

PREP 2 • LESSONS 3–4

From plum pudding to the nucleus

The plum pudding model • alpha scattering • the nuclear model • energy levels

SCORE
/10

Name _____ Class _____ Due _____

Do Now REMEMBER

From earlier lessons • 1 mark each

1 Describe the structure of an atom. [1]

2 Define isotopes. [1]

3 State how to calculate the number of neutrons in an atom. [1]

Key ideas LESSONS 3–4

Show your working

4 Describe the plum pudding model of the atom. [1]

5 In the alpha scattering experiment, alpha particles were fired at thin gold foil.
a Most alpha particles passed straight through. What does this show? [1]

b A very few bounced back. Explain what this shows about the nucleus. [2]

6 In the Bohr model, electrons orbit the nucleus at any distance specific distances [1]

7 An electron moves to a higher energy level when the atom absorbs emits electromagnetic radiation. [1]

8 The evidence for the neutron came from Niels Bohr James Chadwick Ernest Rutherford [1]