

## Teacher Instructions – pre & post test

The aim is to find out student's prior knowledge about Rutherford. This can be done either as an individual exercise or as a co-operative exercise between groups of students.

If the student / teacher has computer access they can work their way through the ppt file. There is a Teacher version that has the correct answers highlighted in blue.

Students can check their answers with the teacher. The answers are shaded as follows

### So far, I know

Q 1 Rutherford's picture appears on the New Zealand

- a) \$10 note
- b) \$20 note
- c) \$50 note
- d) \$100 note

Q 2 Rutherford was born in

- a) New Zealand
- b) Scotland
- c) England
- d) United States

Q 3 Rutherford went to England to study

- a) Biology
- b) Physics
- c) Mathematics
- d) Chemistry

Q 4 Rutherford is famous as a

- a) Politician
- b) Scientist
- c) Business person
- d) Sports celebrity

Q 5 In 1908 Rutherford was awarded

- a) Olympic gold
- b) Knighthood
- c) Nobel Prize
- d) Cabinet post in Government

- Q 6 Rutherford is remembered as the
- a) Captain of the 1905 All Blacks
  - b) Founder of modern radio communication
  - c) Only New Zealander to win a Nobel Prize
  - d) Father of nuclear science
- Q 7 Rutherford attended University at
- a) Otago
  - b) Canterbury
  - c) Wellington
  - d) Auckland
- Q 8 Rutherford did work on hearing sound underwater to detect
- a) Whale migrations
  - b) Fish for the fishing fleets
  - c) Submarines
  - d) Undersea active volcanoes
- Q 9 Rutherford showed his humanity by
- a) Promoting the Treaty of Waitangi
  - b) Campaigning for a women's right to vote
  - c) Supporting refugees fleeing from Hitler
  - d) Promoting the idea of the United Nations
- Q 10 Rutherford died, aged 66 in
- a) New Zealand
  - b) Canada
  - c) Australia
  - d) England

## Post test

- 1) Rutherford's picture appears on the New Zealand
  - a) \$10 note
  - b) \$20 note
  - c) \$50 note
  - d) \$100 note
  
- 2) Rutherford was born in
  - a) Nelson
  - b) Canterbury
  - c) Taranaki
  - d) England
  
- 3) In England and Canada, Rutherford used alpha particles to find
  - a) A possible way to treat cancer
  - b) How to detect submarines
  - c) What an atom looks like
  - d) Better ways of radio communication
  
- 4) Rutherford is famous as a
  - a) Mathematician
  - b) Community leader
  - c) Inventor
  - d) Experimental scientist
  
- 5) In 1908 Rutherford was awarded
  - a) Nobel Prize in Physics
  - b) Nobel Prize in Chemistry
  - c) Nobel Prize in Literature
  - d) Nobel Prize for Peace
  
- 6) Rutherford is remembered as the
  - a) Inventor of radar and sonar
  - b) Founder of scientific research in New Zealand
  - c) Only New Zealander to win a Nobel Prize
  - d) Father of nuclear science
  
- 7) Rutherford left Canterbury College with
  - a) MA in Biology
  - b) MA in Mathematics and Mathematical Physics, and in Physical Science
  - c) MA in Physics
  - d) MA in Chemistry
  
- 8) To receive the Nobel Prize Rutherford went to
  - a) Stockholm in Sweden
  - b) Montreal in Canada
  - c) New York in USA
  - d) London in England

- 9) Rutherford showed his humanity by
- a) Promoting the Treaty of Waitangi
  - b) Campaigning for a women's right to vote
  - c) Supporting refugees fleeing from Hitler
  - d) Opposing using an atomic bomb on Japan

- 10) Rutherford is buried near other scientists at
- a) Christchurch Cathedral
  - b) Nelson Cathedral
  - c) Westminster Abbey in London
  - d) Great St Mary's in Cambridge University