

Where does the word plumber come from? The Greek word for

- a. Plums
- b. Copper
- c. Lead
- d. Cheese

c - Lead

**Fact**

Plumbing is from the Latin *plumbum*, which means lead, as pipes were once made from lead.



Kinetic energy; kinetic is a Greek word, what does it mean?

- a. Motion
- b. Family
- c. Cheese
- d. Sunny

a - Motion

**Fact**

Potential is the term used for stored energy.



Approximately how much energy is wasted as heat from a car?

- a. < 20%
- b. 20 – 40%
- c. 40 – 60%
- d. 60 – 70%

d - 60 – 70%

**Fact**

Which engine is more thermally efficient: diesel or petrol? (*diesel*).



Woollen cloth can be effectively cleaned (called *fulling*) to eliminate oils, dirt, and other impurities using

- a. Water
- b. Very soft cheese
- c. Mud
- d. Urine

d - Urine

**Fact**

Urine was so important to the fulling business that urine was taxed.



Despite the advent of modern clothing materials, what natural material is still being used as insulation in mountaineering clothing?

- a. Wood
- b. Duck down
- c. Wool
- d. Cheese

b - Duck down

**Fact**

The down of birds is a layer of fine feathers found under the tougher exterior feathers.



The first chain driven bicycle was invented in the 1870's. How mechanically efficient is a modern bicycle?

- a. <30%
- b. 30-60%
- c. 60-90%
- d. +90%

d - +90%

**Fact**

The majority of resistance is from air resistance.



How much heat can be saved by installing loft insulation in the average sized house?

- a. 0 – 5%
- b. 15 – 25%
- c. 30 – 60%
- d. A small slice of Edam

b - 15 - 25%



Geothermal heat source takes its source from

- a. The sun
- b. The earth
- c. The sea
- d. Cheese

b - The earth



When was geothermal heating first used?

- a. 100,000 years ago by Neanderthal man
- b. The Victorians 120 years ago
- c. The Romans 2000 year ago
- d. American Indians 10,000 years ago

d - American Indians 10,000 years ago

**Fact**

They used hot springs to bathe and heat their settlements, and there is evidence they also used them as a healing source.



The first hydrogen powered automobile was invented in 1807. What are the exhaust emissions from a hydrogen cell vehicle ?

- a. Carbon dioxide
- b. Water
- c. Cheese
- d. Hydrogen

**b - Water**

Humphry Davy discovered the use of platinum in catalysis in the 1880s. What does the Platinum in a catalytic converter on a car help to convert?

- a. O<sub>2</sub> to fuel
- b. Unburnt fuel to CO<sub>2</sub>
- c. H<sub>2</sub>O to CO<sub>2</sub>
- d. CO<sub>2</sub> to Cheese

**Unburnt fuel to CO<sub>2</sub>**

Aluminium recycling has been a common practice since the early 1900's. Compared to its original manufacture, what percentage of energy is required to manufacture aluminium from recycled aluminium?

- a. 5%
- b. 15%
- c. 30%
- d. 50%

**a - 5%**

**Fact**

Recycling aluminium from scraps and discards uses only about 5 percent of the energy required to manufacture new aluminium. Recycling aluminium was quite widespread and intensive during World War II.

People used to travel the streets collecting unwanted goods and waste for recycling. What were these people often known as?

- a. Rag and bone men
- b. Wensleydalers
- c. Policemen
- d. The borrowers

**a - Rag and bone Men**

**Fact**

Historically the phrase referred to an individual who would travel the streets of a city with a horse drawn cart, and would collect old rags (for converting into fabric and paper), bones for making glue, scrap iron and other items, often trading them for other items of limited value.

Biogas is a product of a biological degradation of organic substances under exclusion of oxygen. What gas is given off that may be used as a fuel?

- a. Carbon dioxide
- b. Methane
- c. Cheese
- d. Oxygen

**b - Methane**

**Fact**

The bacterial degradation process is called anaerobic digestion. The high methane content makes biogas an excellent source of renewable energy to replace natural gas and other fossil fuels.

When is the first recorded use of biogas as a heat source?

- a. In China 3000 years ago
- b. Bedford 3 months ago
- c. In Assyria during 10<sup>th</sup> century BC
- d. In Greece 5<sup>th</sup> century BC

**c - In Assyria during 10<sup>th</sup> century BC**

**Fact**

There's evidence that biogas was used to heat bath water in Assyria during 10 BC.

When is the first recorded practical use of wind powered machines?

