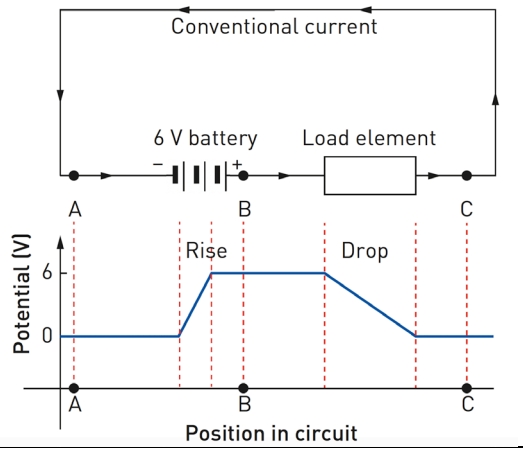
NCPQ 3ed. U1&2/ Outstanding corrections made to student book (SB) and obook. Richard Walding 28 January 2023.

	UNIT 1&2 STUDENT BOOK
U1&2 SB P 10 Fixed in PDF 26 May 2022. Not fixed online version as of 10 Dec 2022	Second dot point from the bottom. Change: • Write numbers in exponential notation with just one numeral before the decimal point. For example, the Earth–Moon distance of 382 million kilometres could be expressed as 382×10^6 km or in scientific notation as 3.82×10^8 km. To: • Write numbers in exponential notation with just one numeral before the decimal point. For example, the Earth–Moon distance of 382 million metres could be expressed as 382×10^6 m or in scientific notation as 3.82×10^8 m.
U1&2 SB p 21 Not fixed in PDF or online version as of 10 Dec 2022	Worked example 0.5A Absolute uncertainty of the mean: $\delta = \pm\frac{(x_{max} - x_{min})}{2}$ $= \pm\frac{17.68 - 17.53}{2}$ $= \pm\frac{0.15}{2}$ $= \pm 0.075$ s (0.07 s) You would report this as: Time (for 10 oscillations) = 17.61 ± 0.07 s Time (for 1 oscillation) = 1.761 ± 0.007 s (Note that the uncertainty is also divided by 10.)
U1&2 SB p 24 Not fixed in PDF or online version as of 10 Dec 2022	Worked example 0.5E Change: $E_a = \lvert O - A \rvert$ to $E_a = \lvert x_O - x_A \rvert$
U1&2 SB p 21 Not fixed in PDF or online version as of 10 Dec 2022	Last paragraph on page When using standard deviation, the SD (σ) is 0.050 s for the average of 10 swings for the eight trials, or 0.005 s for the one swing. This would be reported as 1.76 ± 0.005 s (or 1.76 ± 0.01 s to two decimal places).|
U1&2 SB p 61 Not fixed in PDF or online version as of 10 Dec 2022	Chapter 1.2 page 61. Last paragraph (under the heading *Solids*). Change second sentence as shown below: Change: Particles in solids are held very closely together by strong bonding forces. This gives them **potential energy**. To: Particles in solids are held very closely together by strong bonding forces. Microscopic potential energy comes from separation against these attractive forces. In a solid the particles have very little separation, so the microscopic potential energy is low.
U1&2 SB p 62 Not fixed as at 22 Nov 2022	Chapter 1.2, page 62. 2nd paragraph. Please alter the sentence as shown: Change: Particles in liquids are quite close, but the bonding forces between the particles are not as strong as in solids so they can slide past one another. Thus, they still have a fair amount of microscopic potential energy. To: Particles in liquids are quite close, but the bonding forces between the particles are not as strong as in solids so they can slide past one another. The energy that was used to overcome the strong bonds of the solid phase means they have more microscopic potential energy than solids.
U1&2 SB p 62 Not fixed as at 22 Nov 2022	Chapter 1.2, page 62. 'Gases' paragraph. Please alter the sentence as shown: Change:

