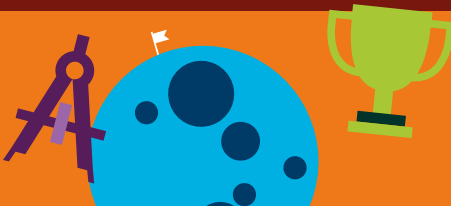




STEM resources and programmes from IET Education



2022-2023

Science, technology,
engineering and maths
for a new generation



Ready to inspire the next generation of engineers?

Discover which IET Education programme is right for you in our resources table – by age group

■	Primary
■	Secondary
■	16+
■	Support
■	Education Partners
■	Accreditation
■	Funding
■	STEM campaigns

Age	4	5	6	7	8	9	10	11	12	13	14	15	16+			
RESOURCES	FIRST® LEGO® League Discover		FIRST® LEGO® League Explore			FIRST® LEGO® League Challenge										
	IET Education: primary resources				IET Education: secondary resources				Post-16 careers information							
	IET Education: Virtual Faraday Challenge					IET Education: Virtual Faraday Challenge				IET Education: Faraday Challenge Days		Choosing the right university course				
	IET Education: DIY Faraday Challenge Days				IET Education: DIY Faraday Challenge Days								Choosing the right apprenticeship			
	IET Education Officers and Ambassadors															
	IET STEM Teacher Membership															
	The Big Bang						Academic Partners						IET Future Talent Awards: Launch Scholarships for students, apprentices and degree apprentices			
	Engineering in Motion								Scouts		IET Future Talent Awards: Boost Scholarships for students and degree apprentices					
	National Saturday Club															
	The Micro:bit Educational Foundation															
	Digital Poverty Alliance															
	Fun Kids Radio						IET Power Academy Scholarships						Arkwright Engineering Scholarships			
	Kids Invent Stuff								IET On Campus				Supporting the launch of T Levels			
	Greenpower							EDT and Industrial Cadets								
	CREST															
	Teaching support and other STEM providers															
	Funding for engineering projects and activities															
	STEM campaigns															

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Sign up for our monthly IET Education Bulletin
theiet.org/education-bulletin

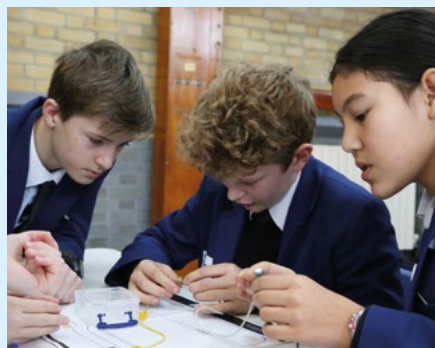
Inspiring the next generation of engineers and technologists

The IET has been inspiring young people from all walks of life for over 150 years, helping them access the amazing career opportunities available to them in engineering and technology.

As engineering and technology advance at a rapid rate and changes the world around us, it has never been more important to inspire young people into STEM (science, technology, engineering and maths).

The IET, along with its partner organisations, provides support to both teachers and students, helping to develop skills which are valuable not just in the engineering sector, but across the global economy.

We offer a wide range of free curriculum-linked resources, initiatives and programmes for schools/teachers, community group leaders and parents who are teaching STEM to young people from the age of 4 through to 19.



Resources include:

- careers information
- grant funding
- support for disadvantaged pupils
- scholarships and training to support the delivery of STEM activities
- initiatives within and outside of the classroom
- curriculum-linked activities



Making education a priority



Providing high-quality STEM education resources, challenges and career information is something that the IET is focused on more than ever.

We have recently launched our new 2030 strategy and I'm delighted to say inspiring and informing young people is at the heart of it, with education now one of only five strategic themes. This means everyone at the IET from the Board of Trustees and CES, through to all employees are focused on supporting the IET education department to deliver all our programmes highlighted in this STEM booklet, including our highly respected Faraday Challenge Days; and *FIRST*® LEGO® League, the largest STEM programme in the UK. Providing relevant and high-quality careers information is also something we are

passionate about, to support career advisors in schools in guiding young people through the various pathways and hopefully into an engineering career. I'm also delighted to include in this booklet for the first time our new IET Teacher Membership, an offering that will support teachers and build their confidence in delivering STEM subjects in the classroom whilst at the same time, associating them with one of the largest professional engineering institutions in the world.

David Lakin
Head of Education, Safeguarding and Education Policy

Key

Look out for our symbols on each programme page:



This programme has an associated cost



IET Education Officers and Ambassadors are on hand to help (*more info on pages 34-35*)

Awards and accreditation



EDT and Industrial Cadets (*page 58*)



CREST (*page 59*)



Government career strategy (*page 62*)

The IET and disadvantaged pupils



"On the tube back home, they were all discussing what they would do differently and how they would continue next year if they were to do it again. As a result, *FIRST*® LEGO® League is continuing as an after-school club and we are hoping to develop our current work to share with the whole school and parents during Science Week."

"Taking part in the competition gave the children a chance to mix with peers they wouldn't normally spend time with and promoted teamwork and problem solving within a unique setting - at school and as part of the competition day."

Secondary school teacher

At the IET we believe that every child, regardless of their background, deserves the opportunity to participate in our programmes. We are committed to reducing inequality and closing the attainment gap between disadvantaged pupils and their peers across the country by breaking down the barriers to social mobility. We want to see more disadvantaged young people participating in our programmes, attending our finals, being inspired and progressing through to the most rewarding careers in STEM.

To be eligible you need to

1. have more than 25% Free School Meals in your school
2. be one of the 12 Opportunity Areas highlighted by the government:
 - West Somerset
 - Norwich
 - Blackpool
 - North Yorkshire coast
 - Derby
 - Oldham
 - Bradford
 - Doncaster
 - Fenland and East Cambridgeshire
 - Hastings
 - Ipswich
 - Stoke-on-Trent

We are proud to be working with sponsors, supporters and donors who enable teams from disadvantaged backgrounds to participate in the IET Faraday Challenge Day and *FIRST*® LEGO® League programmes.

If you think that your school or group might be eligible, please email us to find out more:

ieteducation@theiet.org



"We had a fantastic first year and are excited for year 2 now we know what to do! We won a trophy for best project which was totally unexpected. We've also organised a LEGO® Friendly between local schools that entered the main competition so that we can keep our skill set ticking over for the year."

School teacher



Our IET Faraday programme is completely free to all schools. Schools that meet the criteria on page six will be prioritised on application.

Please apply on our website.

theiet.org/faraday



STEM Ambassadors as well as our IET Education Officers and Ambassadors are on hand to help provide free STEM resources in your school. Find out more on pages 34-35.



We're sure you are aware that this funding is solely to widen the opportunity to children experiencing hardship and to broaden opportunities. We trust that you as teachers will use this opportunity to reach the children on Pupil Premium, children experiencing hardship, or who may face, or have faced challenges or obstacles in their lives.



IET Futures Fund



The IET Futures Fund raises money to support the next generation of engineers, to find solutions to our most pressing problems.

We are proud of the depth and range of experiences you will read about in this brochure.

The IET invests in offering as much as we can, where we can.

We have been able to provide even more opportunities, especially for those who would otherwise find it hard to access STEM activities, thanks to donations to the IET Futures Fund.

The programmes we have been able to grow – FIRST® LEGO® League, Faraday Challenge Days and the Future Talent Awards - offer vivid STEM experiences to children from the age of four and valued support to apprentices and undergraduates.

Volunteers are essential to helping us provide great impact and we are fortunate to work with STEM Ambassadors from across our donors.

Join the many companies, charities and individuals who are as enthused by our programmes as the young people are. Contact us at development@theiet.org or visit theiet.org/futuresfund



||
BECAUSE
ONE STEM EVENT
CHANGED MY
CAREER PATH
||



With your support we can bring our programmes to a wider audience.



"It is so important to engage with young people and encourage them into the field of engineering.

I am really passionate about the Faraday Challenge Days. You can feel the buzz in the room, the innovation that they come up with, financial astuteness and teamwork is so impressive.

IHEEM have been extremely proud to support the Faraday Challenge Days this year."

Paul Fenton MBE CEng FIHEEM FIET
President of IHEEM (Institute of Healthcare Engineering and Estate Management),
Director of Estates and Facilities, East Suffolk and North Essex NHS Foundation Trust



IET Education: Primary resources



Engage students with our inspirational and exciting activities.



Our education programme introduces young people to the sheer excitement of science, technology, engineering and maths.

