Module 14
Exploring Creation With Physical Science, edition 2

Longitudinal wave - A wave whose propagation is parallel to its oscillation
Pitch - The highness or lowness of a sound
Sonic boom - The sound produced as a result of aircraft traveling at or above Mach 1
Supersonic speed - Any speed that is faster than the speed of sound in the substance of interest
Traverse wave - A wave whose propagation is perpendicular to its oscillation

Study all of the mathematical examples
Schedule Requires 12 days
☐ Read 341-347
☐ 344 do experiment 14.1
☐ Read 347-351
☐ 347 do experiment 14.2
☐ Read 351-355
☐ 353 do experiment 14.3
☐ Read 355-357
☐ 356 do experiment 14.4
☐ Read 357 to end of module
☐358 do experiment 14.5
☐ Study Guide
☐ Test

$f=\frac{v}{\lambda}$ *f* represents frequency of wave, *v* stands for speed, λ is lambda and represents wavelength

The speed of sound in air equation:
$v = (331.5 + 0.60 \cdot T)\ \frac{m}{sec}$

distance = (speed)(time)
Notes:

Always do the On Your Own questions and check your work afterwards.

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Module 15
Exploring Creation With Physical Science, edition 2

Electromagnetic wave - A transverse wave composed of an oscillating electrical field and a magnetic field that oscillates perpendicular to the electrical field
The Law of Reflection - The angle of reflection equals the angle of incidence

Schedule Requires about 3-weeks
☐ Read 367-374
☐ 370 if sunny, do experiment 15.1
☐ Read 374-377
☐ 374 do experiment 15.2
☐ Read 377-383
☐ 378 do experiment 15.3
☐ Read 383-385, stop at Human eye, but draw and label Fig 15.7 "A Human Eye"
☐ 380 do experiment 15.4
☐ Read 385-389
☐ 388 do experiment 15.5
☐ Read 389 to end of module
☐ Study Guide
☐ Study Guide
☐ Test
Notes:

Always do the On Your Own questions and check your work afterwards.

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Module 16
Exploring Creation With Physical Science, edition 2

Critical mass - The amount of isotope necessary to cause a chain reaction
Galaxy - A massive ensemble of hundreds of millions of stars, all interacting through the gravitational force, orbiting around a common center
Light year - The distance light travels in a year
Nuclear fission - The process by which a large nucleus is split into two smaller nuclei
Nuclear fusion - The process by which two or more small nuclei fuse to make a bigger nucleus
Star magnitude - The brightness of a star on a scale of -8 to +17. The smaller the number, the brighter the star.

Schedule
☐ Read 397-401 Draw and label Figure 16.1
☐ Read 401-404
☐ Read 404-409
☐ Read 409-413 Draw and label Figure 16.6
☐ Read 413-418
☐ 416 do experiment 16.1
☐ Read 418 to end of module
☐ Study Guide
☐ Study Guide
☐ Test

You are finished! ☺
Notes:

Always do the On Your Own questions and check your work afterwards.

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