

What's happening in the news this week?



Let's have a look at this week's poster!

2nd - 8th January 2023

WALL OF FAME 19



Should all the energy we use be renewable?

EXTENDING SINK 6000

Savannah
Abacus Belize Primary School

Savannah from Abacus Belize Primary School in Belize Park in London designed the Extending Sink 6000. This self-adjusting sink was designed to automatically rise or lower dependent on the users height.

Kingston University
London



UCLan

PA Images / Alamy Stock Photo

WHEEL

Bella
Marfleet

Bella from
East Hill
Wharfedale
to use a 3D

Cover
Unive

Let's look at this week's story



A flatpack wind turbine, invented by Douglas Macartney from Scotland, is to help provide power to communities in Kenya, Africa. Douglas designed the turbine for a competition four years ago, when he was only 15. It has now been developed into a working prototype with two additional solar panels by teams of student engineers from Glasgow Caledonian University. It is hoped the device, which can be assembled without any specialist training, will be used to help areas recovering from natural disasters and in rural settlements.



Learn more about this week's story [here](#).
Watch this week's useful video [here](#).
This week's Virtual Picture News [here](#).



How does it make me feel?



sad	angry	happy	confused	excited	worried	shocked	afraid
despondent disconsolate dismal doleful downhearted forlorn gloomy melancholic miserable woeful wretched	aggrieved annoyed discontented disgruntled distressed exasperated frustrated indignant offended outraged resentful vexed	beaming buoyant cheery contented delighted enraptured gleeful glowing joyful	addled baffled bemused bewildered disorientated indistinct muddled mystified perplexed puzzled	animated elevated enlivened enthusiastic exhilarated exuberant thrilled	agitated anxious apprehensive concerned disquieted distraught distressed disturbed fretful perturbed troubled uneasy	astonished astounded disconcerted distressed dumbfounded horrified staggered startled stunned surprised	alarmed apprehensive daunted fearful frantic horrified petrified terrified

This week's story looks at events related to ...





Read through the resource below, which provides more information about Douglas Macartney's wind turbine design.

How does the flatpack wind turbine work?

When he was 15, Douglas Macartney designed a flatpack wind turbine, which has been developed to help others around the world.

The technology's flatpack system will make it easier to transport to places that are hard to reach. It was created to generate enough electricity to power a light and two charging sockets in a disaster relief zone or refugee camp.

It is hoped the turbine will help create new opportunities for work and education that could transform lives.

The team's goal is to train local communities to assemble and use the device.



Ikea built a flatpack refugee shelter and I quite liked the simplicity of it. I thought of doing the same thing but with something that would have an energy use in a refugee camp. It has been amazing to see how my idea on paper has been turned into a working prototype.

Wind turbine inventor, Douglas Macartney



Pictured above: The student engineers from Glasgow Caledonian University with the wind turbine
Source: Press Association

Share your thoughts on the design and talk about the difference it will make in the communities where it will be used.



Look at the resource below, which shares some examples of different renewable energy sources.

Renewable energy sources come from Earth's natural resources that do not run out such as sun, wind and water.



 **Sun**

Solar energy is created from the Sun. Solar cells are devices that convert light energy directly into electrical energy.



Wind turbines are huge towers with three blades. The wind drives the blades, which turn and drive a generator, creating electricity.

 **Wind**



 **Water**

A large reservoir can be used to create a flow of water that drives a turbine and generates power with a dam or barrier. This is called hydropower.

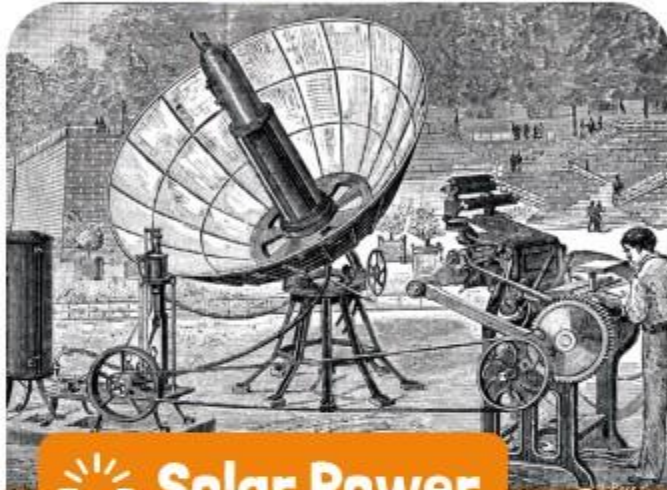
Tidal energy is also a type of hydropower. The sea's tides power turbines to create energy.



