P2 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 the structure of the atom, limited to the position, mass and charge of protons, neutrons and electrons			
1.2 Explain how an insulator can be charged by friction, through the transfer of electrons			
1.3 Explain how the material gaining electrons becomes negatively charged and the material losing electrons is left with an equal positive charge			
1.4 Recall that like charges repel and unlike charges attract			
1.5 Demonstrate an understanding of common electrostatic phenomena in terms of movement of electrons, including: **a** shocks from everyday objects			
b lightning			
c attraction by induction such as a charged balloon attracted to a wall and a charged comb picking up small pieces of paper			
HSW 3 Describe how phenomena are explained using scientific models			
1.6 Explain how earthing removes excess charge by movement of electrons			
1.7 Explain some of the uses of electrostatic charges in everyday situations, including paint and insecticide sprayers			
1.8 Demonstrate an understanding of some of the dangers of electrostatic charges in everyday situations, including fuelling aircraft and tankers together with the use of earthing to prevent the build-up of charge and danger arising			
HSW 12 Describe the benefits, drawbacks and risks of using new scientific and technological developments			
1.9 Recall that an electric current is the rate of flow of charge			
1.10 Recall that the current in metals is a flow of electrons			
1.11 Use the equation: charge= current × time (coulomb, C) (ampere, A) (second, s) $Q = I \times t$			
1.12 Recall that cells and batteries supply direct current (d.c.)			
1.13 Demonstrate an understanding that direct current (d.c.) is movement of charge in one direction only			
HSW 11 Present information using scientific conventions and symbols			