

School Prospectus 2013

East London Science School



KEY FACTS

11–18 secondary school
120 pupil entry in Year 7
Girls and boys
All backgrounds and abilities
Located in the heart of East London
Academic school specialising in science

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CONTACT DETAILS

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COMPANY INFORMATION

East London Science School Trust Company Number: 7962059 © 2012 East London Science School Trust

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PRINCIPAL, DAVID PERKS

WELCOME

DEAR PARENTS AND GUARDIANS,

WELCOME TO THE EAST LONDON SCIENCE SCHOOL, A DYNAMIC NEW SECONDARY school in East London which will open its doors to 120 year seven boys and girls of all backgrounds and abilities in September 2013.

As Principal of the East London Science School, I am passionate about giving the children of East London an education which will equip them to excel in the competitive and increasingly globalised world we live in today. I want to instil a love of learning and a burning desire for success in every pupil.

What makes the East London Science School different from other London state schools is a commitment to deliver a high quality academic education to all our pupils regardless of background or ability. We aim to give all our pupils a solid foundation of knowledge which they can draw upon for the rest of their lives.

The East London Science School is offering a genuinely new choice of schooling for you and your child. I want to create happy, confident, educated and successful pupils, who are able to pursue their dreams on the world stage.

David Perks, Principal Fast London Science School



the scientific method. Laboratory work will be given a privileged place in our curriculum.



OUR VISION

ALL OUR GIRLS AND BOYS WILL RECEIVE AN EXCELLENT ACADEMIC EDUCATION WHICH will rival the best on offer in public schools. We aim to give our pupils the confidence to strive for success in everything they do. We will give our pupils a unique space in which their imaginations are set free and given the chance to flourish.

Our vision is based on six founding principles:

1. ALL children deserve the best education possible.

Education is about more than achieving good grades. Our aim is to show pupils ideas have the power to shape the world we live in. We want to instil a love of learning that lasts a lifetime.

2. A "well educated" pupil must have a good science education.

A science education grounded in the disciplines of mathematics, physics, chemistry and biology is fundamental to knowing how we understand and shape the world we live in.

3. Good teaching is the best way to open a child's mind.

We expect all our teachers to engage our pupils by intellectually challenging them and bringing knowledge of everything from the sciences, arts and languages to life.

4. The best pupils are open to questioning their own thought.

A true measure of a critical thinker is his or her ability to accept criticism. Through knowledge of the beliefs of others our pupils will be encouraged to develop a stronger sense of their own beliefs.

5. Pupils should be encouraged to nurture their talents and develop new skills.

We will foster our pupils' talents in the arts, sports and debate to create a space for all our pupils to thrive. Our technical education will give pupils the knowledge and skills necessary for careers in High-tech industries.

6. We can judge our success by the impact our pupils have on the world.

By understanding that ideas have the power to change the way we think and act, our pupils will be encouraged to take responsibility for shaping their own destiny and the future of others.



My ideal school targets the individual needs of each child

Source: Survey of parents in Newham and Tower Hamlets

OUR CURRICULUM

THE EAST LONDON SCIENCE SCHOOL WILL OFFER A BROAD AND BALANCED CURRICULUM up to 16. We will specialise in the sciences and mathematics so that all our pupils will be taught separate sciences from Year 7 until Year 11 by subject specialists. English will be a priority throughout the pupils' school career as it underpins everything they do. In Year 7 we will offer all our pupils a modern foreign language and classics as well as a range of humanities and arts subjects. Sport will be offered in the form of specialist coaching.

SCIENCE & MATHEMATICS

This is the centre piece faculty of the East London Science School. We will offer **Physics**, **Chemistry** and **Biology** to all pupils along with **Mathematics**. There will be opportunities for pupils to sit **Astronomy** GCSE in collaboration with the Greenwich Observatory, with lessons taking place on Saturdays at the Observatory.

We will promote links with London University colleges as well as University of Oxford and University of Cambridge. We will work with The Physics Factory to promote physics across East London. Pupils will visit the Royal Institution and the Royal Society. We plan on using the experiences of our teachers to organise visits to facilities such as the Diamond Light Source in Oxfordshire and CERN in Geneva. We have already been promised guest lectures from leading scientists.

