## AQA GCSE Combined Science Trilogy: Foundation

Advance Information of Assessed Content 2022

Link to specification: <a href="https://filestore.aqa.org.uk/resources/science/specifications/AQA-8464-SP-2016.PDF">https://filestore.aqa.org.uk/resources/science/specifications/AQA-8464-SP-2016.PDF</a>

Link to advance information document: <a href="https://filestore.aqa.org.uk/content/summer-2022/AQA-8464-AI-22.PDF">https://filestore.aqa.org.uk/content/summer-2022/AQA-8464-AI-22.PDF</a>

Link to revised Physics equation sheet: <a href="https://filestore.aqa.org.uk/resources/science/AQA-8464-8465-ES-INS.PDF">https://filestore.aqa.org.uk/resources/science/AQA-8464-8465-ES-INS.PDF</a>

Exam date: 17<sup>th</sup> May

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Spec point	Concepts	CGP revision	Bitesize	YouTube
ороо роши		guide pages		
<b>4.1.2</b> Cell Division	-How DNA is arranged as chromosomes -Series of stages in the cell cycles inc. mitosis -Definition and uses of stem cells	15-16	https://www.bbc.co.uk/bit esize/guides/z2kmk2p/revi sion/2 https://www.bbc.co.uk/bit esize/guides/z2kmk2p/revi sion/3	https://www.youtube.com/watch?v=RHyZVmbiA78  https://www.youtube.com/watch?v=Kh27eyjxvYM&t=24s
Required practical  1: use of light microscope	-How to prepare slides -How to use the microscope to improve field of view, clarify, change magnification - Microscopy calculations	12-13	https://www.bbc.co.uk/bit esize/guides/zpqpqhv/revis ion/1	https://www.youtube.com/ watch?v=jBVxo5T- ZQM&t=8s
<b>4.2.2</b> Animal tissues, organs and organ systems	- Functions of tissues and organs in the digestive system -Digestive enzymes -Functions of tissues and organs in the circulatory system -Pathway of blood through the heart -adaptations of components of the blood -risk factors of non-communicable diseases	24, 27, 30-32 35-37	https://www.bbc.co.uk/bit esize/guides/z89mk2p/revi sion/1 https://www.bbc.co.uk/bit esize/guides/zsncsrd/revisi on/1	https://www.youtube.com/watch?v=4ui4oSHHnzA  https://www.youtube.com/watch?v=VLK2wANjQm0  https://www.youtube.com/watch?v=bpYaKM2hVFY
Required practical 3: test for carbohydrates, lipids and proteins	-Reagent and positive result for carbohydrates, proteins and lipids	28	https://www.bbc.co.uk/bit esize/guides/z89mk2p/revi sion/3	https://www.youtube.com/ watch?v=SqWTJWOBww4

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Spec point	Concepts	CGP revision guide pages	Bitesize	YouTube
<b>4.3.1</b> Communicable Diseases	-definition and examples of pathogen -how viruses and bacteria make us ill -examples of diseases caused by each type of pathogen -human defence mechanisms -what happens in a vaccine -comparing antibody production after active and passive immunity -role of antibiotics -stages in the development of drugs	42-49	https://www.bbc.co.uk/bit esize/topics/z9kww6f	https://www.youtube.com/watch?v=dbd5iydu3EY  https://www.youtube.com/watch?v=5X9MklLVhlw  https://www.youtube.com/watch?v=HSrrPdJDqxM  https://www.youtube.com/watch?v=uPeZBhJYlnU  https://www.youtube.com/watch?v=w3ykU52K-Hw
<b>4.4.1</b> Photosynthesis	-photosynthesis equation -factors affecting rate of photosynthesis	50-52 Not inc. bottom half of 50	https://www.bbc.co.uk/bit esize/guides/zs4mk2p/revis ion/1	https://www.youtube.com/ watch?v=rAJGnS_ktk4
Required Practical 5: effect of light intensity on rate of photosynthesis	-independent, dependent, control variables -How to measure the dependent variable -method -analysing results	52	https://www.bbc.co.uk/bit esize/guides/zs4mk2p/revis ion/5	https://www.youtube.com/watch?v=cBCKedXdFeE

These specification points will **not be assessed** on this paper.

