

Revision for physics: Paper 1 (2022) foundation

For knowledge organisers – see JSTC website: <https://www.jstc.org.uk/science>

Topic title	Brief content overview	Required practical	External Links
P1 Conservation and dissipation of energy	<ul style="list-style-type: none"> • Energy stores • Conservation of energy • Energy and work • Kinetic energy, Gravitational energy and Elastic energy stores • Energy dissipation • Energy and efficiency • Energy and power 		FreeSciencelessons on YouTube : https://www.youtube.com/watch?v=PY80j_iNT9Y BBC Bitesize https://www.bbc.co.uk/bitesize/topics/z89ddxs
P2 Energy transfer by heating	<ul style="list-style-type: none"> • Energy transfer by conduction • Specific heat capacity • Heating and insulating buildings 	P2 Specific heat capacity Thermal insulation R.P14	FreeSciencelessons on YouTube: https://www.youtube.com/watch?v=HAPmwu7byGM https://www.youtube.com/watch?v=ILH45loyPUA Malmesbury education https://www.youtube.com/watch?v=loeRLKNeUsc https://www.youtube.com/watch?v=MUY1o4ogCvw BBC Bitesize https://www.bbc.co.uk/bitesize/guides/zy8g3k7/revision/1 https://www.bbc.co.uk/bitesize/guides/z2gjt4/revision/6 https://www.bbc.co.uk/bitesize/guides/z2gjt4/revision/3
P3 Energy resources	<ul style="list-style-type: none"> • Energy demands • Renewable energy • Big energy Issues 		FreeSciencelessons on YouTube: https://www.youtube.com/watch?v=pqzvUur7QRw BBC Bitesize https://www.bbc.co.uk/bitesize/guides/z8k9v9q/revision/1
P4 electric circuits	<ul style="list-style-type: none"> • Current and charge • Potential difference and resistance • Component characteristics 	IV characteristics of diode,	FreeSciencelessons on YouTube: https://www.youtube.com/watch?v=A1SyKvdHoqY https://www.youtube.com/watch?v=YsZeZotYVag Malmesbury https://www.youtube.com/watch?v=ksPzUjMbBk

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	<ul style="list-style-type: none"> Series and parallel circuits 	thermistor and wire R.P16	https://www.youtube.com/watch?v=m_3JrA-sDEg BBC Bitesize https://www.bbc.co.uk/bitesize/guides/zpdtv9q/revision/5 https://www.bbc.co.uk/bitesize/guides/zpdtv9q/revision/4
P5 electricity in the home	<ul style="list-style-type: none"> Electrical power and potential difference Electrical currents and energy transfer Appliances and efficiency 		FreeSciencelessons on YouTube: https://www.youtube.com/watch?v=gj1tu8bTKjl https://www.youtube.com/watch?v=fbu3o9wavHk BBC Bitesize https://www.bbc.co.uk/bitesize/guides/z6r37nb/revision/1
P6 Molecules of matter	<ul style="list-style-type: none"> Density States of matter Changes of state Internal energy Specific latent heat 		FreeSciencelessons on YouTube: https://www.youtube.com/watch?v=ScXOp8Zph28 malmsebury https://www.youtube.com/watch?v=lvqu6JAbaKc BBC Bitesize https://www.bbc.co.uk/bitesize/guides/z242srd/revision/3
P7 Radioactivity	<ul style="list-style-type: none"> Activity and halflife Alpha, beta and gamma 		FreeSciencelessons on YouTube: https://www.youtube.com/watch?v=F_Y1-JieCrg BBC Bitesize https://www.bbc.co.uk/bitesize/guides/zxbnh39/revision/1