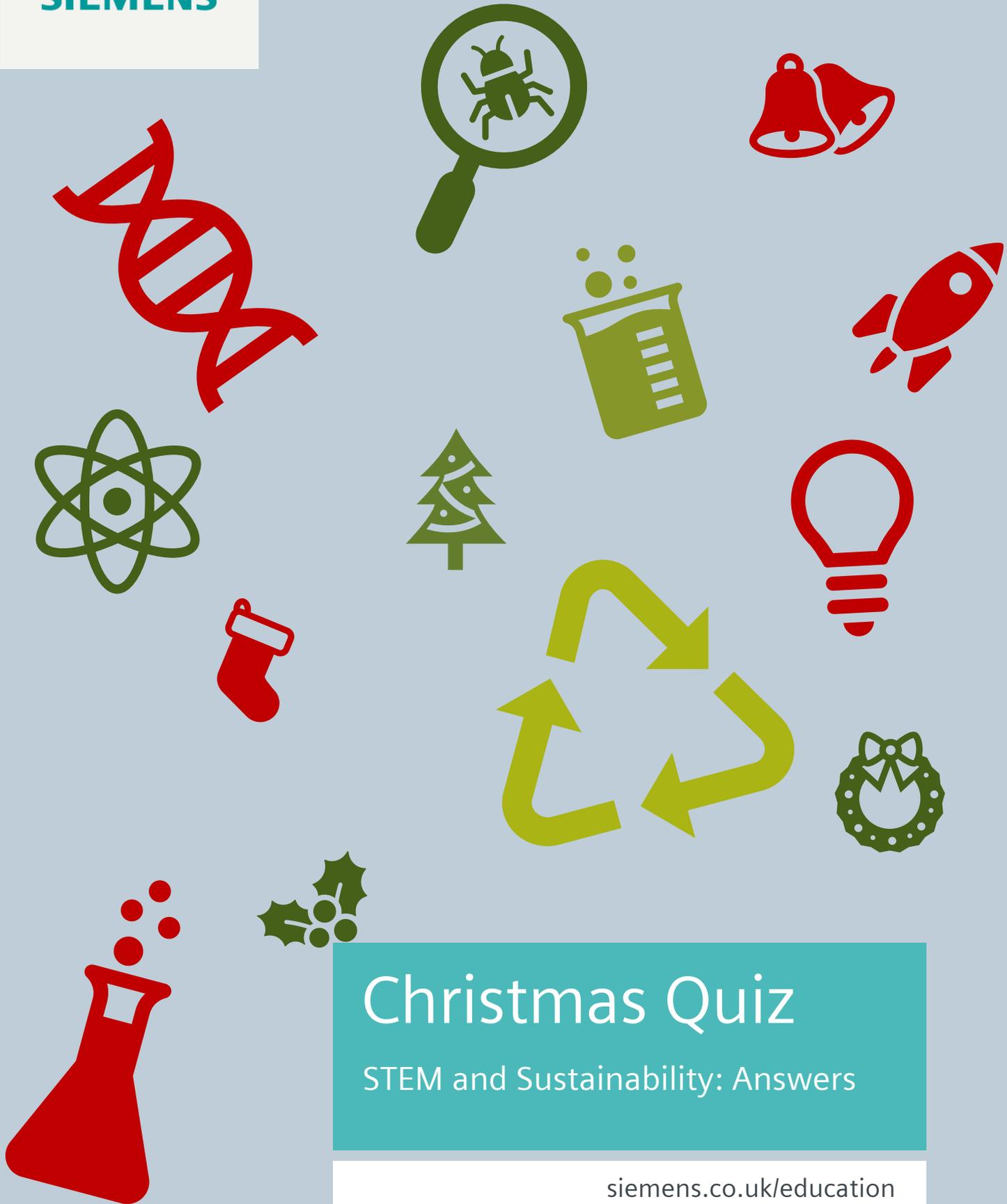


SIEMENS



# Christmas Quiz

STEM and Sustainability: Answers

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

### Question 1

'Rangifer tarandus' is the scientific name for which animal?

