

# Preparing for Trial Assessments

Week commencing 21st February 2022

Revision Tips

Revision  
Topics

Revision  
Wellbeing

# Revision Tips



Try breaking it up into chunks and creating a daily timetable

so you know what you want to study when. This can make revision feel less overwhelming and much more manageable.



Be realistic about what you can achieve in a day

An unrealistic revision plan won't help you and will put you under unnecessary stress.



Make sure you take regular breaks from studying

Your brain cannot concentrate for hours at a time.



Not everyone studies the same way

Some people prefer to read, others find it helpful to make notes or draw diagrams, while others prefer to talk things through. Do what works for you.



Focus on you and don't compare yourself to others

It can be really stressful when you think everyone is doing better than you, spending more time on revision than you, or just not stressing out as much as you. But we're all different and that's ok. Remember, your friends don't have their results guaranteed – life is unpredictable – and they might well be feeling just as worried as you are.

Click [here](#) for study skills PowerPoint used in form time which lists the different methods you could use to help you revise.

# Revision Topics



- [English](#)
- [Maths](#)
- [Science](#)
- [History](#)
- [Geography](#)
- [EP](#)
- [Art/ Photography](#)
- [Dance](#)
- [Music](#)
- [ICT](#)
- [Computer Science](#)

- [Business GCSE](#)
- [Food](#)
- [Design](#)
- [Health and Social Care](#)
- [PE](#)

**Follow the links below to access Key Stage 4 Knowledge Organisers:**

<https://www.montsaye.northants.sch.uk/students/homework/knowledge-organisers/yer-10-knowledge-organisers/>

<https://www.montsaye.northants.sch.uk/students/homework/knowledge-organisers/year-11-knowledge-organisers/>

# Revision Wellbeing



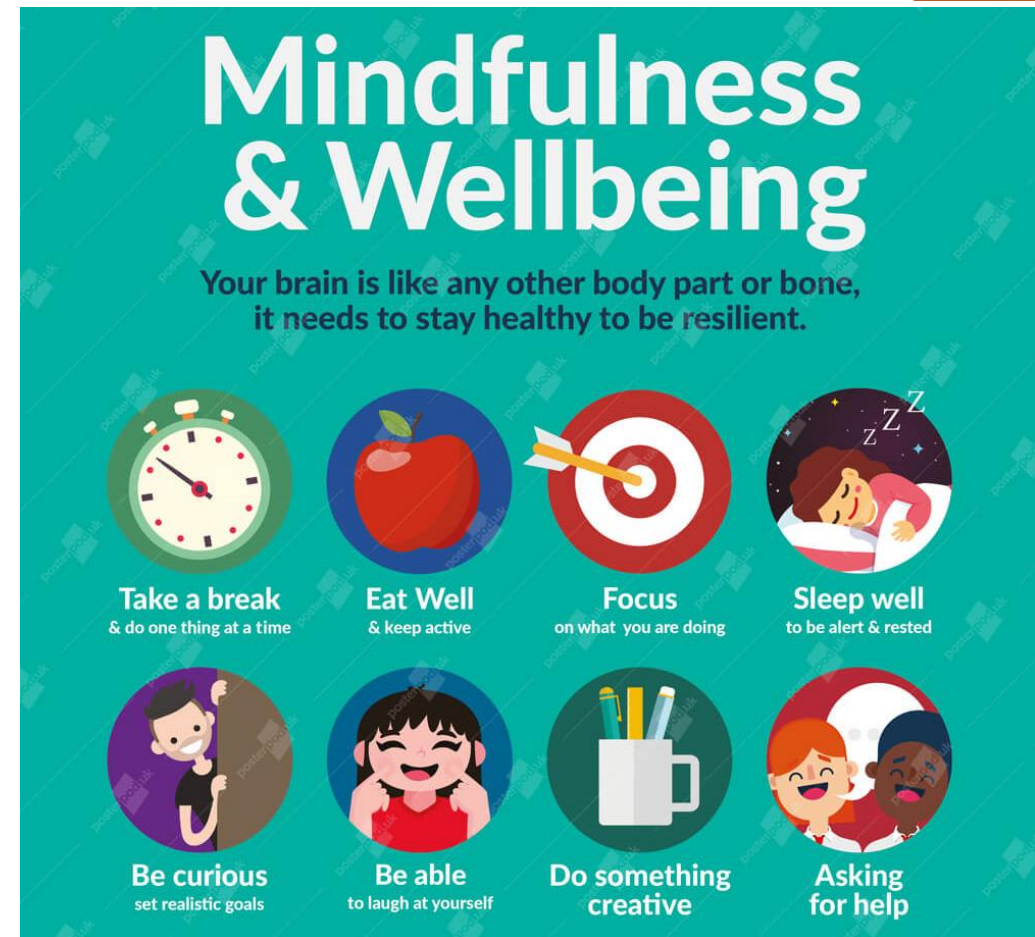
If you need support or advice,  
please let Mrs George or Mrs  
Walters-Morgan know and we can  
help guide you.

[fgeorge@montsaye.northants.sch.uk](mailto:fgeorge@montsaye.northants.sch.uk)

<https://www.youngminds.org.uk/young-person/coping-with-life/exam-stress/>

<https://www.headspace.com/articles/study-buddy-focus-featured-collection>

<https://www.bbc.co.uk/programmes/articles/YfRzhXDKSZQxFVn3OTIXBj/your-mental-health-toolkit>





# Dance (BTEC Performing Arts)

- This will be a written assessment – Your ideas log (800 words)

## Resources

Follow the link below to access resources on our class team. You will find links to resources to support you.



# English

The highlighted options are your next mock topics – revise these first!

