## DESIGN & TECHNOLOGY ASSOCIATION

# EXCELLENCE | 20 AWARDS | 22

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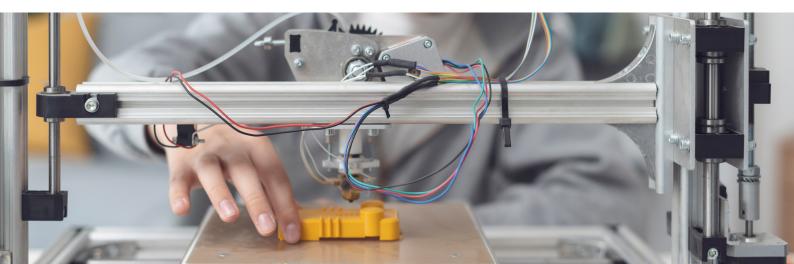












#### Welcome



#### **Bill Williams**

Chair of the Board of Trustees, Design and Technology Association

On behalf of the Design and Technology Association - I would like to offer you a warm welcome! This is our 22nd Excellence Awards event, and we are delighted to be able to welcome you to the fantastic facilities and hospitality provided by our friends and partners at the IET this evening.

I would like to offer an especially warm welcome to all our award winners this evening. Every year our judges sift through an increasing number of nominations for each award category to filter down to our winners; you are here this evening because the judges assessed your nomination to be the stand-out nomination in your category, congratulations!

As we are all aware, the subject is facing a multitude of issues nationally; in this climate, it is more important than ever to take the time and effort to celebrate outstanding practice.

I would like to thank everyone who nominated a colleague for this year's awards and also thank all our winners for your hard work, dedication, and amazingly high standards - your work demonstrates just how important our subject is and what a positive impact it can have on young people's development.

I'd also like to thank all the organisations, partners and supporters who have sponsored our awards, including the IET, for providing the venue for us to hold this awards ceremony. Without their help and continued support, this evening would not be possible. I would also like to welcome all our Blueprint 1000 member organisations here tonight. It's great that such prestigious organisations recognise the importance of the subject and value the essential contribution to design and technology education that schools, colleges and individual teachers make.

This event celebrates the brilliant work of talented and dedicated design and technology education professionals. I hope that all the winners and everyone present will enjoy the evening.





#### **Tony Ryan**

CEO of the Board of Trustees, Design and Technology Association

Welcome to this year's annual awards ceremony. I am delighted that we have been able to arrange this event with the help of our friends and colleagues at the IET. This is my fifth awards ceremony as CEO, and I am especially delighted to be here this evening, having missed last year's ceremony with a virus.

I would like to congratulate our winners who are present tonight. It is an absolute privilege and a joy to host a celebration of everything good that is taking place in design and technology education across the UK and beyond. It is arguably more important than ever to do so, given the challenges the subject continues to face.

We are living through changing and challenging times. The world is changing fast, and the pace of change within technological development is creating jobs and placing demands on our young people that simply did not exist just a few years ago.

It is more important than ever for the UK to develop our young people's design, technological, and entrepreneurial skills, inspiring and nurturing the next generation of innovators, designers, and visionaries. Our awards ceremony allows us to highlight just some of the excellent practice that takes place in primary and secondary schools, initial teacher education and teacher professional development nationally.

As your Chief Executive, my role is to ensure that the Association champions the subject and supports its members, making membership an essential tool for school improvement and continued professional development. I am delighted to report that our membership currently stands at just over 33,000, at the time of writing the highest it has ever been. This awards ceremony celebrates the achievement of the teachers and students present here tonight, but on behalf of all members, it also marks the achievement of unnamed teachers across the country delivering a high-quality D&T experience to their students.

Blueprint 1000, which you will hear us refer to several times this evening, continues to grow and thrive. I would like to welcome all our Blueprint 1000 members here tonight; thank you for your support. This initiative exists to connect education and industry to help ensure that D & T continues to be included as part of a broad and relevant curriculum for all, a curriculum that will equip young people with the knowledge, skills, character sets and confidence essential for 21st-century work and life.

As your professional Association, we continue to lobby the Government to highlight and promote the importance of our subject both in its own right and as an essential facilitating subject for a successful career in a multitude of business and industry sectors.

