**2013/14**
3 schools, 300 students

**2014/15**
50 schools, 2,500 students

**2015/16 & beyond**
National competition

# RSA PUPIL DESIGN AWARDS
## PROJECT PROPOSAL

**SEPTEMBER 2014**

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PUPIL
DESIGN
AWARDS

> " The notion of Big Design as a powerful and pervasive activity broadly applicable outside of traditional product territories seems absent from most [Design & Technology (D&T)] lessons. Designers and commissioners of design today see the subject as being about resourcefulness, sustainability, facilitation, multi-disciplinarity and solving problems of all shapes and sizes. Instead, D&T in schools seems wrapped up in a rather formulaic design process model of 'design sheets', narrowly focussed practical tasks and collage passed off as research. "

John Miller, RSA Design & Society, 2011

## Background

Design and Technology (D&T) education is in decline: between 2012 and 2013, there was a 9.9% drop in the number of students pursuing the subject as an A-Level and last year only 4% of high school students chose to take the subject as a GCSE compared to 5.6% in 2009. This steady loss of interest in D&T has seen the subject fall from 6th to 9th place in the GCSE popularity table despite its importance for Britain's economic growth.

Design delivers substantial benefits for the UK's business community and that for every £1 invested in design, businesses can expect over £20 in increased revenues, over £4 increase in net operating profit and a return of over £5 in increased exports (Design Council, 2012). In fact, it is no wonder that the Intellectual Property Office (IPO, 2012) estimates that UK businesses invest up to £35 billion a year on design to develop more valuable products and services. With such high levels of investment in design and the soaring levels of youth unemployment across the UK, we simply can't afford to let D&T education slip off the school curriculum due to lack of take up by students.

D&T was first introduced to the British school curriculum in 1988 to "prepare pupils to meet the needs of the 21st Century; to stimulate originality, enterprise, practical capability in designing and making and the adaptability needed to cope with a rapidly changing society". Now, 14 years into the 21st Century, these words ring truer than ever and we need to start engaging students, at a younger age, so that they can enjoy and understand the importance of D&T and creativity as part of their childhood and future career path.

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## Design at the RSA

The RSA (Royal Society for the encouragement of Art, Manufacture and Commerce) has a rich history in supporting design as a professional discipline since the early 20th Century. One of its best-recognised expressions of this support is the Royal Designer for Industry (RDI) award established in the 1930s to recognise designers of excellence raise the profile of the emerging profession of design and promote the contribution of design in manufacturing and industry. Only 200 designers may hold the title RDI at any time with recipients of the honour including Gordon Russell, Barnes Wallis, Vivienne Westwood, and Marc Newson as well as those responsible for designing the Millennium Bridge, the iPod, the Rolls-Royce jet engine, the Harry Potter film sets and the miniskirt among other things.

On a more practical level, the RSA Student Design Awards, which celebrated its 90th anniversary this year, challenges university students to apply design thinking and skills to address current and pressing social, environmental and economic issues. Dating back to the original RSA led bursaries scheme born in the 1920s, the Student Design Awards is a global curriculum and annual competition which seeks to empower a generation of savvy, employable designers who understand the potential of design to benefit society. It launches a series of design briefs every year to encourage and reward the best emerging talent from universities, with past winners including Richard Clarke (now the Vice President of Global Design for Nike) and Sir Jonathan Ive (now the Senior Vice President of Industrial Design at Apple).

## The RSA Pupil Design Awards

Building on the prestige of the RDI and Student Design Awards, the RSA now wants to develop an award programme to engage future generations of RDIs and students of a younger age - the RSA Pupil Design Awards. This new and exciting annual programme will give students (aged between 12 and 18) in secondary schools across the UK a chance to learn and apply their design skills to real life issues and problems. We believe that design learning and thinking should be at the heart of every young person's education, and that extending the RSA Student Design Awards to a younger audience could be a great way to help schools to inspire new generations of great British designers.





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### School engagement September – February

In order to ensure that we can reach not only students but also teachers, we will engage a number of schools that would like to develop their current D&T offer through the implementation of the RSA Pupil Design Awards. As the needs and capabilities of each school will vary, the Pupil Design Awards will be offered as a programme which can either be embedded into each schools' current D&T curriculum or as an extra-curricular activity. This will allow each school to decide which structure of the programme suits them best.

We will run a teacher briefing day (either at the RSA House, London, or a regional location) for all teachers taking part in the delivery of the programme. We will ensure that they all have the skills, knowledge and tools to run the Pupil Design Awards successfully.

Although this year we are hoping to engage 50 schools, with over 2,500 students, we envisage that by the following year we will be able to extend the Pupil Design Awards to all interested schools across the country.