Spec point	CGP Revision Guide Pages
<b>4.1.3.2</b> Osmosis	18
<b>4.1.3.3</b> Active Transport	19
<b>4.2.2.4</b> Coronary Heart Diseases	33-34
<b>4.4.1.3</b> Uses of Glucose from Photosynthesis	Bottom half of pg 50
<b>4.4.2</b> Respiration	53-55

Exam date: 27<sup>th</sup> May

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Spec point	Concepts	CGP revision guide pages	Bitesize	YouTube
<b>5.1.2</b> The Periodic Table	-The Periodic Table is arranged in order of proton number -What atoms of elements in the same group have in common -What atoms of elements in the same period have in common -development in the Periodic Table -ions formed from metals and non-metals -trends in physical and chemical properties of group 1,7 and 0 elements - Reactions of group 1 and 7 elements	106-111	https://www.bbc.co.uk/bit esize/guides/zwt2k2p/revis ion/1 https://www.bbc.co.uk/bit esize/guides/ztrxdxs/revisio n/1	https://www.youtube.com/watch?v=IdS9roW7lzM&t=1 19s  https://www.youtube.com/watch?v=uwzXfZoCP_k  https://www.youtube.com/watch?v=dZGDUKQa_6g  https://www.youtube.com/watch?v=HT1zAPQIBAQ
5.2.2 How bonding and structure are related to the properties of a substance	-interpreting melting and boiling point data to determine state at a certain temp -state symbols -describe and explain properties of ionic compounds -describe and explain properties of simple covalent molecules -describe and explain properties of polymers -describe and explain properties of metals and alloys	115,117- 118, 120	https://www.bbc.co.uk/bit esize/topics/z33rrwx	https://www.youtube.com/watch?v=leVxy7cjZMU  https://www.youtube.com/watch?v=DECGNyC-x_s  https://www.youtube.com/watch?v=EP0zfm_FVqc  https://www.youtube.com/watch?v=A-wTpLPICd0
5.2.3 Structure and bonding of carbon	-describe and explain the properties of diamond, graphite, graphene and fullerenes	118-119	https://www.bbc.co.uk/bit esize/guides/zgq8b82/revis ion/2	https://www.youtube.com/ watch?v=tGH0mXCcEFU

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Spec point	Concepts	CGP revision guide pages	Bitesize	YouTube
<b>5.4.1</b> The Reactivity of Metals	-Metals + oxygen -Reduction and oxidation in terms of oxygen -The Reactivity Series - Displacement reactions - Extraction of metals by reduction	130-131	https://www.bbc.co.uk/bit esize/guides/zy7dgdm/revi sion/1	https://www.youtube.com/ watch?v=Lk1V0buHEFs  https://www.youtube.com/ watch?v=2i5Lm7BMtpo  https://www.youtube.com/ watch?v=MXTSels6e2Y
<b>5.4.2</b> Reactions of Acids	-Naming Salts -products of the reactions of acids and metals -produces of the reactions of acids and alkalis and insoluble bases -products of the reactions of acids and metal carbonates -pH scale and neutralisation	128-129	https://www.bbc.co.uk/bit esize/guides/ztv2dxs/revisi on/1	https://www.youtube.com/ watch?v=ofw6oHSYGFI https://www.youtube.com/ watch?v=QISsle_jSQ8
5.4.2.3 and Required Practical 8: preparation of a pure, dry sample of soluble salts	-method of producing solid salt crystals from insoluble oxide or carbonate and acids -identifying errors in methods and reagents	129	https://www.bbc.co.uk/bit esize/guides/ztv2dxs/revisi on/5	https://www.youtube.com/ watch?v=9GH95172Js8&t=1 6s