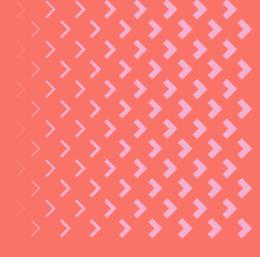
This year saw our lobbying work gather pace in light of the release of the EPI paper in March and the subsequent round table and teacher meetings held nationally. We now have a clear manifesto for development and change that we will deliver over the coming months and years. I would like to thank everyone who nominated a colleague for this year's awards and thank all our winners for your hard work, dedication and amazingly high standards demonstrated - your work demonstrates just how vital our subject is and what a positive impact it can have on young people's development. We could not undertake the wide range of activities that we do without the support of our members from education, industry and business, and, on their behalf, I would like to join with Bill in congratulating all our award winners and thanking you for joining us this evening to celebrate their achievements.



### Order of Ceremony

7.00pm	Drinks Reception
7.30pm	Welcome by Tony Ryan, Ed Almond and Bill Williams
7.35pm	Starter
8.05pm	Introduction to awards Presentation of categories 1 - 4
8.25pm	Main course
8.55pm	Presentation of categories 5 - 8
9.15pm	Dessert and coffee
9.40pm	Presentation of categories 9 - 12
10.00pm	Keynote Speaker Ruth Amos
10.25pm	Closing speech by Bill Williams





#### **D&T Association Excellence Awards Categories**

**Category 1: Autodesk Excellence Award for Outstanding Secondary Subject Leadership** Richard Harris, Raynes Park High School, London

**Category 2: Create Education Excellence Award for Outstanding Primary Subject Leadership** Emma Hudson, Outwood Primary Academy, Wakefield

**Category 3: The James Dyson Foundation Excellence Award Recognising Outstanding D&T Teacher** Trudi Barrow, Sandringham School, St Albans

**Category 4: N.E.J Stevenson Award for Outstanding Contribution to Research in D&T Education** Dr Wei Liu, Kings College London

**Category 5: Onshape Excellence Award for Inspirational Support Staff within D&T** Eleanor Worthington, Queen Elizabeth's Grammar School, Kent

**Category 6: The Institution of Engineering and Technology Excellence Award for Outstanding Contribution to D&T (Awarded by the D&T Association Board of Trustees)** Roy Ballam, British Nutrition Foundation, London

**Category 7: Boxford Excellence Award for Outstanding Industry Engagement (Teacher)** Antoinette (Toni) Kodi-Pecku, The Ursuline Academy, Ilford

**Category 8: Autodesk Excellence Award for Outstanding Industry Engagement (Industry Partner)** John Patterson, Sellafield Ltd, Warrington

**Category 9: Autodesk Excellence Award for Outstanding Departmental Team** Hethersett Academy, Norwich

**Category 10: The STEM Workshop Outstanding Pupil Award: Age 5-11** Ian Iliev, Highgate School, London

**Category 11: The Royal Academy of Engineering Award for Outstanding Pupil: Age 12-16** Ella Thompson, Upton Hall School, Wirral

**Category 12: HME Logistics Award for Outstanding Pupil: Age 16-18** Alex Brown, Oakham School, Leicester



#### **Richard Harris**

Raynes Park High School, London

Richard raises expectations and outcomes in students learning and has developed the profile of D&T which is reflected in his many achievements.

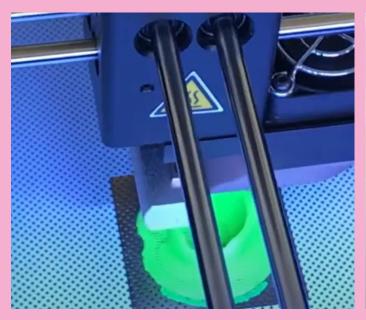
This includes a Pearson's Secondary School Teacher of the Year Award, Association of Technology Education 'Learning Technologist of the Year Award', Teen Tech 'Teacher of the Year Award', as well as being bestowed Fellowship status by the Chartered College of Teachers. He has been highly praised in publications by the Wimbledon Times and highlighted in multiple articles for university alumni news releases and featured in a televised teaching commercial while teaching in Korea.

As a Head of Department at Raynes Park High school in London, he led a highly successful initiative named #GetInvolved with the goal to immerse students in technology and break the financial barriers that restrict opportunity.

