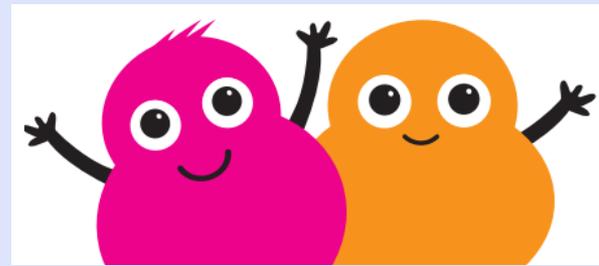




BRITISH  
SCIENCE  
WEEK

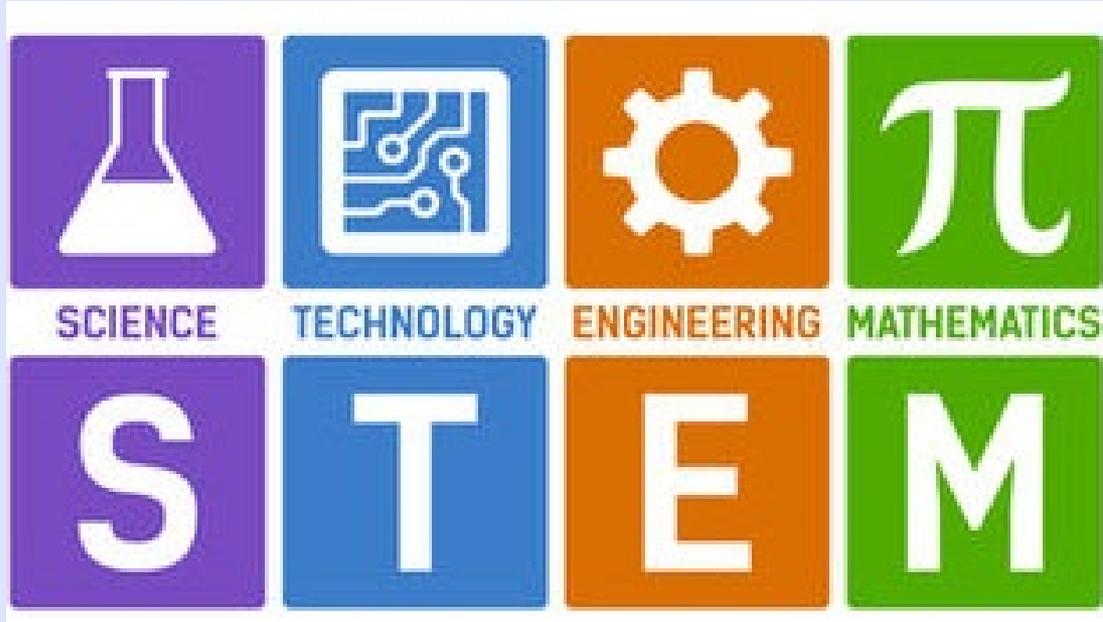
6<sup>th</sup> - 15<sup>th</sup> March





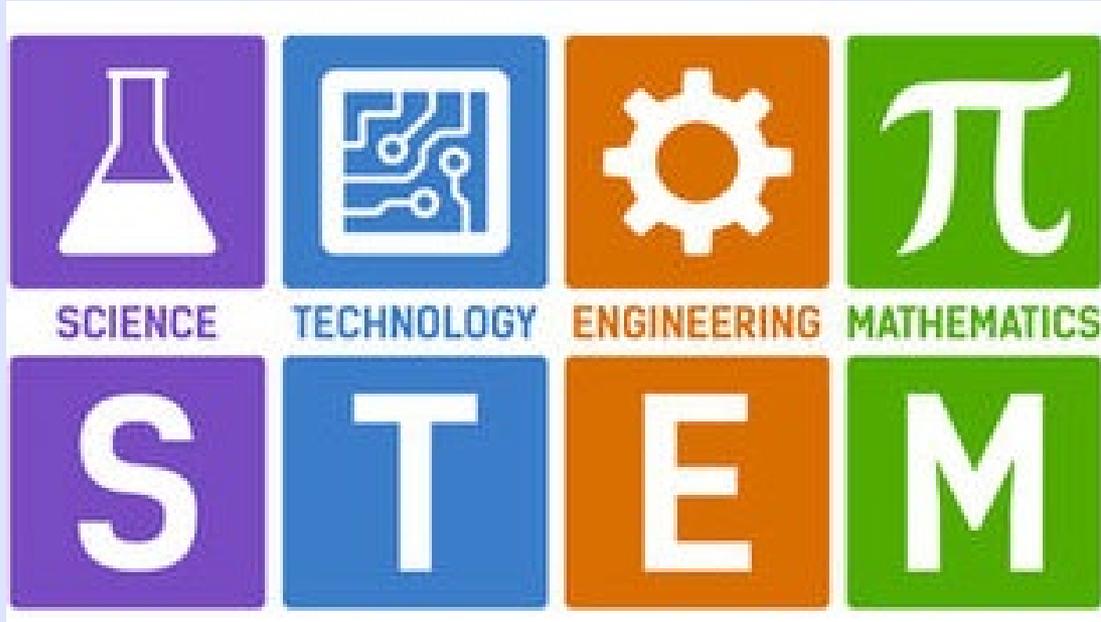
British Science Week celebrates the amazing achievements and discoveries within **STEM** related subjects.

What does **STEM** stand for?



Think, Pair, Share

Why are STEM subjects important?



**Science** is everywhere in the world around us.

**Technology** is continuously expanding into every aspect of our lives.

