

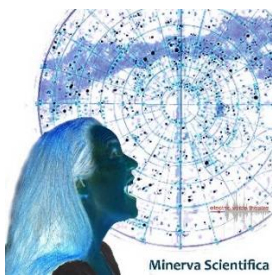
British Science Week 2016



Level two quiz answers

Find out other ways to get involved with
[British Science Week 2016](#)





Round one
Science and the performing arts

Questions set by [Electric Voice Theatre](#)



1. "She Sells Sea Shells on the Sea Shore" is a famous tongue twister written by Terry Sullivan in 1908. Who was it about?

Answer: Palaeontologist, Mary Anning

2. Which of the following was the first person to write a computer programme?

Answer: C. Ada Lovelace (she wrote it before the first computer was built)

3. When a singer sings, sound energy travels through the air in waves. Which of these will also let sound travel through them? (Clue: more than one is correct)?

Answer: All of them.

Bonus: Which one would sound travel through the fastest and why?

Metals, because the particles are the closest together.

4. In 1952 Rosalind Franklin and Raymond Gosling took photo 51 an x-ray photo of Deoxyribonucleic acid. What is this more commonly known as?

Answer: B. DNA

5. A composer called Karen Wimhurst wrote a piece of music for us to sing with a bass clarinet about the entomologist Miriam Rothschild. What does an **entomologist** study? (Clue: two are correct)

Answer: B. Fleas and D. Butterflies

Round two
Science and history



Questions set by [The Historical Association](#)

1. What conditions helped the Great Fire of London to spread?

Answer: lots of (dry) fuel. The fire started after a long hot summer and most of the houses were made of wood in 17th century London. There were also a lot of warehouses filled with wood and other flammable materials very close to where the fire started. Strong winds supplied the fire with lots of oxygen to make it burn faster and hotter.

Bonus question: what was the heat source that started the Great Fire of London?

Answer: A bakery on Pudding Lane in the East End of London

2. Florence Nightingale cleaned the hospitals and made nurses wash their hands before treating soldiers during the Crimean War in the 1850s. Why did Florence Nightingale's work help more soldiers to survive?

Answer: A clean hospital and washing hands prevented the spread of disease.

3. Bronze Age started about 3000BCE and the Iron Age about 2000 years later. When did the Iron Age begin?

About 1000BCE

4. When the Egyptians buried their dead, they embalmed them. In order to preserve the bodies, they stuffed them with:

B. Salt

5. What did Tim Berners Lee invent?

Answer: The internet



**Round three
Science and dance**

Questions set by:
[One Dance UK](#)



1. Which parts of a dancer's body make them move to perform jumps, twist, turn spin etc.?

Answer: muscles

2. Dancing is a very active profession. Which of the foods below would a dancer eat to give them a lot of energy?

Answer: Carbohydrates (foods high in starch like grains and pulses or examples like pasta, bread). Accept energy drinks but say that these only provide short bursts of energy and fresh fruit is a better source of natural sugars.

3. When a dancer exercises their pulse increases. What is the pulse measuring?

Answer: How fast their heart is beating.

Bonus question: why does a dancer's pulse increase when they are performing?

Answer: the heart beats faster to get make the blood carrying oxygen and glucose (food/energy) to the muscles which are using the fuel faster

4. Why do dancers do warm-up exercises and stretching before a performance or practice session?

Answer: warming up can prevent dancers from getting injuries and stretching helps them to be more flexible.

5. Balance is very important to dancers. Which organ, other than your eyes, plays a big part in helping a dancer and you to keep balance? (Clue: it's in your head)

Answer: Your inner ear contains special sensors that play a big part in helping your brain decide whether you are off-balance. Sensors in your muscle also sense how stretched muscles and tendons are which could mean you're starting to topple off balance.

Round four
Science and geography

Questions set by: [Geographical Association](http://www.geographical.com)

1. The River Thames begins near the town of Cirencester. What is the start of a river called?

Answer: the source (but could also be 'a spring')

Bonus question: Which major city in Britain does the Thames flow through?

Answer: London

2. In which biome (a large geographical area of distinctive plant and animal groups, which are adapted to that particular environment) would you find a natural Christmas tree growing? Is it:

Answer: C. Taiga

3. To get to the base of Mount Everest climbers have to walk up a large tongue of ice. What is the name given to the large tongues of ice that flow down from high mountains into valleys below?

Answer: Glaciers

4. How does water in the oceans transfer to water in clouds?

Answer: Evaporation and condensation or by water vapour that cools and condenses into clouds.

5. Describe one way you can build an earthquake proof building?

Answer: Any from:

- 1. Make walls and roof out of stiff material or reinforce to make them hold together**
- 2. Construct it so the building doesn't sway**
- 3. Make the roof from a light material (not heavy tiles or concrete),**
- 4. Put 'shock absorbers' in the foundations (that stops the building from swaying)**
- 5. Build tall buildings (e.g. skyscrapers) around a concrete pole (which doesn't sway as much)**
- 6. Put a heavy weight in the top of a tall building (which reduces the sway of the building)**

**Round five
Science and sport**

Questions set by [Youth Sport Trust](#)



With the Olympics and Paralympics on the horizon and European football tournament around the corner, 2016 will be another amazing year for sport. Science is what gives our athletes a competitive edge – How will you fare in our sport science quiz?

1. Which force pulls Tom Daley down to the water when he jumps off the 10m diving platform?

Answer: Gravity

2. Which sport did Dick Fosby revolutionise in 1968 by introducing a new technique known as the “Fosby Flop”?

Answer: A. High jump

3. Which athletics event is made up of seven separate sports?

Answer: C. Heptathlon

4. This year Rio de Janeiro hosts the summer Olympics and Paralympics. The Olympics and Paralympics are held every four years. Can you write down the years in which the next four events will be held?

1. 2020

2. 2024

3. 2028

4. 2032

5. Can you match the correct weight to each of the throwing objects (Men’s Olympic).

1 + c (800g = javelin)

2 + a (7.26kg = shot putt)

3 + b (2kg = discus)