- **GCSE Language Paper 1**
- Section A – reading (one fiction source)
- Q1 – list 4 things...
- Q2 – how does the writer use language to...?
- Q3 – how has the writer structured this text to interest you as a reader?
- Q4 – evaluation (responding to a statement)
- Section B – writing to describe/narrative

- **GCSE Language Paper 2**
- Section A – reading (two non-fiction sources)
- Q1 – true/false statements
- Q2 – writing a summary
- Q3 – how does the writer use language to...?
- Q4 – comparing perspectives
- Section B – writing to argue, persuade, inform

- **GCSE Literature Paper 1**
- *A Christmas Carol* (an extract will be provided as part of the question)
- *An Inspector Calls*
- **GCSE Literature Paper 2** (SPaG is assessed on this paper)
- Shakespeare – *Romeo and Juliet* (an extract will be provided as part of the question)
- Unseen poetry (part 1: unseen poem essay/part 2: unseen poetry comparison)

# Maths

Revision  
Topics



Please click on the links below to find your Maths revision checklist:

[Foundation Checklist](#)

[Higher Checklist](#)



Angle Facts - Video 35, 30, 34, 39  
 Types of Angle - Video 38  
 Angles in Parallel Lines - Video 25  
 Angles in a Triangle - Video 37  
 Angles in a Quadrilateral - Video 33  
 Angles in Polygons - Video 32  
 Bearings - Videos 26, 27  
 Perimeter - Video 241  
 Area of Rectangles/Triangles - Videos 45, 49  
 Area of a Trapezium - Video 48  
 Units - Videos 347, 349  
 Line Symmetry - Video 316  
 Rotational Symmetry - Video 317  
 Constructions - Videos 72, 78, 83  
 Loci - Videos 75, 76, 77  
 Faces, Edges, Vertices - Videos 5, 3  
 Views and Elevations - Video 354  
 Surface Area - Video 310  
 Speed, Distance, Time - Video 299  
 Density - Video 384  
 Pressure - Video 385  
 Timetables - Video 320  
 Distance Charts - Video 318  
 Volume of a Cuboid - Video 355  
 Volume of a Prism - Video 356  
 Translations - Video 325, 326  
 Reflections - Videos 272, 273  
 Rotations - Video 275  
 Enlargements - Videos 104, 105, 107  
 Parts of the Circle - Video 61  
 Circumference - Video 60  
 Area of a Circle - Video 59  
 Volume of a Cylinder - Video 357  
 Pythagoras - Video 257  
 Trigonometry - Videos 329, 330, 331  
 Exact Trig Values - Video 341  
 Arc Length - Video 58  
 Area of a Sector - Video 46  
 Similar Shapes (sides) - Video 292  
 Congruent Shapes - Video 67  
 Volume of a Sphere/Cone - Videos 359, 361  
 Surface area of Sphere/Cone - Videos 313, 314  
 Vectors - Video 353a  
 Nets - Video 4

[www.corbettmaths.com/contents](http://www.corbettmaths.com/contents)

## GCSE Foundation Tier AQA Checklist 9-1

Multiplication - Video 199, 200  
 Division - Video 98  
 Addition - Video 6  
 Subtraction - Video 304  
 Rounding - Video 276, 277a, 277b, 278  
 Estimation - Video 215  
 Using Calculations - Video 222a  
 BODMAS - Video 211  
 Ordering Decimals/Fractions - Video 95, 144  
 Arithmetic with Decimals - Videos 90, 91, 92, 93, 94  
 Multiples and Factors - Videos 220, 216  
 Prime Numbers - Video 225  
 Square Numbers and Square Roots - Videos 226, 228  
 Cube Numbers and Cube Roots - Videos 212, 214  
 Product of Primes - Video 223  
 LCM/HCF - Videos 218, 219, 224  
 Indices - Videos 172, 174  
 Negative Indices - Video 175  
 Standard Form - Video 300, 302, 303  
 Fractions of Amounts - Video 137  
 Adding Fractions - Video 133  
 Multiplying Fractions - Video 142  
 Dividing Fractions - Video 134  
 Fractions, Decimals, Percentages - Videos 121 to 129  
 Percentages of Amounts - Videos 234, 235  
 Compound Interest - Video 236  
 Reverse Percentages - Video 240  
 Ratio - Videos 269, 270, 271, 271a, 271b, 271c  
 Currency - Video 214a  
 Recipes - Video 256  
 Negative Numbers - Videos 205-209  
 Place Value - Video 222  
 Function Machine - Video 386  
 Best Buys - Video 210  
 Error Intervals - Video 377  
 Proportion - Videos 255a, 254  
 Use of a Calculator - Video 352



Frequency Trees - Video 376  
 Two-way Tables - Video 319  
 Pictograms - Videos 161, 162  
 Bar Charts - Videos 147, 148  
 Frequency Polygons - Videos 155, 156  
 Line Graphs - Video 160  
 Pie Charts - Video 163, 164  
 Probability - Videos 245, 246, 248  
 Listing Outcomes - Video 253  
 Scatter Graphs - Videos 165 to 168  
 Mode - Video 56  
 Median - Video 50  
 Mean - Video 53  
 Range - Video 57  
 Estimated Mean - Video 55  
 Venn Diagrams - Video 380  
 Tree Diagrams - Video 252  
 Reading Tables - Video 387  
 Coordinates - Video 84  
 Writing Expressions - Video 16  
 Collecting Like Terms - Video 9  
 Multiplying Terms - Video 18  
 Sequences - Videos 286, 287, 290  
 The nth Term - Video 288  
 Expanding Brackets - Videos 13, 14  
 Factorising - Video 117  
 Factorising Quadratics - Videos 118, 120  
 Solving Equations - Video 110, 113  
 Forming Equations - Videos 114, 115  
 Inequalities - Videos 177, 178, 179  
 Conversion Graphs - Video 151  
 Drawing Linear Graphs - Video 186  
 $y = mx + c$  - Video 191  
 Parallel graphs - Video 196  
 Substitution - Video 20  
 Changing the Subject - Video 7  
 Simultaneous Equations - Video 295  
 Quadratic Graphs - Video 264  
 Cubic Graphs - Video 344  
 Reciprocal Graphs - Video 346