ENGLISH & LANGUAGES

English will be a priority throughout the school. The start of the day will begin with a reading half hour to instil a love of reading amongst all our pupils. The spoken word will figure highly as we will encourage debate and discussion at every opportunity. Pupils will be expected to develop their presentation skills so that they can communicate effectively to an audience.

Our pupils will have a knowledge of the literary canon from Shakespeare to Dickens and beyond. Poetry will be taught with pupils encouraged to write their own poems.

All pupils will take a modern foreign language in Year 7; either **French**, **German** or **Spanish**. Acquiring a language will give our pupils a big advantage. We will run trips and foreign exchanges to encourage foreign language acquisition.



succeed in all the subjects we offer. Early intervention for pupils in Year 7 who fall behind will be provided outside of lessons to help them catch up.









76% Biology 93% English 92% Mathematics 75% Computer 77% Physics science





HUMANITIES & CLASSICS

All Year 7 pupils will study **History** and **Geography** alongside Religious Education and the Classics. History will teach a chronology of the important historical periods. History will also explore the causes and explanations for great historical changes. From a knowledge of the battles and events of the past we can better understand the present.

Geography is built into the communities that make up East London. We want all our pupils to have a sense of place both locally and internationally.

Our pupils will study the main religious texts. These are critical texts for all our pupils to understand. Classics will allow pupils a way to read and debate ideas from antiquity that still influence our own thoughts today.

TECHNICAL EDUCATION

Our Technical Education centred on **Computer** Science will include Electronics. Microelectronics. Coding and Materials Technology. We will provide opportunities to apply computer technology to 2D and 3D **Computer Graphics** and film special effects and compositing. In all cases the emphasis will be on problem solving in a practical context and making a finished product.

The essence of this is to provide a platform for further study or training. We want give pupils a much improved chance of employment within the High-tech industries around East London from games programming to working in Canary Wharf or the City.

PERFORMING ARTS

Art will focus on developing pupils' artistic skills in Year 7. Pupils will learn both a range of traditional techniques as well as cutting edge computer graphics skills. We will expect all our pupils to have appreciation of Art History.

Music lessons will include reading music and composition in Year 7. There will be plenty of opportunities to learn an instrument. Performance will be central to the music curriculum. There will also be opportunities to use computers in recording, generation and composition alongside more traditional techniques.

Sport will focus on coaching where we have access to high quality facilities. We are keen for pupils to have experience of a wide range of sports from tennis and cricket to swimming and boxing. The emphasis will be on competitive participation where a pupil shows a talent or aptitude.

My ideal school promotes each child individually

ource: Survey of parents in Newham and Tower Hamlets

AN OUTSTANDING SCIENCE EDUCATION FOR ALL

EVERY CHILD DESERVES A SCIENCE EDUCATION THAT GIVES THEM NOT ONLY AN INSIGHT into what we know about the natural world but how scientists have uncovered the mysteries of nature using the experimental method. Science is best taught by specialists who can inspire pupils in each of the scientific disciplines. Lectures from leading scientific figures will play a prominent role in our offer to pupils.

PHYSICS

From the fundamental constituents of matter to the forces that govern the structure of the Universe, Physics addresses some of the biggest questions we can ask about existence. It also gives us the tools to use nature to our advantage from mechanics to nuclear power. Understanding Physics is fundamental to understanding modern technology. Our pupils will be introduced to quantum mechanics which underlies the technological and scientific discoveries of the last century.

BIOLOGY

Advances in Biology underpin the tremendous scientific and philosophical advances made since the nineteenth century. Challenging commonly held misconceptions about stem cells, evolution, genetics and biotechnology can only be done with a firm foundation in the theory and evidence for evolution and genetics. The human genome has been revealed but the potential consequences remain as yet unknown. Biology is at the forefront of our battle with nature to live longer and healthier lives.

CHEMISTRY

From the discoveries of the Renaissance which pointed to the existence of elements to modern drug synthesis, chemistry has been at the heart of our quest to understand and control nature. The magic of reacting two substances together to create something totally new is something every pupil is fascinated by. All our pupils will be given the opportunity to carry out experiments which bring chemistry to life right before their eyes.