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Spec point	Concepts	CGP revision guide pages	Bitesize	YouTube
<b>5.4.3</b> Electrolysis	-The process of electrolysis -Electrolysis of molten ionic compounds -Electrolysis of aluminium oxide -Electrolysis of aqueous solutions	130-131	https://www.bbc.co.uk/bit esize/guides/z9h9v9q/revis ion/1	https://www.youtube.com/ watch?v=AhTRiL6xjBA&t=2s https://www.youtube.com/ watch?v=ilNOpROacf0 https://www.youtube.com/ watch?v=YcyMEIBEzAY https://www.youtube.com/ watch?v=6WjC_Vi4roA
Required Practical 9: : investigate what happens when aqueous solutions are electrolysed using inert electrodes.	-Developing a hypothesis -Planning an investigation	128-129	https://www.bbc.co.uk/bit esize/guides/z9h9v9q/revis ion/3	https://www.youtube.com/ watch?v=ukbtTTG1Kew
Required Practical 10: investigate the variables that affect temperature changes in reacting solutions such as, eg acid plus metals, carbonates, neutralisations, displacement of metals	-Identifying independent, dependent, control variables -Analysing results -identifying exo and endothermic reactions from experimental results	135	https://www.bbc.co.uk/bit esize/guides/z2b2k2p/revis ion/2	https://www.youtube.com/ watch?v=Bz0C9mmF2tw

**Exam date: 9th June** 

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Spec point	Concepts	CGP revision guide pages	Bitesize	YouTube
6.1.1 Energy Changes in a system, and the ways energy us stored before and after such changes	-identifying the energy changes in systems -Calculate, using equations, the amount of energy associated with a moving object, a stretched spring and an object raised above ground levelCalculate, using an equation, the amount of energy stored in or released from a system as its temperature changes -Calculate Power	167-172	https://www.bbc.co.uk/bit esize/guides/zskp7p3/revisi on/1  https://www.bbc.co.uk/bit esize/guides/z8pk3k7/revisi on/1  https://www.bbc.co.uk/bit esize/guides/zy8p3k7/revisi on/1	https://www.youtube.com/watch?v=JGwcDCeYRYo  https://www.youtube.com/watch?v=-zy9eWzmGe4  https://www.youtube.com/watch?v=Qw_9kX9PARc  https://www.youtube.com/watch?v=63OTIdNb-TE  https://www.youtube.com/watch?v=EDTODPhaaMY
Required Practical 14: an investigation to determine the specific heat capacity of one or more materials.	linking the decrease of one energy store (or work done) to the increase in temperature and subsequent increase in thermal energy stored	171	https://www.bbc.co.uk/bit esize/guides/zy8g3k7/revisi on/4	https://www.youtube.com/ watch?v=Hs5x0-IU2F4 https://www.youtube.com/ watch?v=loeRLKNeUsc
<b>6.1.3</b> National and global energy resources	-describe renewable and non- renewable energy resource -compare advantages and disadvantages of different energy resources	176-179	https://www.bbc.co.uk/bit esize/guides/z2wfxfr/revisi on/1	https://www.youtube.com/ watch?v=1dJKvxhGEgA https://www.youtube.com/ watch?v=pqzvUur7QRw

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Spec point	Concepts	CGP revision guide pages	Bitesize	YouTube
<b>6.2.1</b> Current, potential difference and resistance	-circuit diagram symbols -definition and units of electrical current and charge -calculating charge flow using an equations -definition and units of potential difference -definition and units of resistance -relationship between current, potential difference and resistance -calculate current, potential difference or resistance using an equation -IV graphs of resistor at constant temp, filament lamp, diode -applications of LDRs and thermistors	180-184	https://www.bbc.co.uk/bit esize/guides/zgvq4qt/revisi on/1	https://www.youtube.com/watch?v=sFUmuuJjAcw https://www.youtube.com/watch?v=ts7WumFAaSg https://www.youtube.com/watch?v=hRojfU77c38
Required Practical 16: construct appropriate circuits to investigate the I— V characteristics of circuit elements, inc. a filament lamp, diode and a resistor at constant temp.	-placing ammeter and voltmeter in the correct place in a circuit to measure the current through and potential difference across a component -Plotting graphs -Describing and explaining patterns shown in graphed data	183	https://www.bbc.co.uk/bit esize/guides/zgvq4qt/revisi on/5	https://www.youtube.com/ watch?v=A1SyKvdHoqY&t= 29s

