

# RISE FOR SCHOOLS

RESEARCH | INNOVATION | SUSTAINABILITY | ENTERPRISE



LEEDS  
BECKETT  
UNIVERSITY



MLA  
COLLEGE



Loughborough  
University

**UWE  
Bristol**

University  
of the  
West of  
England



University  
of Suffolk

2026 Competition

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This year, these universities are coming together to host the International **SEEDS** Conference in London.

SEEDS stands for Sustainable Ecological Engineering Design for Society.

Researchers from across these 5 different universities and from across the world would like to hear **YOUR** ideas on how we can make the world a more **sustainable** place.

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## What does sustainability mean?

- If something is sustainable, it can be **carried on** for a long period of time.
- Being sustainable means doing little or no harm to the **environment**.
- Throwing plastic bags away is not sustainable because the planet will eventually run out of landfill space.

Find out more about sustainability [here](#).

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We are asking you to create a poster to share your ideas and research on how we can make a more sustainable world! Ideas include...

Tackling  
climate change

Reducing our  
ecological  
impact

Designing new  
ways to live  
and work

Developing  
new materials  
for  
construction

Saving water



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This year, in particular, we want you to think about *whether science and technology could help us to live more sustainably or does it make it worse?*



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This year, in particular, we want you to think about *whether science and technology could help us to live more sustainably or does it make it worse?*

Some thinking points:

Can computers and robots help us to save energy, water and animals?

Can you think of any examples where technology is bad for the environment?

Can technology help us to clean the planet? Or will it make more mess?

How can we make sure that everyone can use this technology and not just a few people?



# Here are some examples of previous entries!

## SUSTAINABILITY – LITTER ROBOT

Plastic pollution is huge problem and land and in the sea with about 300 million tonnes of plastic ending up in the environment each year. Therefore, I have decided to design a litter collecting robot that can collect rubbish from both.

Tank treads will be used instead of tyres to enable the robot to move efficiently over all types of terrain.

The robot's body will be made of solar panels. It will generate electricity During the day, 50% of the electricity made will power the robot in the day And the other 50% will be stored in a battery and used with the night vision Technology at night or under water.

The litter will be stored in a special box which will compress it into cubes.

A camera and sensor will be used to detect litter to be collected and so the robot can move around objects.

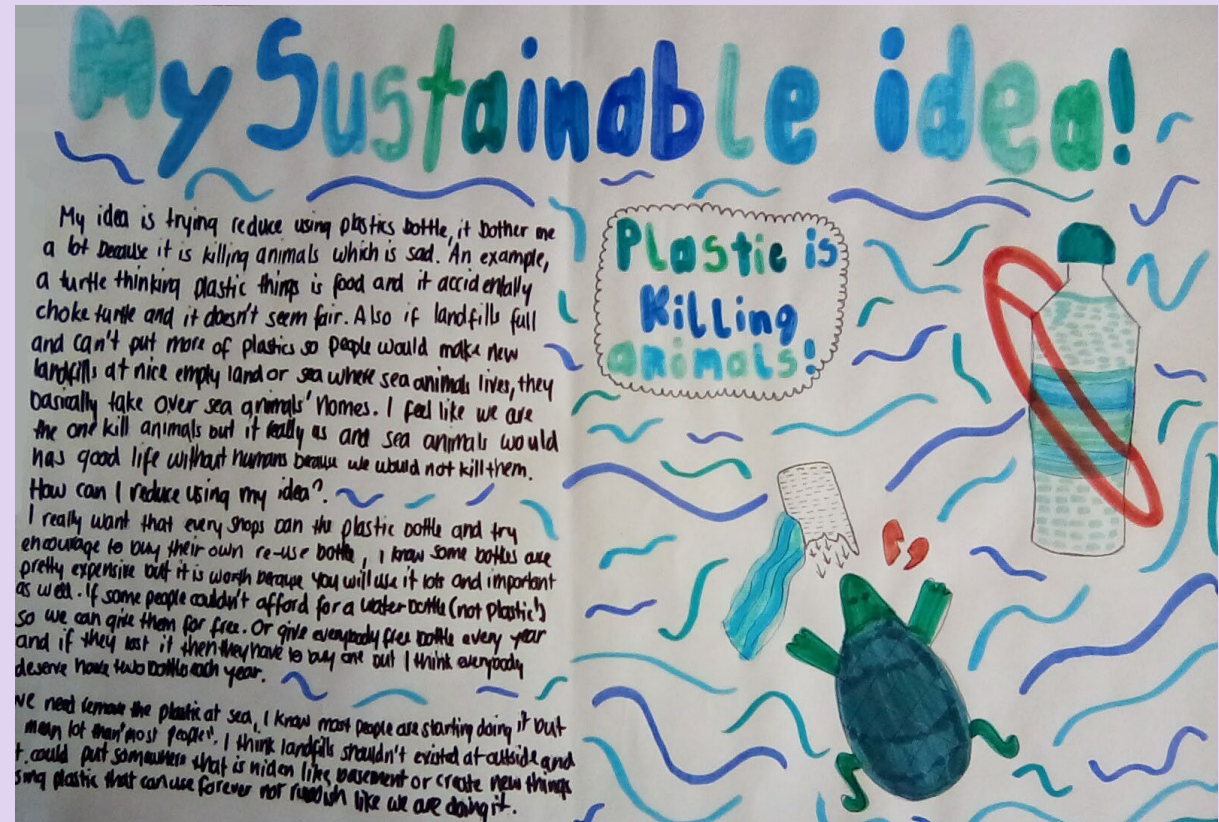
Claws will move things out of the way and mean the robot can collect litter from in bushes.