Laboratory based experimental science

A key component of our science education is to teach through exposure to a wide variety of experiments and experimental techniques. The only real way to grasp the power of the scientific method is by doing science. We will work with London University science departments to extend our own facilities to give our students both breadth and depth in their laboratory experience.





WHICH QUALITIES SHOULD SCHOOL PROMOTE IN THE CHILD?

85% Politeness 81% Respect 81% Responsibility

81% Confidence 81% Happiness

COMPUTER SCIENCE — TECHNICAL EDU

EVERY CHILD DESERVES A HIGH QUALITY PRACTICAL EDUCATION. OUR TECHNICAL EDUCATION will be centered on computer science and its applications from microelectronics and robotics to coding and film special effects. We want to give all our pupils the chance to develop the skills that allow them to express their creativity using cutting edge technology. This will equip pupils to pursue careers in High-tech industries.

ELECTRONICS

Based on the principles of active devices like transistors and logic gates, we will give all our pupils the chance to make projects that illustrate the applications of electronics within the contexts of audio and control circuits. We want to go beyond the black box approach to technology to give pupils the ability to design and build their own projects. From circuit simulations to PCB manufacturing, pupils will learn to turn their own designs into functioning products.

MICROELECTRONICS GAMES & FILM & ROBOTICS

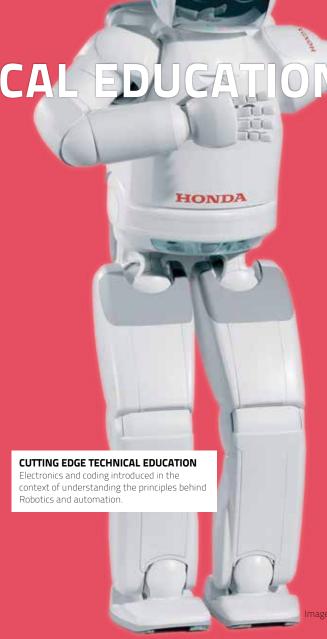
Using RISC microcontrollers, pupils will be introduced to simple computer applications requiring the minimum of components. These computers in a single chip are found everywhere hidden in a multitude of modern domestic appliances. Pupils will be guickly directed how to build and program projects ranging from LED displays to robotics. Pupils will be able to bring their coding skills to use in creating short programs to run control applications.

SPECIAL EFFECTS

From 2D art to 3D modelling, computer graphics are used to bring to life imaginary creations for use in games and films. We will provide all the technology and expertise needed to allow our pupils to produce their own creations in film or game formats. Pupils will only be limited by their imaginations. This will allow a interdisciplinary cross-talk between the arts and computer graphics in both our teaching and pupils work.

Coding for ALL

Every child will leave the East London Science School with a foundation in programming skills. This is central to many careers from the City to Research and Development. From spreadsheets to mobile phone apps, coding is a part of how we work. Instead of leaving pupils to learn to code in their bedrooms, all our pupils will be taught programming and use it throughout their education.





THE SCHOOL DAY

My ideal school will bring the best out of my child

Source: Survey of parents in Newham and Tower Hamlets



MORNING: ACADEMIC

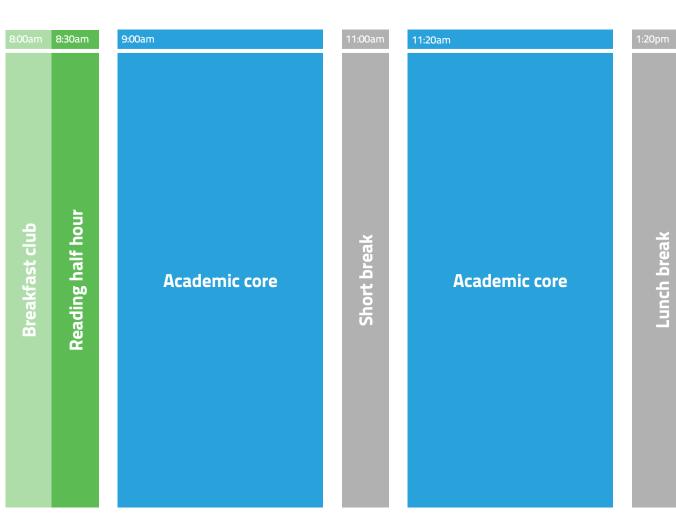
THE MORNING IS THE ACADEMIC HEART of the school day when most of the lessons take place.

