

TEACHER'S EDITION — ERRATA SHEET



Dear Teacher:

Despite a thorough editorial, technical and proofreading process, some errors have appeared in the first editions.

Following is an errata sheet for the first edition of the *Active Physics Teacher's Edition for Medicine*. This sheet indicates errors or improvements we have identified at this point, but were unable to correct or change on the first run.

Page 17

The needle on the meter should show a reading on the far right hand side of the scale.

Page 23

The meter readings should be:
-10, -6, -4, -2, 0, +2, +4, +6

Page 28

Change the table to read under the column "Number of Identical Voices:" 1, 2, 4, 16

For You to Do, step 5 a), answer

Kind of Sound speech at 1 m

Number of Identical Sources	Predicted Sound Level (dB)	Measured Sound Level (db)
1	60	
2	63	
4	66	
8	69	
16	72	

Page 50

For You to Do, answers

9. a) The longer length of stick results in a lower tone.

b) The longer length of stick results in a lower frequency.

Page 61

Physics to Go, question 2

There is one frequency and no harmonics. (Students will probably not be familiar with the term overtones. If a string vibrates in more than one segment, the resulting nodes of vibration are called overtones. Since a string can only vibrate in certain patterns, the overtones are simple multiples, called harmonics, of the fundamental frequency.)

Page 69

For You to Do, step 5

The graph paper is more correctly called semi-logarithmic paper because one axis is linear.

Page 80 & pg. 84

Diagrams

The ossicles and semicircular canals have not been accurately labelled.

Page 89

For You to Do, step 2

The students may be more familiar with the term "see-saw."

Page 93

Physics to Go, question 2, answer

The labels indicating the forces and the pivot point of the can piercer should be more accurately positioned.

Page 112

For You to Do, step 3, graph

The bar of the graph for 600 Hz is not properly positioned.

Page 196**Stretching Exercises**, answers

2. c) Students provide a written report of their extension activity.

Page 242

The title of the activity is “Visual Acuity.”

Page 298**What Do You Think?**, Answers for the Teacher Only

See Background Information for an explanation of how an ETM works. A pulse of ultrasound (high frequency vibrations) is emitted and the echo of the sound is picked up by a microphone. The time required for the echo to return is measured and the distance which the echo travelled can be calculated. A transducer outputs an electronic signal proportional to the received ultrasound. Images are synthesized from the data.

Page 332**For You To Do**, step 5 b)

The special graph paper referred to in this step is polar co-ordinate paper. A black-line master of this paper is found on pg. 182 of this Teacher’s Edition.

For You To Do, step 7

The Ultrasound B Scan is found on M162.

Page 336**Physics To Go**, question 5

where 0 dB was 10-12 W/m²

answer

5. a) 0.1 W/m² = 110 dB

b) 10,000 W/m² = 160 dB

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