

STEM Quiz 1
Age range 11 – 16

STEM Quiz 1 (Age 11 – 16)

This quiz can be played in teams or individually, and is suitable for ages 11 to 16
There are five rounds to the quiz:

Round 1: Invention and Discovery

Questions about life changing inventions and discoveries

Round 2: Physics and Space

Questions about forces, motion, energy and space

Round 3: Engineering

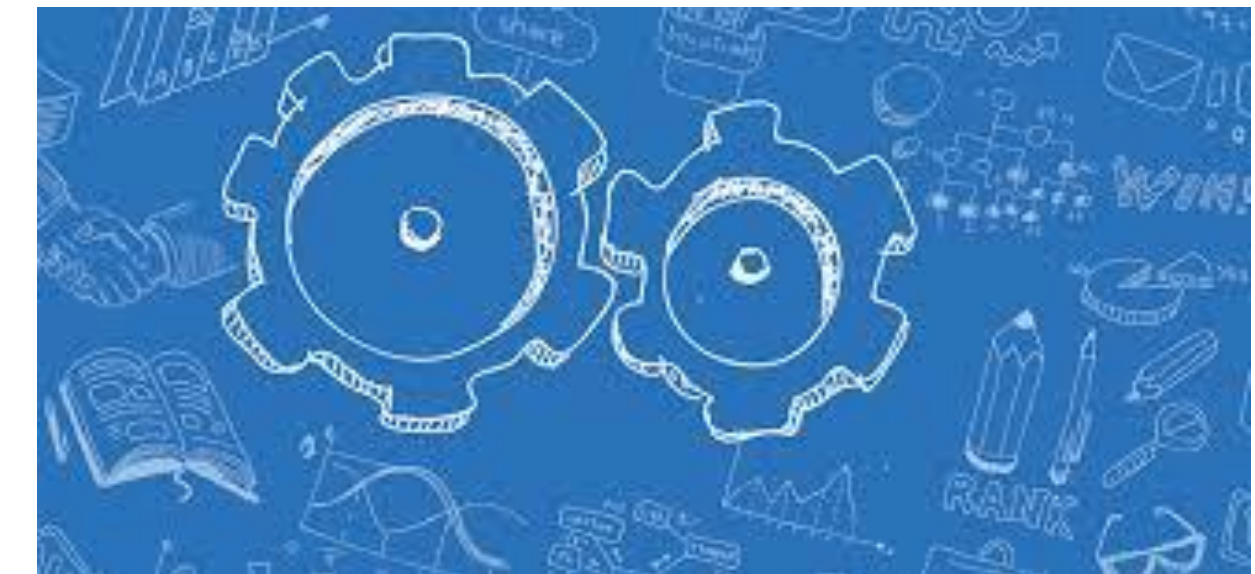
Questions about famous feats of engineering and the way things work

Round 4: Chemistry

Questions about materials, changes and chemicals

Round 5: Biology

Questions about living things



Round 1: Invention and Discovery

1) Which great painter was also a famous inventor?

- A Claude Monet
- B Pablo Picasso
- C Salvador Dali
- D Leonardo Da Vinci

2) Name one of Thomas Edison's inventions

- A The X-Ray
- B The incandescent light bulb
- C The radio
- D The motor car

Round 1: Invention and Discovery

3) In 1928, Alexander Fleming discovered that mould contained properties that could kill bacteria. This led to the invention of which lifesaving drug?

- A Paracetamol
- B Penicillin
- C Morphine
- D Anaesthetic

4) In 1786, Dr Edward Jenner discovered vaccination in its modern form. Which was one of the very first diseases that people were vaccinated against?

- A Polio
- B Chicken pox
- C Tuberculosis
- D Small Pox

Round 1: Invention and Discovery

5) In 1922, the Egyptologist Howard Carter made one of the most important archaeological discoveries of the 20th Century whilst excavating a site in the Valley of the Kings. What did he discover?

- A Tomb of Tutankhamun
- B The Valley of the Golden Mummies
- C The Rosetta Stone
- D The Book for the Dead

Round 2: Physics and Space

1) Why does a helium filled balloon float?

- A Because helium is less dense than air
- B Because helium is more dense than air
- C Because helium is the same density as air
- D Because the helium particles sink to the bottom of the balloon

2) Name a renewable energy source

- A Coal
- B The sun
- C Natural gas
- D Oil

Round 2: Physics and Space

3) What is the name of the 2nd biggest planet in our solar system?

- A Saturn
- B Mars
- C Mercury
- D Earth

4) A magnifying glass is what type of lens?

- A Convex
- B Concave
- C Planar
- D None of the above

Round 2: Physics and Space

5) The world's largest high energy particle accelerator can be found 175m below the earth's surface in Switzerland – what is it called?

- A Large Hadron Collider
- B Large Particle Collider
- C Large Neutron Collider
- D Large Newton Collider

Round 3: Engineering

1) In which city would you find the world's tallest building?

- A New York
- B Dubai
- C London
- D Hong Kong

2) What landmark anniversary did the London Underground, a triumph of engineering, celebrate in the year 2013?

- A 100
- B 150
- C 200
- D 250

Round 3: Engineering

3) Which famous Victorian engineer built the Great Western Railway and the Clifton Suspension Bridge in Bristol?

- A Thomas Telford
- B Abraham Darby
- C Isambard Kingdom Brunel
- D Benjamin Wright

4) The world's first cast iron arch bridge can be found in Shropshire. Which river does it span?

- A The river Avon
- B The river Severn
- C The river Thames
- D The river Trent

Round 3: Engineering

5) The American Society of Civil Engineers has compiled a list of the seven wonders of the modern world. Name one of the wonders from this list.

- A Golden Gate Bridge
- B Egyptian Pyramids
- C Eiffel Tower
- D Taj Mahal

Round 4: Chemistry

1) What colour does an acid turn litmus paper?

- A Red
- B Green
- C Blue
- D Purple

2) K is the chemical symbol for which element?

- A Calcium
- B Potassium
- C Krypton
- D Carbon

Round 4: Chemistry

3) At room temperature, what is the only metal that is in liquid form?

- A Platinum
- B Magnesium
- C Mercury
- D Zinc

4) Which allotropic element connects graphite with a diamond?

- A Carbon
- B Lead
- C Aluminium
- D Tin

Round 4: Chemistry

5) What does an atom consist of?

- A An electron surrounded by a nucleus
- B A nucleus containing electrons
- C A nucleus surrounded by electrons
- D A nucleus on its own

Round 5: Biology

1) Name the process where plants convert light energy into chemical energy?

- A Pollination
- B Respiration
- C Photosynthesis
- D Growth

2) Which famous scientist introduced the idea of natural selection?

- A Isaac Newton
- B Albert Einstein
- C Charles Darwin
- C Stephen Hawking

Round 5: Biology

3) What is the human body's biggest organ?

- A Heart
- B Lung
- C Liver
- D Skin

4) What does an Entomologist study?

- A Insects
- B Plants
- C Humans
- D Dinosaurs

Round 5: Biology

5) Mammals generate heat to maintain their body temperature, meaning that they are warm blooded. What is another term for this process?

- A Exothermic
- B Endothermic
- C Ectothermic
- D Electothermic

End of Quiz