups
- **Night at the Science Centre**, our first sleepover events, provided children's groups with a new and exciting way to enjoy Dundee Science Centre
- We launched **Early Explorers**, special visit days just for 3-5 year olds

### *A dynamic venue, offering inspiring and regularly changing experiences*

- In 2009-10, Dundee Science Centre has hosted a series of exhibitions – **Animated Adventures** featuring Wallace and Gromit; **Inside DNA**, exploring healthcare genomics; and **One Small Step**, a celebration of Man's missions into space
- Science shows and hands-on workshops have changed throughout the year, providing experiences including: **The Science of Taekwon Do**; **Ever Wondered Why?**, the science questions you always wanted to ask; **Genes in a Bottle**, a chance to extract your own DNA; and our annual festive family science workshops

### *Widening access*

- In 2009-10, we have distributed over £5,000 in **travel subsidies** to enable community groups from deprived and remote areas to visit Dundee Science Centre
- We ran a series of special visits to **enable young carers to visit Dundee Science Centre**, including the opportunity to explore the exhibitions, see science shows and also meet 'real' research scientists and get hands-on with cutting edge science

### *Being a learning venue for new learners*

- We have offered **training and placement experiences for undergraduate and postgraduate students** from the University of St Andrews' Undergraduate Ambassador Scheme and MLitt Museum and Gallery Studies, and from the University of Dundee's MSc Graphic Design
- We delivered team building and science communication training for artists from The McManus art gallery and museum

### *A welcoming and comfortable place to meet*

- Dundee Science Centre's **Infusion coffee shop** has established itself as a meeting place for a number of community groups, has extended its opening hours to enable breakfast meetings and healthy refreshments from 8am, and is proud to retain its **Healthy Living Award**

**Reclaim** was inspired by the adults-only evening held by San Francisco's Exploratorium and California Academy of Sciences, which had gained great success. Reclaim was launched in September 2009, and is now held regularly on the second Wednesday of each month from 7 to 10pm, with special activities that have included scientific speed-dating, a cocktail-making workshop, the 'science of chocolate' and the Mindball World Cup.



This programme has gained a loyal and regular audience and attracted many new visitors, excited by the 'Reclaim' concept. Reclaim transforms Dundee Science Centre into a stylish, grown-up space for socialising amongst science.

**Early Explorers** has gained many sold-out days, and a number of regular 'little scientists' who return to us each month, eager to tell us about their science activities back at home.

Early Explorers dedicates our centre to our youngest visitors, providing a secure and inspiring, immersive science learning environment with special activities for this age group.



## **Dundee Science Centre: contributing to the development of a culture of engagement with science, and promoting science as an aspect of local culture**

We want science to be recognised as part of culture, and science experiences such as offered by Dundee Science Centre to be indulged in as a social leisure activity alongside cinema, theatre, music and heritage. In 2009-10, we have combined science with arts, and celebrated science through community cultural festival activities.

### *Combining disciplines: science and art*

- In February 2010, we worked with The Wellcome Trust to be part of the nationwide Identity Project, delivering Dundee's **Identity season**, exploring issues of psychology and genetic identity through film, and Q&A with film-makers
- Two **SciScreen** events have been delivered in conjunction with Dundee Contemporary Arts and the British Science Association: a combination of feature-length film plus talk and Q&A with a scientist
- Our special **Curiosity and Creativity** event engaged children and families with science through art and writing

### *Celebrating science through festivals and international events*

- In celebration of **International Year of Astronomy 2009**, Dundee Science Centre delivered an astronomy lecture series, 'City under the Stars': featuring speakers from across Scotland, the series attracted a new audience, many of whom continue to visit Dundee Science Centre's other programmes
- We celebrated the **Hubble space telescope's twentieth anniversary**, and are proud to display a special edition anniversary image from the HST
- Environmental Question Time at Dundee Science Centre was our contribution to **WestFest**, the community festival of Dundee's west end
- Celebrating **International Year of Biodiversity 2010**, we worked with Tayside Biodiversity Partnership and the BBC to deliver science and nature photography events
- Dundee Science Centre was a central venue in Dundee's first **Winter Light Night**, attracting over 3,000 visitors during this festive community celebration
- Dundee Science Centre is a steering group member in **Fife Science Festival**, delivering science activities throughout Fife during Fife's year of culture, 2010

### *Reaching further*

- Our **community outreach programme** has reached further than ever in our past, engaging over 12,000 people through 'Science on the Spot' and 'Science in a Sporan' activities in venues including Morrison's supermarket in Dundee, Leuchars Airshow, Dundee's Food and Flower Festival, Race for Life, and the Scone Palace 10k run
- We have delivered four well-received science training sessions for community workers, **enabling others to engage children in hands-on science**
- The **Saturday Science series at The Shore** was extended to a 12 week programme in 2009-10, seeing further success in **engaging teenagers**, with many repeat visits to our drop-in science activities

## **Dundee Science Centre: engaging the wider community with Dundee's science research community, raising local pride in local discovery**

Dundee is a city of scientific innovation and discovery, and we want to enable local people to discover the cutting edge science taking place here. Science is creative and dynamic, and we want to reflect this in our programming at Dundee Science Centre. We have also worked widely with universities and research institutes to enable research scientists to carry out science communication themselves.