A hook and strap system will be fitted on the back so the robot can be dropped into its location by drone.

A hoover like mouth will be installed to suck up large amounts of litter on land and in water

hook and strap system

# Here are some examples of previous entries!









# SOLUTIONS FOR A SUSTAINABLE FUTURE!

## 1. Dissolving Tea Bags

Concept:

Tea bags are used by 51% of tea drinkers and in the UK, over 158 million tea bags are used everyday.

Statistics show that depending on age and sex, people consume between 39,000 - 52,000 particles of microplastic annually. This issue has caused health issues such as inflammatory bowel disease, cardiovascular disease and cancer (potential links).

How will ~~be~~ my idea replace  
tea bags?

The outer shell of which the tea ingredients are stored will be made out of sugar compressed because

- sensors with lights
- Fukunaga

The diagram shows a trash can with three compartments labeled 'Recycle' (green), 'Compost' (orange), and 'Waste' (blue). Arrows point to the can from the text 'different kinds of wastes' and 'sugar dusts wastes in water'. A handwritten note at the top right says: 'We need a more cleaner environment. My idea is that youth organisations and programmers could make a machine for moving bin which collects only waste - not leaves etc - detected by sensors.'

SINCE THE  
PACKAGING IS MADE  
FROM SUGAR, ANOTHER  
PRO IS YOU DON'T NEED  
TO ADD SUGAR!

outer packaging made of sugar not plastic

TEA TIME

sugar free

← making bins more exciting to encourage youth to use.

FUTURIS  
BINS

purifying  
air quality indoors  
simple actions people  
can take...

- We can purify the air quality indoors by using non-toxic chemicals as cleaning products have many toxins and many people should have indoor plants/green walls as plants take in CO<sub>2</sub> and release O<sub>2</sub>.

# Youth Organisations

- Youth organisations can help increase the productivity between youth instead of procrastinating — e.g. social media

- The government should set up a youth organization centre in order in every country so they could aim to pick up rubbish on the streets
- Once a week, and get paid by recycling companies which collect with the government, or the youth can also collect with football societies, and public facilities so they could fundraise for charities such as the British Red Cross. This could be implemented in many countries in order to protect animals and prevent pollution increasing.

people

- By introducing youth organizations they could learn numerous skills and creativity
- these youth could also be rewarded by trophies and prizes.

# SAVE

Save the animals!!

