

For STEM week this year, each year group has been looking at a different aspect of how we can live more sustainably- conserving our planets precious natural resources and attempting to reverse the effects of climate change!

[New from Old STEM Competition](#)



SUSTAINABILITY

Science

Technology

Engineering

Maths

EYFS

Where does paper come from?

How can we reduce our paper waste?

In Early Years, we looked at how paper is made and where it comes from! We were all shocked to learn that it comes from trees.

We then reused paper from our recycling bin to make our own!

We could think about how much paper we need for a task.

We can stop throwing away paper that has nothing on it.

We can always always recycle our paper.

Make our own paper!

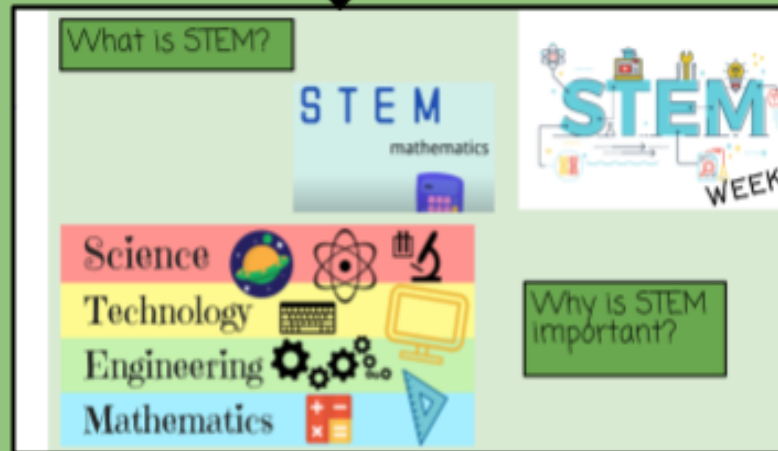


Year 1

We learnt about the importance of recycling then created posters to persuade people to recycle.



We started our STEM week by what STEM means and how it relates to us



In forest school, we searched and recorded minibeasts found in the forest.

Then, we used a range of tools and materials to create a bug hotel.



Year 2

We are going on a trip to a local farm in July, so we will see how food is produced locally.



We talked about and researched where food comes from using a world map.

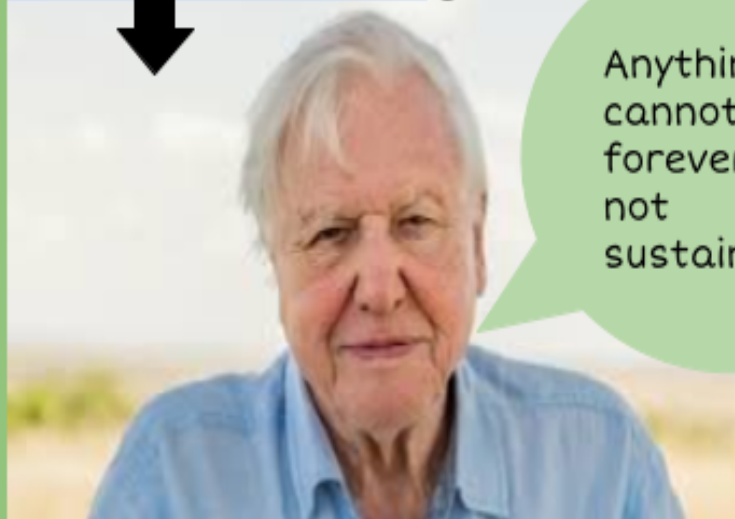
Where does our food come from?

What changes can we make in our daily lives to make things last longer?

We made our own planters out of recycled bottles and planted vegetables to take home.

We can enjoy them when they are ready to eat!

We started our STEM week by discussing this quote by Sir David Attenborough



Anything we cannot do forever is not sustainable.

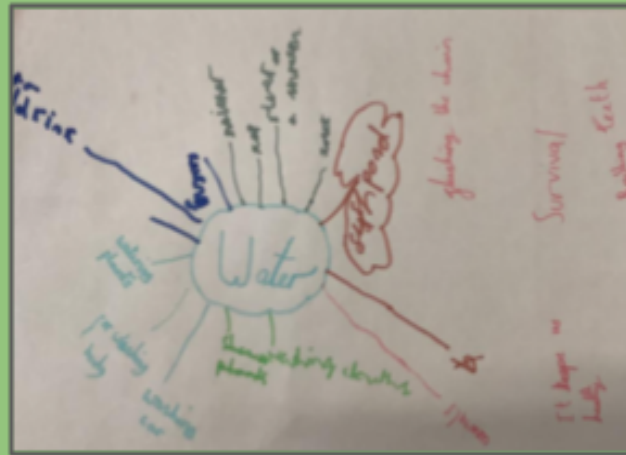


We read a story about a little girl who made a BIG change in her community so that it could be sustainable.

