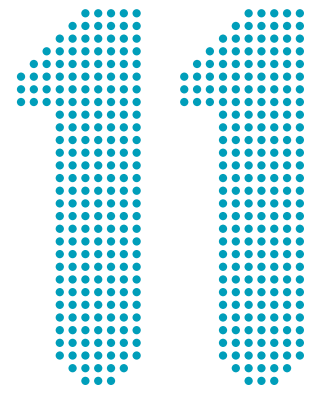


PEARSON

PHYSICS

NEW SOUTH WALES

STUDENT BOOK



2ND EDITION

NSW
STAGE 6

Contents

Working scientifically

CHAPTER 1 Working scientifically	2
1.1 Questioning and predicting	xx
1.2 Planning scientific investigations	xx
1.3 Conducting scientific investigations	xx
1.4 Processing data and information	xx
1.5 Analysing data and information	xx
1.6 Problem-solving	xx
1.7 Communicating	xx
Chapter 1 review	xx

Focus area 1 Fundamentals of mechanics

CHAPTER 2 Quantities of motion	xx
2.1 Scalars and vectors	xx
2.2 Displacement, speed and velocity	xx
2.3 Acceleration	xx
2.4 Vectors in two dimensions	xx
2.5 Vector components	xx
Chapter 2 review	xx
CHAPTER 3 Motion relationships	xx
3.1 Graphing position, velocity and acceleration over time	xx
3.2 Equations of motion	xx
3.3 Relative motion	xx
3.4 Vertical motion	xx
Chapter 3 review	xx
CHAPTER 4 Forces and motion	xx
4.1 Newton's first law	xx
4.2 Newton's second law	xx
4.3 Newton's third law	xx
4.4 Forces and friction	xx
Chapter 4 review	xx
CHAPTER 5 Motion on inclined planes	xx
5.1 Inclined planes	xx
Chapter 5 review	xx

CHAPTER 6 Momentum and energy	xx
6.1 Work	xx
6.2 Kinetic and gravitational potential energy	xx
6.3 Conservation of energy	xx
6.4 Conservation of momentum	xx
6.5 Impulse and net force	xx
Chapter 6 review	xx
Focus area 1 review	xx

Focus area 2 Waves

CHAPTER 7 Wave properties	xx
7.1 Transverse and longitudinal waves	xx
7.2 Analysing waves	xx
Chapter 7 review	xx
CHAPTER 8 Light and sound	xx
8.1 Sound as a wave	xx
8.2 Light as a wave	xx
8.3 Electromagnetic spectrum	xx
Chapter 8 review	xx
CHAPTER 9 : Wave behaviours	xx
9.1 Wave interactions	xx
9.2 Reflection and refraction	xx
9.3 Superposition and standing waves	xx
9.4 The Doppler effect	xx
Chapter 9 review	xx
Focus area 2 review	xx

Focus area 3 Electricity and magnetism

CHAPTER 10 Electrostatics	xx
10.1 Electric charge	xx
10.2 Electric charges and fields	xx
10.3 Electric field strength	xx
Chapter 10 review	xx

CHAPTER 11 Electric circuits	xx
11.1 Electric current and circuits	xxs
11.2 Energy and power	xx
11.3 Resistance	xx
11.3 Series and parallel circuits	xx
Chapter 11 review	xx
CHAPTER 12 Magnetism	xx
12.1 Magnetic fields	xx
12.2 Magnetic field strength	xx
Chapter 12 review	xx
Focus area 3 review	xx
ANSWERS	xx
GLOSSARY	xx
INDEX	xx

Practical and secondary-source investigations addressing the syllabus requirements can be downloaded from the *Pearson Physics 11 New South Wales 2nd edition eBook*.