Primary resources and classroom activities include lesson plans, handouts and film clips, all free and available through our website.

Teaching resources

Our teaching resources will enhance your teaching and bring students' learning to life. The resources are designed to support the delivery of key topics within design and technology, maths and science. They provide practical activity ideas that could be used as one-off activities or linked with other areas of the curriculum and are all fully editable so you can tailor them to your students' or school's needs.



Join in and work through the activities on offer to spark your pupils' curiosity.

theiet.org/primary

Certificates

Recognise your students' achievements with our STEM certificates.

You can download them from our website education.theiet.org/primary/certificates



Primary themed resource collections



We have grouped some of our most popular STEM resources for primary teaching into themed collections, to make it easier for you to teach a whole topic or just pick your favourites.

From seasonal resources to activities linked with national days of interest, we're sure you'll find something here to engage your students at any time of the year.

New themes will continue to be added on a regular basis, so do keep checking back to see what new content we have to help your classroom teaching.

Primary: theiet.org/themed-primary



STEM posters

Our visual aids bring engineering to life in your classroom or home learning space, with posters covering a range of topics.

With hard copies and PDF downloads available, there's something for everyone!

education.theiet.org/primary/posters



Follow us online:



IET Education: DIY Faraday Challenge Days



Download our free guidelines and electronic resources that will take you through a classroom-based engineering challenge day, with an introductory presentation, handouts, video clips, printable Faraday currency and student certificates.

theiet.org/primary



These resources are free to download and most of the practical materials you'll need should be available within your school.

Why not invite our Education Officers and Ambassadors to give you a hand on the day and bring real-life engineering experience into the classroom?

"Fantastic resources which meant the day was easy to run. Great that the kids had an expert on live link and those who used it found that both useful and exciting. Over half the students would now be interested in engineering."



"I've been so impressed with how well everything was organised, so easy as a teacher. Thanks so much!"

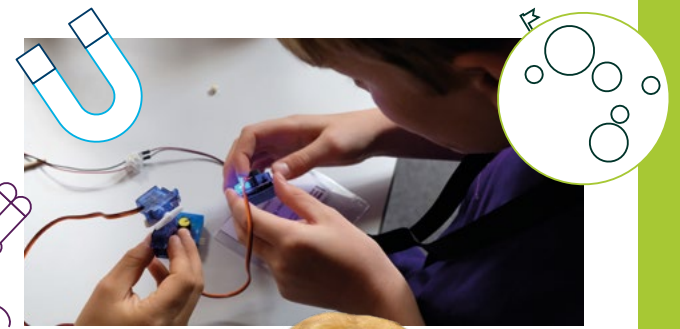
Find all our primary resources online at theiet.org/primary



Follow us online:

@IETeducation    

IET Education: Virtual Faraday Challenge



Our Faraday Challenge Days programme has now been extended to include a Virtual Faraday Challenge to give you more ways to get involved.

The Virtual Faraday Challenge brings together STEM subjects (science, technology, engineering and maths) in an engaging way and encourages the development of young people's problem solving and communication skills in line with our annual Faraday Challenge Days programme.



Our Virtual Faraday Challenge is open for anyone between 7 to 15 years, young people can do this at home, in school, individually or as a group or family.



FIRST® LEGO® League Discover



Wonder, question
and discover.



DISCOVER



**The IET is the operational partner for
FIRST® LEGO® League Discover in the UK and Ireland
– an exciting STEM programme for 4 to 6 year olds.**

FIRST® LEGO® League Discover is a playful introductory STEM programme which happens in the classroom. Children work in teams of four to explore a real-world theme using an exclusive LEGO® Education Discover model. Using this as inspiration, they then design their own models using LEGO® DUPLO® elements to solve meaningful problems.

Children also have a set of Six Bricks that are used for playful starter activities to practice memory, movement, creativity and more! The programme finishes with a celebration event to recognise the children's achievements.

"I loved the Six Bricks challenges – I thought it gave a great understanding and insight into the children's ability to listen to and follow instructions, solve some problems, communicate with one another etc. I also enjoyed the flexibility and freedom the children had to express and share their ideas and opinions."

Primary class teacher

"It has been a brilliant experience to be able to implement STEM activities in such a fun and fascinating way. It has made me more confident as a class teacher."

P1 class teacher



*Packs: £30 to £115 (+VAT) for Discover Sets, Discover More Sets and supporting materials. LEGO® STEAM Parks are required in addition and are not included. Top-up packs: £4 to £10 (+VAT) for additional materials.



As they work, the children develop valuable habits of learning, such as persisting with tasks and applying previous knowledge to new situations.

Throughout their experience, teams operate under the FIRST® LEGO® League Core Values; celebrating discovery and teamwork, all while having fun.

More details can be found on the
FIRST® LEGO® League Discover website:
theiet.org/discover

FIRST® LEGO® League Explore



Build, code, research and share. A fun STEM programme for 6 to 9 year olds.



EXPLORE



"We have found *FIRST*® LEGO® League Explore to be a wonderful experience. The children have enjoyed the preparation, subject matter, building and design so much - it has been so good for them on so many levels. The festival was such a super day out for the children (and adults!); it really tops the whole project off!"

FIRST® LEGO® League
Explore Coach

FIRST® LEGO® League Explore is delivered by the IET as the operational partner in the UK and Ireland.

Children work in teams to research a specified theme relevant to the world around them, displaying their ideas on a Show Me poster. They also build a LEGO® model and program it to move using LEGO® SPIKE™ Essential. Teams then attend an IET regional festival or an in-school Class Pack event.



"As a *FIRST*® LEGO® League tournament host, I have found the introduction of *FIRST*® LEGO® League Explore into our schools extremely beneficial in terms of embedding the necessary skills earlier in the key stages. Not only does it promote the skills needed to build and program, it encourages the essential skills of independent learning, critical thinking and teamwork. *FIRST*® LEGO® League Explore provides a safe environment to explore these skills without fear of failure or the pressure of attaining a grade/result."

Fran Ward
FIRST® LEGO® League Explore Host



Working in teams of up to six, *FIRST*® LEGO® League Explore can be delivered in two ways:

- **Regionally:** as either curricular or extra-curricular. Teams work towards attending a regional festival along with other teams to share their accomplishments.
- **Class Pack:** within the curriculum. Class Pack engages a whole class working in multiple teams, with an in-school festival to celebrate their achievements.

More details can be found on the *FIRST*® LEGO® League Explore website:

theiet.org/explore



*£27 (+VAT) for a team of up to six members, that will go to a regional festival. Includes 1 x Explore Set, 1 x Team Meeting Guide and 6 x Engineering Notebooks.

**£75 to £200 (+VAT) for Class Pack Registration, dependent on class size. This includes Explore Sets and supporting materials. Top Up packs: £12 to £30 (+VAT) for additional classes.

FIRST® LEGO® League Challenge



A global robotics-based life skills competition, run by the IET as the operational partner in the UK and Ireland.



"There are no words that can express my appreciation for what this programme has done for the children involved. It is for me without doubt of huge value to UK and Irish education. I often tell the students that there are days that stay with you as long as you live. FIRST® LEGO® League keeps supplying our team with those, so thank you for that."

Neil Corrigan, Team Coach

Competing teams engage with a real-world issue, develop skills that are crucial for the workplace, and work with STEM professionals in a way that is both inspiring and fun.

What is unique about FIRST® LEGO® League is that teams must demonstrate Core Values in everything they do. These are about inclusion, teamwork and fun!

FIRST® LEGO® League Challenge can be delivered in two ways:

- **Regionally:** teams work towards competing at a regional tournament, with the opportunity to qualify for national or international finals.

or

- **Class Pack:** within the curriculum, engages a whole class, working towards an in-school event.

*Team Event Registration: £150 (+VAT) for Challenge Set, supporting materials and registration to a regional tournament. LEGO® SPIKE™ Prime set and device (laptop/tablet) are required in addition and are not included.

Class Pack: £265 (+VAT) for 2 x Challenge Sets, supporting materials, medals and trophy. LEGO® MINDSTORMS® or SPIKE™ Prime sets and devices (laptops/tablets) are required in addition and are not included. Top Up pack: £70 (+VAT) for additional classes. Class Pack team regional event entry: £37.50 (+VAT).

