

Our STEM Challenge



STEM represents...

- Science
- Technology
- Engineering
- Mathematics



Our STEM Challenge = SDG5 GENDER EQUALITY

Achieve gender equality and empower all women and girls

STEM Challenge projects encompass:

SDG1 - End poverty

SDG2 - End hunger

SDG3 - Good health and wellbeing

SDG4 - Quality education

SDG5 - Gender equality

SDG6 - Clean water and sanitation

SDG7 - Affordable and clean energy

SI PROGRAMME FOCUS AREAS



Our STEM Challenge and Projects encompass

- **ECONOMIC EMPOWERMENT**
- **EDUCATION**
- **ENVIRONMENTAL SUSTAINABILITY**
- **FOOD SAFETY AND HEALTHCARE**
- **ADVOCACY**

Diversity of Projects



WATER FILTRATION

FOOD

SOLAR ENERGY

CLOTHING

SECURITY OF PEOPLE & PROPERTY

MEDICAL
~ anti-malarial patch
~ viper venom for medical research

EDUCATION

SHELTER

MOSQUITO NET ONESIE

RECYCLED SHOES

KINETIC ENERGY

WATER COLLECTING & CARRYING

AGRICULTURE
~ crops
~ composting
~ fertilising

Diversity of Projects:

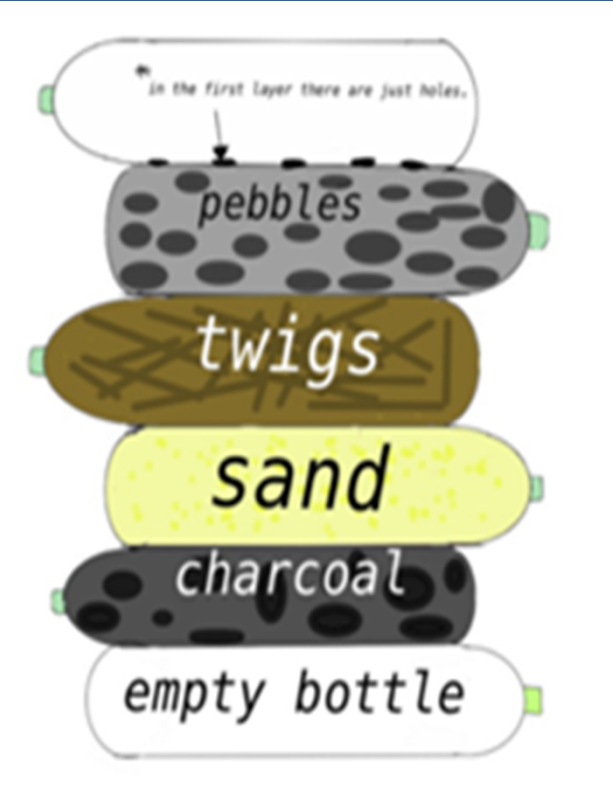
Water



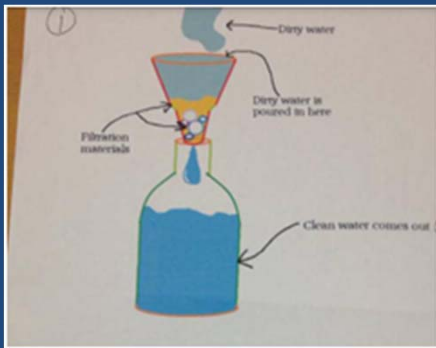
Dirty to clean water through evaporation and condensation