This initiative not only extensively increased exam performance but led the students that he taught to win national competitions, such as taking the first-place spot in the prestigious London Leaders awards that attracts over 100,000 entries, as well as finishing in the top 10 for the Landrover 4x4inSchools competition and having a special mention in the Design Ventura Design Museum competition. The department that he leads also achieved a Teen Tech Gold Centre of Innovation & Creativity Award.

Richard is a true advocate for teaching and inspires others to join the profession through his work with the UK governments 'Get into teaching' campaign and mentoring trainee teachers in the Teach Wimbledon association. Furthermore, Richard is part of the Goldsmith University 'Gold Award Scheme', where he mentors students with disabilities to support their journey to successful employment. He was a speaker at the London Connected Learning Centre, and offered collaborations with the Helen Hamlyn Centre for Design, The Helen Hamlyn Centre for Pedagogy and the UCL Centre for Educational Leadership.

This event is all about celebrating the brilliant work of talented and dedicated professionals in design and technology education.





**Category 2:** Create Education Excellence Award for Outstanding Primary Subject Leadership



#### **Emma Hudson**

Outwood Primary Academy, Wakefield

Emma has worked tirelessly to improve the quality of teaching and learning in D&T. This began with developing a high-quality D&T curriculum from EYFS to Year six.

Her consistent high standards have resulted in Raynes Park High School becoming one of a handful of primary schools to achieve the prestigious D&T Quality Mark.

Emma has a rigorous yet supportive approach to teaching the subject. She created a D&T website to support teachers which includes planning support, teaching ideas, resources, WAGOLLs and formative and summative assessments. She has coached staff both in her academy and across the trust to improve quality teaching and has been an inspiration to staff and pupils.

She has worked with partners to source unused D&T resources to continue to give students the tools and resources required to enable them to develop a range of skills in woodwork, textiles and food technology.

Emma has worked closely with the Director of curriculum at Outwood Primary Academy to develop and refine the D&T curriculum offered at the school. Emma's leadership enables colleagues to confidently deliver a high-quality curriculum that incorporates many Cross-curricular links, for example, incorporating history (Ancient Egypt), geography (Greek, Italian and Mexican food technology), science (Electricity), English (pop-up books) and more. She creates inspirational teaching resources shared on the D&T website and work booklet which supports the learning journey and D&T processes from researching, planning, practising, designing and making and finally evaluation.

In the last 3 years D&T has developed rapidly with Emma's help and the progression of knowledge and skills of both teachers and pupils is evident. Pupil interview and monitoring evidences increased engagement and passion for the subject.









# **Category 3:** The James Dyson Foundation Excellence Award Recognising Outstanding D&T Teacher



#### **Trudi Barrow**

Sandringham School, St Albans

Students who are taught by Trudi have thrived under her tutelage and she is much loved and respected by students and colleagues. Trudi set up the D&T Department at Kensington Aldridge Academy from scratch with the school going on to be graded outstanding by Ofsted. Students describe Trudi as passionate, caring and motivating. Those who have had the privilege of working with her at Key Stage 5 comment on how she has supported them to produce outstanding work and inspire them to achieve greatness. Trudi has written superb schemes of work for both her team at Sandringham School, and Ridgeway Academy.

At Ridgeway Academy she supports the faculty through coaching and mentoring. The schemes she created for both schools are bespoke to each school's context and have successfully accommodated limited facilities, remote learning and teachers for whom D&T is not their first subject. Trudi is also an advocate for the subject and champions D&T in the wider community by leading CPD and networking events for local teachers through the Alban Teaching School Hub.

These networking events have been a huge success with many commenting specifically on Trudi's enthusiasm, energetic leadership and creative approach to resourcing, teaching, and learning. Trudi is an advocate of blended learning at Sandringham School and has been involved with the EdTech demonstrator programme; experimenting with EdTech in her lessons to improve student outcomes and engagement. She is a 'go to' teacher for EdTech colleagues.





## **Category 4:** N.E.J Stevenson Award for Outstanding Contribution to Research in D&T Education



Dr Wei Liu

Kings College London



Dr Wei Liu is Senior Lecturer (Associate Professor), leading design research, education and makerspaces at King's College London. Wei accomplished her PhD at the University of Cambridge and was Visiting Fellow at Harvard Business School to explore interdisciplinary research and teaching across design, engineering and management.

