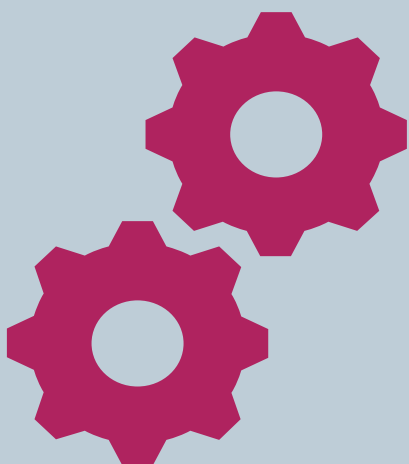
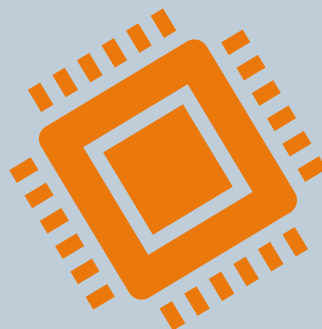
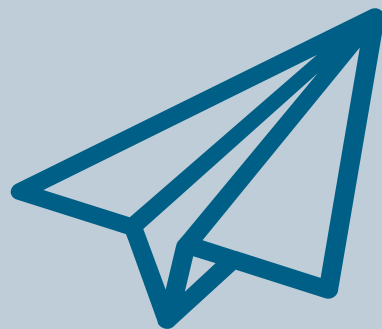


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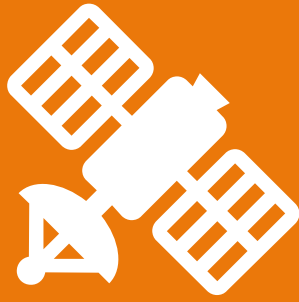
*Ingenuity for life*



# Engineering Quiz

Answer Book

[siemens.co.uk/education](https://www.siemens.co.uk/education)



**Did you know?**  
Solar panels are used on the International Space Station to generate power in space!

### Question 1

What is the name of the scientific instrument used to measure temperature?

**Thermometer**

### Question 2

Solar panels generate electricity from what source?

**The Sun**

### Question 3

There are five gears connected in a row. If the first gear is rotating clockwise what direction is the fifth gear turning?

**Clockwise**

### Question 4

Thomas Edison had over 1000 patents for his inventions! Name one of them.

**Phonograph, incandescent light bulb, kinetoscope (motion picture) and lots more!**

Gears are used to increase either the speed or the force of a machine!



Can you find the gears on your bike?

Some aeroplanes can travel faster than the speed of sound - that's over 343 metres per second.



This is called supersonic flight!

### Question 5

What is the force produced by two moving surfaces in contact called?

**Friction**

### Question 6

How did the Romans supply water to their towns?

**Aqueducts**

### Question 7

What did the Wright Brothers invent in 1903?

**Aeroplane**

**Did you know?**  
Bees are tiny engineers!



Honeybees make their hives out of hexagons because this shape can be packed together without any gaps in between them. This means they can store more honey and have a stronger hive!

**Question 8**

The structure of a beehive is made up of which geometrical shape?

**Hexagon**

**Question 9**

In electricity, voltage is measured in volts. What is current measured in?

**Amperes**

**Question 10**

Which of the following materials is man-made: wood, cotton, plastic or clay?

**Plastic**

**Question 11**

What does a pneumatic system use to make it move: gas, water, gears or pulleys?

**Gas**

**Question 12**

The great white shark can swim 10 times faster than an average human swimmer! Which features of the great white shark help it swim fast?

**Streamlined body, strong tail, smooth skin.**

Inspired by the speed of sharks, engineers developed a new swimming costume to mimic shark skin.



The special swimming costume reduces the amount of drag a swimmer experiences, meaning they can swim faster!



Engineers design and make lots of instruments like X-ray machines, MRI scanners, and ultrasound scanners to help doctors see inside people's bodies when they are in hospital.

**Question 13**

Battery life is extended by storing batteries at a low temperature. True or false?

**True**

**Question 14**

What is the world's tallest free-standing structure?

**Burj Khalifa**

**Question 15**

Which 19th century invention is used by doctors to check for broken bones?

**X-ray machine**

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