Revision  
Topics



Adding Fractions - Video 133  
 Multiplying Fractions - Video 142  
 Dividing Fractions - Video 134  
 Estimation - Video 215  
 Best Buys - Video 210  
 Currency - Video 214a  
 Conversion Graphs - Video 151, 152  
 LCM/HCF - Videos 218, 219  
 Indices - Videos 172, 174  
 Indices (fractional/negative) - Videos 173, 175  
 Standard Form - Videos 300, 301, 302, 303  
 Percentages of Amounts - Videos 234, 235  
 Percentage change - Video 233  
 Compound Interest - Video 236  
 Reverse Percentages - Video 240  
 Recurring Decimals to Fractions - Video 96  
 Ratio - Videos 270, 271, 271a, 271b, 271c  
 Direct Proportion - Video 254  
 Inverse Proportion - Video 255  
 Limits of Accuracy - Videos 183, 184  
 Surds - Videos 305, 306, 307, 308  
 Product Rule for Counting - Video 383  
 Error Intervals - Video 377  
 Collecting Like Terms - Video 9  
 Expanding a Bracket - Video 13  
 Expanding 2/3 Brackets - Videos 14, 15  
 Factorising - Video 117  
 Factorising Quadratics - Videos 118, 119, 120  
 Algebraic Fractions - Videos 21, 22, 23, 24  
 Sequences (nth term) - Videos 288, 289  
 nth term (quadratics) - Video 388  
 Substitution - Video 20  
 Equations - Videos 110, 113, 114, 115  
 Changing the Subject - Videos 7, 8  
 Inequalities - Videos 177, 178, 179  
 Inequalities (Regions) - Video 182  
 Quadratic Inequalities - Video 378  
 Linear Graphs - Videos 191, 186, 189, 194  
 Parallel or Perpendicular Lines - Videos 196, 197  
 Simultaneous Equations - Video 295/298

# GCSE Higher Tier AQA Checklist 9-1



Revision  
Topics

Angles in Parallel Lines - Video 25, 39  
 Bearings - Video 26, 27  
 Angles in Polygons - Video 32  
 Constructions - Video 78, 72, 79, 80, 70  
 Loci - Videos 75, 76, 77  
 Area of a Trapezium - Video 48  
 Circumference - Video 60  
 Area of a Circle - Video 40  
 Arc Length - Video 58  
 Area of a Sector - Video 48  
 Volume of a Cylinder - Video 357  
 Pythagoras - Video 257, 259  
 Trigonometry - Videos 329, 330, 331  
 3D Trig and Pythagoras - Videos 259, 332  
 Exact Trig Values - Video 341  
 Volume of a Prism - Video 356  
 Volume of Cone/Pyramid/Sphere - Videos 359-361  
 Surface Area of a Prism - Video 311  
 Surface Area of Cone/Sphere - Videos 314, 313  
 Translations - Video 325  
 Reflections - Video 272  
 Rotations - Video 275  
 Enlargements - Videos 104, 106, 107, 108  
 Similar Shapes - Videos 292, 293a, 293b  
 Circle Theorems - Videos 64, 65  
 Sine Rule - Video 333  
 Cosine Rule - Videos 335, 336  
 $\frac{1}{2}ab\sin C$  - Video 337  
 Vectors - Video 353  
 Travel Graphs - Video 171  
 Speed, Distance, Time - Video 299  
 Density - Video 384  
 Pressure - Video 385  
 Geometric Proof - Video 366  
 Congruent Triangles - Video 67  
 Invariant Points - Video 392

Frequency Trees - Video 376  
 Two-way Tables - Video 319  
 Pie Charts - Videos 163, 164  
 Scatter Graphs - Videos 165, 166  
 Histograms - Video 157, 158, 159  
 Frequency Polygons - Videos 155, 156  
 Cumulative Frequency - Videos 153, 154  
 Box Plots - Video 149  
 Estimated Mean - Video 55  
 Tree Diagrams - Video 252  
 Conditional Probability - Video 247  
 Venn Diagrams - Video 380

Equation of a Circle - Video 12  
 Equation of a tangent - Video 372  
 Instantaneous rates of change - Video 390a  
 Average rates of change - Video 390b  
 Area under a curve - Video 389  
 Composite Functions - Video 370  
 Inverse Functions - Video 369  
 Quadratic Graphs - Video 264  
 Trigonometric Graphs - Videos 338, 339  
 Reciprocal Graphs - Video 346  
 Exponential Graphs - Video 345  
 Algebraic Proof - Video 365  
 Quadratic Formula - Video 267  
 Completing the Square - Video 10, 371  
 Transformations of Graphs - Video 323  
 Iteration - Video 373



# Science

[Trilogy \(Higher\)](#)

[Trilogy \(Foundation\)](#)

[Biology \(Higher\)](#)

[Biology \(Foundation\)](#)

[Chemistry \(Higher\)](#)

[Chemistry \(Foundation\)](#)

[Physics \(Higher\)](#)

[Physics \(Foundation\)](#)

*Please note that these topic lists are intended to be a supportive guide rather than a complete list of topics included in the mock exams. Your teacher will warn you that there may be a question on a paper that you have not yet studied. Don't worry, your teacher will take this into account in the grading. Numeracy, longer written responses and working scientifically skills will be assessed. Physics equation sheets will be provided in 2022 but you need to select and apply appropriate formulae.*

# Trilogy (Higher Tier)

Revision  
Topics



## Biology Paper 1:

- Cell Biology:
- Prokaryotic and eukaryotic cells
- Magnification
- Osmosis (investigation)
- Organisation:
- The digestive system and enzymes
- Effect of vigorous exercise on the body
- Stomata and water loss (investigation)
- Infection and Response
- Healthy life style
- Drug trials, placebo (investigation)
- Pathogens, disease, immunity and vaccination
- Bioenergetics:
- Aerobic and anaerobic respiration
- Photosynthesis & limiting factors

## Chemistry Paper 1:

- Atomic Structure and the Periodic Table:
- Formulae
- Atomic Structure and the development of the atomic model
- The periodic table
- Bonding, Structure and the properties of matter:
- Ionic and covalent bonding
- Diamond