The morning starts with school opening at 8:00am for breakfast club for any pupils that need it. A healthy breakfast is a great start to the day.

The formal start of the day is at 8:30am. The Reading Half Hour is based in form groups and gives a calm focused start to the day.

The lessons take place in four one hour slots with a short break at 11:00am.

Lunchtime is the distinctive break in the day and represents the end of the academic work and the beginning of the practical and technical education.





AFTERNOON: PRACTICAL & ENRICHMENT



THE AFTERNOON SESSION IS THE PRACTICAL and technical half of the day.

Trips and activities such as Sport that might require off site transport can begin at lunchtime. The unique structure of our day means we can guarantee the afternoon time can be used for trips without the loss of academic teaching time.

The afternoon session is also an opportunity to deal with any catch up or intervention sessions. In Year 7 this will focus on Mathematics and English.

Our workshop based technical education will take place in the afternoons giving pupils a chance to design and make their own projects. There is no reason why this cannot involve collaborative work across the age range in the school.

Sport will be run by expert coaches and will take place in the afternoon sessions and with the possibility of off-site travel.

www.eastlondonscienceschool.co.uk 🏶



My ideal school inspires kids with the love of knowledge



Source: Survey of parents in Newham and Tower Hamlets

LONDON IS OUR CLASSROOM

THE EAST LONDON SCIENCE SCHOOL WILL GIVE ALL PUPILS THE opportunity to enhance their learning by using state of the art facilities found at various iconic institutions across London. The East London Science School team already has links with leading figures in the sciences and the arts. We will build partnerships across London to provide a unique education for our pupils that makes the most of what London has to offer.



V&A MUSEUI

The V&A houses a unique collection which will provide a rich cultural resource to develop pupils' ideas from Contemporary Art to Technology.



NATURAL HISTORY MUSEUM

The National History Museum and the Science Museum have state of the art facilities as a classroom for our pupils to learn and develop their skills in Science and Mathematics.



LONDON ZOO

The London Zoo has enormous possibilities for the study of biology, ecology and zoology. London Zoo offers opportunities for work experiences which could be invaluable to some of our pupils in deciding on their future career path.



BRITISH MUSEUM

The British Museum is a treasure trove of cultural history from the ancient Greeks to the Pharaohs. Can our pupils discover how to decipher the Rosetta Stone?







IMPERIAL WAR MUSEUM

The Imperial War Museum is an ideal place to learn about the history of conflicts since the First World War to the present day. Our students will be given the opportunity to study History, Science and Art through learning about the causes and consequences of conflicts.



TOWER OF LONDON

Next door to the financial heart of the City, the Tower of London is a fascinating way to experience history from the blood thirsty struggle for power to the amazing weaponry used to wage wars in the past.



ROYAL MUSEUMS GREENWICH

The National Maritime Museum, Royal Observatory, Queen's House and Cutty Sark are a formidable quadruple of institutions whose aims are to inspire and enthuse pupils about the science and history that put Britain at the centre of the world.



OLYMPIC PARK

The Olympic Park has turned into an iconic sports venue after the success of the London Olympics. There is no place more obvious for the training of would be future Olympians.



STRATFORD CIRCUS

Stratford Circus is committed to supporting local schools and our students will be given access to the Centre's facilities to nurture and develop their artistic talents.

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My ideal school is a school where it's about the kids not targets



Source: Survey of parents in Newham and Tower Hamlets

THE SIXTH FORM

OPENING IN SEPTEMBER 2014 IN OUR SECOND YEAR, THE SIXTH FORM WILL PROVIDE OPPORTUNITIES not just for our pupils but for pupils from across East London. Unashamedly academic, the sixth form will specialise in the sciences and mathematics but will offer a range of A-level subjects for a wide range of degree courses at university.

A simple goal for our sixth form is to provide the opportunity for students to go to university to study degrees that will allow them to become the engineers, medics and scientists of the future.