Lots of animals are endangered due to hunting or overfishing. We need to find a way to make sure that whole lots of these wonderful animals are safe.

We need to stop climate change before our beautiful earth looks like this!!

NO MORE  
PLASTIC!

SAVE EARTH.

Save the Water!

If we put plastic in the ocean,  
not only are we hurting the  
♥ fish, we are hurting  
ourselves! Since we eat  
fish, and fish eat the  
plastic, we are  
eating plastic!!

Trees!!!

Trees take in  $\text{CO}_2$  and will make our air cleaner!

## Becoming Vegetarian

Becoming vegetarian or only eating meat from animals that have died of natural causes is a great way to cut down on killing animals.

To make sure that beautiful animals like sea turtles have a lovely home, we need to stop dumping rubbish in the ocean!!!

Don't  
drop  
Plastic!





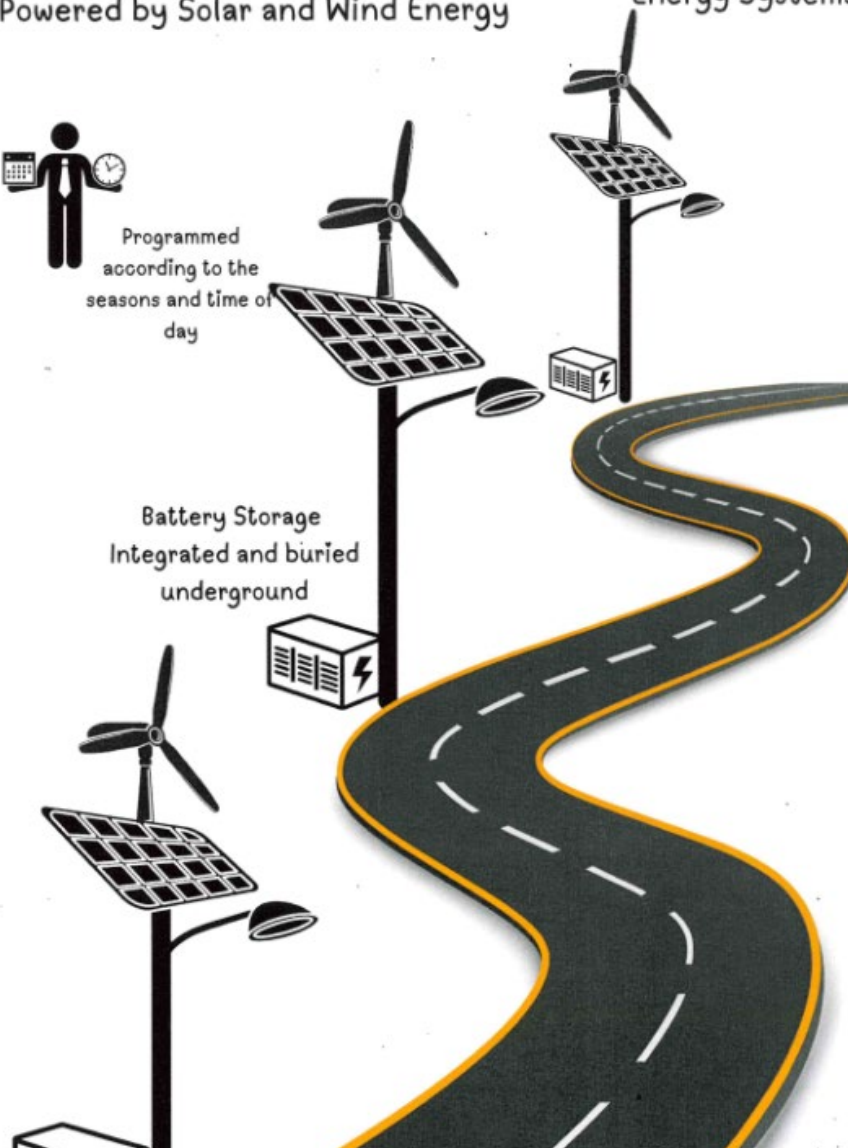
## The Solar Wind Lamp Post Powered by Solar and Wind Energy

Core & Fininger  
Energy Systems



Programmed  
according to the  
seasons and time of  
day

Battery Storage  
Integrated and buried  
underground



### THE IDEA :

Just think about how much energy is wasted when people cycle and walk from place to place in those busy city centres. I know, a lot! So, why don't we actually utilize it?