	Particles in gases move around very quickly with a lot of space between them. The particles bounce off each. The intermolecular forces are quite weak, so the particles have little extra potential energy. To: Particles in gases move around very quickly with a lot of space between them. The particles bounce off each. The intermolecular forces are quite weak, and the energy used to overcome the bonds of the liquid phase means they have more microscopic potential energy than liquids.
U1&2 SB P170 Not fixed in PDF or online version as of 10 Dec 2022	Replace the second arrow with a plus sign: Change $^{60}_{27}\text{Co} \rightarrow {}^{60}_{28}\text{Ni}^{\star} + {}^{0}_{-1}\text{e} \rightarrow \gamma\ (1.17\ \text{MeV})$ to $^{60}_{27}\text{Co} \rightarrow {}^{60}_{28}\text{Ni}^{\star} + {}^{0}_{-1}\text{e} + \gamma\ (1.17\ \text{MeV})$
U1&2 SB P170 Not fixed in PDF or online version as of 10 Dec 2022	CYL 6.2 p 195 Q5a Product in equation should be $^{84}_{36}Kr$ not $^{32}_{36}Kr$
U1&2 SB p194 Not fixed in PDF or online version as of 10 Dec 2022	WORKED EXAMPLE 6.2B. Part (a). Formatting needs improvement. Should look like this: ***1.*** *Calculate the sum of the masses of all of the reactants (m_r) and the sum of the masses of all the products (m_p)* • Mass of reactants, m_r: U-235 235.043 930 u; neutron + 1.008 665 u; total m_r = 236.052 595 u • Mass of products, m_p: Sr-94 93.915356 u; Xe-139 + 138.918792 u; 3 neutrons + (3 × 1.008 665) u; total m_p = 235.860 143 u
U1&2 SB P218 Not fixed in PDF or online version as of 10 Dec 2022	Figure 3. Change start of caption to read "You can get electrical energy from a circuit…"
U1&2 SB P219 Not fixed in PDF or online version as of 10 Dec 2022	Chapter 7.3 Figure 5 The battery needs to be reversed. All else is okay. Change to this: 
U1&2 SB P238 Added 14 May 2022	Chapter 8 CYL 8.2 Q9 Swap headings (data underneath is correct): TABLE 3 — Current (A) — Voltage (V) ~~Voltage (V)~~ — ~~Current (A)~~
U1&2 SB P268 Not fixed in PDF or online version as of 10 Dec 2022	Unit 1 Practice exam questions, page 268. Q7. Change "have the same circular cross section" to "have a circular cross section"

U1&2 SB p293 Not fixed as of 10 Dec 2022	CYL 10.5 page 293. Question 5. Change 'hare' to 'tortoise in parts (a) and (b). **a Sketch** a displacement–time graph to show how the ~~hare~~ tortoise won. **b Sketch** a velocity–time graph to show how the ~~hare~~ tortoise won.
	UNIT 1&2 OBOOK
U1&2 obook Not fixed as of 10 Dec 2022	Flashcard glossary Chapter 1 Heat and temperature. Definition of 'energy' card should read 'the capacity to do mechanical work (symbol: E; SI unit: joule; unit symbol: J)'
U1&2 obook Not fixed as at 10 Dec 2022.	Chapter 1 CYL 1.3. Q1a. Change answer from "Thermal energy" to "Microscopic energy"
U1&2 obook Not fixed as at 10 Dec 2022.	Chapter 2 Revision Q12. The last line should read 0.0111 kg (11.1 g)
U1&2 obook Not fixed as at 10 Dec 2022.	Chapter 2 Revision Q 36. Corrected answer is (after the paragraph that finishes with "….because the formula says - Q_L": $-m_{steam}\,c_{steam}\,\Delta T_{steam} + m_{steam}\,L_v - m_w\,c_w\,\Delta T_s = m_i\,L_f$ $-m_{steam}\,c_{steam}\,(T_f - T_i)_s + m_{steam}L_v - m_w\,c_w\,(T_f - T_i)_w = m_{ice}\,L_f$ $m\,(-c_{steam}\,(T_f - T_i)_s + L_v - c_w\,(T_f - T_i)_w) = m_{ice}\,L_f$ $m\,(-2050 \times (100 - 110) + 2.26 \times 10^6 - 4180\,(0 - 100)) = 0.020 \times 3.34 \times 10^5$ $m\,(20500 + 2.26 \times 10^6 + 418000) = 6680$ $m \times 2698500 = 6680$ $m = 6680/2698500 = 0.0025$ kg $m = 0.0025$ kg $\times 1000 = 2.5$ g $m_{total} = 55.0 + 2.5 = 57.5$ g
U1&2 obook Not fixed as at 10 Dec 2022.	Practical worksheet 5.1 ANSWERS. Shielding effects. Table should look like this. Note that the 5th column has been amended.

