

Key Stage 3/4 Revision Booklet

Year 9

ST JOSEPH'S CATHOLIC SCHOOL
CHURCH ROAD
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Dear Year 9 pupils,

In a few weeks, you will all be facing a series of formal examinations. These exams will test the progress you have made in your first year of your GCSEs.

Once your teachers have marked the exams, they will look at your results and come to a judgement about how much you have learned. Based on your achievements in these exams and your assessments throughout the year, subject teachers will be reviewing sets for their subject areas.

Once we have this overall picture, we will look at whether we feel it is appropriate that you 'move up' or 'move down' sets. Decisions about this will be made within weeks of you sitting the exams. If you have done particularly well, a letter of congratulations may be on its way... on the other hand, if you have not performed according to your ability, your parents may be asked to come up to school for an interview to discuss your progress.

As you can see, these exams are IMPORTANT for the school, for your parents, and (most importantly) for YOU.

So, what do you do now? Well, **REVISE**, of course! To help you do your very best in the exams, your teachers have drawn up revision lists – you will find them all in this booklet, along with revision tips and a revision planner to help you organise and use your time wisely. Remember – there should be no need to panic! If you have always worked hard in class and continue to do so, revision will be a pleasure rather than a chore, as it will simply be a matter of checking and confirming what you already know!

Your exams will happen during your lesson time and your teachers will inform you which lesson will be used for your exam. All exams will be taking place during the week beginning the 19th June.

All the teachers at St Joseph's wish you success in the forthcoming exams!

Mr R Rooney



How to Perform Well in Exams

This guide is intended to help you with your exam preparation, so that you can make the most of what you have learned. It does NOT offer you a way around the problem of lack of effort in the past, but it CAN help you make the best use of the time you have left!

The most important thing is to **LISTEN** and **PARTICIPATE** in class. Pay attention and ask for help if/when you need it. The harder you work in class **NOW**, the easier your revision and preparation will be later.

Revising isn't something that should be challenging or difficult at all. What revising is, unfortunately, is time consuming. It takes a while. That's why you might like to start early (nothing to do on a Sunday?)...

Plan Your Revision

Work out how long you've got to revise before the exams, and plan how best to use that time. Prepare a revision timetable. Pace yourself, revisiting each subject area regularly in the weeks before the exams. Don't fool yourself that 'cramming' the night before an exam will do the trick!



Preparation

- Be organised. Keep your folders, books etc tidy so that you don't have to waste time looking through clutter.
- Read the subject pages in this booklet carefully to find out what will be examined in each subject.
- Don't try to revise where there are distractions, like the TV or your games console.
- Eat well, sleep well and take physical exercise cooping yourself up in one room day after day is unhealthy. You won't perform well if you've locked yourself up with books for weeks!
- Your brain can only concentrate for certain periods of time, so take regular breaks and treat yourself to a reward go out for a walk, kick a ball about, listen to music.
- Don't let breaks take over though stick to strict time limits, and don't slump for long periods in front of the TV.
- Make sure you know what equipment you will need for each exam.
- Make sure you know which exams are on which days. If you are ill on the day of an exam, make sure your parent/guardian telephones school immediately to explain.
- Make sure you are comfortable before you go into the exam room (e.g. make sure you have been to the toilet)



Strategies for Revising

There is no one correct way to revise, and each person will have their own approach. Below are a few strategies that you could use to help you revise:



Looking at the subject pages in this booklet identify what areas you need to concentrate on. When you have identified these areas go through your work for the year and create some revision resources (mindmaps, flashcards, lists) with the relevant information.

Once you have these revision resources, you can use them to revise by:

- Testing yourself hide the resource away, can you remember all the information on the resource?
- Get others to test you
 - Give the resource to a family member or friend and ask them to ask you questions relating to the information.
 - Give the resource to a family member or friend and see if you can tell them the information on the resource.
- Look at some of the relevant questions you have done throughout the year in your exercise book or even past GCSE papers on the exam board websites -do the questions using your revision resources as help.

What to do now?

- Look at the Revision Guide booklet on the school website and on Satchel One lots of tips and strategies and links through to useful websites for each subject
- Speak to your teachers to find out:
 - What exam board the course is with
 - Which specification you are doing
 - Which modules/topics are likely to come up in your Yr10 mocks (this information will also be in the Revision Guide booklet).
- Visit the relevant exam board websites and search for:
 - Specifications (so you know what you are expected to know)
 - Past exam papers or Sample exam papers
- Plan your revision (timings and strategies/techniques)
- Revise!