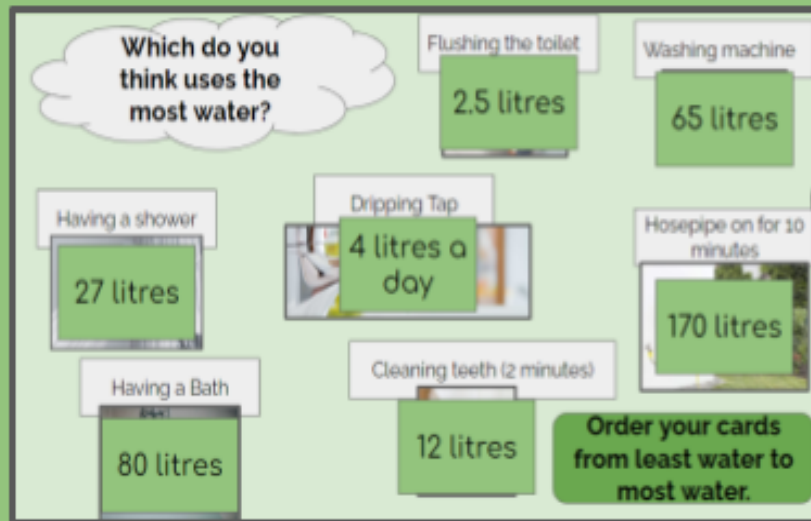
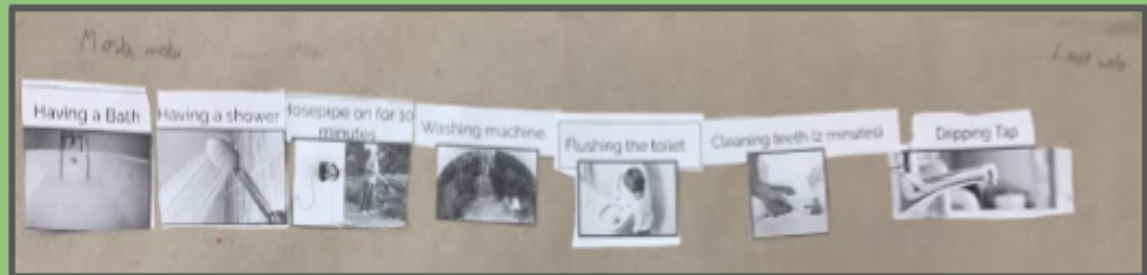
Year 3

Why save water?

We started by considering all the ways that we use water in our everyday lives.



Next we looked at several of the uses of water and put them in order from those that we thought used the most water to the least water.



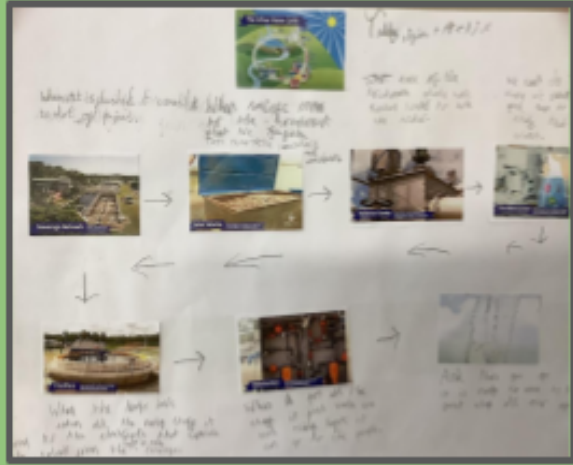
We were surprised to discover that using a hosepipe takes so much water!

Year 3

Why save water?

Next we found out why we should try and save water, looking in detail at the water cleaning process and how much energy and time it takes!

What happens to our water when it has gone down the plug hole?



We had a go at our own water filtration experiment using three different types of filter!



We recorded our results in pictures and words.



Year 3

Why save water?

Finally we created sketchnotes to show the different ways to save water.



Year 4

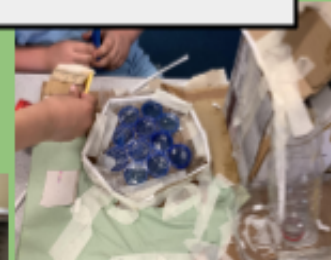
How can we make our houses more sustainable?

First of all we looked at the definition of Sustainability and then asked how we could apply this to housing.

We planned ways in which we could make our houses more sustainable.

Wind turbines, ponds, bird feeders, bushes, grass, solar panels, water butts, double glazing and insulation were just some the features that were added to the sustainable houses.

We investigated how to create a strong structure then built houses.