- Chemical Changes:
- Reactivity Series
- Acids, Bases and Salts
- Quantitative Chemistry
- Moles & calculating mass of substances in equations
- Energy Changes:
- Exothermic and endothermic reactions (investigation)
- Electrolysis

## Physics Paper 1:

- Energy:
- Renewable and non-renewable energy
- Energy transfer, efficiency and power output
- Thermal conductivity
- Extension & Spring constant (*example of topic not yet studied by some groups – don't worry!*)
- Electricity:
- Resistance and length of wire (investigation)
- Charge & Power
- Three-pin plug, earth wire and mains electricity
- Particle Model of Matter:
- Particle theory and changes of state
- Specific heat capacity
- Specific latent heat
- Atomic Structure:

- Isotopes, Radioactive decay (alpha, beta, gamma) and half-life
- Contamination, irradiation and safety

## Biology Paper 2:

- Homeostasis and Response:
- Homeostasis
- Endocrine system
- Regulation of blood glucose concentration & diabetes
- Hormonal control of the menstrual cycle
- Reflex arc
- Reaction time (investigation)
- Inheritance:
- The structure of DNA
- Genome
- Inherited disorders, genetic cross and embryo screening
- Asexual and sexual reproduction
- Meiosis
- Ecology:
- Predator prey relationship
- Human Activities – Peat, Deforestation
- Intensive farming

## Chemistry Paper 2:

- Lab tests for carbon dioxide, hydrogen
- The Rate and Extent of Chemical Reactions

- Factors affecting the rate of reaction
- Effect of temperature on the rate of a reaction (investigation)
- Organic Chemistry
- Hydrocarbons, Crude oil and alkanes
- Combustion of alkanes
- Alkenes, including test for an alkene

## Physics Paper 2:

- Forces:
- Scalar and vector quantities
- Acceleration
- Distance / time graphs
- Work done
- Trolley acceleration (investigation)
- Waves:
- Electromagnetic spectrum
- Wave properties
- Wave equation

# Trilogy (Foundation Tier)

## Revision Topics



### Biology Paper 1:

- [Cell Biology:](#)
- Magnification
- Osmosis (investigation)
- [Organisation:](#)
- The digestive system and enzymes
- Respiratory system
- Effect of exercise on breathing (investigation)
- Aerobic and anaerobic respiration
- Stomata and water loss (investigation)
- [Infection and Response](#)
- Healthy life style
- Drug trials, placebo (investigation)
- Pathogens, disease and immunity

### Chemistry Paper 1:

- [Atomic Structure and the Periodic Table:](#)
- Formulae
- Atomic Structure and the development of the atomic model
- The periodic table
- Metals
- The halogens

### • [Bonding, Structure and the properties of matter:](#)

- Ionic and covalent bonding
- Diamond
- [Chemical Changes:](#)
- Reactivity Series
- Acids, Bases and Salts
- Thermal decomposition of metal carbonates (investigation)
- [Energy Changes:](#)
- Exothermic and endothermic reactions (investigation)
- Electrolysis

### Physics Paper 1:

- [Energy:](#)
- Renewable energy
- Energy transfer, efficiency and power output
- [Electricity:](#)
- Resistance and length of wire (investigation)
- Charge & Power
- Three-pin plug, earth wire and mains electricity
- [Particle Model of Matter:](#)
- Particle theory and changes of state
- Specific heat capacity

- Specific latent heat
- [Atomic Structure:](#)
- Isotopes, Radioactive decay (alpha, beta, gamma) and half-life
- Contamination, irradiation and safety

### Biology Paper 2:

- [Homeostasis and Response:](#)
- Homeostasis
- Endocrine system
- Regulation of blood glucose concentration & diabetes
- Reproductive hormones and contraception
- Reflex arc
- Reaction time (investigation)
- [Inheritance:](#)
- [Inheritance, genetic cross](#)
- [Ecology:](#)
- Food chains
- Ecological Cycles / microorganisms eg. Carbon and nitrogen cycles
- Biodiversity (Ecological investigation)

### Chemistry Paper 2:

- Lab tests for carbon dioxide, hydrogen

- [The Rate and Extent of Chemical Reactions](#)
- Factors affecting the rate of reaction
- Effect of temperature on the rate of a reaction (investigation)
- [Organic Chemistry](#)
- Hydrocarbons, Crude oil and alkanes
- Combustion of alkanes
- Alkenes, including test for an alkene

### Physics Paper 2:

- [Forces:](#)
- Scalar and vector quantities
- Acceleration
- Distance / time graphs
- Work done
- Trolley acceleration (investigation)
- [Waves:](#)
- Electromagnetic spectrum
- Wave properties
- Wave equation

# Biology (Higher Tier)

Revision  
Topics



- **Paper 1 (1 hour 45 mins)**

- **Cell Biology**

- Prokaryotic and eukaryotic cells
- Mitosis and the cell cycle
- Transport eg. diffusion, osmosis & active transport

- **Organisation**

- Enzymes
- Adaptations of plants

- **Infection and Response**

- Mineral deficiencies in plants
- Drugs / alcohol & clinical drug trials
- Monoclonal antibodies

- **Bioenergetics**

- Testing a leaf for glucose and starch
- Photosynthesis

- **Paper 2 (1 hour 45 mins)**

- **Homeostasis and Response**

- Nervous system
- Thermoregulation
- Control of blood glucose & diabetes
- Structure of the brain & fMRI scans
- Hormones and the menstrual cycle
- Plant hormones (investigation)

- **Inheritance (Variation & Evolution not tested)**

- Structure of DNA
- Mitosis and meiosis
- Genetic inheritance / punnett square
- **Ecology (Don't panic not studied since KS3)**
- Food chains & pyramids of biomass
- Microorganisms and decay (investigation)
- Human population growth (data analysis)
- Fishing quotas

# Biology (Foundation Tier)

Revision  
Topics



## Paper 1 (1 hour 45 mins)

### • Cell Biology

- Cell structure & microscopy
- Mitosis and the cell cycle
- Stem cells
- Transport eg. diffusion, osmosis and active transport