- a. 2<sup>nd</sup> century BC in Persia
- b. 2<sup>th</sup> century AD in Australia
- c. 1800's in France
- d. 1930's in Cheeseville, UAS

**a - 2<sup>nd</sup> century BC in Persia**

**Fact**

The first practical windmills were built in Sistan, a region between Afghanistan and Iran, from the 7<sup>th</sup> century.

What percentage of water used in a house is used in the bathroom?

- a. <10%
- b. 10-20%
- c. 40-60%
- d. 70-90%

**d - 70-90%**

Solar panels will only work when there is

- a. Daylight
- b. Tasty soft cheese
- c. Direct sunlight
- d. The moon visible

**a - Daylight**

**Fact**

A PV system needs daylight to work but not direct sunlight. Indeed, if a PV module is exposed to an artificial light, it will also produce electricity.

Which of the following is not a renewable energy source?

- a. Geothermal
- b. Nuclear
- c. Hydro
- d. Biomass

**b - Nuclear**

Underfloor heating – Where and when was this first used?

- a. The Romans in 45AD
- b. 10,000 BC in China
- c. The Scottish in 1265

**b - 10,000 BC in China**

**Fact**

From China, the word *kang*, can be traced back to the 11th century B.C. and originally meant, 'to dry' before it became known as a heated bed.

Which natural resource is NOT an ingredient in manufacturing glass bottles?

- a. Sand
- b. Cheese
- c. Soda Ash
- d. Limestone

**b - Cheese is not a main component of glass bottles.**

Recycling just one aluminium can saves enough energy to run a television for how long?

- a. 3 Hours
- b. 6 Hours
- c. 9 Hours
- d. 12 Hours

**a - 3 Hours**

**Fact**

An aluminium can saves enough energy to power a TV for 3 hours.

If you recycle a tonne of paper, how many trees are you saving?

- a. 12 Trees
- b. 17 Trees
- c. 23 Trees
- d. Half a pound

**b - 17 Trees**

Which of the following is NOT used to generate electricity in the UK?

- a. Human waste
- b. Solar power
- c. Hydropower
- d. Perfume

**d - Perfume is not a source of energy in the UK.**

**Fact**

It is generally agreed that perfume has a nicer smell than human waste.

When recycling glass it is common to sort bottles by colour, but which colour is NOT common for sorting?

- a. Blue
- b. Clear
- c. Green
- d. Brown

**a - Blue is not a common colour by which glass is sorted for recycling.**

How many years does it take a single aluminium can to decompose?

- a. 20 – 40 years
- b. 60 – 80 years
- c. 80 – 100 years
- d. 100 – 120 years

**c - It takes an average aluminium can between 80 and 100 years to decompose.**

Recycling just two glass bottles saves enough energy to boil water for how many cups of tea?

- a. 1 Cup of tea
- b. 2 Cheese dips
- c. 3 Cups of tea
- d. 5 Cups of tea
- e. 7 Cups of tea

**d - 5 cups of tea**

**Fact**

Recycling 2 glass bottles saves enough energy to boil 5 cups of tea.

Most of the energy used on Earth today originally came from which source?

- a. Sun
- b. Oceans
- c. Soil
- d. Air
- e. Cheese

**a - The Sun**

**Fact**

Most of the energy used on Earth originally comes from the Sun.

Which action saves the **least** amount of energy in your home?

- a. Turning all appliances to stand-by when not in use.
- b. Turning off and unplugging all appliances when not in use.
- c. Turning off all lights when not in the room.
- d. Eating cheese.

**a - Leaving appliances on standby still uses energy.**

If all of the wind around the UK coasts could be harnessed for energy, how much of our energy needs could be met by this source alone.

- a. None of our energy needs
- b. All of our energy needs
- c. Double our energy needs
- d. Three times our energy needs
- e. A nice slice of cheddar

**d - Three times our energy needs.**

Trevor Baylis is famous for the invention of

- a. Wind-up radio
- b. Cheese radio
- c. Hair curlers
- d. DAB radio

**a - Wind-up radio**

**Fact**

DAB radios require more power to operate than analogue radios.

How much water does a running tap use per minute?

- a. A pound of cheddar
- b. 6 cup full's
- c. 6 litres
- d. 6 bath full's

**c - 6 litres**

**Fact**

A running tap uses 6 litres of water a minute, a shower can use anywhere between 9 – 45 litres per minute, a hosepipe uses as much as 17 litres per minute.

In the UK in 2004, what percentage of newspaper was made up from recycled paper?

