



Mar. 1, 2023



Better Questions To Ask Your Kid Than 'How Was Your Day?'

• What did you eat for lunch?

• What games did you play at recess? • What was the funniest thing that happened today?

• Did anyone do anything super nice for you? • What was the nicest thing you did for someone else?

• Who made you smile today?

• Which one of your teachers would survive a zombie apocalypse? Why?

• What new fact did you learn today?



"Very unlikely" Havana Syndrome caused by hostile foreign power

US authorities believe it is "very unlikely" that mysterious illness dubbed 'Havana Syndrome'' is caused by a hostile foreign power.

Since 2016, US diplomats around the globe have reported feeling symptoms, fuelling suggestions that Russia, China or other countries could be behind it.

While the US now discounts that theory, no other explanation has been given. The phenomenon gets its name from Cuba's

capital, where the first case was detected.

On Wednesday, the Office of the Director of (ODNI) released an National Intelligence unclassified assessment reflecting the view of seven government agencies which reviewed more than 1,500 "anomalous health incidents" across over 90 countries.

The victims have included intelligence officers, military and State Department staff and high-level aides to government figures such as Vice President Kamala Harris.

Of the seven participating agencies, five agreed that "available intelligence consistently points against the involvement of US adversaries in causing the reported incidents" and that it is "very unlikely".

The ocean removes more carbon dioxide than previously thought.

The ocean has removed roughly a third of the CO₂ released by humans since the Industrial Revolution. It is one of the largest sinks of human-created CO₂ and the largest reservoir of carbon that can easily exchange with the atmosphere on our planet

microscopic organisms, marine Common calcifying phytoplankton (coccolithophores), which live in the sun-lit layer of the world's oceans, form elaborate plates of the forty-percent-carbon mineral calcium carbonate. These layers are visible, for example, in places like the White Cliffs of Dover.

Understanding the processes that control the exchange of carbon between the ocean and atmosphere is key for projecting the future effects of carbon dioxide on <u>climate change</u>, ocean acidification, marine organisms, and society.



A newly developed catalyst makes single-use plastics easier to upcycle, recycle and biodegrade

Researchers created a new catalyst that transforms hydrocarbons into chemicals and materials that are higher value, easier to recycle, and biodegrade in the environment. This catalyst transforms materials such as motor oil, plastics in single-use grocery bags, water or milk bottles, and their caps, and even natural gas.

The new catalyst is designed to introduce functional groups into aliphatic hydrocarbons. Aliphatic hydrocarbons are organic compounds made up of only hydrogen and carbon. They typically do not mix with water, instead creating distinct layers, partly because they do not contain functional groups. Adding functional groups to these hydrocarbon chains can drastically affect their properties and make the materials recyclable.

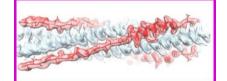
Aliphatic hydrocarbons make up a lot of petroleum and refined petroleum products, such as plastics and motor oils. These materials "don't have other functional groups, which means they are not easy to biodegrade," Sadow said. "So, it has long been a goal in the field of catalysis to be able to take these kinds of materials and add other atoms, such as oxygen, or build new structures from these simple chemicals."

To be happier, talk more to your family & friends

Our understanding of what leads to professional satisfaction is often misplaced. People tend to overestimate the importance of the *what* when they should be focusing on the who.

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Social connections play a central role in fostering a sense of purpose and well-being.



Modified COVID virus will prevent infection

The virus that causes COVID-19, called SARS-CoV-2, uses its spike protein in order to stick to and infect our cells. The final step for the virus to enter our cells is for part of its spike protein to act like a twist tie, forcing the host cell's outer membrane to fuse with the virus.

Kailu Yang, in the lab of Axel Brunger, colleagues at Stanford University, and collaborators University of California Berkely, Harvard at Medical School, and University of Finland have generated a molecule based on the twisted part of the spike protein (called HR2), which sticks itself onto the virus and prevents the spike protein from twisting.

Their research shows that it prevents cells from infection even with new SARS-COV-2 variants. Yang's work was published in the Proceedings of the National Academy of Sciences in October

Read this week's Bible Readings for Transfiguration Sunday, Mar. 5: "Suddenly a bright cloud overshadowed them, and from the cloud a voice said, "This is my Son, the Beloved; with him I am well pleased; listen to him!" Matthew 17: 5. NIV

> Dave Mar. 1, 2023 Click report title for web sources. See these columns on my blog: daverant.com