### • Organisation

- Testing for glucose
- Breathing and heart rate (data analysis) & response to exercise
- Blood components and the blood vessels
- Adaptations of plants
- Minerals needed by plants

### • Infection and Response

- Microorganisms, infection,

immunity and antibiotics

- Vaccinations
- Drug testing
- Bioenergetics
- Photosynthesis (investigation)

## Paper 2 (1 hour 45 mins)

### • Homeostasis and Response

- Homeostasis – water loss
- Thermoregulation
- The structure of the brain and nervous system
- The eye
- Hormones and the menstrual cycle
- Regulation of blood sugar and diabetes

- Kidney failure – dialysis or transplant
- Plant growth (investigation), hormones and tropisms
- Inheritance (Variation & Evolution not tested)
- Meiosis
- Genetic inheritance / punnett square
- The structure and functions of DNA
- Ecology (Light assessment only – don't panic still to be studied)
- Food chains and biomass
- Microorganisms & decay (investigation / data analysis)
- Human population growth



# Chemistry (Higher Tier)

Revision  
Topics



## Paper 1

- Structure and Bonding - properties and bonding of small and giant covalent, ionic and metallic
- Reactivity – displacement reactions, identification of order of reactivity
- Quantitative chemistry – conservation of mass, atom economy,
- Electrolysis – observations and products
- Scientific theories - development of the atomic model, development of the periodic table,
- Displacement reactions – limiting reactants, oxidation and reduction
- Energy in reactions – reaction profiles, fuel cells and rechargeable cells, gas volume calculations
- Groups in the periodic table – trend in melting and boiling points, reactions of metals and non metals, molar calculations
- Acid, base reactions- methodology of temp change in a reaction, concentration calculations, titration methodology

## Paper 2

- Organic compounds – hydrocarbons, combustion reactions, gas volume calculations, comparison of alkane and alkene reactivity
- Chromatography - R<sub>f</sub> values, phases, purity and mixtures
- Polymer chemistry – fractional distillation, cracking, polymer diagrams,
- Pollution - effects of combustion reactions,
- Reactions of acids – rates, conservation of mass, esterification of carboxylic acids
- Rates – mean rates, description of data, SA:Volume calc,
- Natural chemistry – testing for gases, amino acid polymerisation, early atmosphere, natural polymers,
- Reversible reactions – observations and equilibrium (pressure, temp),
- Rates – methodology of colour change reaction



# Chemistry (Foundation Tier)

Revision  
Topics



## Paper 1

- Elements in the periodic table – changes of state, reaction of metals and halogens
- Atomic model – sizes, subatomic particles and history of the atomic model
- Chemical reactions – energy profiles, fuel and chemical cells
- Electrolysis – observations and products
- Metal extraction – properties and alloys
- Acid reactions – bonding in covalent molecules, formulae, representations of molecules, energy changes in a reaction
- Salts and acid reactions – naming salts, pH changes, neutralisation and equipment choices
- Structure and bonding – properties and bonding of small and giant covalent, ionic and metallic
- Reactivity – displacement reactions, identification of order of reactivity

- Quantitative chemistry – conservation of mass, atom economy,

## Paper 2

- Ammonia and Fertiliser – data analysis and energy profiles
- Pollution – effects of combustion reactions,
- Rates – calculation of rates, effect of surface area and describing rates
- Chromatography – R<sub>f</sub> values, phases, purity and mixtures
- Alloys – uses and composition
- Polymers – functional groups, drawing structures, natural polymers
- Organic chem – alcohol production, esterification, cracking, properties of HCs, combustion, comparison of structures and properties of alkanes and alkenes

# Physics (Foundation Tier)

Revision  
Topics



## Paper 1 (1 hour 45 mins)

- National grid
- Renewable energy sources
- $E_p = mgh$
- $E_k = \frac{1}{2}mv^2$
- Mains electricity
- Alternating and direct current
- Power equations
- $E = QV$
- Series and parallel circuits
- Background radiation
- Alpha, beta and gamma decays
- Half-life
- Gas pressure
- Specific heat capacity
- Circuit symbols
- Latent heat
- IV characteristics
- $V = IR$
- $Q = IT$
- Efficiency

- Density = mass/volume
- Nuclear fission

## Paper 2 (1 hour 45 mins)

- $W = mg$
- Contact and non-contact forces
- Velocity-time graphs
- $a = \frac{v-u}{t} = \frac{\Delta v}{t}$
- $E_k = \frac{1}{2}mv^2$
- Wave definitions and equations
- $S = vt$
- EM spectrum
- Reflection and refraction
- Seeing colour and colour filters
- Vectors
- Newton's laws of motion
- Distance-time graphs
- $W = Fs$
- $F = ma$
- Hooke's law experiment
- $F = kx$

# Physics (Higher Tier)

Revision  
Topics



## Paper 1 (1 hour 45 mins)

- IV characteristics
- $V=IR$
- $Q=IT$
- Efficiency
- Density=mass/volume
- Power equations
- Renewable energy
- Thermistors and LDRs
- Background radiation
- Nuclear fission
- $E_p=mgh$
- Energy transfers
- Specific heat capacity
- Series and parallel circuits
- Circuit symbols
- UK mains electricity
- Gas pressure

## Paper 2 (1 hour 45 mins)

- $F=ma$
- Velocity-time graphs
- $a = \frac{v-u}{t} = \frac{\Delta v}{t}$
- $E_k = \frac{1}{2} mv^2$
- Refraction
- Lenses
- Stopping distance
- $V^2 = U^2 + 2as$
- $V=f\lambda$
- Wave definitions
- Distance-time graphs
- $S=vt$
- $W=Fs$
- $P=W/t$
- Hooke's law experiment
- $F=ke$
- EM spectrum



# French

- Role-play phrases and ways to ask questions
- Picture Tasks – PALMOW Phrases
- Past and Future Tense questions for Picture Tasks
- Past, Present and Future tenses to revise – [www.languagesonline.org.uk](http://www.languagesonline.org.uk)
- Extending sentences – avant de / au lieu de / apres avoir...
- Chosen Topic for the Speaking tests – Environment, Big Events, Ethical Shopping or Voluntary work
- Follow-up questions for the Chosen Topic
- 2nd Topic – speaking questions for Family and Holidays
- Memrise – focus on Modules 1, 4, 5, 6 and 7

