

## Nelson Biology 12 Errata List

Last Updated: May 30, 2008

This list includes corrections made to the second and third printings of the *Nelson Biology 12 Student Book*.

Page	Affected Printing	Suggested Change
10	2 <sup>nd</sup>	Answer to Practice Question #1 (in margin) should read, $K, Z = 19$ , <b>number of neutrons = 20</b> . Remove $A = 20$ .  Practice Question #5. Students need to know the half-life of C-14. It is 5730 years.
13	2 <sup>nd</sup>	Table 4. The ring structure for glucose is its aqueous form. The chemical formula should be $C_6H_{12}O_6(aq)$
16	2 <sup>nd</sup> , 3 <sup>rd</sup>	Figure 10 (a). Carbon tetrachloride is a liquid at SATP. The chemical formula should be $CCl_4(l)$ .
21	2 <sup>nd</sup>	First paragraph, second sentence should list $HCl_{(aq)}$ not $HCl_{(g)}$
26	2 <sup>nd</sup>	In the first row of Table 2, the second example is ethene, not ethane
31	2 <sup>nd</sup>	Figure 8 (b): the fructose molecule is incorrect. Carbon 2 (the lower right corner) should have a hydrogen molecule coming down from it, not oxygen and hydrogen.
39	2 <sup>nd</sup>	In Figure 23, cholesterol has one too many methyl groups attached. There should only be five methyl groups in the chain; there are currently six there.
43	2 <sup>nd</sup>	Figure 30, Caption (a), second phrase should read: They are at the start of the sequence for one <b>of the</b> two polypeptide chains that make up the protein insulin in cattle.
59	2 <sup>nd</sup>	In Figure 1, “kinetic” is spelled incorrectly twice.
65	2 <sup>nd</sup>	Figure 8 (b). The figure on the far right should be labelled “adenosine <b>d</b> iphosphate (ADP)”
66	2 <sup>nd</sup>	Figure 10. The bottom arrow should lead <b>from</b> $ADP + P_i$ <b>to</b> ATP, not the other way around as it currently is in the text
69	2 <sup>nd</sup>	Figure 1 (b). “ $E_A$ with enzyme” should span from the second blue line from the top to the bottom blue line (reactants); “ $E_A$ without enzyme” should span from the top blue line to the bottom blue line (reactants); $\Delta G$ should span from the third blue line from the top to the bottom blue line (reactants)
78 and 79	2 <sup>nd</sup>	Throughout the Investigation: Change 0.1 mol/L $NaOH_{(aq)}$ to <b>0.01</b> mol/L $NaOH_{(aq)}$ Change 0.1 mol/L acetic acid solution to <b>0.05</b> mol/L acetic acid solution Do NOT change the buffer concentrations. The Question should end “..., and an acetic acid solution?” Part II, step 10 should also include “Set up two test tubes. Use one as a control.”
82	2 <sup>nd</sup>	Investigation 1.4.1. Remove the “+ catalase $_{(aq)}$ ” from the end of the equation under the second paragraph of the introduction
99	2 <sup>nd</sup>	Change 30.5 kJ/mol to 31 kJ/mol, 61 kJ to 62 kJ, and 2.1% to 2.2% in the energy conversion efficiency of glycolysis.