We will achieve this by creating a space where students feel confident to immerse themselves in their studies. Led by inspirational teachers with a passion for their subject, they will be given a range of experiences.

By encouraging a culture of questioning through reasoned debate and discussion we will give our students a unique experience that will give them the confidence to hold their own intellectually.

Studying A-levels is a big jump from GCSEs and no matter what grades pupils had on entry to the sixth form we know they will have to develop a much more disciplined approach to their own studies.

Our staff will work with our students to develop the right habits of learning and study and be prepared to put in extra time where needed to build up students' confidence and skills especially in Year 12.

We will expect our students to act as role models and mentors for our younger pupils. We will also encourage the sixth formers to volunteer in the community and take every opportunity to broaden their experiences, both academic and non-academic.

In return, our staff will work with students on their applications to University with both advice on writing a personal statement and preparation for interviews and supplementary examinations like the BMAT for medics and University of Cambridge Step Papers.

INSPIRING A NEW GENERATION OF SCIENTISTS Shivani Rae visiting her Physics teacher before she set off to read Natural Sciences at University of Cambridge

The subjects offered are recommended by Russell Group Universities to give the widest choice of degrees but with a focus on the sciences and mathematics.



96% Quality of teaching 85% Small class size 77% Technical education

77% Examination results 70% Discipline

Source:

A random survey of parents in Newham and Tower Hamlets carried out by ELSS volunteers.

THE SCHOOL FAMILY

AT THE EAST LONDON SCIENCE SCHOOL WE WANT EVERY CHILD TO REACH THEIR FULL POTENTIAL and grow and develop into the best person they can possibly be. We expect our pupils to expect a lot of themselves, not only academically but also in how they project themselves at school, to their families and the community through their outward appearance and behaviour.

We believe that every pupil has a duty of care to themselves and to their fellow pupils and society.

At the heart of our pastoral system is the mixed-age form tutor group, where all the pupils from 11 to 18 come together in classes at the start of the school day for half an hour of reading time. By creating a space for pupils of different ages to interact with one another in the classroom, we build "form group families" where older pupils become role models for the youngest pupils. By doing this we break down the barriers to mixed age group interaction in school, enabling an atmosphere of respect, friendship and learning from one another to flourish between children of different year groups.

At its core, all East London Science School pupils will be encouraged to have a thirst for knowledge and to use their imagination. We want our pupils to develop a confidence and assurance in their own beliefs by building an understanding and knowledge of the beliefs of others.

Politeness will be the starting point for every conversation. Respect, determination, perseverance and setting demanding goals both academically and in personal development will be prized attributes.

Pupils leaving the East London Science School will have a confident ease with themselves and those around them. They will also be secure in the knowledge that they have built a solid personal, emotional and academic foundation for future success in their chosen endeavours.

We will create a culture accepting of and celebrating learning from day one. Reading books, debating ideas and encouraging questioning will be normal for all our pupils.





My ideal school values working hard to achieve your goals



Source: Survey of parents in Newham and Tower Hamlets

ENRICHMENT CURRICULUM

SOME OF THE MOST IMPORTANT MOMENTS IN A PUPIL'S SCHOOL CARFER HAPPEN outside the classroom. We firmly believe in providing a rich and diverse experience for all our pupils. Drawing on the skills and expertise of our staff we want to broaden the opportunities for our pupils to develop new skills and talents. Central to the East London Science School experience will be the chance to meet and hear from guest speakers such as Professor Brian Foster.

As Head of Experimental Physics at University of Oxford Brian has been a leading light in particle physics in this country for many years. It is by giving our pupils the chance to hear from figures at the top of their fields that we hope to give our academic education a real-world context and inspire pupils to take their subject knowledge to the next level.

Our Principal, David Perks, was the originator of the Institute of Ideas Debating Matters Competition. This arose from his work with sixth formers who wanted an independent space to discuss ideas important to them. The competition is renowned for putting students under pressure to justify their

arguments under criticism from their peers and adult expert judges. Students who participate in the competition invariably gain a huge amount—not least their ability to think critically.

We will work closely with the Debating Matters team to promote the competition across East London offering training to pupils and teachers as well as holding friendly competitions between local schools.