Layers	*d* (mm)	cpm	Activity (Bq)	BGC A	ln BGCA	$\delta = \sqrt{A}$
0	0.00	3291	54.9	54.3	3.99	7.37
1	0.03	2840	47.3	46.8	3.85	6.84
2	0.06	2476	41.3	40.7	3.71	6.38
3	0.09	2117	35.3	34.7	3.55	5.89
4	0.12	1828	30.5	29.9	3.40	5.47
5	0.15	1580	26.3	25.8	3.25	5.08
6	0.18	1353	22.5	22.0	3.09	4.69
7	0.21	1204	20.1	19.5	2.97	4.42

8	0.24	1022	17.0	16.5	2.80	4.06
9	0.27	885	14.8	14.2	2.65	3.77
10	0.30	767	12.8	12.2	2.50	3.50

U1&2 obook
Not fixed as at 10 Dec 2022.

Chapter 6, CYL 6.2 Q5(c): Question should read:

$^{235}_{92}U + {}^{1}_{0}n \rightarrow {}^{152}_{60}Nd + {}^{81}_{?}? + ?\,{}^{1}_{0}n$

$^{235}_{92}U + {}^{1}_{0}n \rightarrow {}^{152}_{60}Nd + {}^{81}_{32}Ge + 3\,{}^{1}_{0}n$

Note that the PDF and obook version of SB are correct. The answers document for CYL6.2 is correct. It is the file that has ALL the answers for Chapter 6 that is still incorrect. It still has Ba instead of Nd and this is wrong:

c $^{235}_{92}U + {}^{1}_{0}n \rightarrow {}^{152}_{60}Ba + {}^{81}_{?}? + ?\,{}^{1}_{0}n$

$^{235}_{92}U + {}^{1}_{0}n \rightarrow {}^{152}_{60}Ba + {}^{81}_{32}Ge + 3\,{}^{1}_{0}n$

U1&2 obook
Not fixed as at 10 Dec 2022.

Chapter 7, CYL 7.4, Q2. Answer should read:

$P = VI$
$= 12 \times 2$
$= 24$ W

U1&2 obook
Not fixed as at 10 Dec 2022.

Chapter 9 Revision Q 15. Correct answer is below. Please make sure you change in both files (*Chapter 9 Review*, and *Chapter 9 Circuit analysis and design).*

$$V = \frac{W}{Q}$$

$$W = VQ = 12 \times 18$$

$$= 216J$$

U1&2 obook
Not fixed as at 10 Dec 2022.

Chapter 9 Revision Q 30a. Correct answer is below. Please make sure you change in both files (*Chapter 9 Review*, and *Chapter 9 Circuit analysis and design).*

$V = IR$
$= 6 \times 1.2$
$= 7.2$ V

U1&2 obook
Not fixed as at 10 Dec 2022.

Unit 1 Practice exam (from page 269-269 of SB). For Q17(a) the answer should be:

$R_{eff} = 4.0 + 2.18 = 6.18\,\Omega$

U1&2 obook
Not fixed as at 10 Dec 2022.

Chapter 10 CYL 10.5 Q2. Corrections are shown in red.

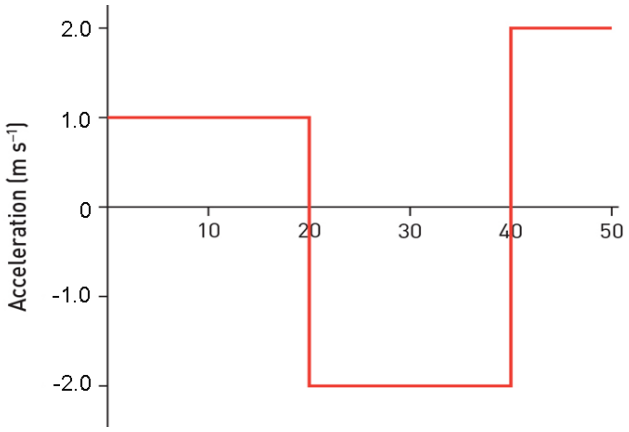
A i **Calculate** the bungee jumper's displacement and distance travelled after 40 s.