### MORE DEEPER UNDERSTANDING:

We all know that kinetic energy is the energy produced when we move and walk about. Using this, we can use it as a great alternative for fossil fuels. Putting systems in place for collecting the energy under bridges, from the town lending bikes and other.

### WHAT'S THE IMPORTANCE:

As the demand of fossil fuels increase, we are getting more worried about our supply for the future. Which is why we need another alternative for these dangerous fuels (full of  $CO_2$ ). If we want a more positive, reliable future for the next generation and others to come, we have to start thinking about free, harmless solutions.

### THE SOLUTION:

With at least 3-4 cities operating with kinetic energy, we could reduce  $CO_2$  levels in that area by approx. 2.8 million tonnes ANNUALLY! That would take about 600,000 cars off the road per year! By implementing things like:

- ♦ Piezoelectric Tiles - capture footsteps
- ♦ Vibration-power roads - generate from cars
- ♦ Kinetic gyms - workouts generate energy



### Current Benefits:

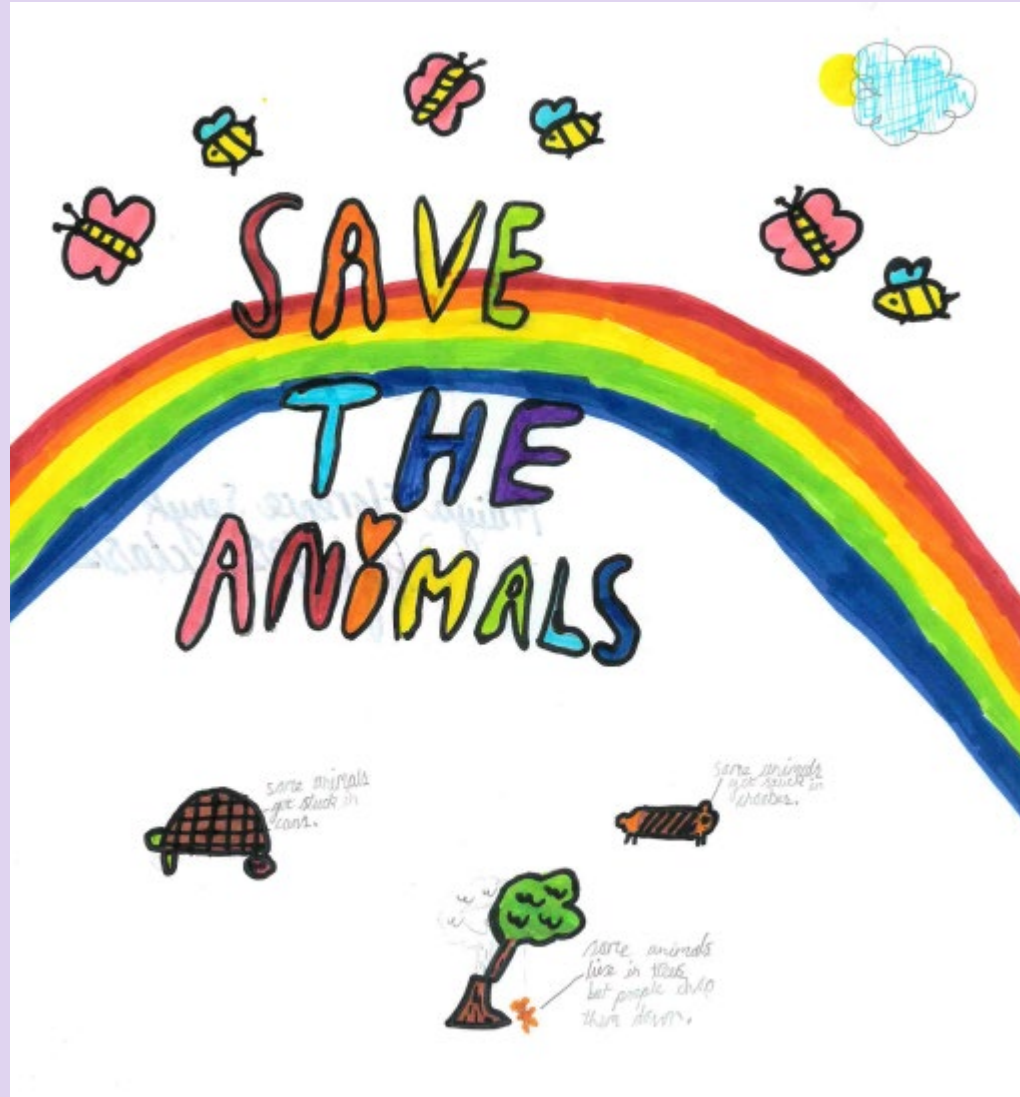
- ✓ saves energy costs in cities
- ✓ provides power in 'off-grid' areas
- ✓ creates jobs in clean energy industries