On the next page is a suggestion on how you could organise your revision time!



End of Year Exam Revision Strategy

Gather →	Filter →	Learn →	Test
Session 1 After the first time you have revised a topic, you should not need to do any further 'gathering'	Session 2 After the 2nd or 3rd time you have revised a topic, you should not need to do any further 'filtering'	Session 3 Give yourself a variety of activities and change where you work from time to time. Don't forget to revise with friends sometimes too.	Session 4 onwards As you approach your exam date you should be spending more and more time on the testing stage and making the tests more challenging.
20% of your time	30% of your time	30% of your time	20% of your time
You will need: Exercise books Revision guides/checklists (see the section on the school website) Questions you have tackled during lessons Old assessments you have completed Before you start, rank the topics you need to cover from most to least confidence. Begin with the topics lowest on the list. Read through and become familiar with the information that you need to know in order to be successful. Identify any bits of knowledge you have missing and go to see your teacher to help fill this gap.	Reduce the amount of information you have down to essential parts of the knowledge. You can do this by: Creating mind maps or flash cards. Creating Crib sheets – these are like pages from a revision guide with all the essential information. Writing 'perfect' exam answers from your notes. Making your own knowledge organiser or summary sheet of the topics.	Use these strategies to learn the information so that you can recall it easily. Look/cover/write/check Read and repeat information for 2-3 minutes, do something else for 10 minutes and then try to recreate from memory. Complete exam/assessment questions and then go back and self-mark. Fill in the gaps in a different coloured pen. Revise the bits you missed again.	Low stakes testing Easy, quick quizzes which test small pieces of knowledge. This works well for simple facts, dates, key words or important formulae. You must complete some low stakes testing within 24 hours of revising a topic to anchor learning in your memory. High stakes testing These are longer exam style questions which apply knowledge as you would have to in the exam. These should be completed within 48–72 hours of revising a topic and then repeated regularly to keep your revision 'fresh'.
Gathering is not revision ; don't spend ages on this stage.	Copying out information value filtering or learning.	vord for word is not	Silent. No support. Timed.



In the Exam/Classroom

Follow the instructions to the letter. Read any instructions given on the paper and listen carefully to the teacher who gives out the exam. Read the questions very carefully, and if there are examples given, study them carefully too. The clue as to how to answer the question will be in the example. Make sure you answer the question given – there isn't much point telling the examiner what you know if it has nothing to do with the question!

Plan your time well in the exam – if you only manage to attempt half of the questions, the best mark you can possibly get is only 50%! Make sure your answers are well-presented. Write clearly and neatly and label diagrams or pictures if this helps your answer.



DON'T PANIC!

Remember, exams are NOT designed to catch you out – rather, to allow you to show what you have learned. Being calm and thoughtful in the exam will help you get the most out of your preparation.

Message to all parents

Please make sure that your son/daughter is properly equipped for the forthcoming exams.















As a minimum, they should have several black pens, pencils, a rubber, ruler and pencil-sharpener, mathematical equipment (protractor, compass, and a working calculator) all stored in a clear pencil case.



WHAT YOU NEED TO REVISE:

Physical Training

Students should develop knowledge and understanding of the principles of training and different training methods in order to plan, carry out, monitor and evaluate personal exercise and training programmes.

The relationship between health and fitness and the role that exercise plays in both:

Health and fitness	Definitions of health and fitness.
The relationship between health and fitness	Decreased fitness because of ill health, i.e. poor health can result in an inability to train, lowers fitness.
	Increased fitness despite ill health, i.e. unhealthy but able to train, in

The components of fitness, benefits for sport and how fitness is measured and improved:

The components of fitness	Definitions of the following components of fitness:	
	 flexibility muscular endurance power/explosive strength (anaerobic power) reaction time strength (maximal, static, dynamic and explosive) speed. 	
Linking sports and physical activity to the required components of fitness	Understand and justify why the components of fitness (as stated above) may or may not be needed when performing certain physical activities and sports.	
Reasons for and limitations of fitness testing	 to identify strengths and/or weaknesses in a performance/the success of a training programme to monitor improvement to show a starting level of fitness to inform training requirements to compare against norms of the group/national averages to motivate/set goals 	



	to provide variety in a training programme.
	Limitations of fitness testing:
	 tests are often not sport specific/too general they do not replicate movements of activity they do not replicate competitive conditions required in sports many do not use direct measuring/sub-maximal - therefore inaccurate/some need motivation/some have questionable reliability they must be carried out with the correct procedures to increase validity.
Measuring the components of fitness	Knowledge of the main procedures of the tests used to measure the following components of fitness:
	 agility – Illinois Agility Test balance – Stork Stand Test cardiovascular endurance (aerobic power) – Multistage Fitness Test coordination – Wall Toss Test flexibility – Sit and Reach Test muscular endurance – Sit-Up Bleep Test power/explosive strength (anaerobic power) – Vertical Jump Test reaction time – Ruler Drop Test maximal strength – One Rep Max Test speed – 30 Metre Sprint Test strength – Handgrip Dynamometer Test. Testing procedures refers to 'how each test is carried out' and includes reference to how the test is organised (when applicable) in relation to the following: the facilities and the equipment needed to set it up the procedures that have to be followed – the tasks and the rules the measurements that are used to score the performance the way conclusions are drawn from the scores/results. Evaluate whether or not these tests are relevant to performers in different sporting activities.
Demonstration of how data is collected for fitness testing	Understanding of how test scores are measured/recorded (e.g. in seconds, levels, centimetres, numbers). Definitions of the terms qualitative and quantitative, in relation to the collection of fitness testing data. Understanding that the quantitative data collected during fitness testing can be compared to national averages.

The principles of training and their application to personal exercise/training programmes:

The principles of training and overload	Key principles of training.
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	SPORT to include:
	• specificity
	progressive overload roversibility
	reversibilitytedium.
	Key principles of overload.
	FITT to include:
	frequency
	• intensity
	• time
	• type.
	Students should be taught the terms and what they mean.
Application of the principles of training	How the principles of training can be applied to bring about improvements in fitness.
	Application of the principles to sporting examples.
Types of training	Understand the distinctions between different types of training.
	Circuit training – consider space available, equipment available, number of circuit stations, work:rest ratio, the content/demand of the circuit can be altered in order to improve different components of fitness.
	Continuous training – sustained exercise at a constant rate (steady state) without rests, involving aerobic demand for a minimum of 20 minutes, e.g. running, swimming, rowing, cycling.
	Fartlek training – varying speed, terrain, and work:recovery ratios.
	Interval training/high intensity interval training – periods of exercising hard, interspersed with periods of rest or low intensity exercise.
	Static stretching – a way to stretch to increase flexibility, held (isometric) for up to 30 seconds, using correct technique, advisable to avoid over stretching.
	Weight training – choice of weight/exercise depends on fitness aim, e.g. strength/power training or muscular endurance, the importance of safe practice/lifting technique, the need for spotters.
	Plyometric training – use of plyometric exercises, e.g. bounding, depth jumping, to increase power. Basic physiological understanding (eccentric contraction followed by larger concentric contraction).



	 Any training (and practice) method must take account of the following: the training purpose(s), training thresholds/training targets/training zones (see calculating intensities below) rest/recovery.
Identification of the advantages and disadvantages (the effects on the body) of training types linked to specific aims	The advantages and disadvantages (the effects on the body) of each type of training method stated above. Students should be taught to select and evaluate appropriate training methods for various (aerobic and anaerobic) fitness needs and make links to sporting activity, e.g. continuous training is fully appropriate to marathon runners.

How to optimise training and prevent injury:

Calculating intensities to optimise training	Definition of training threshold.
effectiveness	Calculate the aerobic/anaerobic training zone:
	 calculate maximum heart rate (220 minus age) calculate aerobic training zone (60–80% of maximal heart rate)
	 calculate anaerobic training zone (80–90% of maximal heart rate).
	For circuit training, altering the time/rest/content of the circuit will determine the fitness aim.
	How to calculate one repetition maximum (one rep max) as part of weight training and how to make use of one rep max, with reference to:
	 strength/power training (high weight/low reps – above 70% of one rep max, approximately three sets of 4–8 reps) muscular endurance (low weight/high reps – below 70% of one rep max, approximately three sets of 12–15 reps).
Considerations to prevent injury	The training type/intensity should match the training purpose (e.g. aerobic or anaerobic).
	Where applicable, the following factors should be taken into account in order to prevent injury:
	a warmup should be completed
	over training should be avoided, e.g. appropriate weight
	appropriate clothing and footwear should be worn
	 taping/bracing should be used as necessary hydration should be maintained
	 nydration should be maintained stretches should not be overstretched or bounce
	- Stretches should not be overstretched or bounce
	 technique used should be correct, e.g. lifting technique