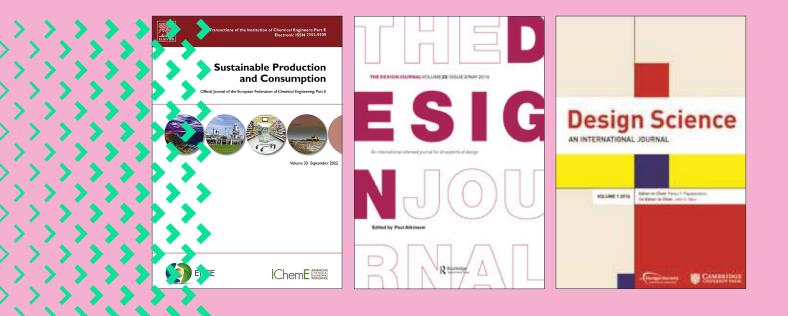
Before joining King's, she worked as a faculty member at Cambridge Judge Business School as well as practiced leadership as Assistant Dean at Tongji University and Programme Director and Director of Design Research Group at Aston University.

Wei has obtained over £2.8 million in research grants from EPSRC, NSFC, and other prestigious funding bodies. One of her recent research projects sponsored by EPSRC for £1.5 million has been recognised by the funding council. As the Principle Investigator, she set up the research team bringing in experts from Design, Social Gerontology, Psychology, Smart Composite Material, and Artificial Intelligence to shape a worldclass consortium of universities, industries, NGOs and policy makers. Design Science, Rapid Prototyping Journal, 3D printing and Additive Manufacturing, Sustainable Production and Consumption, California Management Review and R&D Management, reflecting her great efforts to expand design value into other subjects.

She won Best Paper Awards from Product Development and Management Association, Conference and British Academy of Management. Wei is Co-Editor of The Design Journal, the official journal of the European Academy of Design and one of the top academic journals in the global design research area.

She has been the session Chair, keynote speaker, conference committee member, and scientific review committee member for many international conferences such as the Academy Design Management Conference, R&D Management Conference, European Academy of Design Conference, Annual Meeting of the Academy of Management and the Cambridge Academy Design Management Conference.

Her research has been published in the Design Journal,



#### Category 5: Onshape Excellence Award for Inspirational Support Staff within D&T



#### Eleanor Worthington

Queens Elizabeth's Grammar School, Kent

Eleanor's commitment to staff and students has been exceptional for many years and she is an integral team member, which has led to the faculty's huge success over recent years.

Her positive 'can do' attitude is infectious, it inspires staff and students to push themselves and know there is always someone to support them.

From an industry background in Textiles, Eleanor has independently developed excellent skills in all areas of D&T. Whether CAD/CAM, working on a lathe or casting, she utilises these skills to lead and motivate staff and students.

Eleanor helps develop projects, often making prototypes or sourcing materials that inspire students to take the subject at GCSE and A level. The workshops are very well maintained which is mainly due to Eleanor's rigorous enforcement of H&S checks and the monitoring of the equipment maintenance schedule.

Often described as a 'Womble', Eleanor will regularly collect what others leave behind. She has developed relationships with local industry to collect their waste materials, which she puts to good use in the faculty, even foraging in a skip which was on site when our Science faculty were refitting the laboratories.

Eleanor is always willing to accompany students on trips to other educational establishments if it means it will enhance their learning in relation to Design Technology.

She makes herself available to transport and supervise them, ultimately allowing the students to benefit from real world extra curricular experiences.











#### **Roy Ballam**

British Nutrition Foundation, London

Roy worked tirelessly at the British Nutrition Foundation for 26 years and while no longer working for the Foundation, he is still very much involved in food education through his work as a consultant and with the Food Teachers Centre where he is supporting Food and Nutrition teachers develop into the school leaders of the future. Throughout his career, Roy has demonstrated his passion for nutrition education and has been instrumental in driving the work and building the reputation of the Foundation to become the UK's leading support body for school food education.

A crucial part of this has been his pivotal role in the development of the Food a Fact of Life education programme which has just celebrated its 30th anniversary. This includes a comprehensive free-toaccess website housing over 2,000 resources and 300 plus recipes for use in schools and in 2021 over 500,000 teachers downloaded over 1.5m resources.