- a. <10%
- b. 20-40%
- c. 50-60%
- d. 70-80%

**d - 70-80%**

**Fact**

Recycled paper made up 75.5% of the raw materials for UK newspapers in 2004.

Electricity can be generated from solar radiation (from the sun) using Photovoltaic cells. Who invented the Photovoltaic cell?

- a. Eddie Brie in 2003
- b. Edmund Blackadder in 1893
- c. Eddie the Eagle in 1983
- d. Edmund Becquerel in 1873

**d - Edmund Becquerel**

**Fact**

Nineteen-year-old Edmund Becquerel, a French experimental physicist, discovered the photovoltaic effect while experimenting with an electrolytic cell.

Mechanical energy can be converted to electricity using electromagnetism. Who were the two people who discovered electromagnetism?

- a. Michael Faraday & Joseph Henry
- b. Morecombe & Wise
- c. Eddie Cheese & Herbert Pickle
- d. De Vinci & Archimedes

**a - Michael Faraday & Joseph Henry**

Solar energy, radiant light and heat from the sun, have been harnessed by humans since ancient times using a range of ever-evolving technologies. What material is mostly used for making photovoltaic cells (solar panels)?

- a. Silicon
- b. Cheese
- c. Nylon
- d. Calcium

**a - Silicon**

**Fact**

Measured by mass, silicon makes up 27.7% of the Earth's crust and is the second most abundant element in the crust, after oxygen.

The earliest uses of mathematics was in

- a. Measuring Silicon
- b. Weighing cheese
- c. Trading, land measurement and recording time
- d. Measuring rainfall

**c - Trading, land measurement and recording time.**

Logarithms contributed to the advance of science in

- a. Astronomy
- b. Cheese manufacturing
- c. Baking (Not Cheese)
- d. Astrology

**a - Astronomy**

**Fact**

Decibel (sound) and Richter (seismic energy released by earthquakes) are both logarithmic scales.

The invention of the dynamo led to the invention of the following electrical devices

- a. Solar panel
- b. Cheese and Butter
- c. The DC electric motor and the AC alternator
- d. Dynamo

**c - The DC electric motor and the AC alternator.**

**Fact**

DC stands for Direct Current and AC stands for Alternating Current.

An average cyclist can travel at 12-15mph, twice the speed of a car in rush-hour central London. What is the average speed for a car?

- a. Cheesy speed
- b. 0-6 mph
- c. 6-12 mph
- d. 12-20 mph

**c - 6-12 mph**

An Electrical generator converts ----- energy to ----- energy

- a. Mechanical to electrical
- b. Electrical to mechanical
- c. Nuclear to electrical
- d. Mechanical to cheese

**a - Mechanical to electrical**

**Fact**

A generator acting in reverse is called a motor.

Using the following energy sources would have less impact on the environment and is therefore more eco-friendly

- a. Coal in thermal power stations
- b. Hydro-electric power generation
- c. Soft cheese power
- d. Using diesel as source of power

**b - Hydro-electric power generation**

The 1<sup>st</sup> magnetic compass was invented in 247 BC in ancient China. What are the main applications of the magnetic compass?

- a. Measure direction, north & south
- b. Measure Weight
- c. Pick up paper clips
- d. Slice cheese

**a - Measure direction, north & south**

Composting toilets have been used in China for hundreds of years. How is the collected human waste broken down?

- a. Spade and fork
- b. Detergents
- c. Strong cheese
- d. Bacteria

**d - Bacteria**

The first chain driven bicycle was invented by John Starley in 1885. What is the highest speed recorded (on the flat!) on a bicycle?

- a. 132 km/h
- b. 13.2 km/h
- c. 62 km/h
- d. A lot of cheese

**a - 132 km/h**

**Fact**

Fred Rompelberg is the current holder of the motor paced speed world record cycling with 268 km/h (167 mph). He used a special bicycle behind a dragster at the Bonneville Salt Flats.

Wastewater generated from domestic activities such as laundry, dishwashing, and bathing can be recycled for uses such as landscape irrigation. What is this water called?

- a. Gorgonzola
- b. Black water
- c. Clean water
- d. Grey water

**d - Grey water**

**Fact**

Water containing human waste is called *black water*.

Constructing houses using wood strips along with wet soil, clay, sand, animal dung or straw, used 6000 years ago, is still being used today. What is this method called?

- a. Pratt & Whitney
- b. Wattle & Daub
- c. Rattle & Roll
- d. Cheese & Pickle

**b - Wattle & Daub**

