

This is a list of topics which have come up on past scholarship papers. You must also ensure that you are comfortable with all of the CE 13+ topics. Use the memory workout booklet to help you with this.

		Additional guidance		BBC bitesize link - for topics not covered in CE 13+ syllabus. Memory Workout/revision guide should also be used.				
Biology								
Sexual reproduction in animals	Selective breeding	Natural selection and evolution		https://www.bbc.co.uk/bitesize/guides/zyv83k7/revision/1	https://www.bbc.co.uk/bitesize/guides/zghppbk/revision/1	https://www.bbc.co.uk/bitesize/guides/z9rqcj6/revision/2	https://www.bbc.co.uk/bitesize/guides/z19x8mn/revision/2	https://www.bbc.co.uk/bitesize/guides/z9fgr82/revision/5
Heart/blood flow				https://www.bbc.co.uk/bitesize/guides/zw9x8mn/revision/3	https://www.bbc.co.uk/bitesize/guides/zw9x8mn/revision/5			
Growth curves	Factors affecting population (competition, hunting etc.)	Of bacteria, How to measure growth in animals		https://www.bbc.co.uk/bitesize/guides/zpkx8mn/revision/6	https://www.bbc.co.uk/bitesize/guides/z243g82/revision/1	https://orbitbiotech.com/bacterial-growth-curve-generation-time-lag-phase-log-phase-exponential-phase-decline-phase/		
Gas exchange	In a variety of organisms (inc. fish, tracheal system etc.)			https://www.cliffsnotes.com/study-guides/biology/biology/gas-exchange/mechanisms-for-gas-exchange	Use this to remind you of what we covered during science extras			
Food webs and ecosystems	Inc. pyramids of numbers, biomass and energy	Predator-prey cycles	Energy transfers between trophic levels	https://www.bbc.co.uk/bitesize/guides/zq4wjxs/revision/1	https://www.bbc.co.uk/bitesize/guides/zq4wjxs/revision/2	https://www.bbc.co.uk/bitesize/guides/zq4wjxs/revision/4	https://www.bbc.co.uk/bitesize/guides/zxg97h/revision/4	https://www.bbc.co.uk/bitesize/guides/z2m3916/revision/6
Communicable diseases	Inc. vaccination and spread			https://www.bbc.co.uk/bitesize/guides/zwtpgbk/revision/2	https://www.bbc.co.uk/bitesize/guides/zwtpgbk/revision/3			
Decomposers	Inc. decay			https://www.bbc.co.uk/bitesize/guides/zqskv9g/revision/1				
Chemistry								
Rates of reaction				https://www.bbc.co.uk/bitesize/guides/z3nbqhv/revision/1	All pages			
Thermal decomposition	Inc. comparison of reactivity of metal carbonates			https://www.bbc.co.uk/bitesize/guides/zq2mnp3/revision/5	https://edu.rsc.org/resources/thermal-decomposition-of-metal-carbonates/450.article	See 'teaching notes' of rsc page		
Solubility	Of solids and gases			https://www.bbc.co.uk/bitesize/guides/z4s48mn/revision/2				
Neutralisation reactions	Inc. titrations and formation of pure CuSO4			https://www.bbc.co.uk/bitesize/guides/zqxjty/revision/1	https://www.bbc.co.uk/bitesize/guides/zqxjty/revision/2	https://www.bbc.co.uk/bitesize/guides/zqxjty/revision/3	https://www.bbc.co.uk/bitesize/guides/z9fwrwx/revision/5	You do not need to learn the charges on ions, but do need to be able to work out the formula using balancing charges
Separating substances	Chromatography inc. RF values, crystallisation, electrolysis	Distillation and separation of rock salt		https://www.bbc.co.uk/bitesize/guides/zqc6w6f/revision/1	All pages			
Other topics	Balancing equations	Limiting reactant (calculations not required)	Changes in composition of atmosphere	https://www.my-gcscience.com/balancing-chemical-equations/	https://www.bbc.co.uk/bitesize/guides/zqc6w6f/revision/1	https://www.bbc.co.uk/bitesize/guides/z3kp2nb/revision/4		
Structure of atoms	Inc. electronic structure, and isotopes			https://www.bbc.co.uk/bitesize/guides/zqgm8mn/revision/2	https://www.bbc.co.uk/bitesize/guides/zqgm8mn/revision/3	https://www.bbc.co.uk/bitesize/guides/zqgm8mn/revision/4		
Groups in periodic table	Alkali metals (inc. explanation for changes in reactivity) and appearance of			https://www.bbc.co.uk/bitesize/guides/z3773k7/revision/2				
Physics								
Light waves	Inc. wavelength for colour and speed of waves			https://www.bbc.co.uk/bitesize/guides/zdwnb9q/revision/2	https://www.bbc.co.uk/bitesize/guides/zdwnb9q/revision/3			
Hooke's law	Inc. combining springs			https://socratic.org/questions/what-is-the-spring-constant-in-parallel-connection-and-series-connection				
Electricity	Voltage, current, resistance investigation	Should know Voltage = current x resistance		https://www.bbc.co.uk/bitesize/guides/zwpxw/revision/1	All pages			
Changes of state	Specific latent heat and specific heat capacity			https://www.bbc.co.uk/bitesize/guides/zwv2k2p/revision/4	https://www.bbc.co.uk/bitesize/guides/zwv2k2p/revision/5			
Orbits	Inc. Kepler's 3rd law and retrograde motion			https://www.youtube.com/watch?v=72FrZz_zlFU	http://hyperphysics.phy-astr.gsu.edu/hbase/kepler.html#c6	See Mr Tinkler for more info		
Energy	Inc. power calculations			https://www.bbc.co.uk/bitesize/guides/zsjpgdm/revision/4				
Heat transfer	Conduction/convection/radiation			https://www.bbc.co.uk/bitesize/guides/ztrrd2p/revision/1	https://www.bbc.co.uk/bitesize/guides/ztrrd2p/revision/2	https://www.bbc.co.uk/bitesize/guides/ztrrd2p/revision/3		

You must also ensure that you are comfortable with all of the common entrance topics. Use the memory workout booklet to help you with this.