# IT

Revision  
Topics



DEADLINE FOR PROJECT : 4TH MARCH 2022

PROGRESS CYBER PROJECT : [https://montsaye.sharepoint.com/sites/MA-Subjects/It/\\_layouts/15/Doc.aspx?sourcedoc={254c7cbe-4a09-4cf6-ad92-4965bf9fcc7c}&action=edit&wd=target%28Cambridge%20Nationals%20in%20Information%20Technologies.one%7C13882b64-0ffb-427c-ba28-bdefa8e9e953%2FPROGRESS%20CYBER%7C6101f058-66c2-489c-a95b-7366c5e02e00%2F%29](https://montsaye.sharepoint.com/sites/MA-Subjects/It/_layouts/15/Doc.aspx?sourcedoc={254c7cbe-4a09-4cf6-ad92-4965bf9fcc7c}&action=edit&wd=target%28Cambridge%20Nationals%20in%20Information%20Technologies.one%7C13882b64-0ffb-427c-ba28-bdefa8e9e953%2FPROGRESS%20CYBER%7C6101f058-66c2-489c-a95b-7366c5e02e00%2F%29)

BARNEY'S BOOKS PROJECT : [https://montsaye.sharepoint.com/sites/MA-Subjects/It/\\_layouts/15/Doc.aspx?sourcedoc={254c7cbe-4a09-4cf6-ad92-4965bf9fcc7c}&action=edit&wd=target%28Cambridge%20Technical%20in%20Information%20Technology.one%7Cddcea0e5-ea84-4fd5-bd4a-1f2e4c3b7f9a%2FCAM%20TECH%20UNIT%2021%20%20WEB%20DESIGN%20AND%20PROTOTYPING%7Ca72a99e4-8f42-4e29-8330-c9e5ac003d1b%2F%29](https://montsaye.sharepoint.com/sites/MA-Subjects/It/_layouts/15/Doc.aspx?sourcedoc={254c7cbe-4a09-4cf6-ad92-4965bf9fcc7c}&action=edit&wd=target%28Cambridge%20Technical%20in%20Information%20Technology.one%7Cddcea0e5-ea84-4fd5-bd4a-1f2e4c3b7f9a%2FCAM%20TECH%20UNIT%2021%20%20WEB%20DESIGN%20AND%20PROTOTYPING%7Ca72a99e4-8f42-4e29-8330-c9e5ac003d1b%2F%29)

# Computer Science

Revision  
Topics



## Topics for paper 1

### Data representation

Units

Binary numbers

Hexadecimal numbers

Characters

Storing images

Storing sound

Compression

### Networks

LAN's and WAN's

Networks hardware

Client-server and peer-to-peer networks

Network topologies

Network protocols

Internet

## Topics for paper 2 (this is a full paper)

2.1 Algorithms

2.2 Programming fundamentals

2.3 Producing robust programs

2.4 Boolean logic

2.5 Programming languages and Integrated Development Environments

# Music

Revision  
Topics



Please contact Mrs Gardner for more information [ngardner@montsaye.northants.sch.uk](mailto:ngardner@montsaye.northants.sch.uk)



# Health and Social Care

Revision  
Topics



<b>LO1 Understand how to support individuals to maintain their rights</b>	I can explain rights- choice, confidentiality, protection from harm and abuse, equal and fair treatment, consultation Explain why it is important to maintain individual's rights?
	Explain how care workers can support individuals, to maintain their rights- by using effective communication, by providing up to date information, by challenging discriminatory behaviour, by providing information about complaints procedures, by providing advocacy
<b>LO2 understand the importance of values of care and how they are applied</b>	I can apply the values of care How the values are applied in HSC settings- promoting equality and diversity, maintaining confidentiality, promoting individual's rights and beliefs
	Explain how the early years values are applied in care and education settings- ensuring the welfare of the child is paramount, keeping children safe, working in partnership with parents/guardians and families, encouraging children's learning and development, valuing diversity, ensuring equality of opportunity, practising anti-discrimination, ensuring confidentiality, working with other professionals
	Explained the importance of applying the values of care
	Described the effects on people who use services if the values of care are not applied
<b>LO3- Understand how legislation impacts on care settings</b>	State who legislation protects
	I can give an overview of key aspects of legislation- Equality act, Children's act, Data protection act, Health and Safety at work act, Mental health act,
	I can describe the impact of legislation in HSC and early years services- on service users, care practitioners, service providers, a system of redress
<b>LO4- Understand how personal</b>	I can describe key personal hygiene measures and why they are important
<b>hygiene, safety and security measures protect individuals</b>	Explain safety procedures and safety measures- emergency procedures (fire), equipment, moving and handling techniques
	I can describe security measures in hospitals, nurseries, schools and care homes and why these are important
	I can explain how are individuals protected- methods for reducing the spread of infection, methods for reducing risks and dangers, procedures to prevent accidents and promote good practise.

# EP beliefs and practices

1hr 45 mins: Each of the 4 sections is worth 27 marks and has 5 questions:  
a) 1 mark b) 2 marks c) 4 marks d) 5 marks e) 12 marks plus 3 SPaG

