

SCIENCE MUSEUM

GALLERY GUIDE

ENGINEERS

INFORMATION



Age
11-14
14-16

Topic

ENGINEERING, CAREERS

Location

LEVEL 1, SCIENCE MUSEUM, LONDON



BODIES

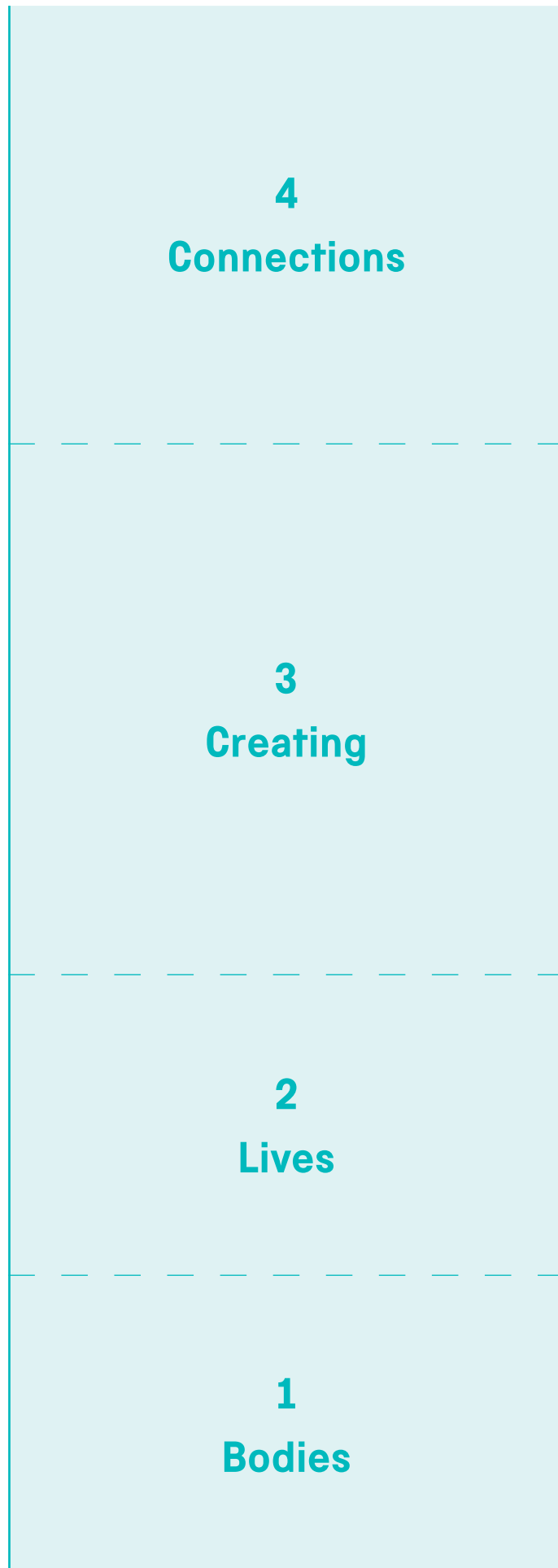
When I was younger, I loved taking things apart and collecting rubbish to build things with. I thought that to make things you had to be an artist, and didn't realise I was enjoying towards engineering. By understanding how things were built and worked, I could make my ideas come to life.

DANIELA PAREDES FUENTES
Mechanical engineer

The *Engineers* gallery explores the extraordinary stories of engineers and how they shape and change the world. Discover how engineers come from diverse backgrounds and work in many fields, from satellites to surgery.

Using precision, visualisation, connection and creativity, engineers find solutions to global challenges. These are skills that everyone has and can be used to transform our world. The gallery recognises the impact of their work by showcasing current and past winners of The Queen Elizabeth Prize for Engineering – the world's leading engineering award.

STAIR AND LIFT C



STAIR AND LIFT A

MAJOR FUNDER

1 Bodies

Engineers play a vital role in our health and wellbeing. Working with healthcare specialists they develop new precision-engineered solutions, from controlled drug delivery to surgical robots, to treat the people who need them most.