Roy has also been involved in curriculum development, being an adviser on the content of the GCSE Food and Preparation and also part of the reform group for the AQA Food Preparation and Nutrition GCSE specification. Roy was also a member of the CCEA Home Economics: Food and Nutrition advisory board.

During his time at the Foundation, Roy also oversaw the development of a free nutritional analysis programme for schools (used over 1,444,625 times since June 2014) and a free personal and professional development programme for food and nutrition teachers (2015-2018), through which over 2,000 teachers increased in confidence and competence. 2021 saw the creation of a new area on the Food – a fact of life website to support teachers of pupils with additional needs. These resources have been downloaded over 12,000 times to date and teachers have been further supported through a series of free online webinars.







#### **Category 7:** Boxford Excellence Award for Outstanding Industry Engagement (Teacher)



#### Eleanor Worthington

Queens Elizabeth's Grammar School, Kent

Toni has a 14-year career in teaching D&T, she joined the Ursuline Academy Ilford School in January 2020, taking the role of the school's new Subject leader in Design & Technology.

Toni has worked tirelessly to support her students' progress during and following the pandemic and is excpetionally hardworking.

On top of running a busy department with one part time member staff and technician, Toni is virtually a one-man band, she teaches the bulk of KS3 and all of KS4 D&T.

Toni took the lead in collaborative projects including the Lord Mayor Mobie Homes Design for London Challenge (MHDC).

Her excellent teamwork and enthusiasm has encouraged other members of staff and students to reach their full potential.

Toni's burning passion to play a bigger role in promoting STEM is evidenced in her partnership with the British Science Association where she secured 30 student Discovery Crest Awards and a visit to an Intellectual Property law Company in central London.

As part of the Shaping Space - Architectural Models Revealed exhibition, Toni lead the pilot with her New Year 10 DT group. A partnership with the Building Centre and the V&A Museum.

The likelihood of partnerships, remaining sustainable will ultimately be down to the driving force, attitudes and value of staff running and organising such partnerships and Toni is an excellent example of someone who goes above and beyond.





## boxford

#### Category 8: Autodesk Excellence Award for Outstanding Industry Engagement



#### **John Patterson**

Sellafield Ltd, Warrington

John Patterson from Sellafield Ltd, has been working with UTC Warrington since opening in September 2016. He has liaised with colleagues at Sellafield and invited them into UTC to help promote Women in Engineering events, where he has encouraged UTC alumni to discuss their journey at UTC and their progression on to a Mechanical Engineering Degree Apprenticeship at Sellafield Ltd.

Sellafield have not only expressed interest with promoting women in engineering, but they have also worked with several of our male students since 2016 and many of them have secured both mechanical and electrical apprenticeships in engineering.

Whilst not all of our students progress onto Degree apprenticeships with Sellafield the experiences John and his team provides has had a demonstrable impact on our students successes on the job market.

Sellafield frequently support UTC business mentoring days at the UTC. They support the team at the UTC in promoting the diverse range of apprenticeship opportunities and engineering pathways available to young people. Sellafield graduates are generous in providing masterclasses using cutting edge technology which supports UTC student technical knowledge beyond their academic curriculum in a number of technical disciplines. Throughout this academic year John has personally supported students at the UTC on Saturday mornings.

Additionally, Sellafield are committed to supporting UTC staff to develop their own skills in advanced manufacturing with planned training with PLC, pneumatics and hydraulics equipment.

In summary the UTC serves some of the most deprived wards of Warrington and John and the team at Sellafield have enabled the young people at the UTC to access some world class life changing opportunities.

#### AUTODESK





**Hethersett Academy, Norwich** 

The Design & Technology team at Hethersett Academy has consistently demonstrated the skills and qualities to be awarded the first-ever Outstanding Departmental Team Award.

Kate Finlay joined the team in 2015 when 30% of the school chose to study GCSE Food & Nutrition or GCSE D&T at KS4.

The team consisted of a full-time and a part-time teacher and one technician. This year 91% of the school have chosen to study a D&T GCSE.

Very quickly the team gained a marvellous trainee food teacher in Jessica Knight. The team moved forward to create an environment where our pupils, no matter their starting point, were enriched by D&T during their time at Hethersett.

With the expansion in the subject, the team expanded with new technicians and new Food & Nutrition teachers in Cara Read and Rosie Nolan.