Revision  
Topics




Christian beliefs	Christian Practices	Buddhists beliefs	Buddhist Practices
<p><b>The nature of God:</b> God as omnipotent, loving etc The oneness of God and the Trinity Beliefs about creation including the role of Word and Spirit Different Christian beliefs about the afterlife</p> <ul style="list-style-type: none"> <li>•the incarnation and Jesus as the Son of God</li> </ul> <p><b>Jesus and salvation</b></p> <ul style="list-style-type: none"> <li>•the crucifixion, resurrection and ascension</li> <li>•sin, including original sin</li> <li>•the means of salvation, including law, grace and Spirit</li> <li>•the role of Christ in salvation including the idea of atonement.</li> </ul>	<p><b>The nature of God</b> God as omnipotent, loving and just, problem of evil and suffering, oneness of God, the Trinity, Creation, The afterlife: resurrection and life after death; judgement, heaven/hell.</p> <p><b>Jesus Christ and salvation</b> Incarnation and Jesus = Son of God, crucifixion, resurrection, ascension, sin, inc original sin, Salvation, inc law, grace and Spirit, atonement.</p> <p><b>Worship, festivals &amp; community</b> liturgical, non-liturgical and informal, use of the Bible, private worship, prayer, sacraments: baptism, Holy Communion/ Eucharist, pilgrimage, Christmas and Easter. Role of the church in the local/worldwide community: reconciliation and charity.</p>	<p>The concept of Dhamma The concept of dependent arising The Three Marks of Existence:     anicca (impermanence)     anatta (no fixed self)     dukkha (unsatisfactoriness of life, suffering).</p> <p>The human personality, in Theravada and Mahayana traditions:     Theravada: the 5 Aggregates (skandhas) /     Mahayana: sunyata, attaining Buddhahood and Buddha-nature.</p> <p>Human destiny: different ideals in Theravada and Mahayana traditions: Arhat (a 'perfected person') and Bodhisattva ideals Buddhahood and the Pure Land.</p>	<p><b>Worship and festivals</b> Buddhist places of worship, puja, in the home and in the temple, Meditation: Samatha / Vipassana / the visualisation of Buddhas and Bodhisattvas, Ceremonies and rituals associated with death and mourning in Theravada communities and in Japan and Tibet. Festivals and retreats, Wesak &amp; Parinirvana Day.</p> <p><b>Buddhist ethics</b></p> <ul style="list-style-type: none"> <li>- kamma (karma) and rebirth</li> <li>- compassion (karuna)</li> <li>- loving kindness (metta).</li> <li>- The five moral precepts:</li> <li>- The six perfections</li> </ul>

# EP themes

1hr 45 mins: Each of the 4 topics is worth 27 marks and has 5 questions: a) 1 mark b) 2 marks c) 4 marks d) 5 marks e) 12 marks plus 3 SPaG

Revision  
Topics



Human relationships	Religion and Life	Crime and Punishment	Human Rights
<p><b>Key topics (know 2 views)</b></p> <ul style="list-style-type: none"> <li>Contraception.</li> <li>Sexual relationships before marriage.</li> <li>Homosexual relationships.</li> </ul> <p><b>Sex, marriage and divorce</b>, including: sexuality, Sex before marriage, contraception, purpose of marriage, divorce, remarriage.</p> <p><b>Families and gender equality</b> including: nature of families, purpose of families, same sex parents, polygamy, gender equality</p> 	<p><b>Key topics (know 2 views)</b></p> <ul style="list-style-type: none"> <li>Abortion.</li> <li>Euthanasia.</li> <li>Animal experimentation.</li> </ul> <p><b>The origins and value of the universe</b> eg: Big Bang theory, and religious views. The value of the world, stewardship, dominion, responsibility, awe and wonder. The use and abuse of the environment. The use and abuse of animals.</p> <p><b>The origins and value of human life</b> including: religious teachings about the origins of human life, scientific, and religious views.</p> <p><b>The sanctity of life</b> and the quality of life. Abortion, including situations when the mother's life is at risk. Ethical arguments related to abortion, including those based on the sanctity of life and quality of life. Same for Euthanasia.</p> <p><b>Beliefs about death and an afterlife</b>, and impact on beliefs about value of human life.</p>	<p><b>Key topics (know 2 views)</b></p> <ul style="list-style-type: none"> <li>Corporal punishment.</li> <li>Death penalty.</li> <li>Forgiveness.</li> </ul> <p>Good and evil intentions and actions Reasons for crime Aims of punishment Treatment of criminals Forgiveness The death penalty Ethical arguments about the death penalty including sanctity of life</p> <div data-bbox="1426 1092 1923 1335"> <p><a href="#">Link to full spec AQA   Religious Studies A   Subject content   Component 2: Thematic studies</a></p> </div>	<p><b>Key topics (know 2 views)</b></p> <ul style="list-style-type: none"> <li>Status of women in religion.</li> <li>The uses of wealth.</li> <li>Freedom of rel expression.</li> </ul> <p><b>Prejudice and discrimination</b> in religion and belief, including to women and homosexuals. Issues of equality, freedom of religion and belief</p> <p><b>Human rights. Social justice.</b> Racial prejudice &amp; discrimination. Ethical arguments related to racial discrimination (including positive discrimination),</p> <p><b>Wealth and poverty</b> including: the right attitude to wealth &amp; uses of wealth. The responsibilities of wealth, Exploitation of the poor including fair pay &amp; excessive interest on loans, people-trafficking. The responsibilities of those living in poverty to help themselves Charity, inc giving money to poor.</p>



# Food

## Topics to revise:

- Food labelling
- Fruit and Vegetables
- Fats and Oils
- Bread
- Food Safety
- Dairy
- Food groups
- Water
- Diet Related Diseases

# Business GCSE – revision resources

Revision  
Topics



## Topics on the Exam:

1. Business in the real world
2. Influences
3. Operations
4. Human Resources
5. Marketing
6. Finance

## Checklist for all

**topics** [https://montsaye.sharepoint.com/:w:/r/sites/MA-Subjects/Bs/\\_layouts/15/Doc.aspx?sourcedoc=%7B777DD73B-0E5B-4CA7-A7C4-B735986EAA37%7D&file=AQA-GCSE-Business-studies-Topic-checklist-Grade-9-1.docx&action=default&mobileredirect=true](https://montsaye.sharepoint.com/:w:/r/sites/MA-Subjects/Bs/_layouts/15/Doc.aspx?sourcedoc=%7B777DD73B-0E5B-4CA7-A7C4-B735986EAA37%7D&file=AQA-GCSE-Business-studies-Topic-checklist-Grade-9-1.docx&action=default&mobileredirect=true)