Specific training techniques – high altitude training as a form of aerobic training	 How high-altitude training is carried out: train at high altitude there is less oxygen in the air and oxygen carrying capacity is reduced the body compensates by making more red blood cells to carry oxygen. Students should be taught to evaluate the benefits and the limitations of altitude training for different sports performers. Students do not need to be taught how to calculate intensities for altitude training.
Seasonal aspects	 Names of the three training seasons: pre-season/preparation competition/peak/playing season post-season/transition. An understanding of what each of the seasons entails (aims): pre-season/preparation – general/aerobic fitness, specific fitness needs competition/peak/playing season – maintain fitness levels, work on specific skills post-season/transition – rest and light aerobic training to maintain a level of general fitness. An understanding of the benefits of each season to the performer. Students should be taught to apply and justify the characteristics of the seasonal aspects to different sporting activities.

Effective use of warm up and cool down:

Warming up and cooling down	The constituent parts of warming up and cooling down.	
	Warming up should include:	
	 gradual pulse-raising activity stretching skill based practices/familiarisation mental preparation increase amount of oxygen to the working muscles. 	
	Cooling down should include:	
	 maintaining elevated breathing and heart rate, eg walk, jog gradual reduction in intensity 	



stretching.

Students should be taught to understand and justify appropriate elements of a warmup and a cool down for different sporting activities.

The benefits of warming up:

- effect on body temperature
- · range of movement increased
- gradual increase of effort to full pace
- psychological preparation
- practice of movement skills through the whole range of movement
- injury prevention.

The benefits of cooling down:

- allowing the body to recover
- the removal of lactic acid/CO₂/waste products
- prevent (delayed onset) muscle soreness/DOMS.

Useful Revision Resources:

@PlanetPEgcsepe	https://www.youtube.com/PlanetPEgcsepe
AQA GCSE PE BBC Bitesize	https://www.bbc.co.uk/bitesize/examspecs/zp49cwx
AQA GCSE PE Website	https://www.aqa.org.uk/subjects/physical-education/gcse/physical-
	education-8582/subject-content
AQA GCSE PE Seneca	https://senecalearning.com/en-GB/
My Revision Notes: AQA GCSE (9-	https://www.amazon.co.uk/My-Revision-Notes-AQA-GCSE/dp/1510405232
1) PE	
GCSE Physical Education AQA	https://www.amazon.co.uk/Grade-Physical-Education-Revision-
Revision Question Cards	<u>Question/dp/1789084164/</u>
GCSE Physical Education AQA	https://www.amazon.co.uk/Physical-Education-Complete-Revision-
Complete Revision & Practice	Practice/dp/1789080088/
Revise AQA GCSE Physical	https://www.amazon.co.uk/Revise-Physical-Education-Revision-
Education Revision Workbook	Workbook/dp/1292204834/

GCSE PE Revision After School with CMO/AGO on Fridays 15:35pm - 16:30pm. Email cmo@sjcs.org.uk to confirm if you would like to attend.





Judaism Beliefs and Teachings

For your exam you should be able to explain:

- Be able to define the module key terms.
- What types of writing could we find in the Torah and Tanakh?
- What is the nature of God according to Jews
- The nature and significance of Shekhinah
- Covenants with Abraham and Moses
- Pikuach Nefesh
- Mitzvot
- · Orthodox and Reform Jewish life
- Jewish worship in the Synagogue and home
- Jewish rites of passage: Brit Milah, Bar/Bat Mitzvah, Kosher

What Skills You Need to Focus On

- Knowledge Do you know the keywords, concepts & stories?
- Describe Briefly identify the main parts of stories/events
- Explaining Can you explain what the stories mean? Use PEE chains.
- **Evaluation** Can you consider different points of view and come to a conclusion? Drawing on evidence from key text (e.g. scripture) and develop an explanation (PEE).