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Spec point	Concepts	CGP revision guide pages	Bitesize	YouTube
<b>6.3.1</b> Changes of state and the particle model	-Define and calculate the density of a substance or object -recognise/draw simple diagrams to model the difference between solids, liquids and gases -explain the differences in density between the different states of matter in terms of the arrangement of atoms or moleculesdescribe how, when substances change state mass is conservedDescribe changes of state as physical changes	193-195	https://www.bbc.co.uk/bit esize/guides/zqjy6yc/revisi on/1 https://www.bbc.co.uk/bit esize/guides/zwwfxfr/revisi on/1	https://www.youtube.com/watch?v=hkBrw2fG75U https://www.youtube.com/watch?v=-EZmXVOSa20
<b>6.4.2</b> Atoms and nuclear radiation	-radioactive decay, types of nuclear radiation and their properties -definition and units of activity and count rate -nuclear equations -half lives -contamination and irradiation	198-201	https://www.bbc.co.uk/bit esize/guides/zxbnh39/revis ion/1  https://www.bbc.co.uk/bit esize/guides/zp4vfcw/revisi on/1	https://www.youtube.com/watch?v=F Y1-JieCrg  https://www.youtube.com/watch?v=nW0S1C6wVrg  https://www.youtube.com/watch?v=wj9BzGFao8k  https://www.youtube.com/watch?v=teGu0VAPlOo

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Spec point	CGP Revision Guide Pages
<b>6.2.3</b> Domestic uses and safety	188
<b>6.3.3</b> Particle Model and Pressure	Bottom half of pg 193
<b>6.4.1</b> Atoms and Isotopes	

Exam date: 15th June

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Spec point	Concepts	CGP revision guide pages	Bitesize	YouTube
<b>4.5.3</b> Hormonal Control in Humans	-definition of 'hormone' function of the tissues and organs of the endocrine system -identifying position of glands, and the hormones secreted from them -hormones involved in control of blood glucose concentration -Type 1 and Type 2 diabetes	61-62	https://www.bbc.co.uk/bit esize/guides/zq4mk2p/revi sion/1 (1 to 5)	https://www.youtube.com/ watch?v=c6olhi88KZs https://www.youtube.com/ watch?v=77oyUdNZ054
<b>4.6.1</b> Reproduction	-describe the structure of DNA -define 'genome' -structure of a chromosome -definition of 'gene' -definition of key inheritance terms e.g. heterozygous, recessive allele, phenotype -construct punnett squares -determine probability -inherited disorders -make informed judgements about the economic, social and ethical issues concerning embryo screening,	66, 70-72	https://www.bbc.co.uk/bit esize/guides/zycmk2p/revis ion/3  https://www.bbc.co.uk/bit esize/guides/zcdfmsg/revisi on/1	https://www.youtube.com/watch?v=wv1TQXBQ6wQ https://www.youtube.com/watch?v=zNEtVaNQ0s8 https://www.youtube.com/watch?v=mvWy5lbUoHA https://www.youtube.com/watch?v=sYPwWHszLDo