## Helpful Resources for information:

- <https://www.tutor2u.net/business/topics>
- <https://www.youtube.com/watch?v=xQc9RdRtCsU>
- <https://www.bbc.co.uk/bitesize/examspecs/zvwb382>



# Business NCFE

**DEADLINE FOR S5S Ltd PROJECT : 28th March 2022**

Business Planning

Sources of Finance

Market Analysis and Market Research

People and Operations

Cashflow Forecast

Profit and Loss

Balance Sheet

Cash Flow Management

Financial Analysis

Break-Even Analysis

# Design Technology

Revision  
Topics



Please contact Mrs Edney for more information [nedney@montsaye.northants.sch.uk](mailto:nedney@montsaye.northants.sch.uk)





# Art and Photography

- The photography mock exam will be a task based on your text and image project – you will be producing individual final pieces.
- The art mock exam will either be based on Conflict and Tension or Surrealism – please speak to Mrs Corr for more information m[corr@montsaye.northants.sch.uk](mailto:corr@montsaye.northants.sch.uk)



## **Paper 1**

Skeletal System

Muscular System

Respiratory System

Cardiovascular System

Levers

Planes and Axis

Aerobic and anaerobic exercise.

Short and long term effects of exercise

Components of fitness and fitness testing

Principles of training FITT, and SPORT)

Types of training.

Warm ups (5 part) and cool downs (2 part)

Reducing the impact of risks and hazards in sporting areas.

## **Paper 2**

Factors affecting participation, barriers and solutions.

Commercialisation of sport and the golden triangle  
{[positive and negative effects]

Sportsmanship, gamesmanship and forms of deviance (performance enhancing drugs and violence)

Characteristics of skillful movement (PFACE)

Difficulty and difficulty continuums

SMART targets

Sports psychology (selective attention, imagery, positive self-talk) etc.

Guidance and feedback

Benefits of leading an active and healthy lifestyle

Diet and nutrition.

<https://app.senecalearning.com/>

Please email Mr Wing if you need another copy of the knowledge organisers.



# History

Paper 3 Russia and the Soviet Union 1917-41 (EdExcel)

Paper 2 Cold War and Superpower relations, 1941-91 (EdExcel)

Please use the resources which have been sent to you such as Knowledge Organisers and Revision Guides.

Use BBC Bitesize to support any gaps of learning

YouTube videos are very useful for an accurate overview of topics/events/people

Also BOTH papers are on Seneca

# Geography

Revision  
Topics



## Eduqas GCSE Geography B February Mock Exam

### Topics to revise for Paper 1:

- Development and globalisation
- Rivers
- Water supply and desertification
- Ecosystems

### Topics to revise for Paper 3 (Fieldwork):

- Qualitative fieldwork methods
- Surveys and questionnaires
- Our Rothwell fieldwork study

There is a folder in Teams where your teachers will be uploading revision resources.

### Intervention:

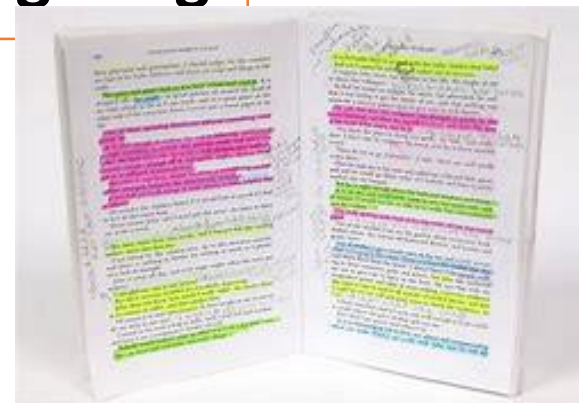
- 24<sup>th</sup> Jan (Water supply)
- 7<sup>th</sup> February (Development and globalisation)

All sessions are in H1 from 3-4pm

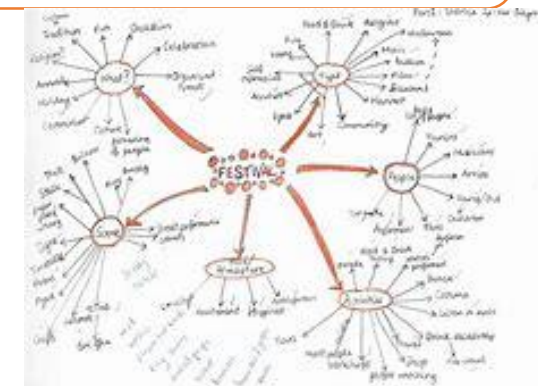
## Revision Cards



## Highlighting



## Spider Maps

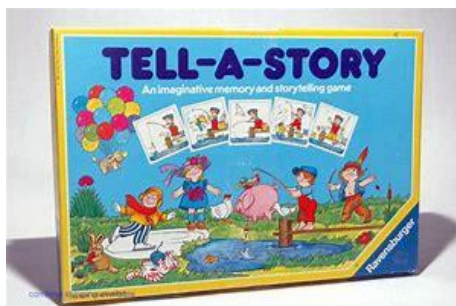


## Quizzing

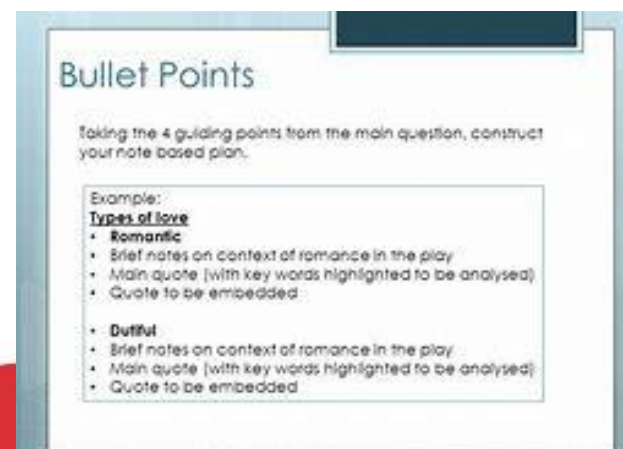


# How to Revise

## Creative Memory



## Bullet Points



## Flashcards

