

THE WORLD'S BEST
WS & FACTS
YOUNG PEOPLE

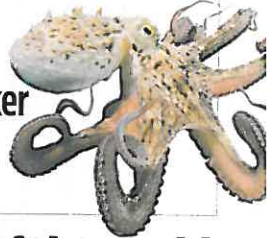
ALL ABOUT
A Hindu festival of light
p12



ENTERTAINMENT
12-year-old chef cooks up a new show
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ANIMALS
Octopuses reveal sucker secrets
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Making sense of the world

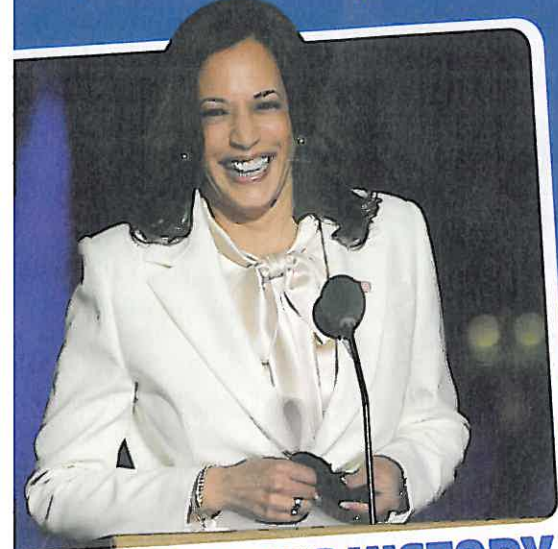
THE WEEK

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Junior

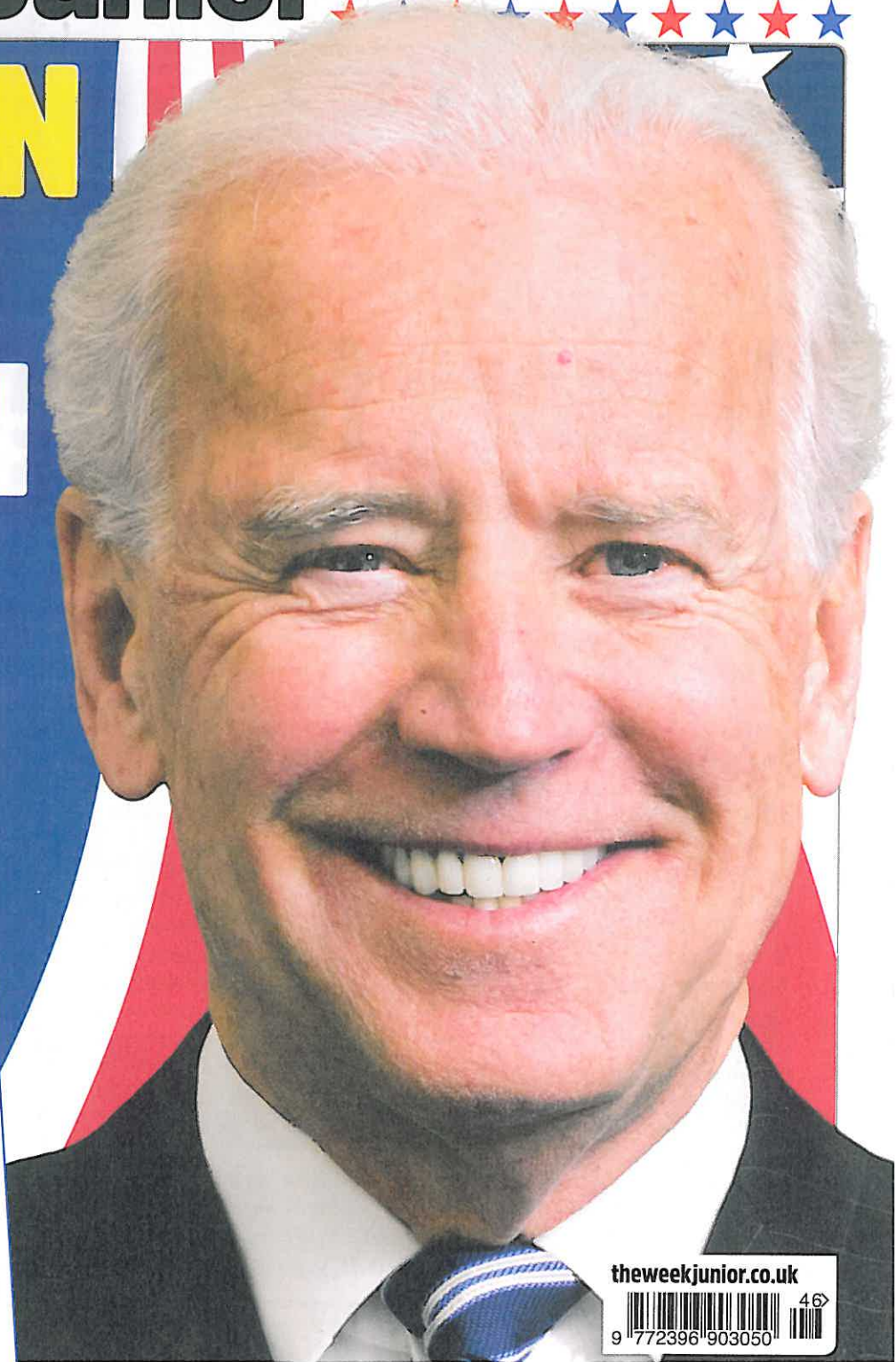
JOE BIDEN
WINS US
ELECTION

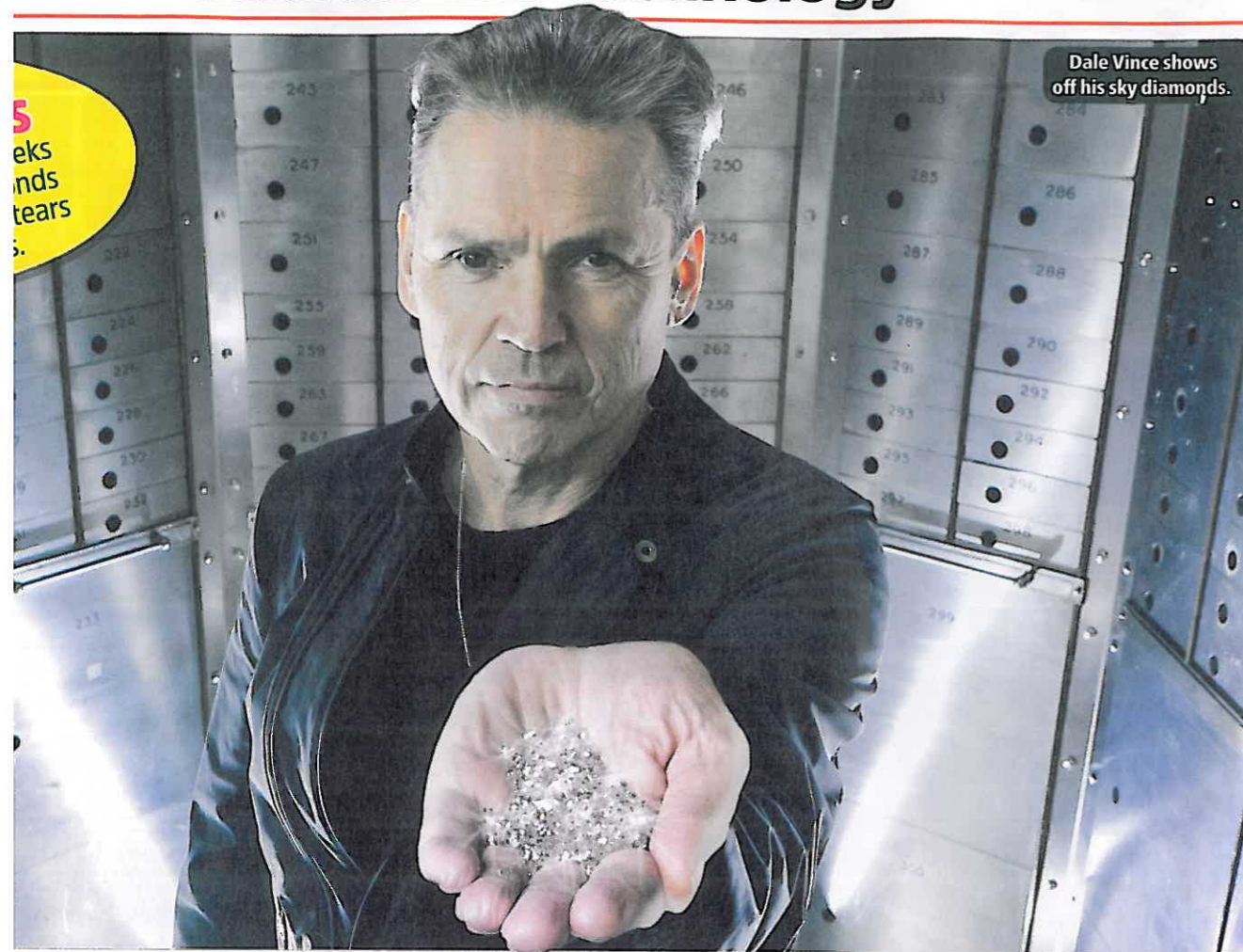
President-elect promises to unite people of America p2



HARRIS MAKES HISTORY

Kamala Harris will be America's first female vice president. She is the first black and South Asian American person to have this job. Her historic achievement comes 100 years after US women won the right to vote.





Dale Vince shows off his sky diamonds.

diamonds don't cost the Earth

ian and environmentalist
a way of "making diamonds
an the sky, than the air we
- the founder of renewable
city - claims that, unlike mining
rth, his method does not harm
ct good for it.

nce's "sky diamonds" are made
at extracts carbon dioxide gas
Large amounts of carbon
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Diamonds that are mined today were brought closer to the surface during volcanic eruptions.

