British Science Week 2016



Level two quiz questions

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British Science Week quiz 2016

The British Science Association has been working with a variety of new organisations over the last year to broaden the definition of what science means and is about. To reflect this, we've got new categories that reflect some of the new areas we're exploring.

This quiz can be played in teams or individually, and is available in three levels. Level one is suitable for ages 5–8 and level two is suitable for ages 8–13+. Level three is designed to be a bit more challenging and is open to all. **This quiz sheet is level two.**

There are **five** rounds to the quiz:

Round 1: Science and performing arts

Questions set by Electric Voice Theatre

The British Science Association is an Artsmark supporter.

These questions about the science of art and the art of science.

Round 2: Science and history

Questions set by <u>Historical Association</u>

Questions about the history of our scientific past that will also shape our future.

Round 3: Science and danceQuestions set by the One Dance UK

What's dance got to do with science? More than you may think.

Round 4: Science and geography

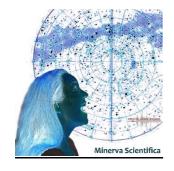
Questions set by Geographical Association

People, places, environments and the physical landscape.

Round 5: Science and sport
Questions set by Youth Sport Trust

Knowledge of the science behind sport is essential for the success of all athletes and sports people. Test your sports-science knowledge.





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. Who do you think it's about?
 - A. Nurse and mathematician, Florence Nightingale
 - B. Mary Anning who studied fossils.
 - C. Queen Victoria
- 2. Who was the first person to write a 'computer programme'?
 - A. Bill Gates, the co-founder of Microsoft
 - B. Alan Turing the man who designed a computer to break the enigma code during the second world war.
 - C. Ada Lovelace, a 19th Century mathematician and daughter of the poet Lord Byron
 - D. Aristotle, the Greek philosopher born in 384BC.
- 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)
 - A. Water
 - B. Wood
 - C. Metal
 - D. Plastic

Bonus question: Which one would sound travel through the fastest? Can you explain why?

- 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?
 - A. RNA
 - B. DNA
 - C. DOA





- 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)
 - A. Rocks
 - B. Fleas
 - C. Engines
 - D. Butterflies



Round two Science and history

Questions set by Historical Association



What conditions helped the Great Fire of London to spread?

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

- 2. Florence Nightingale cleaned the hospitals and made nurses wash their hands during the Crimean War in the 1850s. Why did Florence Nightingale's work help more soldiers to survive?
- 3. The Bronze Age stated about 3000BCE and the Iron Age about 2000 years later. When did the Iron Age begin?
- 4. When the Egyptians buried their dead, they embalmed them. In order to preserve the bodies, they stuffed them with:
 - A. Straw
 - B. Salt
 - C. Herbs
 - D. Wool
- 5. What did Tim Berners-Lee invent?





Round three Science and dance





- 1. Which parts of a dancer's body make them move to perform jumps, twist, turn spins etc.?
 - A. Bones
 - B. Legs
 - C. Muscles
 - D. Arms
- 2. Dancing is a very active profession. Which of the food groups below would a dancer eat to give them a lot of energy?
 - A. Carbohydrate
 - B. Protein
 - C. Vitamins
 - D. Water
- 3. When a dancer exercises, their pulse increases. What is the pulse a measure of?

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

- 4. Why do dancers do warm-up exercises and stretching before a performance or practice session?
- 5. Balance is very important to dancers. Which part of our body other than our eyes, plays a big part in helping us keep balance? (Clue: it's in your head.)



Round four Science and geography

Questions set by Geographical Association



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

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

- 2. In which biome* would you find a natural Christmas tree growing? Is it:
 - A. Tropical rainforest
 - B. Tundra
 - C. Taiga (or Boreal Forest)

(*A biome is an area of the planet with animals and plants that have adapted to that particular environment.)

- 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?
- 4. How does a water droplet in the sea end up in a cloud in the sky?
- 5. Describe one way you can build an earthquake-proof building?



Round five Science and sport

Questions set by Youth Sport Trust



The Olympics, Paralympics and European football tournament are around the corner in 2016. Science is what gives our athletes a competitive edge – but how will you fare in our sport science quiz?

	orner in 2016. Science is what gives our athletes a competitive edge – but how Il 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? A. Gravity B. Air resistance C. Magnetic force
2.	Which sport did Dick Fosby revolutionise in 1968 by introducing a new technique known as the "Fosby Flop"?
	a) High Jump
	b) Judo
	c) Water Polo
3.	Which athletics event is made up of seven separate sports?
	a) Triathlon
	b) Decathlon
	c) Heptathlon
4.	The Olympics and Paralympics are held every four years. When will the next four Summer Olympics will be held?
	1. 2.
	3. 4.
5.	Can you match the correct weight to each of the following throwing objects from the Men's event?

800g
 7.2 kg
 2kg
 2kg
 3 Javelin