Students leave the academy at the age of 16 and are continuing their studies across a wide range of D&T discipline areas due to the hard work and motivation of the excellent team.

The curriculum is taught passionately and offers all pupils a wide range of experiences within a challenging curriculum, so that they can develop a high level of skill in an area that they love.







#### Category 10: The STEM Workshop Outstanding Pupil Award: Age 5-11



#### Ian lliev

Highgate School, London

Ian's ability is far beyond what is expected of a Year six student and he has done a lot of independent learning, from coding in Arduinos to breadboards to Vex robotics.

He makes it look easy and sees problems with real clarity. He is determined and incredibly passionate about Design, Technology & Engineering.

He is an inspiration to the other students and also staff. He recently worked on a project to improve the rewards system at school.

He achieved this by designing a system which is fun to use, interactive and a fantastic incentive for students to work hard to be rewarded with a token, which they get to use on the device he made.

It also explains how he made it, so it showcases what can be achieved and something to aspire to. It also helps the teachers, as it keep score of all the tokens so everyone can see a running total.





This product will stay in place for years to come and help students access the rewards system, learning about coding, STEM in general and sustainability as he made the tokens from recycled acrylic and frame from pallet timber. He continues to work with dedication, creativity and skill.



#### Category 11: The Royal Academy of Engineering Award for Outstanding Pupil: Age 12-16



#### **Ella Thompson**

Upton Hall School, Wirral

Since she joined the school in Year 7, Ella has taken part in many extra-curricular activities related to D&T and has acted as a subject ambassador.

She puts her all into her D&T learning, and, as a subject leader, is everything a teacher could hope for in a student.

Ella has spent many lunchtime and after school sessions in the department when working on her projects, notably the swing chair she manufactured for her GCSE NEA.

This project was very impressive for GCSE level and it was Ella's drive and determination that allowed her to complete this project.

Outside of the classroom, Ella has a 3D printer at home which she uses to support her learning.

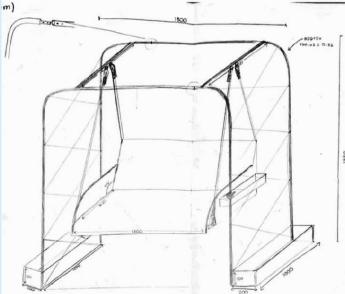
Ella also runs her own business manufacturing roller skate accessories using lots of specialised equipment, which she then sells to customers all over the world. She has sold over 1000 accessories to customers as far as Australia and the Americas.

Next year, Ella will go on to study A levels in D&T Product Design, Maths and Business Studies with the hope of going on to study engineering at university.

Ella has reached the interview stage for the Arkwright Engineering Scholarship and is hopeful she will gain this prestigious scholarship to support her during her A Levels.









#### Alex Brown

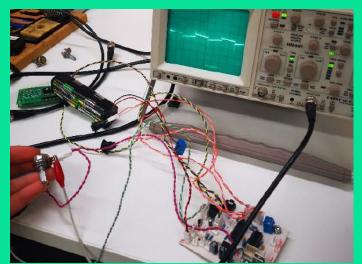
Oakham School, Leicester

Alex completed - Level Electronics in one year, with an outstanding project that was beyond the scope of the course and mainly in his own workshop and time due to COVID. Completed A Level design this year in which his design for an electronic control system to help disabled in sailing in the CAD and electronics is worthy of University standard.

Though Engineering In Education scheme was not officially run last year, we ran a team with our supporting company CBS cables as they had an engineering problem for us. Though he was part of a team in reality the work was all his.

The solution to the problem was so impressive when presented to Managing Director, and was something that the company did not have the appropriate engineers in house, that they employed him last summer holidays.

They continue to employ him online and in the holidays to develop implement and support his design into full production and upgrade the electronic systems across a range of their products.









### Congratulations to all of the winners...

The D&T Association Excellence Awards are made following a nomination and independent judging process. Each of the award categories has specific criteria which are used to select the winners who each receive a framed certificate containing a citation and also an awards trophy made by the Design and Technology Association.

### With special thanks to...

The Edge Foundation and PTC Onshape for their continued support of our Designed for Life Podcast series.

Listen to our Podcasts here:





## DESIGN & TECHNOLOGY ASSOCIATION