122	2 <sup>nd</sup>	In the margin information for Activity 2.3.1, the distance to walk should read 1.6-km, not 1-km
122	3 <sup>rd</sup>	In the left hand column, “Did you know? Death and Rigor Mortis” paragraph deleted and replaced with “ <b>Did you know? Record Values for VO<sub>2</sub> max</b> ” paragraph
126	2 <sup>nd</sup>	Investigation 2.1.1. Prediction (a) should read: Predict whether germinating or non-germinating pea seeds will <b>consume</b> more oxygen in a given period of time and predict the effect a change in temperature will have on the rate of oxygen <b>consumption</b> .
158	2 <sup>nd</sup>	Figure 4. Remove the number 2 in front of NADP <sup>+</sup>
185	2 <sup>nd</sup> , 3 <sup>rd</sup>	Investigation 3.2.1. Part II: Chromatography. For the procedure, any reference to “chromatography paper” should instead read “filter paper”  In figure 1, “(filter paper)” added under “chromatography paper”
221	2 <sup>nd</sup>	Figure 7, the second sentence of the second caption should read, “A nick is left between fragments.”
222	2 <sup>nd</sup>	Figure 8. The 5’ and 3’ on the left side of the figure should be flipped.
224	2 <sup>nd</sup>	Investigation 4.1.1. Some of the materials for this investigation are likely not permitted in schools (i.e. glacial acetic acid, acetaldehyde) This makes parts 3 and 4 of the investigation (Testing for the Presence of DNA and Quantitative Determination of DNA Concentration Using Spectrophotometry) optional.
240	2 <sup>nd</sup>	Figure 7. The second white box from the left should read UCU Ser UCC Ser UCA Ser UCG Ser
265	2 <sup>nd</sup>	3rd sentence. “The nucleomorph contains 531 genes....”
269	2 <sup>nd</sup>	Sequence C is missing a nucleotide. The correct sequence is TACAAACATGTAAACACACCCTCAGTGGACCAACTCCGCAACATAAACCAA ACACCGCTCGCGCCGAAAAAGATATGG
272	2 <sup>nd</sup>	The second half of the Make a Summary activity should be removed.
275	2 <sup>nd</sup>	Chapter 5 Review, question 22. Remove the last line “Be sure to include a diagram....” A diagram is not needed.
279	2 <sup>nd</sup>	Table 1: the recognition site of <i>Sma</i> I is incorrect. Its recognition site is 5’ - CCCGGG - 3’ 3’ - GGGCCC - 5’
311	2 <sup>nd</sup>	Table 1: The Control row should have 5µL of water added, not 4.
314	2 <sup>nd</sup>	Investigation 6.1.2. The materials should include a 10-µL–200-µL micropipettes and tips instead of 10-µL–1000-µL

316	2 <sup>nd</sup>	Table 6: The last column of the Table should read <i>Bam</i> HI + <i>Hind</i> III (base pairs) 200 300 400 700 1200 2600
318	2 <sup>nd</sup>	Make a Summary. The first bullet should read “Starting with the title “genome” produce a concept map that encompasses the techniques and processes outlined in the chapter.” The rest of the information in that bullet should not be there.
495	2 <sup>nd</sup>	Chapter 10 Self Quiz. Question 1 should have another possible answer “(e) poisons”
513	2 <sup>nd</sup>	Second paragraph, 7th sentence should read “According the his theory of <b>catastrophism</b> , global catastrophes, such as floods, had caused widespread extinctions.”
610	2 <sup>nd</sup>	The caption for Figure 4 should indicate that Table 2 contains the amino acid abbreviations needed to interpret Figure 4.
788	2 <sup>nd</sup>	Appendix C6: Plant and Animal Cells Plant Cell. Remove the 2 and the square brackets from around the NADP + H <sup>+</sup> ; the H <sup>+</sup> should be in a white circle like the others in the figure
791	2 <sup>nd</sup>	Plasma Membrane figure. The “hydrophilic region” label should be pointing to the circular heads of the phospholipid molecules, not the tails.
794	2 <sup>nd</sup>	Answers. Chapter 1 Self-Quiz, # 10 should be “false”
795	2 <sup>nd</sup>	Answers. Chapter 3 Self-Quiz, # 5 should be “false”
796	2 <sup>nd</sup>	Answers. Section 6.1, 15 (a) should read “ <i>Eco</i> RI - 2; <i>Bam</i> HI - 2; <i>Pst</i> I - 3”
797	2 <sup>nd</sup>	Answers. Chapter 7 Self-Quiz, # 6 should be “A”
799	2 <sup>nd</sup>	Answers. Section 14.2, #1 should be “2.1”