Exam date: 15th June

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Spec point	Concepts	CGP revision	Bitesize	YouTube
		guide pages		
<b>4.7.1</b> Adaptations, interdependence and competition	-Describe the different levels of organisation in an ecosystem -Describe the importance of interdependence and competition in a communityIdentify biotic and abiotic factors -Suggest the factors for which organisms are competing in a given habitat	83-84	https://www.bbc.co.uk/bit esize/guides/z86gpbk/revis ion/1 (1 to 7)	https://www.youtube.com/watch?v=XVD5izWXmKo https://www.youtube.com/watch?v=0mjafH5pVLA
<b>4.7.2</b> Organisation of an ecosystem	-interpret food chains and webs -identify producers, consumers, predators and prey from food chains and webs -describe the carbon and water cycles	86, 89-90	https://www.bbc.co.uk/bit esize/guides/zqskv9q/revisi on/1	https://www.youtube.com/watch?v=dRFQ8rZCK6Q https://www.youtube.com/watch?v=urzpnjwazV0
Required Practical 7: measure the population size of a common species in a habitat. Use sampling techniques to investigate the effect of a factor on the distribution of this species	-Using transects and quadrats are used by ecologists to determine the distribution and abundance of species in an ecosystemUnderstand the terms mean, mode and median -Calculate arithmetic means	87-88	https://www.bbc.co.uk/bit esize/guides/zqskv9q/revisi on/3	https://www.youtube.com/watch?v=2MW6nwf80XM  https://www.youtube.com/watch?v=RhMOCxXcDrQ  https://www.youtube.com/watch?v=yLHz2Ea10Mg&t=2s

## Biology Paper 2

Spec point	CGP Revision Guide Pages
4.5.2 The human nervous system	58-60
4.5.3.3 Hormones in human reproduction	63-65
4.5.3.4 Contraception	65
4.6.1.1 Sexual and asexual reproduction	67
<b>4.6.1.2</b> Meiosis	68
4.6.1.6 Sex Determination	69
<b>4.6.2.1</b> Variation	73
<b>4.6.2.2</b> Evolution	74
4.6.2.3 Selective Breeding	77
4.6.3.3 Extinction	
4.6.3.4 Resistant Bacteria	75-76
4.7.1.4 Adaptations	85
4.7.3.1 Biodiversity	91
<b>4.7.3.3</b> Land Use	93
4.7.3.4 Deforestation	93
4.7.3.5 Global Warming	92
4.7.3.6 Maintaining Biodiversity	94

Exam date: 20th June

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Spec point	Concepts	CGP revision guide pages	Bitesize	YouTube
<b>5.6.1</b> Rate of Reaction	-Calculating the rate of a reaction -Describe collision theory -Define activation energy -Describe and explain the factors that increase the rate of reaction -Describe and explain the effect of catalysts on rate of reaction	138-139, 142-143	https://www.bbc.co.uk/bit esize/guides/zpkp7p3/revis ion/1	https://www.youtube.com/watch?v=UkrBJ6-uGFA  https://www.youtube.com/watch?v=GCR5xeduq2o  https://www.youtube.com/watch?v=-4HXaUBbv04  https://www.youtube.com/watch?v=hel8fQjxc08
Required Practical 11: investigate how concentration affects the rates of reaction by a method involving measuring the volume of a gas produced/change in colour	-identify independent, dependent and control variables -describe how to measure the dependent variable -analyse results and draw conclusions from graphed data -calculate rate of reaction from data	140-141, 142-143	https://www.bbc.co.uk/bit esize/guides/zpkp7p3/revis ion/6	https://www.youtube.com/ watch?v=N5p06i9ilmo https://www.youtube.com/ watch?v=GI6LVI7oAIU
5.6.2 Reversible reactions and dynamic equilibrium	-identify and give examples of reversible reactions -apply the conservation of energy to reversible reactions -define dynamic equilibrium	144	https://www.bbc.co.uk/bit esize/guides/z32bpbk/revis ion/1 Only page 1	https://www.youtube.com/ watch?v=66qcNNJFy6E

