



NEWS DETECTIVES

TODAY'S NEWS STORY

Phew-ee! Fatbergs turned into perfume

KEYWORDS

- ☐ **Bacteria:**
Single-celled organisms that can cause illness
- ☐ **Chemical:**
Basic substances that make up everything
- ☐ **Engineering biology:**
Using biology to make commercial products
- ☐ **Microbes:**
Tiny living things



© Getty Images

BUILD YOUR KNOWLEDGE

Fatbergs are large lumps of waste that grow in sewers. If you're thinking that this might not be the obvious scent to spray on yourself, you're not the only one! But scientists in Scotland have found a way of turning fatbergs into pleasant smelling perfumes.

Coming soon to a store near you: a delicate perfume made from a brown, gloopy mixture of fat. Yes, you read that right!

Crazy but effective!

This is done by adding a specially modified bacteria to material extracted from a fatberg. The **bacteria** eats away at the material, producing a **chemical** with a pine-like smell, which can be used in perfumes! "It's a crazy idea," admits Professor Stephen Wallace, "but it works."

Sustainability in action

This process is known as **engineering biology**, and can also be applied to other products. Five years ago, another scientist, Dr Joanna Sadler, created **microbes** that turn used plastic into vanilla essence!

Two perfume companies have already shown interest in engineering biology because it is better for the planet than existing methods, which involve chemicals extracted

from fossil fuels.

Future funding

But scientists stress that more money will be needed in order to keep on making progress in engineering biology.

"Engineering biology is something the UK is really good at and the world is going to need. We need to keep on investing in it as a country," said Professor Angela McLean, the chief scientific advisor to the UK government.





INVESTIGATION OF THE DAY

IS THIS PROOF THAT EVERYTHING CAN BE RECYCLED?

WHAT
does the
perfume smell
like?

WHO
is the
Government's
chief scientific
advisor?

WHERE
are fatbergs
found?

WHEN
did Dr Sadler first
use microbes to
create vanilla
essence?

WHY
are perfume
companies
interested?

HOW
is the pleasant
scent produced?

1 TAKE ACTION

Did you know that most food packaging now tells you whether it can be recycled or not?

Why not start a list of what types of packaging can be recycled and which can't? You might just find out that you've been throwing things in the bin when they could be recycled.

Recycling
And
**GIVING
BACK**

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2 SHARE YOUR IDEAS

What have you found out in your investigation? Write, present or even record a piece that shows which types of rubbish are recyclable and which are not. Share what you've learned with your family and friends. What do they think? We want to hear your ideas too! Your teacher can share your reports with us too by sending them to editorial@theday.co.uk.

3 Build THE Change



CREATE YOUR DESIGN

Not everything can be recycled, but many things can be reused! Can you think of inventive ways of using things that you might otherwise throw away, like yoghurt pots or food containers?

STEP 1:

Think about your design! Could you use your old tubs and containers as plant pots or craft tools? What other things could you reuse?

STEP 2: Build the Change!

Create a model out of things that you might otherwise have thrown away. You could even use LEGO® bricks to decorate or add to your new model!

Share your genius
Show your work
to your class!



Upload a photo of your work to the **Build the Change** gallery by scanning the QR code and have your work displayed to inspire real-world change.

4

BUILDER OF THE WEEK

Every week we handpick one of the most inspirational designs from our online photo gallery to be our **BUILDER OF THE WEEK**. To get your creation featured here, ask your grown-up to take a photograph and upload it to our Build the Change gallery, using the QR code on this page.



This week we have a machine that runs on trash to create rainclouds.

"GREAT WORK!"



This worksheet is available every weekday at 6:30am London time from <https://theday.co.uk/resources/news-detectives>.
For any feedback or help please contact buildthechange@theday.co.uk. Thank you.

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