Our Debating Society gives students a space where everyone can be heard as long as they are prepared to hear views that challenge their own.





The whole atmosphere of the debates is electric... These students are undoubtedly the leaders of the future

Nick Hastie, Judge, Director MRC Human Genetics Unit







Georgia Haigh, Caitlin Comins, Alex Dignan, Orla Oakey, Laurence Maples and Aaron Stead. Alex is going to University of Cambridge and Orla is going to University of Oxford.



MARK SMITH, CHAIR OF GOVERNORS

CHAIR OF GOVERNORS

I AM DELIGHTED TO INTRODUCE YOU TO THE EAST LONDON SCIENCE SCHOOL. We are a new secondary school specialising in science opening in September 2013 in the heart of East London. Our core philosophy is to provide students with the best subject specialist teaching and the widest range of opportunities in a safe and supportive environment.

We will demand the very best of our teachers and we will insist on the best behaviour from all our pupils. Our culture of inspirational teaching and a strong work ethic for our pupils will provide the opportunity for every child to reach his or her true potential. We will give every pupil the chance to gain the English Baccalaureate. No pupil will be left behind regardless of ability.

We will always strive to provide the individual support your child needs to develop their self-confidence and intellectual curiosity. We will nurture their talents and develop new skills throughout their time at this school.

Here are a few features that make the East London Science School unique:

- >> Lessons taught by subject specialist teachers.
- » A longer school day starting with breakfast club at 8.00am and ending with clubs from 4:30 to 5:.30pm.
- >> Prep time during the day for all pupils to complete homework before they leave school.
- >> Debating skills and the opportunity to participate in the "Debating Matters" national competition.
- » 'London as our classroom' to take advantage of the unique cultural and scientific facilities London has to offer.

All of this will be led by an outstanding and committed school Principal and his team of dedicated teachers. We look forward to welcoming your child to the East London Science School in the coming year.

Yours Sincerely













OUR TEAM

CHAIRED BY MARK SMITH, OUR GOVERNING BODY IS A GROUP OF enthusiastic supporters committed to providing the best possible education for your child.



James Woudhuysen — Governor

James has been Professor of Forecasting and Innovation, De Montfort University, Leicester, for 18 years. He is a St Paul's School scholar and a Physics graduate.



Tom Ogg — Governor

Tom is a trainee barrister. He taught teenagers who had been expelled from school at the London Boxing Academy, Tottenham. Tom graduated from University of Oxford.



James Groves — Governor

James is studying for a Graduate Diploma in Law. He was Research Director for education policy at Policy Exchange. James has an MA in Modern History from University of Oxford.

We are lucky to have a large Steering Committee of volunteers who are working alongside the governing body to prepare the school for opening in 2013. Special thanks go to Alka Seghal-Cuthbert, Hans Bhurruth, Anita Zarska, Mark Taylor, Sharmini Brookes, Jenny Davey, Sonia Galea, David Clements, Lesley Katon, George Pender and Martyn Perks. If you want to get involved please get in touch via the website.

David Perks debates Oxbridge elitism with Wes Streeting.

David Perks — Principal

David Perks has taught in state schools for 25 years, most recently running one of the largest physics departments in the country in South-West London. Prior to this he taught in North Yorkshire and Newcastle Upon-Tyne.

He has a track record of sending pupils to Oxford and University of Cambridge to study Physics, Natural Sciences and Engineering. This year three of his students were successful in gaining places at Cambridge to study Natural Sciences. He has mentored many students from a wide range of subjects to gain places at University of Oxford. This year David helped a girl from Brixton to gain a place to read Spanish and Italian at Christ Church College, University of Oxford.

