Engineering in the News

Monday 23 November 2026

Born to Engineer

A 10-minute tutor time session: three real engineering stories, a debate and a quick challenge.

Two steel footbridges will leap a busy road



Image: Winvic / Wellcome Genome Campus (CGI)

- Two curving steel footbridges, 50 m and 55 m long, will cross the A1301 near Cambridge
- They are designed to weave between mature trees
- Lifted into place in early 2027, open in 2028

The science behind it

Bending moment $M = wL^2 \div 8$. A span 10% longer bends about 21% more.

A-level Maths: mechanics

Jobs behind the story

Structural engineer · Site engineer

Plugging ships into wind turbines



Image: Stillstrom

- Wind farm service ships usually burn fuel while parked by turbines
- Stillstrom, based in Aberdeen, has tested an 11 kV unit so they can charge from turbines
- Sea trials are planned by summer 2027

The science behind it

P = IV: higher voltage means lower current, so far less energy is lost as heat (I^2R).

GCSE and A-level Physics: electricity

Jobs behind the story

Electrical engineer · Offshore wind technician

UK-built detectors for a giant neutrino hunt



Image: Stephen Kenny, SURF

- Construction has begun nearly a mile underground in South Dakota on DUNE
- The UK is building 137 of its 150 wire detector panels, each with about 24 km of wire
- The neutrino beam is due to arrive by 2031

The science behind it

Speed = distance ÷ time: neutrinos cross 1,300 km of rock in about 4.3 ms.

GCSE Physics: forces and motion

Jobs behind the story

Electronic engineer · Software engineer

Five-minute debate

Pick one statement. Half the group argues for it, half against.

1

Beautiful bridges are worth paying extra for.

Footbridges

2

Every ship that services an offshore wind farm should run on wind power.

Ship charging

3

Countries should fund experiments that may never have a practical use.

DUNE

Two-minute challenge

How much does the 55 m steel footbridge grow on a hot day?

1. Steel grows by 12 millionths of its length for every 1 °C ($\alpha = 12 \times 10^{-6}$ per °C)
2. Take a swing of 40 °C between a frosty night and a heatwave
3. Use $\Delta L = \alpha \times L \times \Delta T$

Answer
about
26 mm
$12 \times 10^{-6} \times 55 \times 40 \approx 0.026$ m

More stories: borntoengineer.com/stem-news
Supports Gatsby Benchmark 4: linking curriculum learning to careers.