At 40 s,
Displacement (area)

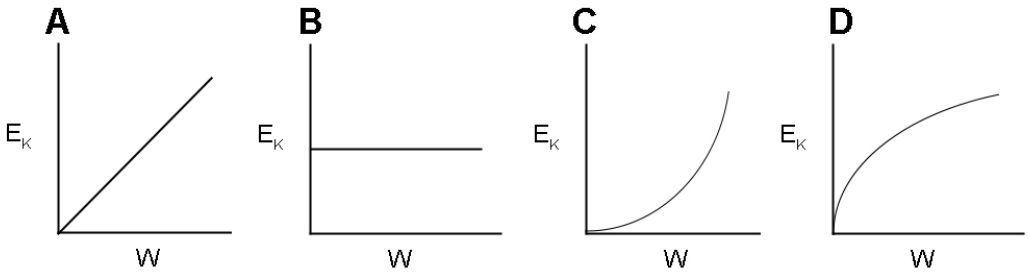
$$= \frac{30 \times 20}{2} + \frac{-20 \times 20}{2}$$
$$= 300 + -200$$
$$= +100 \text{ m}$$

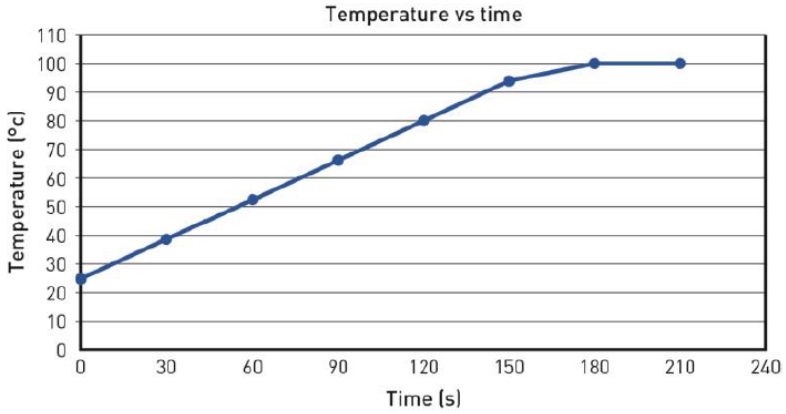
Distance $= 300 + 200$
$= 500$ m

ii **Calculate** the bungee jumper's acceleration at 10 s, 30 s and 45 s.

	Acceleration at 10 s = gradient $= \frac{20}{20}$ $= 1.0 \text{ m s}^{-2}$ Acceleration at 30 s $= \frac{-20 - +20}{20}$ $= \frac{-40}{20}$ $= -2.0 \text{ m s}^{-2}$ Acceleration at 45 s $= \frac{0 - -20}{10}$ $= \frac{+20}{10}$ $= +2.0 \text{ m s}^{-2}$ iii **Sketch** an acceleration–time graph. 
U1&2 obook Not fixed as of 10 Dec 2022	Answers to CYL 10.5, Question 5. Change 'hare' to 'tortoise in parts (a) and (b). **a Sketch** a displacement–time graph to show how the ~~hare~~ tortoise won. **b Sketch** a velocity–time graph to show how the ~~hare~~ tortoise won.
U1&2 obook Not fixed as at 10 Dec 2022.	U1&2 Challenge Ch 10.1 answers. Last paragraph is incomplete. Please add: Direction: D is at an elevation of 26.6° to the horizontal. If you mark a point directly under D, it will be 26.6° to the E of N. The distance between A and D is 12.2 m. Thus, the displacement BD is 12.2 m N 26.6° E at an elevation of 26.6°.
U1&2 obook Not fixed as at 10 Dec 2022.	U1&2 Challenge Ch 10.6 Army Troop Ride. Second last line is wrong: Please change: $3 + x + y = 3 + 25 + 1.5$ $= 7 \text{ km}$ to $3 + x + y = 3 + 2.5 + 1.5$ $= 7 \text{ km}$
U1&2 obook Not fixed as at 10 Dec 2022.	U1&2 CYL 10.4 Q3 Answer should read: $\text{Gradient} = \frac{\Delta y}{\Delta x} = \frac{20 - 0}{2.5 - 1.0} = \frac{20}{1.5}$ $= 13.3 \text{ m s}^{-1}$
U1&2 obook Not fixed as at 10 Dec 2022.	CYL 10.5 Q4b. Answer: Instantaneous speed = the speed value (y-axis) at that time = 5 m s^{-1} Note: read the question carefully. The question has not asked for instantaneous acceleration at 5 s which would be the gradient to the tangent to the line at 5 s, or 1 m s^{-2}.
U1&2 obook Not fixed as at 10 Dec 2022.	Chapter 10 Review Q7 (a). Please fix the answer a the average speed