**Reindeer. Did you know that reindeer is don't just live in the North Pole, they are also commonly found in Russia, northern USA, Canada, Iceland, Greenland, Norway, and Finland?**

### Question 2

On the fifth day of Christmas, my true love gave to me, 5 gold rings! But what is the periodic symbol for gold?

**Au**

### Question 3

An artificial Christmas tree has a lower carbon footprint than a real Christmas tree. TRUE or FALSE

**FALSE! A real Christmas tree has a lower carbon footprint than an artificial Christmas tree. According to The Carbon Trust and the American Christmas Tree Association, artificial Christmas trees must be reused for 5-10 years for them to have a lower carbon footprint than real Christmas trees.**

### Question 4

Santa is planning to travel from the North Pole to London, a distance of 4240 miles. He is setting off from the North Pole at 1pm and he needs to arrive in London at 5pm. What speed, in miles per hour, does Santa need to fly to get to London on time?

**1,060 mph**

### Question 5

If Santa Claus had to deliver a present from the North Pole to the moon, how many miles would he have to travel?

**238,900**

### Question 6

In the song '12 Days of Christmas', how many presents are mentioned in total?

**364**

**(Partridges:  $1 \times 12 = 12$ ) + (Doves:  $2 \times 11 = 22$ ) + (Hens  $3 \times 10 = 30$ ) + (Calling birds:  $4 \times 9 = 36$ ) + (Golden rings:  $5 \times 8 = 40$ ) + (Geese:  $6 \times 7 = 42$ ) + (Swans:  $7 \times 6 = 42$ ) + (Maids:  $8 \times 5 = 40$ ) + (Ladies:  $9 \times 4 = 36$ ) + (Lords:  $10 \times 3 = 30$ ) + (Pipers:  $11 \times 2 = 22$ ) + (Drummers:  $12 \times 1 = 12$ ) = 364**

### Question 7

To the nearest million, how many Brussels sprouts are thrown away every Christmas?

**17 million. The Independent estimated that 4.2 million Christmas dinners were reported wasted across the United Kingdom in 2014. This figure is**

equivalent to 263,000 turkeys; 7.5 million mince pies; 740,000 slices of Christmas pudding; 17.2 million Brussels sprouts; 11.9 million carrots and 11.3 million roast potatoes.

### Question 8

If you are on the naughty list, you might get a lump of coal for Christmas. But what element is coal primarily made of?

**Carbon.** Coal is formed when dead organic matter, like trees, are subjected to pressure and heat over millions of years. Coal is mostly carbon but also contains nitrogen, hydrogen, oxygen and sulfur.

### Question 9

In the Christmas song, 'Deck the Halls' how many 'lahs' are there after the line, 'Deck the halls with boughs of holly...'

7

### Question 10

In 2018, there was enough wasted wrapping paper to wrap up the whole of which island?

**The Department for Environment, Food and Rural Affairs estimates that wrapping paper wasted in 2018 would be enough to wrap up the isle of Guernsey (about half the size of Manchester)! If we recycled half the wrapping paper that we produce every year, we could save 25,000 trees!**

### Question 11

If you wanted to find the North Pole, you could use a compass to point north. But what force makes a compass point north?

**Magnetic Force.** A compass uses a small bar magnet that detects the Earth's natural magnetic field. As the Earth's magnetic force is strongest at the magnetic North and South Poles, which are located near the geographical North and South Poles.

### Question 12

In what year was the first Christmas cracker invented?

**The Christmas cracker was invented in Britain around 1850 by sweet-maker, Tom Smith. Crackers were originally called cosaques and were thought to be named after the Cossack soldiers who rode on their horses and fired guns into the air.**

## How did you score?

Stay curious about science  
and explore STEM at home  
with these awesome  
DIY Science videos.  
Scan the QR code to watch!



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