



The Challenge

Teacher Sheet: Answers

1. Anita Harding (1953–2001) – Scientist

Anita Harding was a British biologist who specialised in genetic diseases, especially those related to the nervous system.

In 1985, she established the first dedicated neurobiology research group in the UK, at University College London.

Working with Ian Holt and John Morgan-Hughes, Harding proved that mutations in mitochondrial DNA could cause specific neurological diseases in humans.

2. Henry Lowe (1939–) – Scientist

Henry Lowe was born in Jamaica in 1939. He studied science at the University of the West Indies and then a PhD at the University of Manchester in the UK.

In 1970, Lowe became the first Jamaican head of the science department at the College of Art, Science, and Technology in Jamaica.

Lowe's specialism was the medicinal properties of plants. He made pioneering contributions to our understanding of various plants, including cannabis and the Jamaican ball moss.

3. Chien-Shiung Wu (1912–1997) – Scientist

Chien-Shiung Wu was a Chinese-American scientist who made major contributions to our understanding of nuclear physics.

Wu was born in China in 1912 and studied science as an undergraduate there. She then travelled to the United States where she undertook a PhD in physics at the University of California, Berkeley.

Alongside her theoretical work in physics, Wu contributed to the American effort in WW2 by working for the Manhattan Project to build the atomic bomb.

4. Seymour Benzer (1921–2007) – Scientist

Seymour Benzer was a pioneering American biologist. He was born in 1921 and did his PhD in physics at Purdue University in 1947.

Benzer then used his knowledge of physics to make major contributions to the study of biology. Collaborating with scientists from around the world, including the Indian biologist Obaid Siddiqi, Benzer identified the particular genes responsible for different aspects of the nervous system.

He did much of his work using the fruit fly as a model organism.

5. Veronica Rodrigues (1953–2010) – Scientist

Veronica Rodrigues was born to Indian parents in Kenya in 1953 and lived through the turbulent end of the British Empire. She briefly studied at the University of East Africa in Uganda, before Idi Amin ordered the expulsion of all Indians. Rodrigues relocated to Ireland, where she studied at Trinity College, Dublin.

In 1976, Rodrigues moved to India to undertake a PhD at the Tata Institute of Fundamental Research in Bombay.

Rodrigues's main contribution to science was identifying the particular genes which code for the sense of taste and smell in fruit flies. This proved that particular genetic mutations could cause neurological diseases.

6. Guglielmo Marconi (1874–1937) – Scientist

Guglielmo Marconi was a pioneer of the radio, for which he shared the 1908 Nobel Prize in Physics.

Born in Italy in 1874, Marconi conducted some of the earliest public demonstrations of radio communication in the 1890s.

In reality, other scientists in India, Russia and elsewhere were conducting similar experiments at the same time. But Marconi successfully secured patents for his new design, and was widely credited with "inventing the radio".

He later set up a successful business in the United Kingdom, manufacturing and distributing radios around the world.

7. Robin Wall Kimmerer (1953–) – Scientist

Robin Wall Kimmerer is a Native American plant scientist who is a member of the Potawatomi tribe.

She completed a PhD at the University of Wisconsin–Madison in 1983. Her expertise is in the field in the field of plant ecology, where she has demonstrated the importance of Indigenous peoples' knowledge for helping to manage sustainable environments.