### Future Benefits:

- ✓ kinetic powered, zero waste
- ✓ slows climate change down
- ✓ more smart roads that power themselves
- ✓ less reliance on fossil fuels









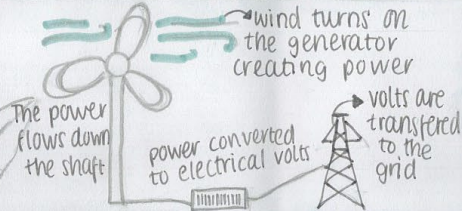
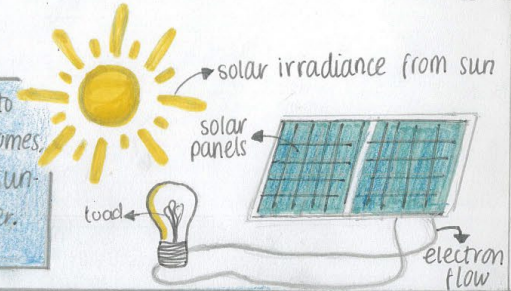
# CLIMATE CHANGE IS REAL



## SAVE THE EARTH NOW

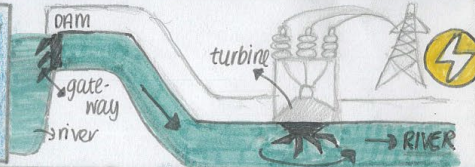
steps we can take:

- solar energy: Photovoltaic (PV) panels convert sunlight into electricity, providing clean and renewable energy for homes, businesses, and industries. solar thermal systems use sunlight to heat water for space heating & domestic hot water. Current benefits; reduce emissions, improved air quality.



- Wind energy: wind turbines harness the kinetic energy of wind to generate electricity. They can be installed onshore or offshore in areas with sufficient wind resources.  
- Wind farms consist of multiple turbines connected to the electrical grid, providing a source of renewable energy.

- Hydroelectric Power: Hydroelectric power plants use flowing water, such as rivers or streams to generate electricity. They can range in size from small scale micro-hydro systems to large-scale dams and reservoirs.