**Engineering** is the basic designs of roads and bridges, but also tackles the challenges of changing global weather and environmentally-friendly changes to our home.

**Mathematics** is in every occupation, every activity we do in our lives.

# Breakthroughs in Science

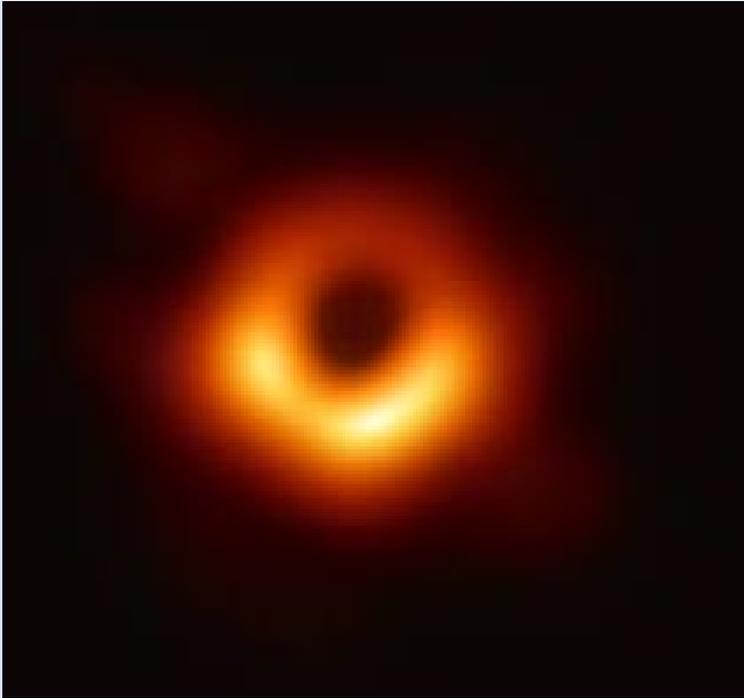


## Universal flu vaccine

Influenza, also referred to as “the flu” — is one of the most widespread illnesses worldwide. Scientist already have vaccines that prevent influenza, but there is a catch.

Specialists have to keep creating vaccines that target specific flu strains if they want this preventive strategy to be effective.