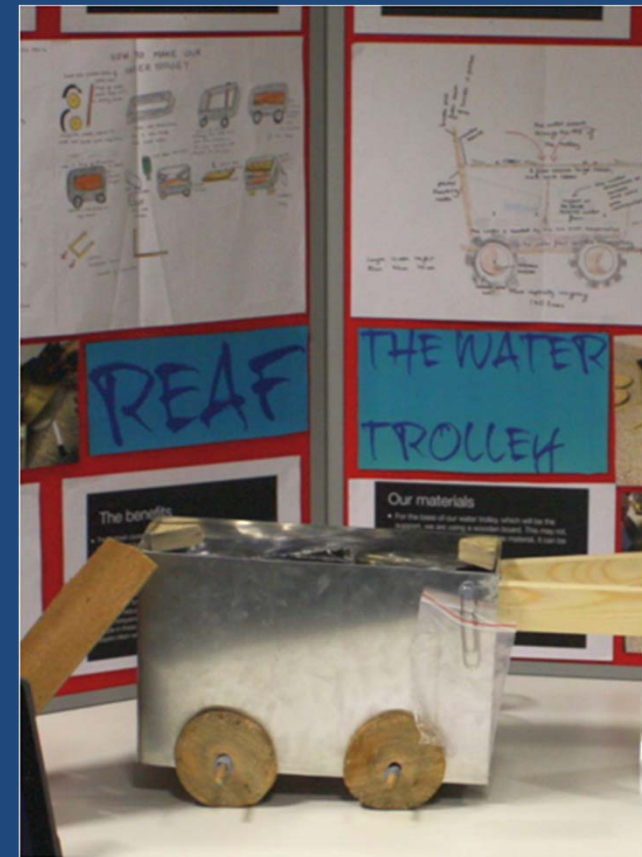
Diversity of Projects: Water filtration and carrying



Diversity of Projects: Water filtration and carrying



Diversity of Projects: Water filtration and transport in Chile



Diversity of Projects:

Water carrying



Diversity of Projects: Water carrying



Water filtration



Diversity of Projects: Solar Cooking



Diversity of Projects:

Boat of recycled plastic bottles
for use in floods in Bangladesh ...



STEM teacher testing the product!



iversity of Projects:

Medical: Harvesting Snake
 venom for research



Also ...

Anti malarial
patches

Mosquito net
'onesie'

iversity of Projects:

droponic food production



iversity of Projects:

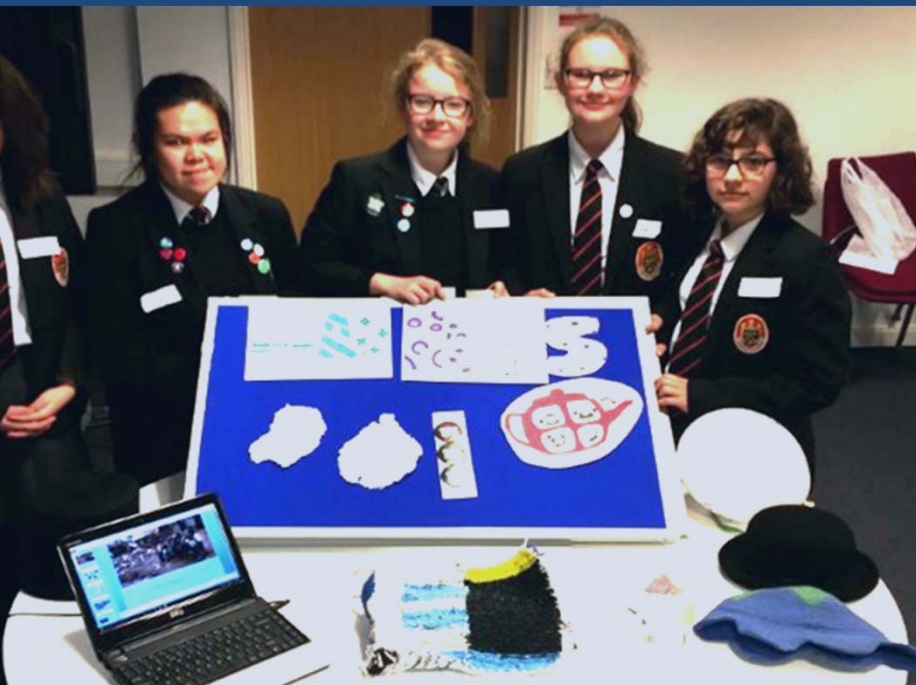
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iversity of Projects:

ebooks from recycled paper and cardboard

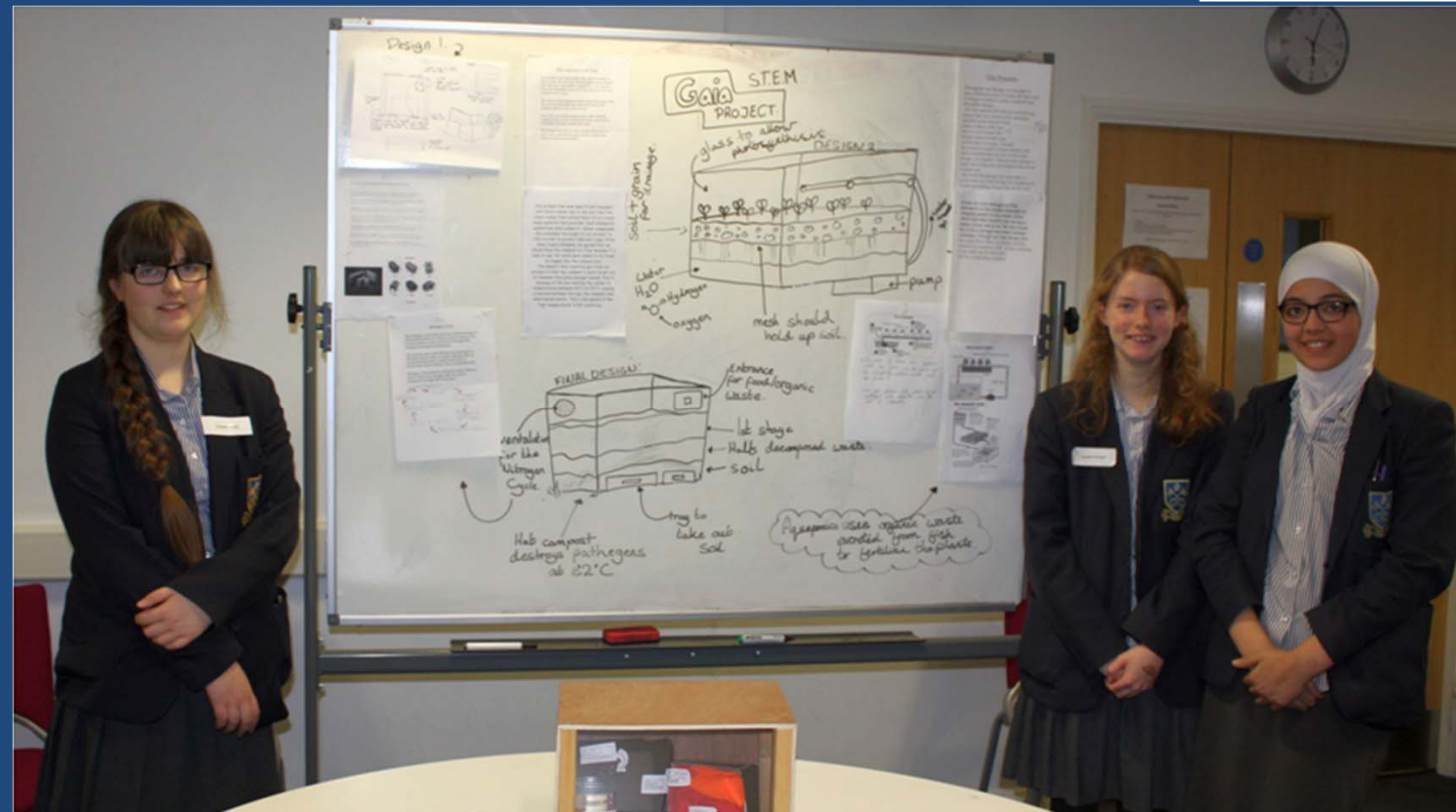
ool bags from recycled plastic bags



iversity of Projects: ycling of shoes to fit all sizes



Diversity of Projects: Combating food loss



Success!



Some Statistics



UK requires 100,000 more professional scientists, engineers and technologists each year – the forecast for 2012-20

[Office of National Statistics and others]

UK has the lowest percentage of female engineering professionals in Europe, at less than 10%, while Latvia, Bulgaria and Cyprus lead with nearly 30%

[Vince Cable, MP, in The Guardian 4 November 2013]

3% of engineering and technology undergraduates in the UK are female compared with India where over 30% of engineering students are women

[Women in STEM – facts and statistics 2012-15 | IET]

Ma Agrawal
Senior Structural Engineer of the Shard



**Inspiring
and
constant
supporter
of our
STEM
Challenge**



SI Bournemouth are
proud to be part of
'Engineering the Future'