### Brief development November – February

Each year we will design a series of 3-4 briefs inviting students to respond with their design-based solutions to a variety of current social, environmental and economic issues (such as ageing, transport and saving water). The briefs will be written in an engaging and age appropriate manner to ensure that we appeal to students from different backgrounds and age-ranges (there will be two age categories for each brief – age 12-14/years 8 to 9 and age 14-18/years 10 to 12).

### Introductory workshop February - April

Teachers that we have already briefed from each of the participating schools will run an introductory workshop with their students. This workshop will launch the briefs, explaining to students and teachers alike the process and timeline for responding to the briefs and entering the competition.

### Responding to the briefs February - June

During a 6-10 week period (dependent on the teaching schedule of each participating school), D&T teachers will help their students design and develop solutions in response to the Pupil Design Award briefs (each student will choose a brief to focus on) during their regular D&T lessons or existing extra-curricular sessions. Some schools may decide to run the Pupil Design Awards as 1 or 2 day intensive workshop rather than during the 6-10 week period we recommend.

### Mentoring February – June

We will arrange for previous RSA Student Design Award winners to engage with the schools and provide advice and inspiration to the participating students. These visits or online mentoring sessions will take place during the D&T lessons or extra-curricular sessions in which the Pupil Design Awards are being run.

### Shortlisting Late June

Once all responses to the Pupil Design Award briefs have been received, we will convene a judging panel (including practising designers, prominent RDIs and previous Student Design Award winners) to view all entries and shortlist 2 to 3 submissions for each of the briefs.

### Judging and Awards day Late July

The students that produce each of the shortlisted submissions will be invited to the RSA House (London) to present their projects in front of peers and judges. Winners will then be selected from each of the 2 age categories for each brief. We will also award one candidate with the Progress Award (nominated by teachers and awarded to the student who has made the most progress while working on their RSA Pupil Design Award project. This could be progress in their design skills, attitude, confidence or behaviour.) All winners will be awarded prizes which may include design-related products/software, design workshops, artwork from RDIs and visits to design studios.

### Evaluation August - September

Once the Pupil Design Awards "season" has ended, we will undertake an evaluation, using feedback from teachers, parents and students, so that we can learn how to improve the programme for the following year.

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## Pupil Design Awards: Success so far

Between April and July this year, we ran a successful pilot of the Pupil Design Awards with 300 students from across the RSA Academies in the West Midlands working on 4 briefs (see appendix A), and RDI Robin Levien and Design Week Editor Angus Montgomery on the judging panel (winning project entries can be found in Appendix B). The aim of the pilot was to test the concept of such design challenge for 12-18 year olds and we are delighted to report that it was a great success with positive feedback from students, teachers, mentors and judges.

Following our success, we are now looking to run a bigger pilot, extending the Pupil Design Awards from reaching 300 students across 3 RSA Academies to reaching around 2,500 students across 50 schools in the next year, with national presence by 2015/2016.





"
*His enthusiasm is infectious and his motivation is undeniable…I genuinely believe he has thoroughly enjoyed participating and being given an opportunity and chance to shine.*
"

A teacher talking about a year 10 student who took part in the pilot Pupil Design Awards

"
*I was so delighted to be part of the first year of the RSA Pupil Design Awards – the student work was at once delightful, forward-thinking, and thoughtful. I was impressed by the work at the short-listing stage and all the work that had gone into the projects, but I couldn't have possibly been more impressed with the students when they came in to present their work. They gave articulate and passionate presentations and it was clear that all of them had discovered a passion for design and confidence in themselves throughout the process.*
"

Sevra Davis, Manager of the RSA Student Design Awards, on judging the pilot Pupil Design Awards

# PROJECT #1
# IMPROVE A DAILY JOURNEY

The daily journey to and from school or work is a necessary evil in most of our lives. British commuters have the longest daily journeys in Europe, with the average trip taking 45 minutes. Regular journeys can be tiring and stressful.

**How can we make the daily journey a high-point of the day?**

## 1. RESEARCH

**Chose a daily journey (this could be yours or someone else's) and find a part of it which could be improved.**

*Examples could be:*

Overcrowding on public transport

Wasted time/boredom during long journeys

Hesitation around cycling due to bike theft/concern about road safety

Large amount of pollution created

## 2. DESIGN

**Design a product, campaign or service that will overcome this problem, making your identified daily journey better for your target audience.**

*Examples could be:*

Product: A new type of bike lock that prevents bicycle theft

Campaign: A series of adverts that encourage passengers to be considerate to one another

Service: An app which allows you to share lifts with neighbours, reducing the number of cars on the road.