Gatsby Benchmark ✓

1 2 3 4 5 6 7 8

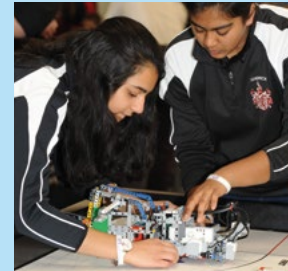


Teams consist of up to 10 young people (aged 9 to 16 years) and an adult coach. Once registered they receive the challenge information and a bespoke set of LEGO® missions to build.

They design, construct and program a robot using a LEGO® SPIKE™ Prime kit and create an

innovative solution to a real-world problem which they present to the judges at the tournament.

The team work together on the different challenges, seeking advice from experts in their community and preparing to give their best performance at their event.



FIRST® LEGO® League Challenge develops skills in:

- applied science
- design and technology
- programming and control
- computing
- mathematics
- research
- communication and presentation skills
- strategic thinking
- teamwork
- self-confidence

There are four parts to the challenge:

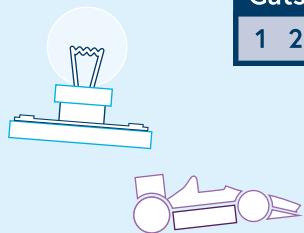
- 1. Robot Game:** teams build and program an autonomous robot to undertake a series of tasks around a themed playing field.
- 2. Robot Design:** teams are judged on their robot design, programming and strategy.
- 3. Innovation Project:** teams research, create and present a solution to a real-world problem linked to the annual theme.
- 4. Core Values:** teams are judged on how they demonstrate the FIRST® LEGO® League Core Values which include teamwork, impact and innovation.

More details can be found on the FIRST® LEGO® League Challenge website.

theiet.org/challenge



IET Education: Faraday Challenge Days



Gatsby Benchmark ✓

1 2 3 4 5 6 7 8



Encourage your students to develop skills for their futures - enter your school into one of our exciting Faraday Challenge Days.

The annual IET Faraday Challenge is an engineering-based competition for schools. Six teams of six students, aged 12 to 13 years, compete against one another to see who can design, create and promote the best solution to a given challenge. All challenges are genuine, real-life engineering problems.

They draw upon and reinforce learning from science, maths and design and technology lessons. Students need to demonstrate:

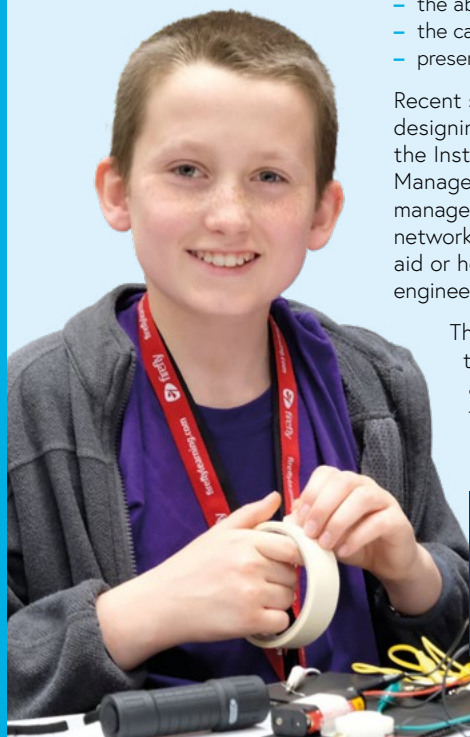
- creativity and innovation
- the ability to work as a team
- the capability to project manage and take on team roles
- presentation skills... and more!

Recent set-ups of real-life challenges have included designing improvements to a children's hospital with the Institute of Healthcare Engineering and Estate Management, assisting Network Rail to sustainably manage the increasing numbers of passengers using their network, working with Airbus on how they can transport aid or help people in times of need and assisting the engineering mission of the James Webb Space Telescope.

The winners from each event receive prizes for themselves and their schools. The top teams across the UK win an all-expenses-paid trip to the National Final to compete for a cash prize for their school.

Visit our website for more information on the options available and how to apply to take part in a Faraday Challenge Day.

theiet.org/faraday



IET Education: DIY Faraday Challenge Days



Run your very own Challenge Day in your own time and on a theme that suits your students.

Available for schools, these packages offer guidelines and electronic resources that take you through the day, with an introductory presentation, handouts, video clips, printable Faraday currency and student certificates.

These resources are free to download and most of the practical materials you'll need are found in typical science or design and technology departments.

Why not invite our Education Officers and Ambassadors to give you a hand on the day and bring real-life engineering experience into the classroom?



"I really liked this challenge as I love to be creative, I also understand more about engineering and want to look in to the careers available."

13 year old female participant



"Students practically learned in a pressurised, realistic situation, how to create and build different prototypes and improve their knowledge and understanding of scientific concepts. They were inspired to compete with each other and teams learned about what engineers really do!"

Secondary science teacher

IET Education: Secondary resources

Engage students with our secondary teaching activities and videos.



Take the hassle out of your lesson planning with our free curriculum-linked resources and activities.

We can do more to nurture students' interest and achievement in STEM by showing them the exciting, real-life applications of the subjects. If we want students to be fully equipped for their futures, we need to give them a grounding in these subjects and make them aware of the career choices in these fields.

Our resources introduce students to real-life, innovative examples of engineering and technology from around the world.

Types of resources

We provide the following resources, free-of-charge:

- classroom activities to drop into lessons or for home learning/schooling
- handouts
- classroom presentations
- podcasts
- videos

Each set of resources is brought to life in a modern engineering context by including:

- short films
- case studies and engineer profiles which can be used to inspire project work and help with careers guidance

Themed resource collections

We have also grouped some of our most popular STEM resources for secondary teaching into themed areas, to make it easier for you to teach a whole topic or just pick your favourites. Find out more on pages 42 and 43.

theiet.org/themed-secondary



Find all our secondary resources online at

theiet.org/secondary

Follow us online:

IETeducation    

STEM posters

Use visual aids to make STEM topics more memorable.

Our poster pack includes reference posters on electricity and electronics and topical posters with examples of some of the most innovative engineering around today.

The exact content of these packs will alter over time as new posters become available.

Find all our secondary STEM posters online at

education.theiet.org/secondary/posters



IET Education around the world



The IET is a global organisation and the Education department is no different!

We want to support you wherever you are in the world in bringing STEM to your students.

On this page, you will find information on the programmes that we run outside the UK that may be relevant to you, as well as teaching resources and partner activities to help you make the most of the IET Education offering.

education.theiet.org/iet-education-around-the-world



Careers information and scholarships



For students, Degree Apprentices and apprentices who want to pursue careers in engineering and technology, we offer a number of scholarships to support them with their education and training. We also accredit degrees and apprenticeship schemes to ensure they cover the content needed to help them get a job.

For those who are still deciding what they want to do, we provide careers guidance materials. These illustrate the huge range of possibilities open to young people in the sector and the entry routes available.

For more information, please visit theiet.org/engineering-careers

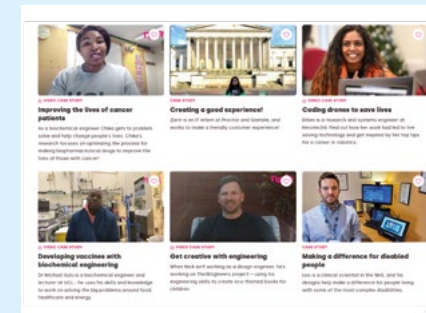


Careers information for secondary students

Tomorrow's Engineers, in collaboration with the IET and other engineering institutions, produces a helpful range of careers information and resources for teachers and young people interested in engineering.

These include information about the main types of engineering and the possible routes into them.

neonfutures.org.uk/resource



Gatsby Benchmark ✓



Post-16 careers information

If you're looking to advise sixth form or further education students - we've put together a collection of careers materials especially for them.

The materials include:

- information about the different routes into engineering
- a booklet about 12 key areas of engineering

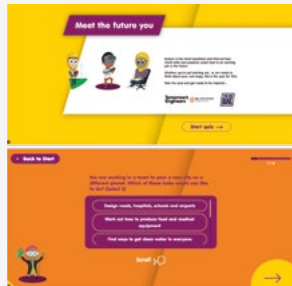


theiet.org/engineering-careers



Choosing the right university course

Help your students work out which engineering course is right for them.



The routes to engineering section on our website provides up-to-date advice on choosing a course and explains how we support students at university and in their early career.

