



Two Years On: Reporting on the Impact of the

Discovery Centre

at The Royal Latin School, Buckingham



1800

Lessons taught

3000

visitors

Science fairs
delivered to

1000

Year 5 pupils

1100

Community
lecture
attendees

A Message from David Hudson, Headteacher

Dear Friend

'I love the Science building! It's like walking into a whole new world . . . 'Ben, Year 7

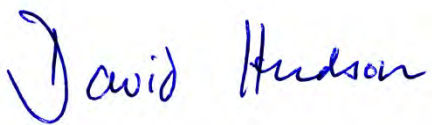
I know just how Ben feels! Two years on, I still have to pinch myself every time I set foot in the Discovery Centre. The novelty of such a wonderful facility has not worn off and I know that our staff and students are only benefitting from such a wonderful resource as a result of so many supporters, like you, who have worked so hard to make it a reality.

For my science colleagues, teaching in the building is a joy. As you'll read in this report, the modern facilities are enabling lessons to be much more engaging and innovative, and being based in laboratories for all lessons allows both continuity and spontaneity of teaching.

Naturally, this leads to a greatly improved learning experience for students, and our young people have embraced the opportunity to learn in the Discovery Centre gratefully and enthusiastically. Simple things, like the increased visibility into laboratories through the internal glass walls, have given younger students the opportunity to catch glimpses of what science holds for them further up the school, which fuels their passion for the subject further.

Just as we hoped, it has become a place of wonder and expectation, inspiration and sharing, as well as of quiet independent study, reflection and ambition. All in all, this is a remarkable building, which is giving to us all in ways we could not possibly have foreseen. We are truly excited about the future for the Discovery Centre and all who will experience it.

Thank you, most sincerely, for being part of the Discovery Centre story. We look forward to welcoming you through the doors very soon.



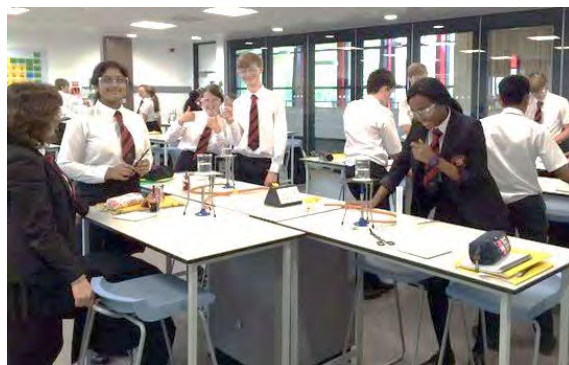
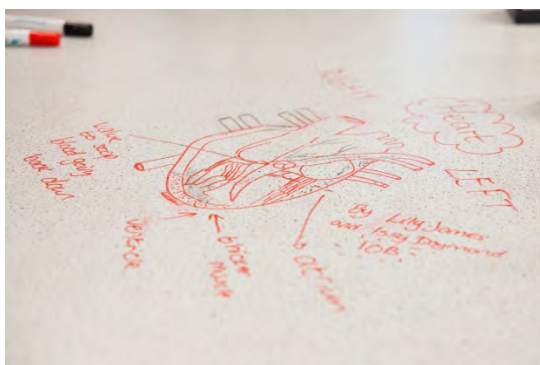
David Hudson
Headteacher



Discovery Centre Impact on Teaching and Learning

Teaching in the Discovery Centre has been a huge change for the science department, and has made a whole variety of exciting things possible. The new facilities and equipment have given students and teachers so many more opportunities to innovate and extend learning:

- The new, spacious labs with large tables are excellent for carrying out practical work
- Being able to teach all science lessons in a lab environment has greatly increased the number of practicals being carried out with all year groups
- The first floor breakout space is being used for quiet study and ghost lessons, and for A2 students doing independent study of their optional topic. It has also been used for practical work requiring a large, open area
- Projecting onto the white walls has made them truly interactive and allows entire classes to work together on one wall, as well as annotation of exam papers, images and diagrams



Practical Work

New A-level & GCSE syllabi require more practical work covering a wide range of skills. New facilities and equipment enable students to carry out these investigations in preparation for their written exams.

There have been 3,271 practical requests to the Discovery Centre technicians so far this year!

Student Perspectives

'The excellent new facilities and lab equipment enable us to do experiments that may not have been viable before. We have found this to be particularly helpful when doing practical tasks in A-level lessons for the practical endorsement, but it also allows the younger years access to carry out more advanced experiments in a safe environment. It has created a clean, bright learning environment that is pleasant to study in.'

The whiteboard paint on the walls provides a great opportunity for working on a larger scale in an engaging format. The table layout in the biology and chemistry classrooms (the arrangement into 'pods') gives a greater capacity for collaboration and discussion in smaller study groups. We have found this to be very inclusive and a refreshing change from a traditional row format.

The upstairs study area provides a quiet study space that many students find valuable, particularly sixth form students in their study periods and is an alternative to the library for students to work independently.'

Year 12 Science Captain



'Entering our first lesson of the day, we see that an entire wall of the classroom is taken up with a detailed diagram of a cell's ultrastructure, and the new water baths are bubbling at the side of the room – an indication of the dynamic lesson to come!'