# An Unforgettable Image



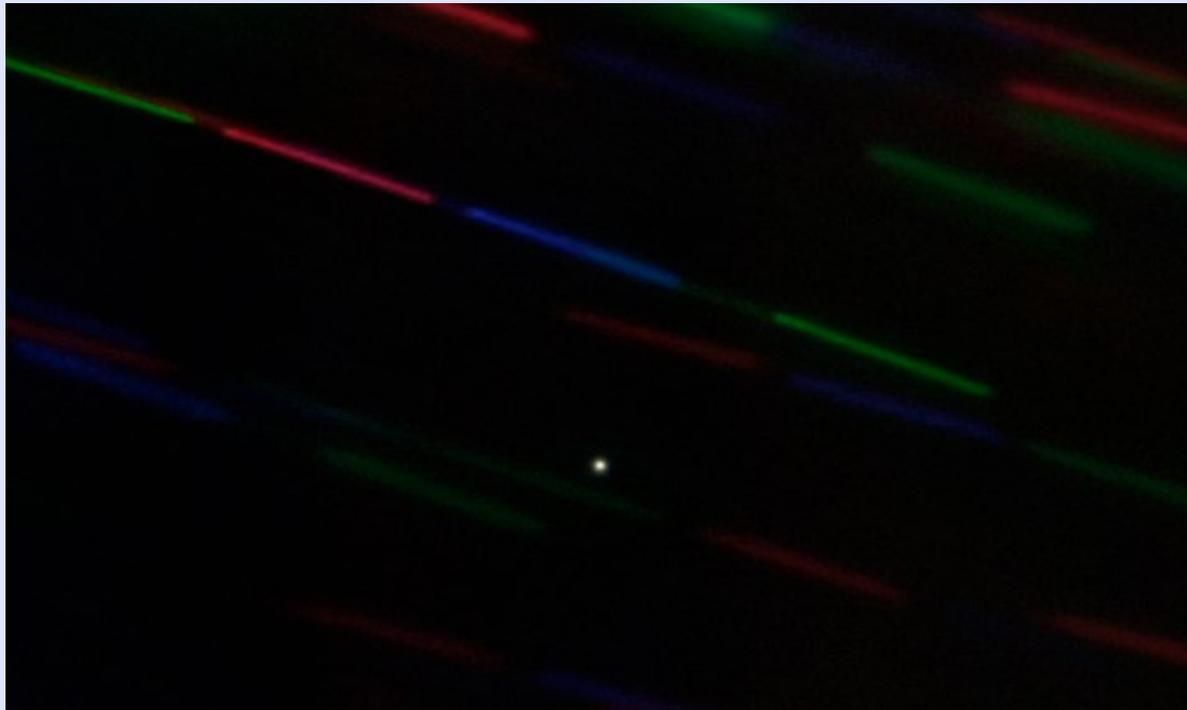
After years of anticipation, it was here! Scientists in 2019 took an absolutely image of black hole M87, at the heart of the galaxy Virgo A, about 53 million light-years away.

The first-ever close-up of the singularity, snapped by a network of telescopes around the world known as the Event Horizon Telescope.

## Earth's new moon?

On February 19<sup>th</sup>, astronomers at the Catalina Sky Survey in Arizona spotted a dim object moving quickly across the sky.

Over the next few days, researchers at six more observatories around the world watched the object, designated 2020 CD3, and calculated its orbit, confirming that it has been gravitationally bound to Earth for about three years.