Accredited courses

We run an accreditation programme, which monitors and certifies courses, checking and approving:

- facilities and staffing
- relevance to employers
- students' opinions about the course

Our list of currently accredited degrees includes mainly BEng (Hons), MEng and MSc qualifications covering electrical and electronic engineering, computing, mechanical and manufacturing engineering and more. Individual programmes include a wide range of specialisations, including nanotechnology, communications and renewable energy. Some of these courses are part of a **Degree Apprenticeship** offered by employers. See Apprenticeships on page 27.

Students about to start an IET accredited course are eligible to apply for an IET Future Talent Award (see pages 29 and 30).

Go online today and find out how to point your students in the right direction.

mtfy.org.uk

Search the list of IET accredited degrees and apprenticeship schemes at

theiet.org/accreditation

Choosing the right apprenticeship

Help your students work out which apprenticeship is right for them.



The apprentice section of our website is packed with advice on choosing the right apprenticeship, including details of IET schemes.

IET accredited apprenticeship schemes

To gain IET accreditation, an apprenticeship provider needs to have demonstrated that their education and training meets certain quality standards and that they are committed to helping apprentices progress and develop. They must also provide apprentices with the skills they need as a basis for professional registration.

Search the list of our Apprenticeship Schemes and Professional Development Schemes at theiet.org/accreditation

Tip: Many employers offering IET Accredited Professional Development Schemes offer Degree Apprenticeships. Contact them for information about the application process.

Explore what's available and help your students make the right choices.

Students and apprentices on an IET accredited apprenticeship scheme or degree apprenticeship are eligible to apply for an IET Future Talent Award (see pages 29-30).



theiet.org/career/routes-to-engineering

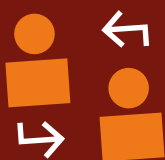
Academic Partners

IET Academic Partners are university departments that understand the value of association with the IET and want to enhance the student experience.

Studying at an IET Academic Partner university means students' IET membership fees will be partially or fully funded, and they benefit from an IET accredited course – an internationally respected benchmark awarded to high quality programmes.

Academic Partners work closely with us to make sure students get opportunities to join our On Campus groups, hear from industry speakers, and use our study and professional development resources.

Find out more
partnerships@theiet.org



Arkwright Engineering Scholarships



The Arkwright Engineering Scholarships programme is run by The Smallpeice Trust and is the most prestigious scholarship scheme of its type in the UK.

Funded by industry, academia, professional institutions (including the IET) and private donations, around 400 Arkwright Engineering Scholarships are awarded each year. Each scholarship provides two years of enrichment for the student and a financial award for the school each year.

Who can apply?

Students who are currently in the year in which they are taking their GCSE exams (or equivalent) and will go on to study an A-level (or equivalent) STEM subject at a UK school partnered with Arkwright may apply for a scholarship.

arkwright.org.uk

IET Future Talent Awards Launch Scholarships for students, apprentices and degree apprentices

These scholarships are for students, apprentices and degree apprentices who have faced financial challenges or personal obstacles and have a passion for engineering.

Who's it for?

Students, apprentices or degree apprentices about to start their course or already enrolled in any year, and the course must be accredited by the IET. They can be a part-time, full-time or a mature student.

What's on offer?

£1,500 per year for three years for bachelor's degrees and four years for MEng degrees or apprenticeships. Recipients also receive free student membership for the duration of their funding. Donor funded scholars may be provided with opportunities to have summer placements, visits and mentoring with engineering companies.

What else do I need to know?

- UK residents only
- You don't need to be a member of the IET
- Recipients will have opportunities to promote STEM and engineering

When's the deadline?

- Thursday, 6 October 2022

Payments

Successful candidates will receive their first payment in March 2023.

Apply today theiet.org/future-talent

IET Future Talent Awards Boost Scholarships for students and degree apprentices

These scholarships are for high-achieving students who have or are expected to achieve 70% or above at the end of their second year of university and have a passion for engineering.



Who's it for?

Students who are on an IET accredited engineering or technology undergraduate degree or degree apprenticeship.

What's on offer?

At least £1,500 per year for up to two years for MEng degrees or one year for bachelor's degrees plus one year if you decide to do an IET accredited MSc. Recipients also receive free student membership for the duration of their funding.

What else do I need to know?

- You should have achieved at least 70% at the end of your second year of university (third year in Scotland)
- UK residents only
- You don't need to be a member of the IET
- Recipients will be chosen based on the quality of their application, a tutor's reference, their achievements to date, and their commitment to engineering
- Recipients will have opportunities to promote STEM and engineering

When's the deadline?

- Thursday, 6 October 2022

Payments

Successful candidates will receive their first payment in March 2023.

Apply today
theiet.org/future-talent

IET Power Academy Scholarships



The Power Academy partnership between companies and universities offers a host of benefits to help students enhance and progress their career in engineering.

We have a number of scholarships each year for students to get an annual bursary, mentoring from leading industry partners, paid summer placements and the opportunity of a career with their sponsoring company after graduation.

For more information, visit
theiet.org/poweracademy

IET On Campus

This initiative allows students to set up their own engineering societies with support from the IET. They gain fantastic opportunities that they might not otherwise have had access to.

Groups promote engineering and the IET, as well as develop soft skills that students do not typically gain through their studies.

Benefits for students

- develop skills necessary for the workplace
- network with professional engineers
- explore career opportunities
- get funding for events and activities
- discover volunteering opportunities

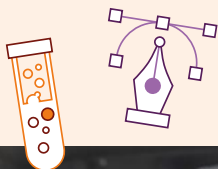


Find out more
theiet.org/oncampus
oncampus@theiet.org

Supporting the launch of T Levels

T Levels are new, high quality, technical-based two-year qualifications, which provide a programme of study developed by employers and businesses in England.

Available from September 2022, T Levels focus on vocational skills and are designed to equip learners with the knowledge and skills wanted by businesses. They are equivalent to three A Levels and are an alternative form of study aimed at 16 to 19 year olds. They can lead to a job, an apprenticeship or a degree.



What do T Levels provide students?

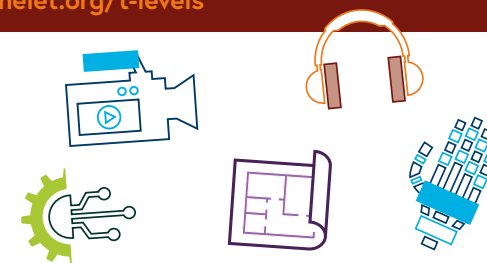
- A technical qualification including core theory and industry skills that will prepare them for work.
- An on-the-job industry placement with an employer for at least 315 hours.
- Students will spend 80% of their time in the classroom and 20% placed in the workforce, learning the skills that employers are looking for.

Visit our website for free curriculum maps to resources for T Levels in engineering.

- **Students** can learn more about the engineering and manufacturing T Level route, latest news and more.
- **Teachers** can find resources to support their teaching within all Engineering T Level pathways including design and development, manufacturing, process, control, and maintenance, installation and repair.

Find out more

theiet.org/t-levels



IET Education Officers and Ambassadors



Gatsby Benchmark ✓

1 2 3 4 5 6 7 8



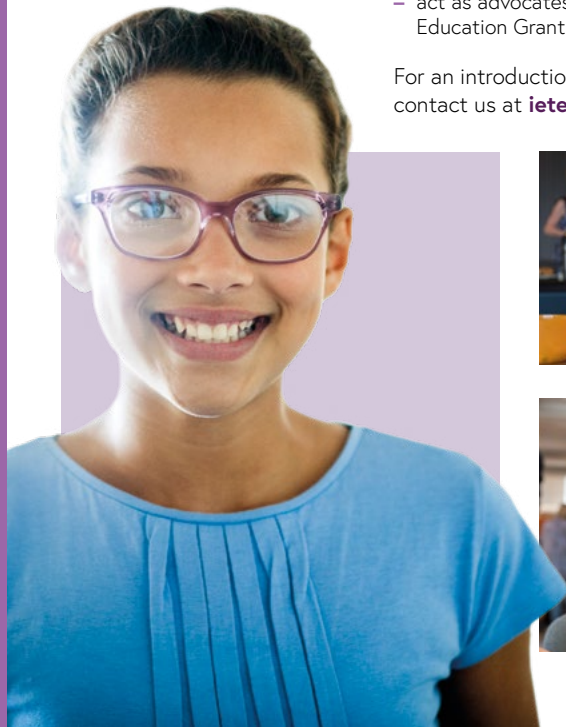
Education Officers (EOs) and Education Ambassadors (EAs) are IET members who volunteer to help introduce young people to the exciting world of STEM and raise awareness about engineering careers.