'Students were very excited about the upgrade in equipment which has been shown by the huge increase in key stage 3 and 4 pupils getting involved in extracurricular activities, it has also had a large impact on our personal enthusiasm encouraging both of us to go on to study physics at university.'



'By turning the pod-shaped tables into a selection of cells as well as having the whole class drawing diagrams on the walls, we have enjoyed some really unique and memorable lessons!'

Lillingstone Lecture Programme

Thanks to the ongoing support from The Lillingstone Trust, more than 1,000 people from the school and local community have so far attended free science lectures in the Discovery Centre. Lecture attendees – from primary school pupils to grandparents – have enjoyed engaging lectures on a wide range of subjects:

‘Humanity: On the Edge’ by Professor Robert Winston, University College London

‘Living with Dementia - Cause and Effect’ by Dr Kevin Moffatt, Dept of Life Sciences, University of Warwick

‘Psychology of Hypnosis’ by Dr Martin Taylor

‘Biofuels the green alternative?’ by Dr David Read, Dept of Chemistry, University of Southampton

‘Creative Science’ by Dr Jonathan Hare, Sussex University

‘Invasive Aliens’ by Dr Keith Jones, formerly Lancaster University

‘How to Blow Things Up and Other Interesting Experiments’ by Chris George

‘Responding to the Challenge of Neurodegeneration’, by Dr Patrick Lewis, University of Reading

The Higgs Boson Particle and My Work at CERN by Professor Bill Murray, Warwick University

‘Know Your Enemy: What is Cancer, and How Does That Help us Fight It?’

Dr Martin Christlieb, Dept of Oncology at the University of Oxford

‘Obesity and the Sugar Tax’ by Steve Woods, University of Northampton

‘Artificial Intelligence: Fact and Fiction’, by Sir Nigel Shadbolt, Jesus Collge, University of Oxford

‘The Perils of Landing on Mars’ by Dr Stephen Lewis, Dept of Physical Sciences, Open University

‘Our Atmosphere - Chemistry Does Matter’, by Professor Dwayne Heard, University of Leeds



‘Wednesday night’s Lillingstone Trust community lecture was terrific – full house, with very intelligent questions from the audience including many sixth formers. Attracting new faces also – and a wide age range. You should feel very proud.’

An RLS Parent and Lecture Attendee

Guides, Brownies, Rainbows & Cubs

We've hosted a range of sessions for the above local groups, who get to experience hands-on science experiments across a two hour session. The sessions are set up so that each child who attends achieves their respective Science badge.



'Thank you for a fantastic evening. The girls had a brilliant time. It was a wonderful way to introduce them to the wonders of science. My 10 year-old has been full of questions ever since. Many thanks for a wonderful opportunity.'

Brownie Parent

Fire Fighters

Following an approach by Buckingham Fire Station to help firefighters study for the IFE (Institute of Fire Engineering) Fire Science examination, the school was able to put together a programme of teaching sessions for a group of 15 firefighters.

'Supporting the fire service in learning some of the more complex physics of their technical qualifications is proving to be a very interesting community venture. We have applied concepts such as projectile motion and fluid dynamics to real-life scenarios. It has been a real pleasure to feel that we are making a difference.'

RLS Physics Teacher David Gregory



University of the 3rd Age

The U3A Science and Technology Group have been using the Discovery Centre for their meetings each month, with more than 360 attending overall. Talks are given by their own members, members of the RLS Oxbridge group have joined the U3A members for a joint session. The RLS sixth formers presented their areas of interest to the group and then faced the questions from the U3A members, which was greatly enjoyed by all.



'That was the best presentation I have ever been to - and I have been attending talks for over 30 years!'

U3A Science Group Member

Primary School Outreach Programme

More than 1,000 Year 5 students have visited the Discovery to participate in our primary school science outreach scheme. The young students get to experience hands-on Science in the Lillingstone Trust Community Laboratory and neighbouring breakout and physics laboratories, ably supported by enthusiastic Royal Latin students and staff. It is the first time that the primary school children have been in a laboratory environment, and will certainly help to inspire and prepare them for secondary school science.



The Discovery Centre has proved to be a big hit with them, and thanks to the ongoing support of The Lillingstone Trust, we will continue to carry out our outreach activities with both Year 5, and with Year 2 students in their own schools.

Visitors

The Discovery Centre has been visited by thousands of people already, from prospective students and parents, to other schools, local businesses and supporters and of course our own alumni, who come from all over the world for private visits or reunions, and to share their life and work experiences with students.

Everyone at our historic school and in our wider community has taken this remarkable building into their hearts. It has become a natural meeting place, venue and backdrop to so much of school life.



Thank you for being pt of the Discovery Centre story . . . come and visit us soon!

The Discovery Centre: Building the Future Together.

‘The Discovery Centre is a magnificent building. It is certainly not just an ordinary science block – I’ve not seen anything else like it in the UK. The fact that it will benefit not only the students at the Royal Latin School but also those at other schools and the wider community is truly commendable.’

Professor Robert Winston



Cover photos: GSS Architecture/Fotohaus



Photo: Sally Elvin Photography

For all enquiries about The Discovery Centre or about 600 Campaign capital projects for Sport and the Arts, please contact:

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