English Revision

You will answer 10 Multiple Choice Questions on your Shakespeare text and an extended GCSE style question based on Macbeth.

What should I revise? How should I revise?

Knowledge Organisers:

Your teacher will give you a knowledge organiser for your Shakespeare text in the next couple
of weeks. You should use this to revise quotations and key aspects of the play. Try the method
of look, cover, write and check and then get someone at home to test you on the facts.

Other Idea:

- Revise the overall plot (ask your teacher for help with this or look online)
- Revise characters (what do they represent? What are they like? How do they behave?)
- Revision of language analysis (What could you look for? What techniques do you know? Which
- words could you zoom in on?)
- Revision of context (How could you link this to the themes/ characters?)

How can I do this?

- Look back through your book. What have you done in lessons?
- Go onto a website like BBC Bitesize: https://www.bbc.co.uk/bitesize
- Use revision resources given to you by your teacher.
- Watch 'Mr Bruff' short videos on YouTube.



Spanish Revision

WHAT YOU NEED TO REVISE:

You are going to be assessed on phonics, vocabulary, and grammar in four skills: listening, reading, speaking, and writing.



Vocabulary:

- Technology and Voces Inocentes: Technology, TV, opinions
- **KS3 recap:** Name, age, birthday, hair and eyes, where I live, family members and age, pets and description, jobs, personality, clothes, free-time, weather, daily routine, next weekend, last weekend
- Social issues: environmental problems, solutions,

Grammar:

- Present Tense
- Past Tense
- Imperfect
- Adjective Agreements
- Reflexives
- Near Future Tense
- Modal Verbs
- Conditional
- Comparatives
- Superlatives

Phonics – Sound Symbol Correspondence:

- revisit penultimate syllable stress
- revisit ante-penultimate syllable stress
- revisit use of accent on singular vs plural nouns with final-syllable stress
- revisit spelling changes –qué and –gué in the preterite
- Spanish syllable structure (consonant-vowel pairs)
- Revisit final syllable stress
- Revisit penultimate syllable stress
- Revisit antepenultimate syllable stress
- Revisit combinations of strong and weak vowels to form dipthongs [ai], [ei], [ia], [ie], [ua], [ue], [io], [iu]
- Revisit strong vowel pairs [ae], [ea], [eo], [oe]
- Revisit use of accent on singular vs plural forms of words ending in '-ción'
- Revisit [gue], [ge], [gui], [gi]
- Spanish a, e, i, o , u
- Contrast SSC 'l 'and 'll'
- Learn hard 'ca/co/cu'
- Learn 'cu' + vowel 'cue/cua/cui'
- Learn soft 'ce/ci'

- Concentrate on pronunciation of 'z'
- Learn SSC 'que'
- Learn SSC 'qui'
- Learn hard 'ga/go/gu'
- Learn soft 'ge/gi'
- Learn 'j'
- Contrast SSC 'n' and 'ñ'
- Contrast SSC 'v' and 'b'
- · Contrast SSC 'r' and 'rr'
- Silent 'h'
- Spanish syllables (consonant-vowel pairs)
- Strong vowels [a], [e], [o]
- Weak vowels [i], [u]
- Final syllable stress
- Penultimate syllable stress
- Revisit final syllable stress with -er/-ir verbs in the preterite (-i)
- Ante-penultimate syllable stress
- Spelling changes with -ar verbs in 1st person past (preterite) (-qué, -gué)
- revisit strong vowels [a], [e], [o]
- •



How can I do this?

- Look back through your book. What have you done in lessons?
- BBC Bitesize
- Look back through your book. What have you done in lessons?
- Sentence Builders Your teacher will upload all the sentence builders you have used this year for your own revision on SMHW
- SMART FLASHCARDS your teacher will show you techniques to help you remember your speaking questions.

WHAT SKILLS YOU NEED TO FOCUS ON:

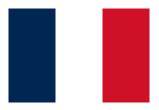
Check your flightpaths!



French Revision

WHAT YOU NEED TO REVISE:

You are going to be assessed on phonics, vocabulary, and grammar in four skills: listening, reading, speaking, and writing.