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Spec point	Concepts	CGP revision guide pages	Bitesize	YouTube
<b>5.7.1 C</b> arbon compounds as fuels and feedstock	-describe crude oil as a mixture of different length hydrocarbons -define the term hydrocarbon -identify the first 4 alkanes from their chemical formula and name them -Describe the trend in properties as hydrocarbon chain length increases -Describe and explain the process of fractional distillation -describe the process of cracking -describe the use of alkenes	146-149	https://www.bbc.co.uk/bit esize/guides/zxd4y4j/revisi on/1	https://www.youtube.com/watch?v=CX2IYWggEBc  https://www.youtube.com/watch?v=3I7yCkSXPos  https://www.youtube.com/watch?v=7AWwjKbRa_o
<b>5.8.1</b> Purity, formulations and chromatography	-Define the term pure substance in chemistry -Use melting and boiling point data to identify pure and impure substances -Define the term formulation and give examples	150	https://www.bbc.co.uk/bit esize/guides/zp2wrwx/revi sion/1	https://www.youtube.com/ watch?v=3oJxWwcnfJY
Required Practical 12: investigate how paper chromatography can be used to separate and tell the difference between coloured substances.	-Describe the properties of the mixtures that chromatography can be used to separate -Describe and explain the experimental process of chromatography -Explain how substances are separated using chromatography -Interpret chromatograms + -Calculate Rf values	151-152	https://www.bbc.co.uk/bit esize/guides/zp2wrwx/revi sion/3	https://www.youtube.com/watch?v=TdJ57SQ6GAQ https://www.youtube.com/watch?v=pnTGNAfu6GE

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Spec point	Concepts	CGP revision guide pages	Bitesize	YouTube
<b>5.9.1</b> The composition and evolution of the Earth's Atmosphere	-describe the composition of the current atmosphere -describe the composition of the early atmosphere and explain theories of how the early atmosphere formed -explain how the early atmosphere changed to that of the present atmosphere	155	https://www.bbc.co.uk/bit esize/guides/z9pk3k7/revisi on/1	https://www.youtube.com/watch?v=t1Z3GINIdLA  https://www.youtube.com/watch?v=l0h3M0Pso
<b>5.9.3</b> Common atmospheric pollutants and their sources	-State the atmospheric pollutants released into the atmosphere from the complete and incomplete combustion of fossil fuels -Describe the negative impacts of these pollutants on health and the environment	158	https://www.bbc.co.uk/bit esize/guides/zq3797h/revis ion/1	https://www.youtube.com/ watch?v=yLp6LOgPHmI
<b>5.10.1</b> Using the Earth's resources and obtaining potable water	-Describe the renewable and non- renewable resources that we get form the Earth and its atmosphere -Define the term potable water -Describe how potable water can be produced. -Describe the differences in the treatment of waste water, salt water and ground water	159, 163-165	https://www.bbc.co.uk/bit esize/guides/zswfxfr/revisi on/1  https://www.bbc.co.uk/bit esize/guides/zg6cfcw/revisi on/1	https://www.youtube.com/watch?v=-XczTGavTZU https://www.youtube.com/watch?v=n7pYRQs20bl

Exam date: 20th June

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Spec point	CGP Revision Guide Pages
<b>5.9.2</b> Carbon dioxide and methane as greenhouse gases	156-157

Exam date: 23<sup>rd</sup> June

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Spec point	Concepts	CGP revision guide pages	Bitesize	YouTube
<b>6.5.1</b> Forces and their interactions	-Describe the difference between scalar and vector quantities and give examples -give examples of contact and non-contact forces -Describe the relationship between mass, weight and gravitational field strength -Use an equation to calculate weight -Calculate the resultant force acting on an object -use free body diagrams to describe qualitatively examples where several forces lead to a resultant force on an object, including balanced forces when the resultant force is zero	203-205	https://www.bbc.co.uk/bit esize/guides/zskn2nb/revisi on/1  https://www.bbc.co.uk/bit esize/guides/zcxcfcw/revisi on/1  https://www.bbc.co.uk/bit esize/guides/z232k2p/revis ion/1	https://www.youtube.com/watch?v=P1ISWWUkMdQ  https://www.youtube.com/watch?v=xxK8N23nx9M  https://www.youtube.com/watch?v=W2aBVbcHr_k  https://www.youtube.com/watch?v=PL8ATKipoB4
6.5.4.1: Describing motion along a line	-Describe the difference between distance and displacement -Use an equation to calculate speed -describe the difference between speed and velocity -Interpret distance-time graphs and velocity-time graphs -Use an equation to calculate acceleration -Describe how an object reaches terminal velocity	208-211	https://www.bbc.co.uk/bit esize/guides/z2wy6yc/revis ion/1	https://www.youtube.com/watch?v=QaU9jMHh7gE https://www.youtube.com/watch?v=M OFRIX8wIM https://www.youtube.com/watch?v=DkCw2C-DkT0 https://www.youtube.com/watch?v=b0VKlpetP9A https://www.youtube.com/watch?v=Kzx8GBTI5VM

