# *Exploring Creation with Physical Science,* 3rd Edition – Errata

This file contains the corrections for the 1st (March 2020) and 2nd (July 2020) Printings of the **Solutions and Tests Manual**. You can find which printing you have by going to the publications page in the front of your book. The printing number is listed in the following format: 10 9 8 7 6 5 4 3 2 1. The last digit represents the printing number. The printing for the Textbook, Solutions and Tests Manual, and Student Notebook may not be the same. Corrections for the Textbook and Student Notebook are in separate files. (Updated 6/21/2021)

Page 22 – #19 – For clarity only (not an error), replace the first sentence of the answer with the 2 non-underlined sentences below and add the ending after the underlined answer. The final answer remains the same.

Just as energy is released as yellow light when the electrons in sodium return to their ground state (p. 97), electrons in neon atoms must first gain energy and become excited when electricity is passed through them (p. 109). Then as the electrons lose energy they return to their ground state from an excited state and glow red-orange.

Page 27 – The answer to question #14 should be letter **c.** The sentence is correct.

Page 33 – Module 4 Test, question #4 – The periodic table is in the back of the textbook (not the front), in the Appendix, page 534.

This correction should be made to the Test Pages, page 13, as well.

Page 35 – #9 – change the word butane to octane.

Page 46 – #6 – relabel the answers to reflect a, b, c.

– #7 – relabel the answers to reflect a, b, c, d, e, f.

Page 48 – Answer to Module 6 Study Guide question #10 - Replace answer with the following:

Since the two speeds are in opposite directions you would add them. The relative speed is 10.0 m/s + 8.0 m/s = 18.0 m/s.

Page 64 – The number for answer #17 is missing. The answer to #17 begins with Step 1 List knowns and unknown and check units; directly beneath the paragraph for #16. The final answer for #17 is in the sentence shown directly above #18.

Page 68 – At the top of the page (in answer to #7 Steps 3 & 4), in the d= equation, change $(7\ s)^2$ to $(1.3\ s)^2$

Page 73 – In #19b. Step 1:

– Change output 'force' to output 'distance' and change AMA = ? to IMA = ?

# *Exploring Creation with Physical Science*, 3rd Edition – Errata – Page 2

Page 79 – #10 – the answer is **a.** not b. The supporting answer is correct.

– #14 – reverse the words 'output' and 'input' so the answer reads: "…equal to the input distance divided by the output distance."

Page 83 – The answer to f. Pitch is the 3rd option: "An indication of how high or low a sound is…" and the answer to g. Doppler effect is the 2nd option: "A change in sound frequency caused by the motion…"

Page 88 – For the answer to #19, we've added additional explanation to the original answer for clarity. The words in red are the added parts. The answer remains the same, but the extra information might help with understanding.

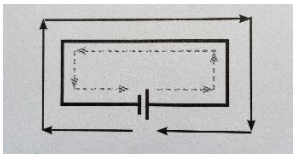
19. This problem is working in reverse of Example 9.4. Remember, the bel scale states that every bel, or 10 decibels, corresponds to a 10 times increase in the intensity of the sound wave. So if the amplifier magnifies the intensities of sound waves by a factor of 1,000, that's the same as 10 × 10 × 10, which is 3 factors of 10, or 3 bels. Thus, the sound coming out of the amplifier will be 3 bels or 30 decibels (3 bels × 10 decibels/bel) greater than when it went in. Therefore, if a 30-dB sound goes into the amplifier, the sound coming out of the amplifier will be 30 dB + 30 dB = 60 decibels.

Additionally, you can double check your answer by subtracting the incoming intensity from the outgoing intensity (60 dB - 30 dB = 30 dB). Then, since each 10 dB represents a 100-fold increase in sound wave intensity, determine how many factors of 10 (30/10 = 3). Finally, multiply 10 by itself 3 times to verify that your answer is 1,000 times greater than the sound fed into the amplifier (10 x 10 x 10 = 1000). So, the magnified sound of 60-dB is 1,000 times more intense than the 30-dB sound fed into the amplifier.

Pages 109 and 111 – Module 11 Test and Solution, question #2 – Change the minus sign inside the dashed circle to a plus sign.

This correction should be made to the Test Pages, page 33, as well.

Page 112 – Module 11 Test Solution, #9 – The arrowheads on the outside box should be drawn going the opposite direction.



Page 132 – In the diagram for questions 10-12 at the top of the page, the arrows for the "carbohydrates" and "oxygen" boxes are backwards. Both arrows for each one should be switched to the opposite direction. It should be the same as Fig. 14.11 on page 506 of the textbook.

This correction should be made to the Test Pages, page 40, as well.