# PROJECT #2
# JOIN UP THE GENERATIONS

Many young people don't grow up living close to their grandparents, and often don't have any other contact with older people on a regular basis. This means that old and young don't often know much about each others generations. This can cause negative stereotypes and make mixing between generations difficult. It's important to remember that all generations have valuable skills and knowledge to share with each other.

**So how can we bring together young and old?** This could be through shared interests or needs, or learning from one another. How can what you design benefit both generations?

## 1. RESEARCH

**Identify a reason why old and young people do not currently interact.**

*Examples could be:*

Perception that the generations have nothing in common

No common time or place to interact

Ageism between the generations

## 2. DESIGN

**Design a product, campaign or service that will overcome this, and better unite old and young.**

*Examples could be:*

Textiles: A fashion brand for all ages

Campaign: Posters which highlight what different generations have in common

Service: A community space and programme of events that bring generations together to swap skills and stories

# PROJECT #3
# ATTITUDES TO WATER

Water is a precious resource that many of us take for granted. In many developing countries, the average daily water use per person is 20 litres. In the UK it is a huge 153 litres. With the UK's population predicted to grow by 10 million over the next 20 years, the demand for water will increase, putting pressure on the amount of clean processed water we have.

**How can we encourage people to change their behaviour and value our water more?**

### 1. RESEARCH

**Identify a specific reason or a time that people take water for granted.**

*Examples could be:*

Lack of awareness around how much water they actually use in a day

Leaving the tap running whilst brushing teeth

No knowledge of the water treatment process

Assuming that water is an unlimited resource

### 2. DESIGN

**Design a product, campaign or service that will overcome this problem.**

*Examples could be:*

Product: An appliance that helps people use water more wisely

Campaign: An awareness campaign showing people how much water we use

Service: An app which rewards you for reducing your water usage

# PROJECT #4
# THE COMMUNITY SUPERMARKET

Food shopping has changed a lot over the past century. Small, local, independent shops which formed the heart of communities have been replaced by supermarkets – your one stop convenience shop. While supermarkets make life easier for many, they mean that a lot shoppers often don't know where food comes from or how it's made. Self-service checkouts mean that you can do your shopping without speaking to anyone.

**How can supermarkets engage with local people and be a more important part of the community?**

### 1. RESEARCH

**Identify an element of supermarkets which makes it hard for them to be seen as 'local'**

*Examples could be:*

Due to big chains of supermarkets all looking the same, from branding to layout, many towns are beginning to look and feel the same.

Self-scanning and self-checkouts mean we can go in and out without speaking to anybody.

Fruit and vegetables are available all year round, grown in different countries, meaning we no longer learn about seasonal produce.

### 2. DESIGN

**Design a product, campaign or service that will overcome this, bringing the community closer together**

*Examples could be:*

Interior Design: A new supermarket design which is unique to and reflects the local area

Graphic Design: A regular newsletter by the tills which details community activity and ways to get involved.

Service: A community run garden in the car park, teaching residents about seasonal produce which is then sold at a discount in the store.

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**Appendix B: Pilot Winning Projects**

*Lucy Fulton & Kim Futrill, Year 8, Ipsley CE RSA Academy*
**Brief:** The Community Supermarket
**Solution:** A 'local aisle' in supermarkets, only selling food sourced from within a 15 mile radius (distinguishable by the purple flower sticker). Profits from sales get pumped back in to the community, and all left over food is donated to local homeless shelters, rather than being thrown away.

**Year 8 & 9: SHORTLISTED**

*Sasha Bryan & Katrina Large, Year 9, RSA Academy*
**Brief:** Improve a daily journey
**Solution:** A redesign of school bus seats. Memory foam will make seats more comfortable. Light sensitive and glow in the dark material will mean the covers change colour, making them more fun and engaging. Covers can be changes for special occasions such as Christmas and Halloween, or to raise money for charity, for example pink seats for Breast Cancer.

*Joshua Davies & Joshua Grainger, Year 9, RSA Academy*
**Brief:** Join up the Generations
**Solution:** An old broken car is purchased within a community, and together they repair and 'do it up'. With the older generation's mechanical knowledge and the younger generations physical strength, this community project with bond young and old.

*Samuel Downing, Year 9, RSA Academy*
**Brief:** Attitudes to Water
**Solution:** Quick. Stop. Drop. – A device which automatically turns the shower off after 7 minutes. This encourages shorter showers, saving water. The display also tells you how much money you are spending on water, making people more aware of usage.