Do you have any items at home or in school that are powered using only renewable energy?



Look at the resource below, which shares information about some of the first renewable energy technologies.



Solar Power

Augustin Mouchot of France invented the first solar energy system in 1860. It was called a 'sun meter'.

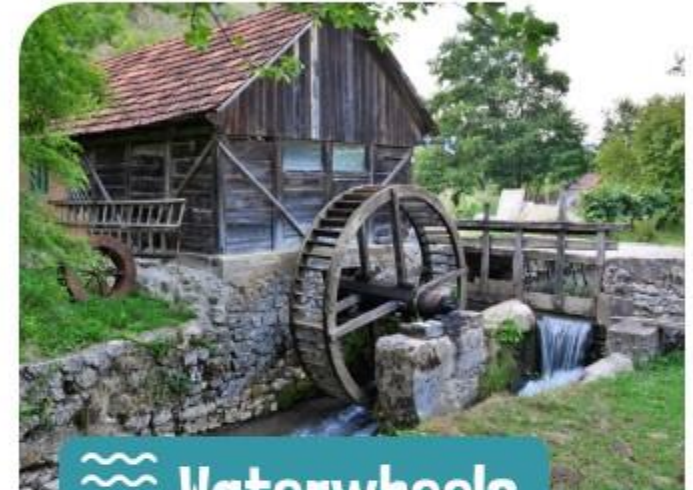
In London 1876, William Grylls Adams demonstrated solar cells can be used to generate electricity.

Image source: Scientific American, May 1882

Windmills

In around 635 AD, windmills could be found in parts of the Middle East and Asia in a horizontal form.

The 1590s in the Netherlands saw windmills become vertical, tower-like structures. Wind pushed the blades which, then powered the pumping of water or milling of grain.



Waterwheels

In Europe 200 BC, waterwheels used the energy in moving water like rivers to drive the machinery it was attached to.

**Does any of the information surprise you?
Is there anything else you would like to find out?**

WALL OF FAME 19



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Reflection



There are many different types of energy available to help keep the world moving. As our understanding of science and technology continues to grow, we can adapt to find ways that are best for us and the wider world.





British Values

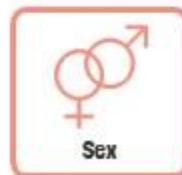


Democracy

Energy is required to power many of the useful and convenient items we use daily. This energy can be produced in many different ways. We can use our voices to share our thoughts on this and impact the future.

Protected Characteristics

Young people can be overlooked for their ideas because they may not be as experienced as adults but when given the opportunity, they can often make a valuable contribution.



Sex



Sexual Orientation



Age



Disability



Gender Reassignment



Marriage and Civil Partnership



Pregnancy and Maternity



Race



Religion or belief

Useful vocabulary



Adapt

To change, or to change something, to suit different conditions or uses.

As our understanding of science and technology continues to grow, we can **adapt** to find ways that are best for us and the wider world.

Assembled

Made something by joining separate parts.

It is hoped the device, which can be **assembled** without any specialist training...

Flatpack

Something that is in pieces inside a flat box, ready to be put together.

A **flatpack** wind turbine, invented by Douglas Macartney from Scotland, is to help provide power to communities in Kenya, Africa.

Invented

Designed and/or created something that has never been made before.

A flatpack wind turbine, **invented** by Douglas Macartney from Scotland, is to help provide power to communities in Kenya, Africa.

Prototype

The first example of something, such as a machine or other industrial product, from which all later forms are developed.

Douglas designed the turbine for a competition four years ago, when he was only 15. It has now been developed into a working **prototype**...

Renewable energy

Energy that is generated from natural processes that are continuously replenished.

How important do you think **renewable** energy is for the world?

Can you use them in your writing this week?