Education Officers and Ambassadors are typically registered STEM Ambassadors and can support a variety of opportunities for young people to learn about engineering.

They can:

- support after-school clubs, competitions and other school events
- give careers talks and provide industry insights to all ages
- represent the IET at careers and science fairs
- act as advocates for applications to the Engineering Education Grant Scheme

For an introduction to your local volunteer contact us at ieteducation@theiet.org

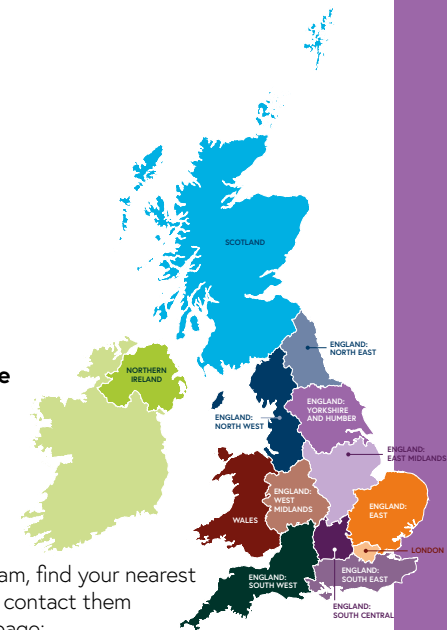


Meet our volunteers



There is generally one Education Officer or Ambassador in each UK county.

You are now able to 'meet' our wonderful Education Volunteer team, find your nearest IET engineer, as well as contact them on our interactive webpage:



education.theiet.org/support/meet-our-engineering-education-volunteers

Volunteer resources



Our volunteers are continually striving to inspire the next generation of engineers.

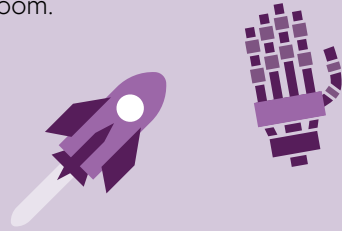
You can watch videos, engage with social media posts, take part in activities, utilise handouts and even read stories and hang posters all designed and created by them on our volunteer resource webpage.



education.theiet.org/support/education-a-z/volunteer-resources

STEM Ambassadors

Bringing engineers into the classroom.



IET members registered as STEM Ambassadors are available, alongside our IET Education Volunteer team, to support school activities and bring real-life engineering experience into the classroom.

STEM Ambassadors can support activity days, after-school clubs, careers events and even lessons.



The national STEM Ambassador programme, delivered by one of our associates STEM Learning, enables teachers to bring trained and checked professionals into the classroom to support teaching and inspire students.

To find out more and request a STEM Ambassador visit stem.org.uk

If you are interested in learning how you could get involved with these programmes, then please contact us at [iateducation@theiet.org](mailto:ieteducation@theiet.org) to start your rewarding journey today.



Education A-Z



If you are understandably overwhelmed by the wealth of information available and unsure where to start to teach or support budding engineers into STEM learning, have a look at our Education A-Z webpage:

education.theiet.org/support/education-a-z



All of our resources can be easily found in one place, from initial interest in engineering and STEM from four year olds, to providing a complete overview of information for students and early career engineers.

Provided in three easy to understand sections:

1. Education resources
2. Getting into engineering
3. Engineering careers guidance



We have also included information about our education campaigns and volunteer created video resources for you to support your teaching.

Introducing our STEM Teacher Membership



We're offering a bespoke membership package – designed specifically to meet your needs as education professionals.

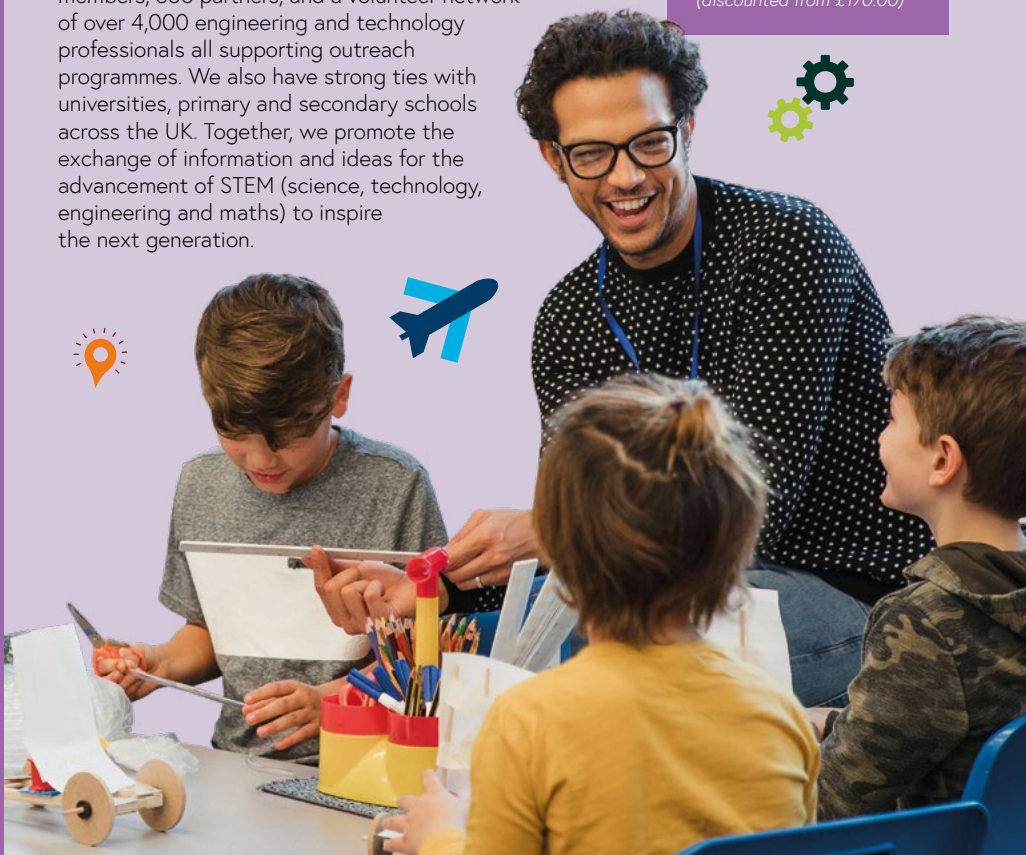


Who are we?

The IET inspires, informs and influences the global engineering community to engineer a better world. We have an incredible global reach with over 155,000 members, 350 partners, and a volunteer network of over 4,000 engineering and technology professionals all supporting outreach programmes. We also have strong ties with universities, primary and secondary schools across the UK. Together, we promote the exchange of information and ideas for the advancement of STEM (science, technology, engineering and maths) to inspire the next generation.

Our STEM Teacher membership costs just £30 per year

(discounted from £170.00)



Why us?

Our STEM Teacher Membership provides unique opportunities to take your STEM teaching to the next level, and we've discounted it - so you'll pay just £30 for the whole year.



Join today to start enjoying these benefits:

- Access to networking opportunities with IET Academic, Corporate and Enterprise Partners.
- Links with industry contacts to help with finding engineers for school visits or to support the provision of student work experience through links with local industry.
- Links with universities to support students wishing to study STEM subjects.
- Access to life skills and professional development courses to support your own CPD. You can even track it through IET Career Manager.
- Access to IET online communities, including a STEM teachers community and discussion forum.
- Thousands of STEM videos at your fingertips on a variety of topics, with searchable content through iet.tv, the IET's own video archive.
- Access to the digital edition of our award-winning E&T Magazine.
- Membership use of our UK venues: IET London: Savoy Place and IET Birmingham: Austin Court.
- Access to our extensive technical library, both online and in-person at Savoy Place.



Our education resources and programmes



Our STEM Teacher Membership provides unique opportunities to take your STEM teaching to the next level, and we've discounted it - so you'll pay just £30 for the whole year.

These include:

- IET Faraday Challenge Days and *FIRST*® LEGO® League competitions, designed to help children develop real world problem solving, teamwork and communication skills.
- Scholarships and funding support for engineering projects and activities in schools.
- Access to IET Education Officers and Ambassadors - trained and engaging professionals of all ages and from all walks of life, ready to help inspire the young people in your classroom.
- A wide range of teaching resources including posters, handouts, videos, classroom presentations, case studies, themed resources and more, both online and in-person at IET London: Savoy Place.



Find out more and sign up today.

Simply go to

theiet.org/teacher

and complete the online form, and we'll take it from there.