*Amy Read-Pountain, Danielle Brough, Georgie Burnette & Rebekah Hammersley, Year 8, Ipsley CE RSA Academy*
**Brief:** The Community Supermarket
**Solution:** A world map plotting the source of all the contents of your shop is printed on to the back of supermarket receipts, making people more aware of global food sourcing, and encouraging them to eat locally sourced food.
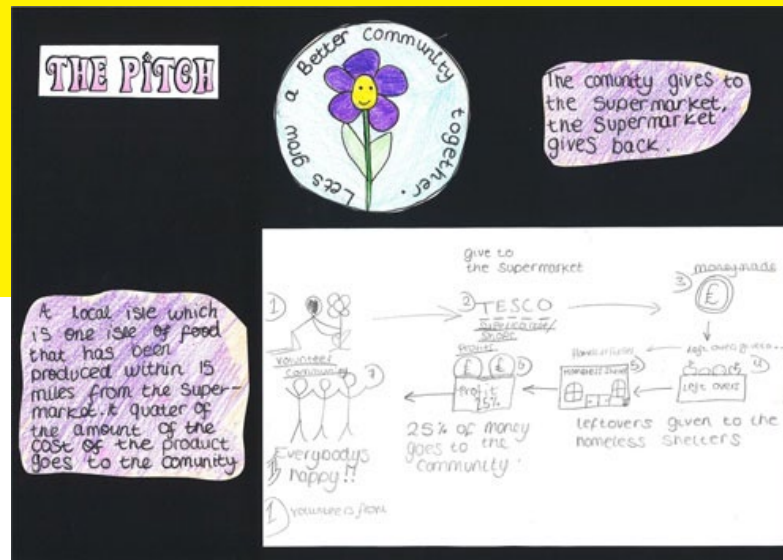






**Progress Award**

Awarded to the student who has made the most progress while working on their RSA Pupil Design Award project. This could be progress in their design skills, attitude, confidence or behavior.

**WINNER**
Ilyas Mohammed, Year 10, Holyhead School

*"His enthusiasm is infectious and his motivation is undeniable…I genuinely believe he has thoroughly enjoyed participating and being given an opportunity and chance to shine."*

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**Appendix B: Pilot Winning Projects**



**Year 10 - 12: WINNERS**

*Ryan Turner & Lousie Hearty, Year 12, RSA Academy*
**Brief:** Attitudes to Water
**Solution:** A water metre that displays a household's water usage in an easy to read way. The metre also encourages saving water by allowing users to 'compete' with friends and family, and see how their water usage compares on a global scale.

**Year 8 & 9: SHORTLISTED**

*Tom Pickard & Kieran McGann, Year 12, RSA Academy*
**Brief:** Improve a daily journey
**Solution:** A re-designed car visor to reduce glare whilst driving. Light sensors in the headrest trigger the visor to automatically adjust using roller blind technology. The visor is built into the roof of the vehicle to save space and improve aesthetics.
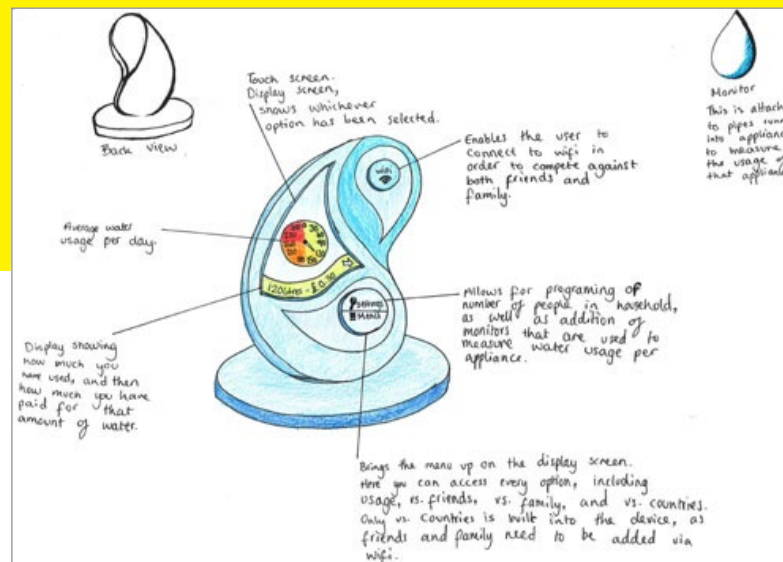
*Ilyas Mohammed & Sonah Parvez, Year 10, Holyhead School*
**Brief:** Attitudes to Water
**Solution:** A plunger device which is used to save and store bath water. By using a valve system and a variety of different nozzles, this water can then be used to carry out many tasks, turning the plunger into a tool.

*Husnein Mohammed, Naseem Azim & Gurjeevan Dhariwal, Year 10, Holyhead School*
**Brief:** The Community Supermarket
**Solution:** A tablet and stand supported by Birmingham City Council and located in supermarkets encouraging people to share recipes within their community. You can search, print and upload recipes, as well as use the device to help you locate ingredients from around the store.