Don't miss: CMR Versius surgical system bedside unit, 2022

This robot arm can hold a 3D camera or surgical instruments during operations. The surgeon inserts and controls the instruments remotely from a console.



2 Lives

From LED lighting which uses less energy than older alternatives, to digital imaging sensors that generate billions of images, engineers have developed new technologies which have transformed how we see and light the world around us.

Don't miss: The first digital colour camera, 1971

This is the first camera ever made with a digital imaging sensor – a forerunner of today's digital cameras. It was developed by engineer Michael Tompsett with assistant Ed Zimany.

Don't miss: Prototype MetaboLight cap to help measure babies' brain health, 2022

This cap passes light through a baby's head. The light levels are measured to give an indication of blood flow and how oxygen is used in the baby's brain.



3 Creating

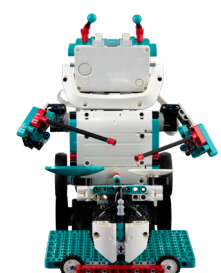
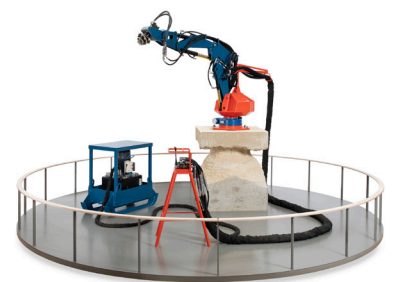
Engineers create new things and make old ones better. From defining and solving problems to adapting and improving, and visualising outcomes, they apply scientific knowledge and provide technicians with plans to pursue.

Don't miss: James Capper's ATLAS PROTOTYPE, 2015

This sculpture stands on a cast concrete block and uses a powerful hydraulic motor to carve spherical shapes into its pedestal.

Don't miss: Model Lego robot, 2021

This programmable robot drummer was built by engineer Larissa Suzuki. Building with Lego helps her to think of new ideas for her work as an AI engineer.



4 Connections

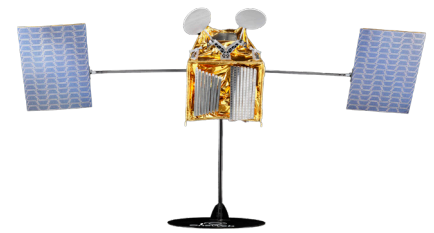
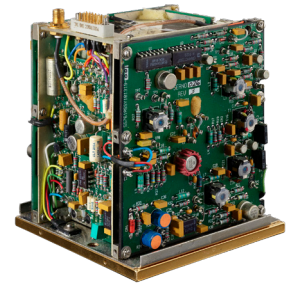
The Internet and the World Wide Web have connected people like never before, and GPS has forever changed the way we move through the world. Engineers have revolutionised the way we communicate, navigate and share information.

Don't miss: Atomic oscillator clock, 1996

Hugo Fruehauf, chief engineer for GPS, created this miniature clock which is accurate to 1 billionth of a second and is durable enough to work for 20 years aboard a satellite in space.

Don't miss: Replica OneWeb broadband satellite, 2020

Constellations of these orbiting satellites provide access to reliable high-speed broadband anywhere on Earth, from mountains to the open ocean.



Talk about...

As you explore the gallery, think and talk about how engineers influence our everyday lives. Use these questions as a starting point to inspire you to come up with more of your own:

- What interests or surprises you about what you have seen in the gallery?
- How do engineers make a difference to your everyday life?
- What problems would you use your engineering skills to change?
- What new inventions are you excited about?

Make the most of your visit

Winner Of The Queen Elizabeth Prize For Engineering

The Queen Elizabeth Prize for Engineering is awarded to engineers who have created outstanding innovations benefiting people all around the world. These prize-winning engineers embody the full creative potential of engineering. This display features the most recent winner and will be updated every year. Come back to see the next winner!

There are digital experiences throughout the gallery, ranging from films to animations and interactive touch screens.

Large-print guides are available at the entrance.

Explore more...

Investigate how the work of Technicians shape our everyday lives in our hands-on gallery *Technicians: The David Sainsbury Gallery*.

To continue the experience, the Science Museum website features lots of different activities that have been inspired by the skills and principles demonstrated throughout the gallery, which can be used at home or in the classroom.