Hidden history

A recent storm has uncovered what is believed to be a shipwreck from the 1800s on a Florida beach. The mystery items found along the Daytona Beach shore are likely shipwreck remains from the mid to late 1800s state archaeologists said, during a visit to the site. St. Augustine Lighthouse Archaeologist, Chuck Meide, said, 'The shipwreck is most likely a cargo-carrying sailing vessel from the 1800s. It would have likely sailed within sight of the coast and used lighthouses for navigation.' The museum's Lighthouse Archaeological Maritime Program measured and studied parts of the ship that are above the sand and estimated the merchant ship would have been over 80 feet long (25 metres). The amazing relic was revealed by beach erosion after Hurricane Ian and Hurricane Nicole struck Volusia County. 'Here in Florida, we often have storms that reveal cultural material either offshore or right on the beach. In these cases, our collective human story is brought to the forefront,' said Secretary of State, Cord Byrd.



Pictured: The beach where the shipwreck was uncovered as a result of recent storms. **Source:** Florida Department of State @FLSecofState Twitter page.



Pictured: A lifeguard operating the rescue drone, to deliver a float. **Source:** EagleEye Innovations @EagleEyeInnova1 Twitter page.

Rescue drones

The Royal National Lifeboat Institution (RNLI) has been conducting a trial using drones, that will hopefully help sea swimmers in trouble. RNLI lifeguards, who rescued more than 3,000 swimmers off the UK coast in 2021, are conducting studies in southern Wales to see if this will be a way to help people more quickly. The special drone used for the trial, IP65, is a waterproof drone that can fly in rainy conditions and higher winds than a typical drone; it can also land and float on water before taking off again. Its fully waterproof camera can be used to locate a person needing assistance, and the special hook and release mechanism can then deploy the buoyancy aid, which can be carried

under the drone. The technology isn't intended to replace lifeguards, who will still be very much needed to rescue people from the water and provide any first aid required. However, it is hoped that with lifeguard operated drones locating people and providing them with a floatation device, more people will be saved. Tony Weston, who attended the trial course run by drone specialists Eagle Eye Innovations, The Emergency Response DronePilot Award, said: 'Wow - what a week, learning a new life skill - flying a drone that could aid the saving of lives! The experience was memorable, and the training team were excellent.'

Macro masterpiece

David Gilliver has won the Macro category at the British Photography Awards. The winning piece, called Summer Vacation 2021, was created using a blue facemask and model railway figurines. The artist said that the image is dedicated to anyone who suffered disruption to their holiday plans over the last couple of years due to the pandemic. The facemask was illuminated using a lightbox, miniature people were arranged to show a joyful, relaxed holiday scene and then photographed using a 100mm Macro Lens. David said on his website, 'I am shaking like a leaf – my artwork 'Summer Vacation 2021' has just scooped top prize in the Macro Photography category at this year's British Photography Awards!!!! I am in utter shock.' The British Photography Awards, which aim to celebrate photographic talent from all British and British-based photographers, work with a range of UK charities and say, 'Together we can use the massive power of photography to do real good in the world.' The Macro category at the awards celebrates a branch of photography that takes extreme close-up pictures of small objects, most often insects or flowers. Over the past 20 years the Scottish artist has created thousands



Pictured: David Gilliver - Summer Vacation 2021 and Pac-Man scale & polish **Source:** David Gilliver Facebook page.

of photos of his 'little people', to highlight serious messages, about topics such as the pandemic and plastic pollution, using humour and playfulness to get his message across.

Last week's topic:

Are television channels as important as they once were?

TV can teach us things on educational programs but nowadays people watch it all the time and it doesn't occur to them that it was much more limited in olden days

Caroline



They are important but not as important as they used to be as there are so many other things to watch.

Johnny

Nowadays, TV Channels are not seen as much, because we've now got social media, I think TV channels are still entertaining and essential because you can get instant and truthful information from around the world.

Affan

Let us know what you think about this week's news?

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TAKEHOME

2-8
January



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Things to talk about at home ...

- > Do you have any sources of renewable energy either in your home or at school? What are they used for?
- > Share your thoughts on Douglas' invention. How do you think it may benefit the rural communities in Kenya?

Please note any interesting thoughts or comments

Share your thoughts and read the opinions of others

www.picture-news.co.uk/discuss

