

Subject area : Separate Physics		
	Needs to	How
1	Define electric current as the rate of flow of electrical charge around a closed circuit : recall and use the equation $Q = I \times t$	Free Science Lessons - https://www.youtube.com/watch?v=R3hdaLpq2AA https://www.youtube.com/watch?v=ts7WumFAaSg Cognito - https://www.youtube.com/watch?v=TIHW5hEoaAw
2	Explain the resistance of components such as lamps, diodes, thermistors and LDRs and sketch/interpret IV graphs of their characteristic electrical behaviour	fixed resistor – https://www.youtube.com/watch?v=2CA1mcYw3IQ filament lamp - https://www.youtube.com/watch?v=WzSh6ykqn9I diodes and LEDs - https://www.youtube.com/watch?v=Tk_OltwtxZE Thermistors - https://www.youtube.com/watch?v=bjt4CrRL8yM and LDRs – https://www.youtube.com/watch?v=bb7sRiLKCvg
3	Explain how LDRs and thermistors are used in sensing circuits	https://www.youtube.com/watch?v=ZtJEPKuQrGc
4	Apply the rules for pd, current and resistance in series and in parallel circuits to circuit problems.	Free Science Lessons - https://www.youtube.com/watch?v=ZQurBlu35Fo https://www.youtube.com/watch?v=jNFXtjt5mul GCSE Pod - https://members.gcsepod.com/shared/podcasts/title/10472/64251

		Oak National Academy - https://classroom.thenational.academy/lessons/series-and-parallel-circuits-69jk8c
5	Recall how to carry out required practical to investigate factors affecting resistance	Free Science Lessons - https://www.youtube.com/watch?v=YsZeZotYVag GCSEPod - https://members.gcsepod.com/shared/podcasts/title/12488/77184
6	Recall how to carry out the practical to investigate the I-V characteristics of components	Free Science Lessons - https://www.youtube.com/watch?v=A1SyKvdHoqY GCSEPod - https://members.gcsepod.com/shared/podcasts/title/12488/76788
7	Recall the features of mains electricity – ideas of AC vs DC, the three pin plug, 230V and 50Hz	Free Science Lessons - https://www.youtube.com/watch?v=EY_EphcrpDI https://www.youtube.com/watch?v=2g8SusMrX_o https://www.youtube.com/watch?v=S8IB2kxT1n0 https://www.youtube.com/watch?v=fbu3o9wavHk https://www.youtube.com/watch?v=MEvO2rQFIWk GCSEPod - https://members.gcsepod.com/shared/podcasts/title/10473/64257
8	Describe waves as either transverse or longitudinal, defining these waves in terms of the direction of their oscillation and energy transfer and giving examples of each; define waves as transfers of energy from one place to another	Free science lessons - https://www.youtube.com/watch?v=0f5iYCNCnow Cognito - https://www.youtube.com/watch?v=aCu4VRKMstA GCSEPod - https://members.gcsepod.com/shared/podcasts/title/10489/64316
9	Define amplitude, wavelength, frequency, period and wave speed	Free science lessons - https://www.youtube.com/watch?v=ITe6snlZBp8 Cognito - https://www.youtube.com/watch?v=aCu4VRKMstA

	and Identify them where appropriate on diagrams;	Oak National Academy - https://classroom.thenational.academy/lessons/wave-properties-60vk0d
10	Calculate wave speed, frequency or wavelength by applying, but not recalling, the equation: [$v = f \lambda$] and calculate wave period by recalling and applying the equation: [$T = 1/f$]	Free science lessons - https://www.youtube.com/watch?v=Aucu7YshyQ0 GCSEPod - https://members.gcsepod.com/shared/podcasts/title/10489/64313 Oak National Academy - https://classroom.thenational.academy/lessons/calculations-with-waves-6xh66e
11	Describe a method to measure the speed of sound waves in solid	Free science lessons - https://www.youtube.com/watch?v=ZXAmiRC0GBo Oak National Academy - https://classroom.thenational.academy/lessons/measuring-the-speed-of-waves-in-solids-c9gk6t
12	Describe a method to measure the speed of ripples on a water surface	Free science lessons - https://www.youtube.com/watch?v=UNmv6H-f180
13	Carry out multi step calculations	Oak National Academy https://classroom.thenational.academy/lessons/multi-step-calculations-6cwkgd
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Each subject area to identify: a) in the first column, 10 likely

PLCs/topics for revision; b) in the second column, sources of help / means of revision (GCSE pods, Oaks Academy

Lessons, VLE, YouTube tutorials, weekly enrichment sessions, websites, subscription sites that pupils can access free of charge, anything else you consider useful).