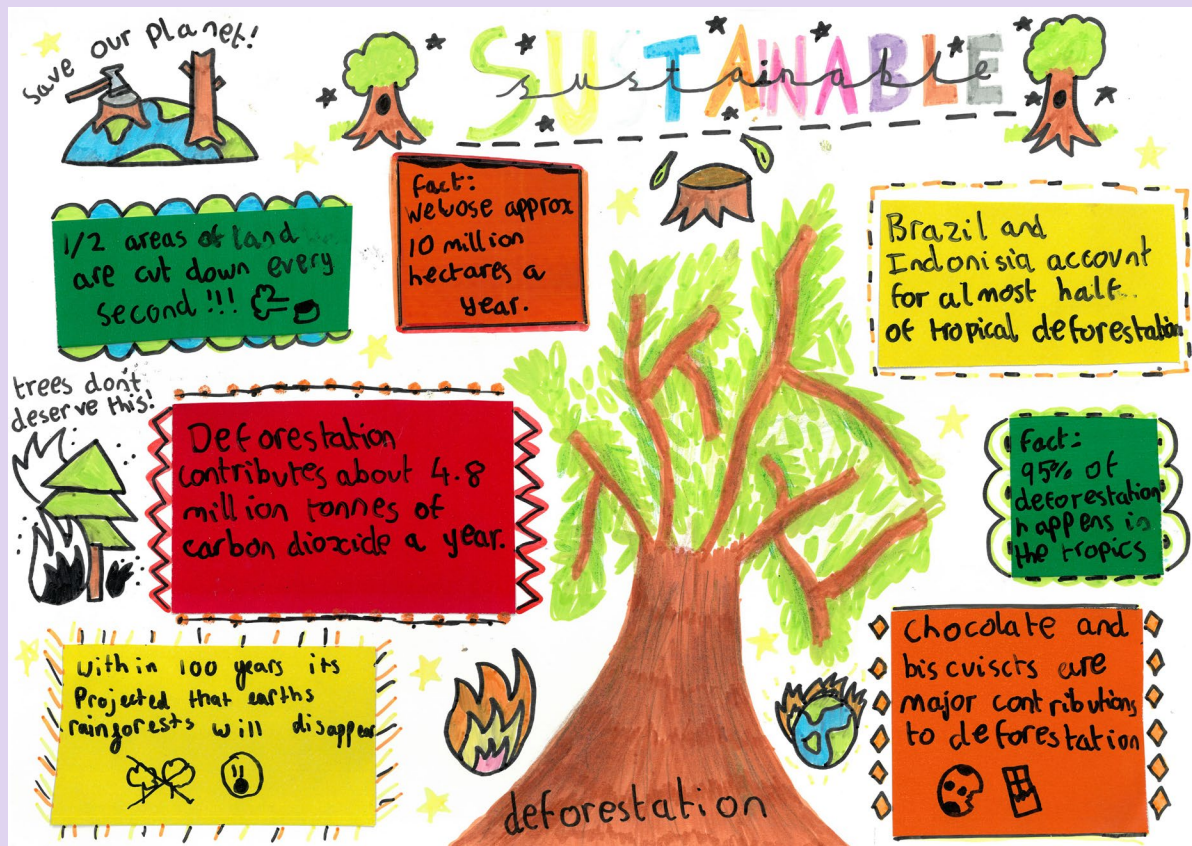


- water conservation (rain water harvesting systems). These systems collect and store rainwater from rooftops for non-potable uses such as irrigation, toilet flushing, and outdoor cleaning. They help reduce demand for fresh-water and alleviate pressure on municipal water supplies.

DID YOU KNOW? water efficient landscaping can save up to 50% of outside water use.

In summary, taking action to mitigate climate change is necessary for securing a sustainable future. Through implementation of green building practices, including the use of energy-efficient design strategies, we can reduce carbon emissions from the construction sector and minimise environmental impact. Together, these actions protect our planet's health and ensure a sustainable future for generations to come.







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Your posters will be displayed at our SEEDS conference so that researchers can see your ideas!



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Create a poster on your idea, project, process or product for how we can live more sustainably.

Your poster should include text, images and where possible, facts and figures that support your ideas.

## **Key Points to think about:**

- What is your key idea to help us live more sustainably? Can you think of ways technology could help us live more sustainably? Or does it make it worse?
- What issue does it help with? (e.g. deforestation, litter, plastic in oceans?) Why is it important to address that issue?
- What are the current and future benefits?





Please send entries to  
[lsiconference@leedsbeckett.ac.uk](mailto:lsiconference@leedsbeckett.ac.uk)

by Friday 3<sup>rd</sup> April 2026



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