Look at me now

For children, toys and imagination represent a world of possibilities and invention. For engineers and scientists, the possibilities and invention never end. They are proof that our toys and dreams today impact our innovations tomorrow.



The child who loved LEGO® now designs buildings. The child with the telescope is now an astronaut and the child who dreamed of being a magician is now an electronics engineer, changing the world through technology.

#IETLookAtMeNow explores which toys and dreams our engineers had as children and how they've influenced what they're doing now – sharing these great stories from around the world.

Our stories – our engineers reveal the dreams and toys of their childhood, which set them on the path to their careers today and discuss how you could get there too.

Children's activities - activities, games and resources to have a go at with children! Get creative, invent and consider engineering as a possible and real future career.

Take a look at theiet.org/look-at-me-now



IET video resources

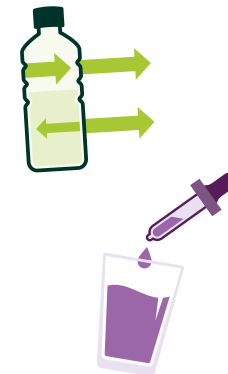
Looking for fun and engaging STEM experiments to do with children?



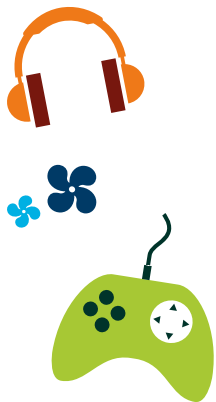
We're working with STEM Ambassadors, IET Education Officers and Ambassadors, teachers and parents to bring you a range of videos that you can watch at home or in school with children.

Give them a go yourselves - each video will show you how to create some fantastic STEM experiments using everyday items found in the home or simply refresh your memory on some popular lesson topics.

Take a look at education.theiet.org/video-teaching-resources



Teaching resources for every occasion



We have grouped some of our most popular STEM resources for primary and secondary teaching into themed areas to make it easier for you to teach a whole topic or just pick your favourites.

Whether it's to celebrate National Earth Day, British Science Week or Diwali, our free themed STEM resources aim to challenge your students' skills whilst having fun in the classroom and beyond.

Download our resources for free!
theiet.org/themed-primary
theiet.org/themed-secondary



<p>Halloween resources</p> <p>We've cast a spell over some of our primary resources to give them a Halloween twist.</p> <p>Why not try these spooky, curriculum-linked tasks with your students and see if you are in for a trick or treat!</p> <p>→</p>	<p>Learn how we communicate</p> <p>We talk to each other on a daily basis, but what happens if people are too far away to hear us or we want to leave a message to stand the test of time for our descendants to read in the future?</p> <p>From cave paintings and medieval manuscripts to Morse codes and semaphore - you can practice a whole range of communication techniques as part of your home learning activities.</p> <p>→</p>	<p>Maths resources</p> <p>Maths is an important subject at primary school, not only in learning about numbers and symbols, but also in helping children to communicate as they explore the spoken and written language.</p> <p>Maths plays a key part in all of our lives and to make it a little easier for you to find our maths resources, we have grouped some of our most popular resources here for you. Choose from your favourite topics or bookmark this page to keep coming back.</p> <p>→</p>
<p>National Earth Day</p> <p>These primary resources, aimed at both teachers and parents alike, can support your teaching around National Earth Day in April.</p> <p>From nature to sustainability and recycling, these practical activities help your students explore a range of topics using hands-on approaches.</p> <p>→</p>	<p>Santa's STEM Workshop</p> <p>Light the way for young minds this festive season, using our Christmas STEM resources. Have fun in the classroom or at home, learning primary with our adorable advent projects, make your very own morning ornaments with our step-by-step guide and create a wonderful Christmas star lantern to spark joy.</p> <p>→</p>	<p>Sustainability</p> <p>Our sustainability topic page makes curriculum check lists much more fun. Find out about everyday materials in our litter picking activity pack, create fun lights to learn about electricity and use our free lesson materials on the natural world to grow seedlings with children at home or in class.</p> <p>→</p>

<p>Autumn resources</p> <p>Energy efficiency is key to keeping warm and cosy this autumn. Join us in designing a home energy system, calculate the power required to use everyday household appliances, or why not create a prototype to alert homeowners to the risk of flooding in their property?</p> <p>With resources that students can complete on their own to DTF Friday Challenge activities that can be carried out in groups with a whole class or as a school competition. Browse through the resources below and see how you can inspire your students this autumn.</p> <p>→</p>	<p>Bonfire Night</p> <p>Celebrate Bonfire Night with our set of new and engaging curriculum-led activities. Use our free and editable resources to inspire your students. Bring real world discussions into the classroom and have your pupils thinking like engineers the bonfire night. And for a cross-curricular activity covering maths and physics, discuss safety issues through interpreting data and exploring solutions that will prepare them for a life-long passion for engineering.</p> <p>→</p>	<p>British Science Week</p> <p>British Science Week is a ten-day celebration of science, technology, engineering and maths (STEM). Students can take part at home or school, and there are some exciting opportunities to discover science.</p> <p>→</p>
<p>Diwali</p> <p>See your student's faces light up with these engaging curriculum-led resources marking Diwali, the festival of light.</p> <p>Students can use their maths skills to estimate the number of objects in an image, or estimate the radius of a light circle produced by a shving torch in another activity designed to focus on STEM skills while learning about light. Or for a design and technology lesson, discuss how fibre optic cables use light to send information. Then for science, brighten their faces when you teach how to investigate the photoelectric effect. Use our free and editable resources to engage and inspire in the classroom.</p> <p>→</p>	<p>Easter resources</p> <p>Have you ever wanted to fire chocolate from a catapult, drop an egg from a great height or transport an egg in a self-built boat? Well now you can and it would all be in the name of science!</p> <p>These resources can be used to engage your students this Easter with all activities available to do both at home or at school.</p> <p>→</p>	<p>Maths resources</p> <p>Maths at secondary school is such an important subject for your students to understand and master. It allows them to use their logic and reasoning skills to understand everyday tasks from shopping to sports and everything in between!</p> <p>In addition, mathematical knowledge plays a crucial role in understanding the contents of other school subjects such as science, social studies, and even music and art.</p> <p>→</p>

The IET has **1,000s of resources.**

Download our free educational activity packs and find one to suit you at theiet.org/education

Engineer a Better World



Our annual nationwide **Engineering Open House Day** attracts on average

4,000

children and their families to free STEM events across the UK.

Super-charging STEM: **Harry, aged 10**, won our Super Realoos competition in 2021 with his fire-fighting and pollution clearing drone. He was awarded his prize by astronaut **Major Tim Peake!**

“ I learnt you can't live without engineers... ”

Primary student

Help your school to join in engineer-a-better-world.org

The IET's Engineer a Better World campaign shows parents and their children the huge variety of exciting, creative and stimulating careers in modern engineering.

Engineering and technology are improving our world and shaping our future, touching every part of our lives. From the music you listen to and the phone in your hand, to the clean water you drink and the innovations that are helping to restore our oceans, engineering and technology are at the heart of everything.

This campaign aims to show young people that they can make a difference and demonstrates just how inspiring and fantastic a career in engineering and technology can be – all through their passion points! We've worked with the likes of Blue Peter and the Beano, as well as Mark Cavendish, Konnie Huq and Major Tim Peake to help us spread the word that engineering and technology is for everyone.

Engineering Open House Day is also part of this campaign and is an educational and fun day out for families. Taking place at the start of the summer school holiday, companies across the UK open their doors and give us behind-the-scenes access to the exciting world of engineering and technology.



Santa Loves STEM

Fun activities for schools and families at Christmas.

Join in the fun this festive season:

#SantasSTEMworkshop
#SantaLovesSTEM
theiet.org/santa

Our annual IET Santa Loves STEM campaign focuses on inspiring the next generation to pursue careers in engineering and technology with our festive workshop of fun, Christmas-themed STEM (science, technology, engineering and maths) activities.

Santa's STEM workshop is packed full of inspiring ideas for teachers and families to do with the kids in the lead up to and over the festive holiday season. Children can join Santa and his helpers at theiet.org/santa to make, create, imagine and discover. They will be able to get in the festive spirit with our fun craft ideas, recipes, hands-on experiments and resources, which provide STEM inspired learning through play.

From glittery slime to making your own advent calendar, to making winter window decorations or conducting experiments looking at how reindeer treats react to different household items, we have an exciting array of ideas to suit 4 to 13 year olds. For those passionate about climate change, we have a fun experiment to help Santa examine how heat passes through animals who need to insulate, as well as information on affordable and recycled STEM toys which help develop their curiosity and nurture valuable skills.