### *Bringing together the public and cutting edge science*

- Our **Science in the City** meet-the-scientist events have brought together our learners with local scientists, through inspiring hands-on activities
- We worked with microbiologists from the University of Dundee to deliver **Magnificent Microbes**: engaging microbiology activities delivered by local research scientists
- We continue to work with partner organisations to deliver Café Science Dundee and Café Science Extra. **Café Science Extra** gives the public the opportunity to hear about science from a local scientist, over coffee in Infusion coffee shop, and now regularly see capacity audiences
- The **Inside DNA** exhibition engaged our visitors with science and social issues at the cutting edge of healthcare genomics
- To enhance the One Small Step exhibition with local space science, we have installed **Down to Earth**, a permanent exhibit showcasing the work of the University of Dundee satellite receiving station

### *Helping to embed a culture of public engagement in higher education and research*

- In 2009-10, 56 research scientists from the University of Dundee, University of St Andrews and Abertay University have attended **Create and Inspire**, our science communication training programme

**Create and Inspire** is a three-month public engagement professional development experience for research scientists. Beginning with a training day which seeks to share DSC's ethos and methods with scientists, and culminating in delivering hands-on activities to the public at **Science in the City** events, Create and Inspire has successfully raised researchers' confidence in engaging with the public.

Create and Inspire helps universities and research institutes to advance their public engagement profile, supporting local and national science engagement priorities.



## Dundee Science Centre: raising the profile of Dundee as a city of science and scientific discovery

We want to raise the profile of the city, amongst its citizens, nationally, and globally, as a city of scientific discovery.

Our **Homecoming** celebrations focused on Dundee as a city of science, with a wide-reaching communications campaign in late 2009.



**sensation**  
The 100% Science Festival **DUNDEE**

**Dundee - at the heart of scientific discovery**  
Discover local science at your local science centre

be inspired at [www.sensation.org.uk](http://www.sensation.org.uk)

Homecoming Scotland 2009  
The Scottish Government

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Image: METAL BY SCIENCE/SHUTTER



DSC launched the **Dundee Science Festival Partnership**, bringing together a wide group of partners to deliver Dundee Science Festival 2010: a wide-reaching festival of science in Dundee.

## Dundee Science Centre: supporting the formal 3-18 curriculum

Dundee Science Centre supports Curriculum for Excellence and Scotland's new qualifications. In 2009-10 we have worked with pupils, teachers and other professionals to help deliver Scotland's ambitious new curricula.

### *Inspiring experiences*

- The **Early Explorers** programme has enabled early years groups to visit for specially tailored hands-on science activities
- We have continued to deliver the highly successful **Crazy Creatures** cross-curricular science and literacy project in conjunction with author Gill Arbutnott, Dundee City Council and Dundee Literary Festival
- Following the success of Crazy Creatures, we have piloted **Germ Wars**, another science and literacy project, exploring microbiology. Like Crazy Creatures, Germ Wars provides CPD for teachers, hands-on science activities for pupils, an excellent book to read, and a chance to meet the author in person
- Our primary and secondary schools programmes continue to be delivered flexibly throughout the year, providing hands-on and inspiring science experiences for learners
- The secondary schools '**Debate It Out**' programme provides dialogue activities on social and ethical issues in science, for S4-6
- Enhancing the Inside DNA exhibition, we delivered the '**Ins and Outs of DNA**' package: a two-part experience including a visit to Dundee Science Centre plus an outreach visit offering dialogue activities about social issues in genomic research



### *Widening access*

- Our **schools outreach programme** has reached over 3,000 pupils in schools across Scotland
- We have distributed over £12,000 of **travel subsidy** to schools in deprived and remote areas, to enable access to Dundee Science Centre
- Over 9,000 school pupils visited Dundee Science Centre for Curriculum for Excellence-linked activities

### *Enhancing and extending the learning experience*

- To extend the experience and embed our activities are part of cross-curricular projects in and beyond the classroom, we have introduced new **equipment loan boxes** covering the Solar System and Healthy Body Bits
- We have extended our **online content** including extensive materials for discussion and debate activities, and science activity videos
- Dundee Science Centre worked with Learning Teaching Scotland to help produce a short **film on energy efficiency** for pupils, and with Lift Off to create a **science careers DVD resource**