	$t = 2 + \frac{7}{60} + \frac{51}{3600}$ $s = 42.2$ km, $v = ?$, $= 2.13$ hours $v = \frac{s}{t} = \frac{42.5}{2.13} = 19.95$ km h^{-1}
U1&2 obook Not fixed as at 10 Dec 2022.	Chapter 10. Revision question 8c. Answer should read: $v_{av} = \frac{s}{t}$ $= \frac{76}{(9+18)}$ $= 2.8$ m s^{-1} north
U1&2 obook Not fixed as at 10 Dec 2022.	Chapter 10. Revision Q9a. Change acceleration a = 57 m s^{-2} to a = 17 m s^{-2}
U1&2 obook Not fixed as at 10 Dec 2022.	Chapter 11 Revision Q20 $F_{total} = F_W + F_{additional}$ $3\times10^4 = 2.5\times10^3 \times 9.8 + 2.5\times10^3 a$ $3\times10^4 = 2.45\times10^4 + 2.5\times10^3 a$ $5500 = 2.5\times10^3 a$ $a = 2.2$ m s^{-2} upwards $s = \frac{1}{2}at^2$ $t = \sqrt{\frac{2s}{a}}$ $= \sqrt{\frac{2\times500}{2.2}}$ $= 21.3$s
U1&2 obook Not fixed as at 10 Dec 2022.	CYL12.2 Q7. Answer: $m_1u_1 = m_1v_1 + m_2v_2$ (let the forward direction be + direction) $6000\times355 = 5940v_1 + 60\times750$ $2\,130\,000 = 5940v_1 + 45\,000$ $2\,085\,000 = 5940v_1$ $v_1 = +351$ m s^{-1} (in the forward direction)
U1&2 Obook Not fixed as at 10 Dec 2022.	CYL 12.2 Q9 Answer. Fix spelling in line 2 from 'boast' to 'boat'
U1&2 obook Not fixed as at 10 Dec 2022.	CYL12.2 Q10(a). Answer: REPLACE $m_1u_1 + m_2u_2 = (m_1 + m_2)v_1$ $(0.41\times10^{-3})\times u_1 + (0.170 + 0.350)\times0 = (0.041 + 0.170 + 0.350)\times0.178$ $(0.41\times10^{-3})u_1 + 0 = 0.10$ $u_1 = \frac{0.100}{0.41\times10^{-3}}$ $u_1 = +244$ m s^{-1}

	WITH $m_1u_1 + m_2u_2 = (m_1 + m_2)v_1$ $(0.41\times10^{-3})\times u_1 + (0.170+0.350)\times 0 = ((0.41\times10^{-3}) + 0.170 + 0.350)\times 0.178$ $(0.41\times10^{-3})u_1 + 0 = 0.0926$ $u_1 = \dfrac{0.0926}{0.41 \times 10^{-3}}$ $u_1 = +226 \text{ m s}^{-1}$
U1&2 obook Not fixed as at 10 Dec 2022.	CYL 12.2 Q10(b). Fix spelling of "mas" to "mass"
U1&2 obook Not fixed as at 10 Dec 2022.	CYL 13.2 Question 5c. Answer for the second part has been left out. It should be: Work = total area of A + B + C + D + E (see diagram below) $= \frac{1}{2}\times 20\times 2 + 20\times 2 + \frac{1}{2}\times 20\times 4 + 80\times 2 + \frac{1}{2}\times 40\times 1$ $= 20 + 40 + 40 + 160 + 20$ $= 280$ J
U1&2 obook Still not fixed in the obook SB answers and SB questions as at 12 Dec 2022.	Chapter 13 Revision Q2. The following graphs should be included:  Note that they have been corrected in the obook of the SB and the PDF but not in the SB questions worksheet or the SB answers worksheet.
U1&2 obook Not fixed as at 10 Dec 2022.	CYL 15.2 Q4. The first sentence should be expanded to include words in red below: *L* is length of the pipe in metres; n is the mode of vibration of the string and ranges from 1 upwards in whole numbers; λ_n is the wavelength of the progressive wave in the air in metres; *f* is the frequency of the sound wave in air in hertz (Hz, or s^{-1}); and *v* is the velocity of the sound wave in air in metres per second (m s^{-1}).
U1&2 obook Not fixed as at 10 Dec 2022.	CYL 15.2 Q5. Last line should read: $= 0.7565$ m (75.65 cm)
U1&2 obook Not fixed as at 10 Dec 2022.	CYL 16.3 Q 3b answer Please correct as shown below: $\frac{I_1}{I_2} = \frac{r_2^2}{r_1^2}$ $\frac{0.0015}{0.00075} = \frac{r^2}{100^2}$ $r = \sqrt{10000}$ $r_2 = 141$ m
U1&2 obook Not fixed as at 10 Dec 2022.	Filename: NCPQ_Unit_1&2_Practice_exam.docx. Both question and answer files. MC Question 6. Note that there is no 4 in front of the Al, and the 23 should be 24. It is not $^{23}_{13}4\text{Al}$ but $^{24}_{13}\text{Al}$