For the Christmas bakers out there, why not try your hand at some festive baking with Rudolph shaped cookies or edible snowmen. Christmas tree ornaments made from salt dough are also on the menu that will get the kids whizzing about the science and maths behind the final creation. And make sure you try our outdoor scavenger hunts or eye spy activities, which link to problem solving and discussion about the world around us – all designed to get their inner engineer buzzing during the festive season.



Teaching support and other STEM providers



Working alongside others to engage young people with engineering and technology.

Neon

Neon brings together the UK's best engineering experiences and the inspiring Tomorrow's Engineers careers resources to help teachers bring STEM to life with real-world examples of engineering. Visit the site to discover what is available in your area.

neonfutures.org.uk

Association of Science Education (ASE)

The professional association for science teachers. The ASE provides a range of resources, training and networking opportunities, including their annual and regional conferences.

ase.org.uk

The Design and Technology Association

The professional association for design and technology teachers. The association provides a range of resources, training and networking opportunities.

data.org.uk

Institute of Physics (IOP)

Promoting physics and bringing physicists together for the benefit of all. The IOP provides a range of resources, funding, training and networking opportunities for physics teachers.

iop.org



Project ENTHUSE

Project ENTHUSE is a funding partnership that allows the provision of subject-specific Continuing Professional Development (CPD) for teachers, technicians and other support staff at the National STEM Learning Centre in York and through partners in Northern Ireland (Department of Education Northern Ireland), Scotland (SSERC) and Wales (Techniquest).

stem.org.uk/project-enthuse

Institution of Mechanical Engineers (IMechE)

The IMechE is a professional engineering institution, improving the world through engineering. In addition to the collaborative work with the IET, Tomorrow's Engineers and Teachers in Residence programme, the IMechE support Bloodhound SSC and Primary Engineer.

imeche.org

ESP

ESP is a collaboration of Scotland's colleges and industry partners, established to increase Scotland's capability and capacity to deliver the right skills for the energy, engineering and construction sectors to meet industry demand. ESP works to promote STEM initiatives in colleges around Scotland.

esp-scotland.ac.uk



EESW

EESW is an independent registered charity running schemes to inspire and motivate young people in Wales aged 8-19 to choose careers in STEM.

stemcymru.org.uk

Teach First

Teach First aims to end educational inequality. It finds, trains and supports new teachers to work in low income communities, developing these new teachers to become leaders in schools and to inspire children towards the future they want.

teachfirst.org.uk



The Big Bang



Help young people discover exciting possibilities and connect to inspiring role models in STEM with the Big Bang. Young inventors and experimenters, future game-changers and lifesavers all develop and shine in The Big Bang Competition.

The Big Bang Fair and Big Bang Digital brings STEM to life – The next generation of scientists and engineers discover the extraordinary ways innovation and invention can change the world.

Big Bang at School brings the magic back to the classroom and helps teachers run their own inspiring STEM days.



For more information and dates for 2023, visit thebigbang.org.uk



Scouts



Inspiring generations with skills for life

The Scouts give almost half a million young people – of all genders, races and backgrounds – the skills they need for life.

Across the UK they're helping young people speak up, play their part and find their place in the world. By helping more young people gain these skills, they're inspiring generations,

building stronger communities and contributing to a stronger society. We're so pleased to work in partnership with Scouts to inspire more young people into a STEM career. People like Tim Peake, Helen Glover and Chief Scout, Bear Grylls all got their start in Scouts; now they're helping others follow in their footsteps.

Sponsoring the Scouts Electronics Badge, we have helped create some fantastic new activities to help volunteers deliver the electronics badge, a badge that can be challenging to deliver. Now, through our partnership, thousands more young people are taking steps to becoming STEM ambassadors of the future.

For more information, visit scouts.org.uk/supporters/iet



*Please refer to our partner's website for costs relating to this programme



F1 in Schools™



Students use CAD/CAM software to design, manufacture and race a miniature compressed air-powered F1® car.

The cars are small, made from an F1 in Schools Model Block and raced on a track just 25 metres long. With tremendous support from industry and the endorsement of Formula 1®, F1 in Schools is a truly inspiring opportunity for young people.

F1 in Schools Primary Class

The global education project F1 in Schools is now bringing STEM learning to life in the primary school classroom.

The F1 in Schools primary class enables children to design, make and test a model car before competing at a regional final and possibly progressing to a UK National Final. It is a complete cross-curricular action learning project.



For further information please visit f1inschools.co.uk

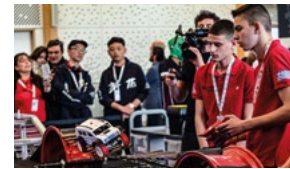


For more information, visit engineeringinmotion.com



*Please refer to our partner's website for costs relating to this programme

4x4 in Schools



The challenge is to design and build a remote controlled electric 4x4 vehicle that will negotiate obstacles and perform specific tasks on an emulated off-road course.

For the 2022/2023 season, 4x4 in Schools will operate as an in-school activity with a return to physical events planned later in 2022.



For more information, visit 4x4inschools.co.uk

SUBS in Schools



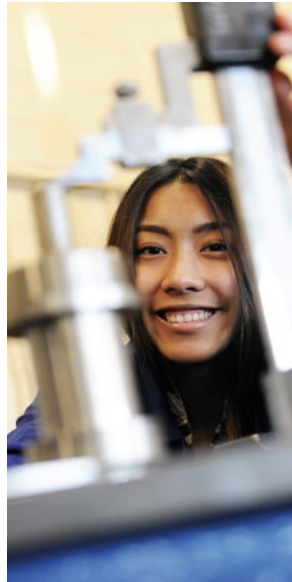
SUBS in Schools enables children to build a Remotely Operated Vehicle (ROV) before putting it through a series of underwater tests including a speed challenge, object retrieval and an obstacle course.

The competition is for teams of students, helping them explore scientific materials and manufacturing techniques. Underlying these activities is a core ethos of developing employability skills including communication and entrepreneurship. The challenge is supported by the IET, Royal Navy and several marine industry organisations.

For more information, visit subsinschools.co.uk



National Saturday Club



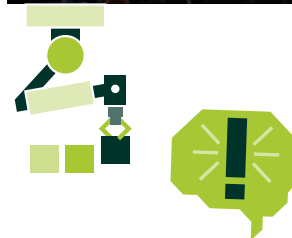
Across the UK, the National Saturday Club gives 13 to 16 year olds the opportunity to study subjects they love for free at their local university, college or cultural institution. In 2021-2022 there were 74 Saturday Clubs and 1,500 Club members in 56 locations across the UK.

Offering dynamic creative learning programmes in six subject areas – art and design, science and engineering, fashion and business, film and media, society and change, and writing and talking – the model works to develop young people's skills, nurture their talents and encourage their creativity.

Through a year-long programme of national events, weekly Saturday classes led by professional tutors, and Masterclasses with industry experts, science and engineering Club members are introduced to the latest thinking and technologies, encouraging them to develop practical and analytical skills and giving them the confidence to pursue future study and career opportunities in STEM.

For more information, please visit saturday-club.org

Follow us on Twitter [@natsatclub](https://twitter.com/natsatclub)



The Micro:bit Educational Foundation



The BBC micro:bit device is a tiny, inexpensive computer that forms a bridge between abstract concepts and tangible experiences in the classroom. The Micro:bit Educational Foundation provides a supporting free educational package for teaching computing and digital skills to children aged from 7 to 14 years.

The Micro:bit Educational Foundation works with its founding partners (the IET, the BBC, Arm, Microsoft, Nominet, the British Council and Lancaster University) to secure a global legacy for the BBC micro:bit. A million devices were donated to UK schools in 2016 and there are now 25 million children learning worldwide with 6 million micro:bits in 60 countries.

Get started videos and guides explain computing concepts through real-world examples and quick physical computing projects children can create in minutes.

Free curriculum-linked **lessons** have easy-to-download editable resources for primary and secondary aged children.

Free online code editors take children from block coding in Microsoft MakeCode through to text-based Python. The MakeCode simulator means you don't even need physical micro:bits for many lessons and activities.

micro:bit classroom is a free tool that allows you to run live coding lessons, in person or remotely.

Dozens of quick **Make it: code it** projects are perfect for formal or informal learning.

Professional development courses for teachers and educators, using short and friendly videos, that cover the principles of computer science and programming projects to share with students.