### *The Scottish S6 Science Baccalaureate*

- Dundee Science Centre worked with Abertay University to supervise S6 students during their **Baccalaureate interdisciplinary project**, and has delivered **science communication training** to the new 2010 intake of students to support basic skill training

### *Working with teachers: Confidence, Progression, Discovery*

- In April 2010, we welcomed to our team **two Teachers in Residence** who are working on the development of further Curriculum for Excellence cross-curricular resources
- Our **CPD programme** has delivered training based on our curriculum-linked activities, and loan boxes, to help teachers embed science centre learning to their classroom strategies
- We developed and delivered a new course for both primary and secondary teachers – **Facilitating Topical Discussion in the Classroom** – to enable teachers to integrate dialogue into their teaching, to support the development of responsible citizens
- We have continued a close relationship with the **Association of Science Education Tayside**, delivering activities to primary and trainee teachers



## **Dundee Science Centre: an efficient, responsible and trusted organisation**

As a community resource supporting local and national government, and providing programmes for local lifelong learners, Dundee Science Centre operates as an efficient investment for our supporters, and a responsible resource for our community.

- We are inspected by **Her Majesty's Inspectorate for Education**, ensuring a high quality learning programme
- Funds raised via the **Gift Aid** scheme are ring-fenced and used solely for science learning and outreach projects to reach new learners
- Infusion coffee shop is proud to hold the **Healthy Living Award**, and to be a registered **FairTrade** supplier
- DSC is an **Investor in People**, carefully supporting our own staff as learners, and using management methods which enhance learning in the workplace
- In 2009, Dundee Science Centre was nominated for two Association of Scottish Visitor Attraction awards
- Dundee Science Centre's gift shop and Infusion coffee shop hold **ethical buying policies**, seeking to reduce waste and purchase responsibly
- We are a **VisitScotland** four star visitor attraction
- Dundee Science Centre continues to support **Satrosphere science centre**, Aberdeen, helping Satrosphere to achieve high standards as a learning and community venue

## **2010 and beyond**

Dundee Science Centre will enter its eleventh year as a mature community learning resource, looking to innovate and further expand.

In late 2010, we will launch **Dundee Science Centre Science Learning Institute**, an interdisciplinary hub for professional development in science communication, bringing together science communicators, teachers, scientists and museum educators.

1<sup>st</sup>-14<sup>th</sup> November 2010 will see **Dundee Science Festival**, the city's first two-week celebration of science, featuring a wide range of programmes for the community.

We will work with Dundee's community centres to deliver Play DECIDE, promoting linkage across the city to enable **social and ethical discussions about science**, as part of the European FUNDS project.

We will reach over 30,000 secondary school pupils across Tayside through a new outreach programme promoting local scientific discovery, science careers, and topical discussion.

## Partners and supporters

We work together with colleagues from science, education, local and national government in order to achieve our shared aims. We are proud and grateful to have worked with the following partners and initiatives during 2009-10.

### The Scottish Government

Abertay University	Learning Teaching Scotland
Adam Smith College	Lift Off
Albyn Primary School, Aberdeen	Mathew Trust
Association of Science and Discovery Centres	The McManus: art gallery and museum
Association for Science Education Scotland	Mills Observatory
Association for Science Education Tayside	Morrison's, Dundee
At-Bristol	Our Dynamic Earth
Balcurvie Primary School, Fife	Outreach and Public Engagement Network, North East
BBC	Sanger Institute
British Science Association Tayside	Satrosphere Science Centre
Carnegie College	The SAW Trust
Chambers coffee house	Scottish Crop Research Institute
Cleington Primary School, Dundee	Scottish Enterprise
Dundee City Council	Scottish Schools Equipment Research Centre
Dundee Contemporary Arts	Shetland Science Festival
Dundee Literary Festival	The Shore
Dundee Science Festival Partnership	Tayside Biodiversity Partnership
Fife Council	Techfest-Setpoint
Fintry Primary School, Dundee	University of Dundee
Gill Arbuthnott	University of St Andrews
Glasgow Science Centre	University of Stirling
Goldsmiths University of London	Wellcome Trust
Gowriehill Primary School, Dundee	WestFest
Hayshead & Inverkeilor Primary Schools, Angus	Wider Health Access Network
Her Majesty's Inspectorate of Education	Z&R Taekwon-do Institute
International Year of Astronomy	
International Year of Biodiversity	
Ladyloan Primary School, Angus	

We are also grateful to the many scientists, artists and other professionals who have contributed to our programmes over the last year.

Dundee Science Centre is a registered Scottish charity: charity no. SCO33272.

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