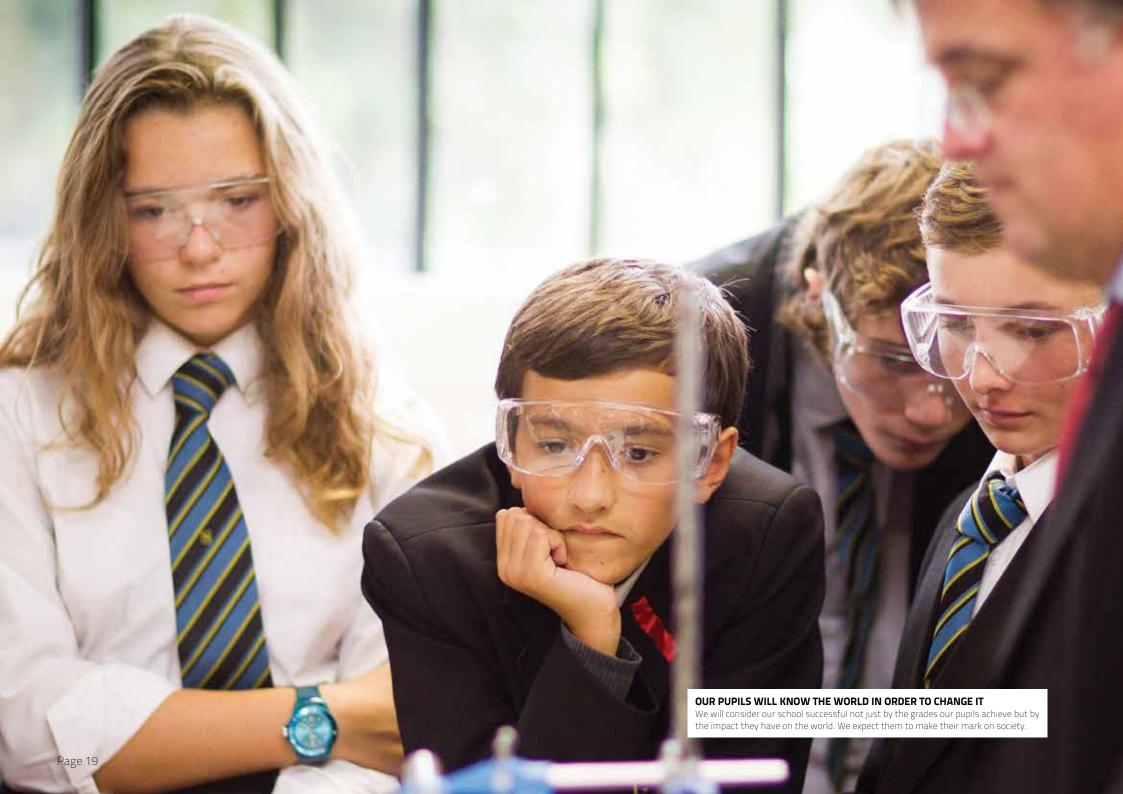
David is a passionate defender of academic science education and is advising the Department for Education on the National Curriculum Review of both Primary and Secondary Science Education. He is a director of The Physics Factory, a national charity established to revitalise physics education in state schools.

David was educated at a comprehensive school in Leicestershire and then graduated from Magdalen College, University of Oxford with a degree in Physics. He lives in East London with his wife and two children.

Principal's A-level results for Physics in 2012:

10 A* & 9 A grades from a total of 63 entries including 3 Cambridge places and 2 students with 100% in their A2.

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HOW TO APPLY

The East London Science School is a mixed, non-selective 11-18 secondary school. The school is open to pupils of all abilities and backgrounds.

You can apply for a place at the East London Science School using the application form on our website

www.eastlondonscienceschool.co.uk.

We recommend you apply as quickly as possible so that we can update you on our progress as we head towards opening day in September 2013.

PLEASE NOTE

Applying to the East London Science School does not stop you applying to a local authority school in the current round of admissions. This dual application process means you do not loose out on a local authority school place by applying to the East London Science School. If you receive an offer from us it is up to you to decide whether to attend us or the local authority school.

Apply for a place online now!

You should complete one form per child.

We will automatically add you to our electronic mailing list and send you regular updates on our progress as we move towards opening in September 2013.

We will also invite you to prospective parents meetings and in the summer you will be invited to attend a meeting with your child to discuss your particular child's needs and give you preparatory information and materials.

www.eastlondonscienceschool.co.uk/register-for-school

Our admissions policy

If you have further questions on admissions please don't hesitate to get in touch.

www.eastlondonscienceschool.co.uk/admissions

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