	B $^{24}_{13}\text{Al} \rightarrow {}^{24}_{12}\text{Mg} + {}^{0}_{+1}e + \nu_e$
U1&2 obook Not fixed as at 10 Dec 2022.	U1&2 Practice exam. MC Question 14. Answer is (A)
U1&2 obook Not fixed as at 10 Dec 2022.	U1&2 Practice exam. MC Question 22. Add: $n_{water} = 1.33$
U1&2 obook Not fixed as at 10 Dec 2022.	U1&2 Practice exam. Short answer Q1b(i). Second line in solution: $-m_W c_W \Delta T_W = -m_{ice} c_{icewater} \Delta T_{icewater} + mL_f$ Should read: $-m_W c_W \Delta T_W = m_{ice} c_{icewater} \Delta T_{icewater} + mL_f$
U1&2 obook Not fixed as at 10 Dec 2022.	U1&2 Practice exam. Short answer Q2b. Second line in solution: $-m_w c_w \times T_w = m_{ice} \times C_{ice} \times T_{ice} + m \times L_f + m_{icewater} \times C_{icewater} \times T_{icewater}$ Should read: $-m_w c_w \times \Delta T_w = m_{ice} \times c_{ice} \times \Delta T_{ice} + m \times L_f + m_{icewater} \times c_{icewater} \times \Delta T_{icewater}$
U1&2 obook Not fixed as at 10 Dec 2022.	U1&2 Practice exam. MC Question 9. Calculate how many electrons are required to produce a charge of –10 μC.
U1&2 obook Not fixed as at 10 Dec 2022.	Unit 1&2 Practice exam. Short Answer Question 10. Replace 1715 Hz in the Q with 1372Hz, viz: A particular tube of a pipe organ can most easily produce frequencies of 686 Hz, 1029 Hz and 1372 Hz. The speed of sound in the organ is 340 m s^{-1}.
U1&2 obook Not fixed as at 10 Dec 2022.	Unit 1&2 Practice exam. Extended Answer Question 11a (iii). The final line of the answer after the calculation of A and B, should read: Difference: 40.5 m – 28.5 m = 12.0 m.
U1&2 obook Not fixed as at 10 Dec 2022.	Unit 1&2 Practice exam. Extended Answer Question Change: **c** Determine the maximum angle *i* that To: **c** Determine the maximum angle α that
U1&2 obook Advised March 2020. Not done as at 22 Dec 2022. (3 years)	Unit 1 Data Test. Dataset 2 Figure 3. Please change to this: 
U1&2 obook Not fixed as at 10 Dec 2022.	Unit 1 Data Test. Dataset 3 Q9. Answers. Please add the following at the end. The absolute uncertainty in the y-intercept is: $\delta = \frac{\lvert x_{max} - x_{min} \rvert}{2}$ $= \frac{\lvert 2.5 - (-4.0) \rvert}{2}$ $= 3.25\ \Omega$

