This file contains the corrections for the 4<sup>th</sup> (May 2021) Printing, of the **Solutions and Tests Manual**. The printing for the Textbook and Student Notebook may not be the same as the Solutions and Tests Manual. Corrections for the Textbook and Student Notebook are in separate files.

## Clarifications:

Page 62 - Module 6 Study Guide answer to #23 - See the helpful notes that were added on the page at the end of this file.

Page 77 – Module 7 Test, Question #23 – Change the 2<sup>nd</sup> sentence to the following:

For our purposes, the presence of attached earlobes is caused by a recessive allele (e) and is shown by the filled in squares and circles.

Please Note: this should also be changed on page 29 of the Test Pages.

Page 126 – Module 12 Study Guide answer to #5 – The answer should not refer to Figure 12.29a or b. The two underlined answers should read:

The top image in the figure is from a monocot. The bottom image in the figure is from a dicot.

## Corrections:

Page 27 – Module 3 Test, question #8, the word should be spelled **taigas**. Please Note: This will also need to be corrected on the test in the packet of Test Pages, page 9.

Page 108 – Module 10 Study Guide answer to #15, change microscopic to **macroscopic**.

Page 141 – Module 13 Study Guide answer to #20 – The second sentence should read: "**Five aortic arches** pump blood through vessels that run through all body segments."

Page 159 – Module 15 Test, questions #4 and #5, change loves to **lobes**. Please Note: This will also need to be corrected on the test in the packet of Test Pages, page 53.

- 19. Prior to meiosis there were 2 diploid parent cells each with 7 pairs of homologous chromosomes (14 chromosomes). Each chromosome consists of 2 sister chromatids since chromosomes are duplicated just before meiosis. After meiosis I there were 4 haploid daughter cells. Each haploid daughter cell contains 7 chromosomes (1 from each pair of homologous chromosomes) and each chromosome still consists of sister chromatids (since homologous chromosomes are separated in meiosis I). In meiosis II, the 4 haploid cells have the sister chromatids separated, producing a total of 8 haploid cells with all chromosomes having only one chromatid. Thus, there are 8 cells, there are still 7 chromosomes in each, but the chromosomes have not yet been duplicated so they consist of only 1 chromatid.
- 20. <u>Male gametes are called sperm, while female gametes are called eggs</u>. Sperm have flagella: thus, <u>the male gamete can move on its own</u>.
- 21. <u>Male animals produce 4 useful gametes with each meiosis, while female animals produce only 1</u>.
- 22. <u>A polar body is a non-functional female gamete, because it is far too small to</u> <u>function properly. An egg is the one female gamete produced by meiosis that is</u> <u>large enough to function properly.</u>