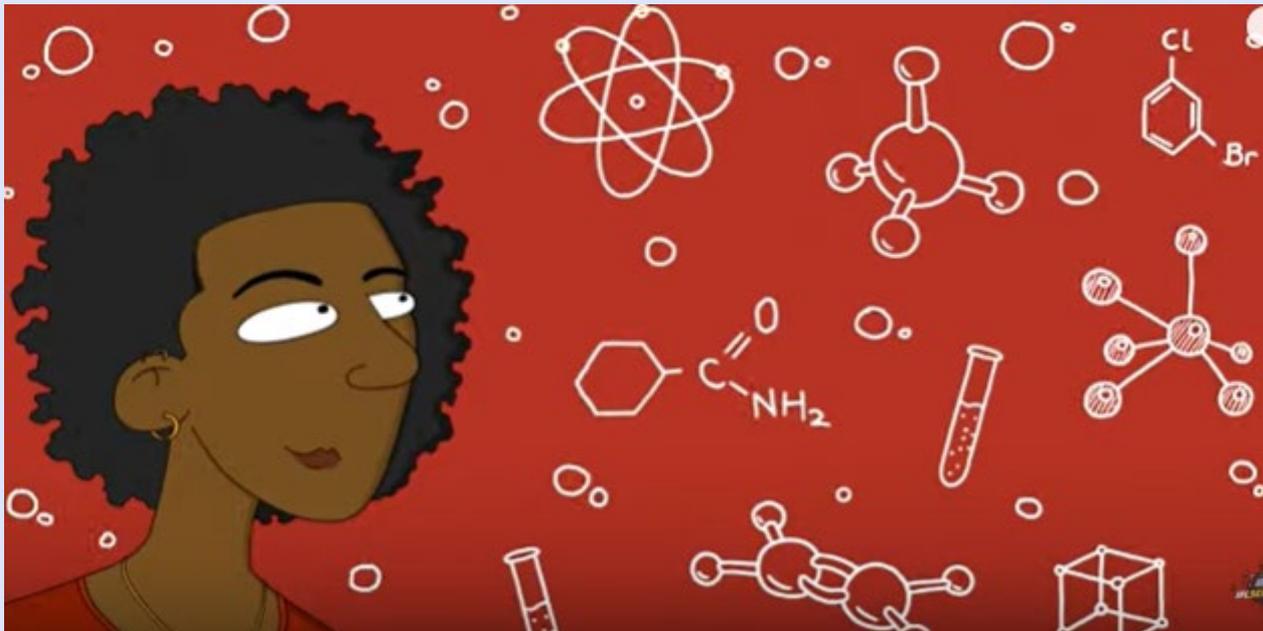


## Gene Editing

Chinese researchers led by He Jiankui announced that they had used CRISPR-Cas9 to genetically modify human embryos, which were then transferred to a woman's uterus and resulted in the birth of twin girls—the first gene-edited babies.