Year 4

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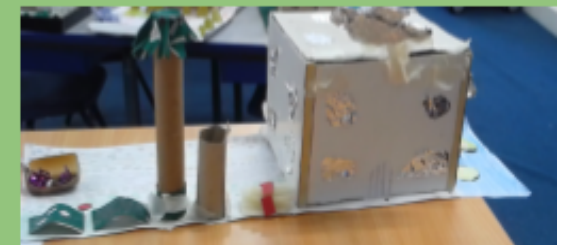
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Year 6

How can we reduce the amount of energy from fossil fuels that we use at RWPA?

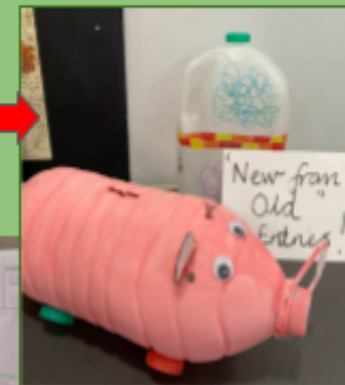
By looking at the school's energy bills for a given time period, in Y6 we calculated that the school spends over a whopping **£70,000** every year on electricity and gas from fossil fuels. We have come up with a range of proposals for our school to develop more sustainable and affordable energy!

The image shows a screenshot of an energy bill with several red circles highlighting specific data points: 'Electricity' and 'Gas' in the usage summary, and the total amount '£70,476' in the payment summary.

So what are the **total energy costs** for our school for one month of the year? (electricity + gas)

£5,873.00 per month **£70,476**

Two of our 'New from Old' competition entries! #sustainability



We can add a grass roof at the flat roof at the front. This would help insulate the building- reducing energy costs and encourage pollinating insects to the school grounds- increasing biodiversity

Jess 6HH

2. Geothermal heating. On the field we can place pipes under the grass with water inside which will heat during the day from being underground which would save us from using money to heat water. 20,000 pound need large area.

Oskar 6DT

Handwritten notes include: '1. Solar panels on the building roof is best the panel', '2. Geothermal heating', '3. Ground source heating the panel', '4. Wind turbine', '5. Two things we can do is get a solar panel on a field'. A floor plan diagram shows various rooms with red boxes and arrows indicating energy-related features. A note says 'The grass can help with insulation and it will suck up the heat so it can heat the building with hot water from the ground instead of using gas'. Another note says 'Wind turbine can work with electricity into the building'. The name 'Poppy 6DT' is written at the bottom.

Handwritten notes include: 'Solar panels will save energy on electricity', '6EL', and 'The grass can help with insulation and it will suck up the heat so it can heat the building with hot water from the ground instead of using gas'. A floor plan diagram shows various rooms with red boxes and arrows. The name 'Oskar 6DT' is written at the bottom.



Approx £8,000

[Video](#)

New from Old STEM Competition Winners 2022

EYFS- Grace's Bowls!



Year 1-
Hollie's Puppet Theatre (with
puppets!)



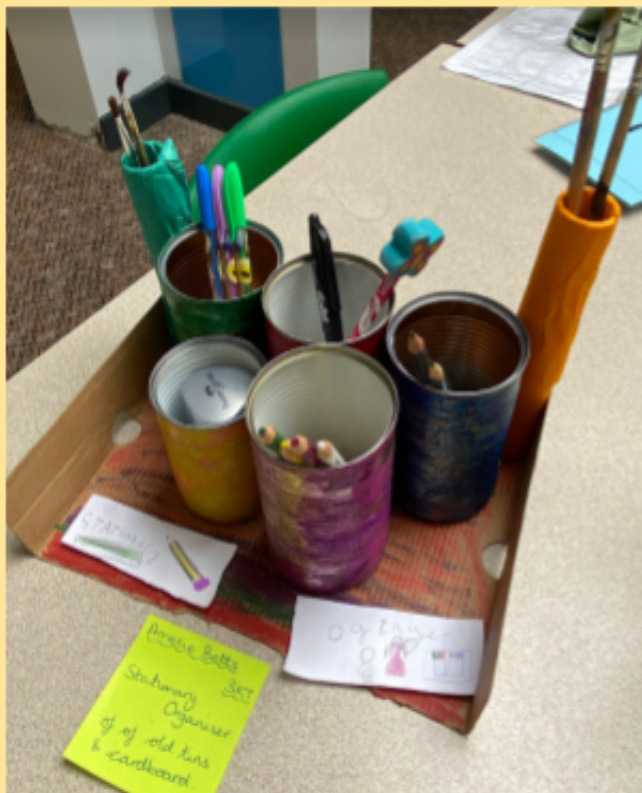
Year 2-
Lizzie's Sustainable Bug
Garden!



New from Old STEM Competition Winners 2022

Year 3-

Amelie's Stationery Organiser!



Year 4-

Lucy's Foil Blanket!



New from Old STEM Competition Winners 2022

Year 5-

The Rain catcher/plant watering system!!



Year 6-

The Money Box!

