P1 Topic 1 Revision tracker

PHYSICS

Learning objectives I can:	I can do this very well	I can do this quite well	I need to do more work on this
1.1 Describe how ideas about the structure of the Solar System have changed over time, including the change from the geocentric to the heliocentric models and the discovery of new planets			
1.2 Demonstrate an understanding of how scientists use waves to find out information about our Universe, including: **a** the Solar System			
b the Milky Way			
1.3 Discuss how Galileo's observations of Jupiter, using the telescope, provided evidence for the heliocentric model of the Solar System			
1.4 Compare methods of observing the Universe using visible light, including the naked-eye, photography and telescopes			
HSW 14 Describe how scientists share data and discuss new ideas, and how over time this process helps to reduce uncertainties and revise scientific theories			
1.5 Explain how to measure the focal length of a converging lens using a distant object			
1.8 Explain how the eyepiece of a simple telescope magnifies the image of a distant object produced by the objective lens (ray diagrams are not necessary)			
1.10 Recall that waves are refracted at boundaries between different materials			
H 1.11 Explain how waves will be refracted at a boundary in terms of the change of speed and direction			
HSW 11 Present information using scientific conventions and symbols			
1.6 *Investigate the behaviour of converging lenses, including real and virtual images*			
1.7 *Investigate the use of converging lenses to:* **a** *measure the focal length using a distant object*			
b *investigate factors which affect the magnification of a converging lens (formulae are not needed)*			
1.10 Recall that waves are reflected at boundaries between different materials			
1.9 Describe how a reflecting telescope works			
HSW 11 Present information, develop an argument and draw a conclusion, using scientific, technical and mathematical language, and ICT tools			
1.12 Describe that waves transfer energy and information without transferring matter			

1.13 Use the terms of frequency, wavelength, amplitude and speed to describe waves			
1.14 Differentiate between longitudinal and transverse waves by referring to sound, electromagnetic and seismic waves			
1.15 Use of both the equations below for all waves: wave speed = frequency × wavelength (metre/second, m/s) (hertz, Hz) (metre, m) $v = f \times \lambda$ wave speed = distance / time (metre/second, m/s) (metre, m) (second, s) $v = x / t$			
HSW 5 Plan to test a scientific idea, answer a scientific question, or solve a scientific problem			