Vince's sky diamonds are made in a laboratory in Gloucestershire, England, using a technique that mimics the natural process. A tiny "seed" of existing diamond is sealed in a chamber that is filled with carbon-rich methane gas and heated to 8,000°C. Carbon from the gas builds up on the surface of the seed, growing into a much larger diamond. While natural diamonds can take millions of years to grow, Vince's technique, which took five years to perfect, can produce large quantities each month.

Current methods of diamond mining release huge amounts of carbon dioxide. However the methane used in the new technique is made using carbon dioxide extracted from the air. Renewable energy from the wind and Sun can be used to power the entire operation, making the diamonds "carbon-negative" and benefiting the environment.



Two of the sky diamonds.

The largest diamond in the world

In 1905, Frederick Wells, superintendent of a diamond mine in South Africa, discovered the world's largest diamond buried just 5.5 metres below the surface. It weighed 3,106 carats (621g). The mine's owner, Sir Thomas Cullinan, named the rock after himself, and sold it to the South African government, who gave it to the British king, Edward VII as a birthday gift. To protect the diamond from potential thieves, King Edward arranged for a fake to be sent to the UK on a ship guarded by armed police, while the real rock was packed in a cardboard box and posted to him. The Cullinan Diamond was cut into smaller diamonds, some of which now form part of the Crown Jewels (a collection of precious royal ceremonial objects).



Walking Wheelchair wins design award

A revolutionary upright wheelchair with a design influenced by a teenager's bike saddle has been named Product Design of the Year at the Dezeen awards 2020.

Suzanne Brewer and her son Jarvis came up with their Walking Wheelchair invention in 2018, after seeing a wheelchair user having difficulty ordering a drink.

The chair uses a computer system to balance itself on just two wheels, making it more streamlined than a normal wheelchair and allowing it to turn in tighter circles. A bike-style seat with a motorised piston mechanism helps the user rise into a standing position so they can move around at the same level as most other

people, and reach objects that might be out of reach from the seat of a conventional wheelchair.

After initially developing the idea as an entry for a summer holiday competition, Suzanne and Jarvis continued to think about the design, and eventually developed a working prototype (first model).

"We noticed how often people in wheelchairs can get lost in a crowd and thought how wonderful it would be if they could have an eye-level conversation," says Brewer, an architect who designs buildings. Brewer says her professional skills helped

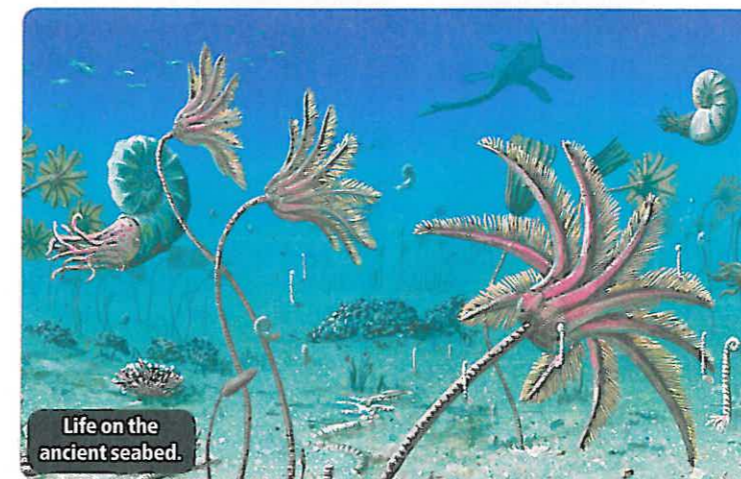
her to visualise the wheelchair before it was built. She and Jarvis are now hoping to produce and sell their invention.

DID YOU KNOW?
There are thought to be at least 640,000 wheelchair users in the UK - about 1% of the population.



The Brewers with the Walking Wheelchair.

A sketch of the original design.



Life on the ancient seabed.

Ancient poo reveals sea life diets

A new study has revealed what fish, crabs and lobsters were eating for lunch over 200 million years ago. Marie Cueille from the University of Bristol studied hundreds of tiny fossil poo, known as coprolites, from a quarry near Bristol. These rocks were part of an ancient seabed, around the same time the first dinosaurs roamed on land.

Cueille used X-rays to look inside the coprolites and identify scales, teeth and bones from various animals. Different coprolite shapes - ranging from flattened pebbles to fat cylinders

- allowed her to spot the waste from different animals and build a picture of their diets. However, based on the wide mix of bones, Cueille concluded that "all the fish seem to have been snapping at each other."

One small poo held a fish skull and two tail bones from *Pachystropeus*, an ancient type of marine reptile. Dr Chris Duffin, who also worked on the study, said it was probably from a shark that "snapped at a *Pachystropeus* swimming by and had a chunk of its tail."

NEW ISSUE ALERT!



TOTALLY TWISTED
It's a brand new issue of *The Week Junior Science+Nature* and this one will mess with your head! Discover the mind-bending science of optical illusions and how they help scientists understand the human brain. Also, find out about the magical powers of plants; take a journey into deep space on an asteroid mission; jump into a futuristic robot suit; and unravel the mystery of the \$5 million treasure hunt. Grab a copy of the new issue on sale now!

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