You can access all these resources for free microbit.org

*Please refer to our partner's website for costs relating to this programme

Fun Kids Radio



Fun Kids is a national radio station providing entertaining and informative programmes for children, available across the UK through DAB digital radio, online at funkidslive.com and through smart speakers.

The IET and Fun Kids have developed several series of short audio programmes and videos for 8 to 12 year olds called 'Techno Mum' which aims to explain a wide range of technology that young people see around them.

Starring Sam and his engineer mother, Techno Mum, each episode looks at different ideas and the engineering behind it - from electric cars and motion sensor games, to supermarket scanners and much more.

You can even ask for a Techno Mum smart fact through Alexa.

The audio podcasts and videos, and even a comic, can be downloaded at funkidslive.com/techno-mum



Kids Invent Stuff



Kids Invent Stuff is the YouTube channel where 4 to 11 year olds have the chance to get their invention ideas built by real engineers. This gives more primary school kids the chance to engage with real engineering projects.

Kids are encouraged to submit their ideas for inventions to solve a different challenge each month. Ideas can be submitted as drawings or videos uploaded below.

The most creative inventions are showcased on their YouTube channel and each month one idea is built and tested on camera, with hilarious consequences.

Find out more at kidsinventstuff.com

Kids Invent Stuff as seen on *Tomorrow's World Live*, *The One Show* and *BBC News Online*

Have you seen our feature on *BBC News Online*? Search for: **The inventors bringing kids' crazy creations to life**

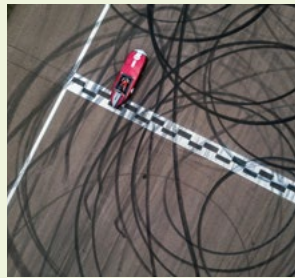


Greenpower



The highly successful Greenpower challenge to design, build and race a single-seat electric car provides young people with a unique hands-on opportunity to engage in STEM.

The proven project uses the excitement of motorsport to inspire students from primary school through to university to excel in STEM subjects along with business studies, computing and physics.



IET Formula
Goblins

9-11 year olds



IET Formula
24

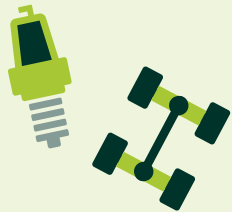
11-16 year olds



IET Formula
24+

16-25 year olds

greenpower.co.uk



Digital Poverty Alliance



digital
poverty
alliance
board partner



Together we can end digital poverty once and for all.

The IET is proud to be a founding member of the Digital Poverty Alliance alongside Currys and the Learning Foundation.



Our vision to live in a world which enables everyone to access the life changing benefits that digital brings.

Our mission to end digital poverty once and for all by 2030.

What we do our main focus is policy and advocacy, gaining the evidence that we need, and bringing the community together to create the social change needed to end digital poverty by 2030.

digitalpovertyalliance.org



EDT and Industrial Cadets



EDT developed Industrial Cadets with support from industry to provide a benchmark accreditation, mapping activities against a skills and competency framework. Inspired by its Patron, HRH The Prince of Wales, Industrial Cadets is the "Kitemark" award for young people engaging with the world of work, providing much needed insights and real-life experiences.



Creating pathways to unlock potential and promote achievement.

EDT's vision is a society where young people across the UK have equal access to engage with STE(A)M (Science, Technology, Engineering and Maths) subjects and achieve their potential in STEM.

EDT is a national charity and the largest UK provider of STEM outreach, delivering 40,000+ experiences to young people annually. Drawing on over 35 years of experience of connecting employers with young people and educators, EDT provides inspiring opportunities for young people to explore the exciting world of STEM, and the variety of rewarding future careers available.

Through experience days, projects, placements and Industrial Cadets accredited programmes, EDT creates pathways through education to employment to:

- inspire young minds
- unlock potential
- promote achievement
- encourage attainment
- bridge the gap between industry and education



EDT is committed to offering a learner pathway that encourages young people to have multiple, high quality interactions with businesses, through building successful partnerships with employers and educators across the UK.

This year, EDT and Industrial Cadets celebrated the milestone of reaching 100,000 Industrial Cadets, welcoming and launching our collective ambition to reach 250,000 Industrial Cadets on the way to 1 million.



For more information, visit etrust.org.uk

*Please refer to our partner's website for costs relating to this programme

CREST



CREST is a scheme that inspires young people to think and behave like scientists and engineers. CREST projects allow students to be creative with their STEM project-based work and find solutions to questions they care about.

CREST offers educators an easy-to-run framework for curriculum enhancement and is student-led, encouraging young people to take ownership of their own projects. Students who engage in CREST awards are proven to have better GCSE grades, with disadvantaged students seeing the biggest impact.



There are six CREST Award levels for ages 5 to 19, allowing students to progress through the scheme throughout their education. The awards are well regarded, high quality and a tangible recognition of success. CREST is easy to organise and can be run in schools, clubs, youth groups, other organisations or at home.

Sign up for your free CREST account online crestawards.org

*Please refer to our partner's website for costs relating to this programme

Funding for engineering projects and activities



Engineering Education Grant Scheme

Funding for extra-curricular engineering projects and activities.

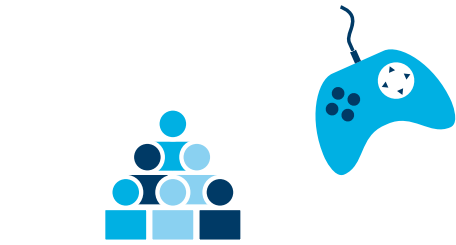
The IET and the Institution of Mechanical Engineers (IMechE) collaborate to provide the Engineering Education Grant Scheme (EEGS).

The scheme supports projects that aim to engage young people in learning about engineering and to develop the professional skills of those involved in supporting STEM learning and careers awareness. The scheme also supports projects that improve wider engineering literacy.

Any youth-based organisation, school or individual able to develop and deliver STEM activities in the UK can apply for funding.

There are two funding rounds each year, opening in Autumn 2022 and Spring 2023.

Find further information and apply at education.theiet.org/support/funding



School Grants Scheme

The Institute of Physics (IOP), the IET and the Science and Technology Facilities Council (STFC) provide schools with up to £600 for projects, to participate in activities or to purchase materials not normally covered by school budgets.

The scheme awards funds for projects linked to teaching or the promotion of physics or engineering and is open to all UK educational organisations teaching students aged 5 to 19. There are three opportunities to apply each year, with deadlines in February, June and November.

Further information, including guidance notes and examples of funded projects, can be found on the IOP website. iop.org/schoolgrants



You and the IET

We have over

155,000

members

in

148

countries



The IET promotes the exchange of information and ideas for the advancement of science, engineering and technology worldwide.

How we can help

We provide our members with a Professional Home for Life® – a range of professional services and products that support members throughout their career.

Some of our members volunteer as Education Officers or Education Ambassadors and help support the teaching of STEM with IET Education. They are here to help and support you with access to funding, programmes and information.



Email us at ieteducation@theiet.org for the contact details of your local Education Officer or Ambassador. They will be on hand to help you every step of the way.



Gatsby Benchmark

Gatsby Benchmark ✓

1 2 3 4 5 6 7 8

A number of our IET Education programmes meet the Gatsby Benchmark, as identified in the government's careers strategy to define world-class career guidance within schools.

The eight Gatsby Benchmarks are

- 1 A stable careers programme
- 2 Learning from career and labour market information
- 3 Addressing the needs of each pupil
- 4 Linking curriculum learning to careers
- 5 Encounters with employers and employees
- 6 Experiences of workplaces
- 7 Encounters with further and higher education
- 8 Personal guidance

Key dates 2022-2023



Dates	Activity
6 October 2022	IET Future Talent Awards
28 October 2022	IET Power Academy Scholarships
September 2022 - June 2023	IET Faraday Challenge Days
September 2022 - July 2023	FIRST® LEGO® League Discover
Autumn 2022 / Spring 2023	Engineering Education Grant Scheme Applications
March 2023 - July 2023	FIRST® LEGO® League Explore Festivals
December 2022 - January 2023	FIRST® LEGO® League Challenge Tournaments
February 2023 - March 2023	FIRST® LEGO® League Challenge National Finals
June 2023	IET Faraday Challenge Day National Final

} application deadline

For more information and application deadlines visit: theiet.org/education



Sign up for our monthly IET Education Bulletin to receive updates on all your areas of interest:

theiet.org/education-bulletin



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