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Spec point	Concepts	CGP revision guide pages	Bitesize	YouTube
6.5.4.2 Force, accelerations and Newton's Laws of motion	-Describe Newton's first law of motion -Describe Newton's second law of motion and use an equation to calculate the force required to make an object with a certain mass accelerate at a certain speed -Describe Newton's third law of motion	212-213	https://www.bbc.co.uk/bit esize/guides/zgv797h/revisi on/1	https://www.youtube.com/ watch?v=i5PtaCJJFjw https://www.youtube.com/ watch?v=DpQ_ikFKru0
<b>6.5.4.3:</b> Forces and braking	-Describe the stopping distance of a car -Define thinking distance -Describe factors that affect a driver's reaction time -evaluate measurements from methods to measure the different reaction times -Define braking distance -Describe factors that affect a car's braking distance -Explain the dangers caused by large decelerations	215-217	https://www.bbc.co.uk/bit esize/guides/zgv797h/revisi on/7	https://www.youtube.com/ watch?v=drMKdcMq3o0
<b>6.6.2</b> Electromagnetic Waves	-Describe the order of the electromagnetic spectrum -Describe the properties of the different parts of the EM spectrum -Describe the uses of the different parts of the EM spectrum -Describe the hazards associated with the different parts of the EM spectrum - Describe how changes in atoms and the nuclei of atoms can result in EM waves being generated	223-225, 228	https://www.bbc.co.uk/bit esize/guides/z3yq4qt/revisi on/3	https://www.youtube.com/watch?v=u5vkYjV1V1A&t=3 s https://www.youtube.com/watch?v=L0iivb-acqU&list=RDLVu5vkYjV1V1A&index=2

Exam date: 23<sup>rd</sup> June

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Spec point	Concepts	CGP revision guide pages	Bitesize	YouTube
Required Practical 21 investigate how the amount of infrared radiation absorbed or radiated by a surface depends on the nature of that surface.	-Identify dependent, independent and variables -Plan a method to ensure valid results are collected -Draw conclusions from data	226-227	https://www.bbc.co.uk/bit esize/guides/ztpm7p3/revis ion/1	https://www.youtube.com/ watch?v=LFwio38EK9s
<b>6.7.1:</b> Permanent and induced magnetism, magnetic forces and fields	-Describe the difference between a permanent and an induced magnet -Describe the attraction and repulsion between unlike and like poles for permanent magnetsDefine the 'magnetic field'Describe the properties of the magnetic field of a magnet -Describe how to plot the magnetic field of a magnet scompass -Draw the magnetic field pattern of a bar magnet -Explain how a compass behaves when not in the magnetic field of a magnet	229	https://www.bbc.co.uk/bit esize/guides/zpt9v9q/revisi on/1	https://www.youtube.com/watch?v=sRyy7-jEu3Q
<b>6.7.2</b> The motor effect	-Describe how an electromagnet is made -Describe how to change the strength of the electromagnet	230	https://www.bbc.co.uk/bit esize/guides/zg43y4j/revisi on/1 (just page 1)	https://www.youtube.com/ watch?v=79_SF5AZtzo

These specification points will **not be assessed** on this paper.

Exam o	date:	23 <sup>rd</sup> .	lune
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Spec point	CGP Revision Guide Pages
<b>6.5.3</b> Forces and elasticity	206-207