	Hence, the equation for the line is: $R = (29.7 \pm 6.5)L - 1.40 \pm 3.25\,\Omega$
U1&2 obook Advised March 2020. Not done as at 22 Dec 2022.	Unit 1 Data Test. Dataset 3 Q10. Answers. Corrections are in red. The percentage uncertainty in the resistivity is 21.0 % (from the δ% uncertainty in the gradient). The absolute uncertainty in the resistivity is: 1.20×10^{-6}- Ω m ± 21.0 %, or $1.20 \times 10^{-6} \pm 0.3 \times 10^{-6}$ So the range is from 0.9×10^{-6} Ω m to 1.5×10^{-6} Ω m. Absolute error: $E_a = \lvert O - A \rvert$ $= \lvert 1.20 \times 10^{-6} - 1.15 \times 10^{-6} \rvert \Omega m^{-1}$ $= 0.05 \times 10^{-6} \Omega m^{-1}$ $E\% = \frac{E_a}{A} \times 100$ $= \frac{0.05 \times 10^{-6}}{1.15 \times \times 10^{-6}} \times 100$ $= 4.35\%$ The accepted value of resistivity of 1.15×10^{-6} Ω m is within the experimental range of 0.9×10^{-6} Ω m to 1.5×10^{-6} Ω m. The experiment has confirmed the resistivity of nichrome wire within the experimental limitations of the equipment.
U1&2 obook Advised March 2020. Not done as at 22 Dec 2022.	Cumulative Test, Unit 2, Short answer Q5. Delete lined spaces before first part.,
U1&2 obook Advised March 2020. Not done as at 22 Dec 2022.	Cumulative Test, Unit 2, Short answer Q6. The question is missing. It should read: "Consider a freely falling ball that has a speed of 6.0 m s^{-1} at a certain height. Use conservation of mechanical energy to calculate the speed of the ball after falling additional 14.4 m."
	U1&2 ASSESS QUIZZES
U1&2 obook Not done as at 22 Nov 2022.	Assess quiz. Chapter 2 Consolidate. Q1. Add the words in red: Determine which of the following determines the direction of transfer.."
U1&2 obook Not done as at 22 Nov 2022.	Assess quiz. Chapter 2 Consolidate. Q4. Add degree symbol after the 20
U1&2 obook Not done as at 22 Nov 2022.	Assess quiz. Chapter 2 Extend. Q2. "A 40 g piece of iron at a temperature of 120° C is placed in a container of 600 g of water…
U1&2 obook Advised May 2020. Not done as at 22 Nov 2022.	Assess quiz. Chapter 4 Consolidate. Q5 $1.68 \times 10^{-11} J$ (correct answer) $1.86 \times 10^{-28} J$ (incorrect answer) $5.58 \times 10^{-20} J$ (incorrect answer) $1.01 \times 10^{16} J$ (incorrect answer)
U1&2 obook Advised May 2020. Was fixed , now wrong again. Not done as at 22 Nov 2022.	Quizzes Chapter 9 Extend Q 3 [correct answer] a =c, b [incorrect answer] b, a = c [incorrect answer] c, a, b [incorrect answer] a, b, c
U1&2 obook	Quizzes Chapter 10 Extend Q2 [correct answer] 1.5 s

<table>
<tr><td>Not done as at 22 Nov 2022.</td><td>[incorrect answer] 1.0 s
[incorrect answer] 2.5 s
[incorrect answer] 5.4 s</td></tr>
<tr><td>U1&2 obook
Not done as at 22 Nov 2022.</td><td>Assess Quizzes U1&2 Chapter 13 – support – Q2
<table><tr><td>Correct answer</td><td>The force on the ball is at right angles to the ball's motion.</td></tr><tr><td>Incorrect answer</td><td>No net force acts on the ball.</td></tr><tr><td>Incorrect answer</td><td>No potential energy is being converted to kinetic energy.</td></tr><tr><td>Incorrect answer</td><td>No distance is covered by the ball.</td></tr></table></td></tr>
<tr><td>U1&2 obook
Advised 18 Sept 2020. Not done as at 22 Nov 2022.</td><td>Assess quiz. Chapter 15 Extend. Q2.
2
Calculate the wavelength of the sound in air from a piano string that has a frequency of 440 Hz, on a $25^{\circ}C$ day. The speed of sound is related to temperature by the formula: v (sound) = 331 + 0.6T, where T = temperature in $^{\circ}C$.</td></tr>
</table>