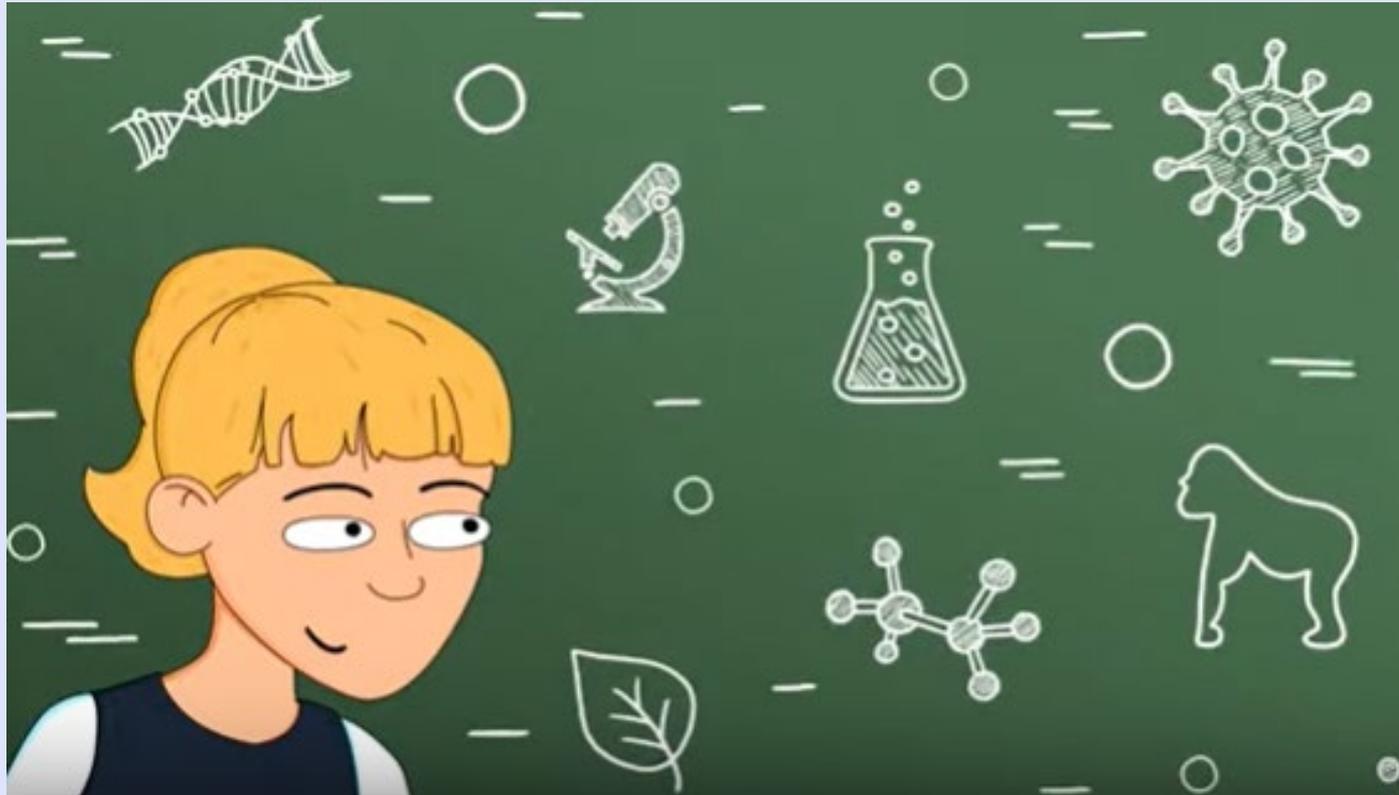
The twins' genomes were modified to make the girls more resistant to HIV,

Can you name any female scientists?



# Women in science who changed the world

<https://www.youtube.com/watch?v=W53Ks824GTA>



## Marie Curie (1867 – 1934)



Born in Warsaw, Poland.

She earned two degrees: maths and physics.

Worked with radioactive elements, including Uranium.

Her work on radioactive elements is a huge contributor to cancer treatment today.

She twice won the Nobel peace prize!

She even has a hospital named after her!

# Caroline Herschel (1750 – 1848)



Moved to England from Hanover.

Built Telescopes.

Discovered 8 previously unknown comets.

Help her brother, William, discover the planet Uranus

Even employed by the King George III.



**Lise Meitner  
(1878 – 1968)**

Born in Germany.

Studied Maths and Science and even earned a doctorate.

Was forced to leave Germany by the Nazis.

Eventually worked on *Nuclear Fission* which was used to make the Atomic Bomb that ended WW2.

## Dorothy Hodgkin (1910 – 1994)



Born in Cairo but sent to England for schooling (Her parents were archaeologists in Egypt).

She was only one of two girls allowed to study Chemistry with the boys.

She went to Oxford University.

She worked heavily with the development of X-Ray.

She discovered the molecular structure of penicillin, Vitamin B12 and insulin.

## Rosalind Franklin (1920 – 1958)



Born in London, England.

Loved science and eventually received a doctorate in Physics from Cambridge.

She also worked with X-Rays in Paris.

She made huge strides in the discovery of DNA.

# Quiz: True or False

1) Around half of STEM workers are females?

**False:** Only a quarter

2) STEM workers earn around 46% more than those without a STEM background?

**False:** They earn approximately 26% more

3) In the UK, around 50% of medical/doctorate degrees in the biomedical sciences were awarded to women.

**True**

4) Since 2001, the Noble Prize in science has only be awarded to 10 women?

**True**