Vocabulary:

- Technology and Au revoir les enfants: Technology, TV, opinions
- **KS3 recap:** Name, age, birthday, hair and eyes, where I live, family members and age, pets and description, jobs, personality, clothes, free-time, weather, daily routine, next weekend, last weekend
- Social issues: environmental problems, solutions,

Grammar:

- Present Tense
- Past Tense
- Imperfect
- Adjective Agreements
- Reflexives
- Near Future Tense
- Modal Verbs
- Conditional
- Comparatives
- Superlatives

Phonics – Sound Symbol Correspondence:

- [y]
- · liaison/elision with h
- [em]/[am], [en]/[an], [aim]/[ain], [im]/[in] and [om]/[on] before a vowel

Revisiting the below:

- Stress syllabification
- ai, i, ain/in, em/am, e, a, en/an, h
- [-ill-/ille]
- -aill-/-ail, -eill-/-eil, -euill-/-euil (-ueill/-ueil, -œill-/-œil), -ouill-/-ouil
- oy

Revisiting the below:

- [è/ê], [ou], [a], [i], open eu/œu, oi
- all new SSCs learned in Y8 so far
- Silent final consonant (SFC)
- SSC 'a'
- SSC 'i' and 'eu'
- SSC 'e' and 'au (eau)'

- · Contrast SSC 'u' and 'ou'
- Silent final 'e' and 'é' (-er, -ez)
- SSC 'en' / 'an', 'on'
- SSC "-ain' / '-in', 'è' / 'ê'
- Liaison (t- and s-)
- SSC 'ai' and 'oi'
- SSC 'ch', 'ç' (and soft 'c')
- SSC 'qu', 'j' (and soft 'g')
- SSC '-tion', '-ien'
- stress syllabification
- liaison (-t, -s, -x, -on)
- . h
- em/am
- aim/ain
- om
- um/un
- en/an, im /in, on, e, a, ain/in



How can I do this?

- Look back through your book. What have you done in lessons?
- **BBC** Bitesize
- Look back through your book. What have you done in lessons?
- Sentence Builders Your teacher will upload all the sentence builders you have used this year for your own revision on SMHW
- SMART FLASHCARDS your teacher will show you techniques to help you remember your speaking questions.

WHAT SKILLS YOU NEED TO FOCUS ON:

Check your flightpaths!

Bronze

RECEPTIVE: I can recognise and remember the meaning of individual words (e.g. hello / thank you). I can understand some main points from short texts/brief dialogues using familiar language

PRODUCTIVE: I can write/say single words accurately e.g. Hello, thank you.

PHONICS: I know and can apply a few phonics rules in the target language

GRAMMAR: I understand some basic grammar rules in the target language (e.g. verb conjugation, adjectival agreement, gender of nouns)

Silver

RECEPTIVE: I can identify 2 different tenses when listening/reading. I can understand a lot of what I hear/read and work out the gist of longer passages as well as detail

PRODUCTIVE: I can write a paragraph using longer sentences in the present tense including conjunctions. I can write/talk about 2 time frames generally accurately and I continue to talk/write about others in at least one tense. I can talk/write about others, using accurate verb endings and adjectival agreement

PHONICS: I can apply a lot of phonic rules and read slightly longer unknown words accurately

GRAMMAR: I can respond more fluently to a wider range of questions with more detail and can construct my own. I apply some basic grammar rules in the target language (e.g. verb conjugation, adjectival agreement). I can ask/answer more complex questions.

Gold

RECEPTIVE: I can listen and understand spoken/written longer passages which contain at least 4 tenses and a range of structures and vocabulary. I can understand information and pick out the main details from most topics. I can apply skills that enable me to cope with unfamiliar language.

PRODUCTIVE: I can successfully use 4 different tenses orally and in writing with a range of verbs and a range of

GRAMMAR: I can apply conjugation rules in 4 time frames (past / present / future/conditional) with support and apply simple grammar rules accurately. I can understand and use modal verbs.

PHONICS: I can apply a lot of phonic rules and read an unknown text accurately.



Maths Revision

Topics that will be tested in the summer exam:

Year 9 HIGHER TOPICS				
Algebra	Geometry	Number	Data	Ratio/Proportion
Solve quadratic	Volume of 3D shapes	Fractions	Scatter graphs	Percentage change
Form an equation	Area of 2D shapes	Indices		Use of ratio
Algebraic fractions	Similar triangles	Multiplication and division with decimals		
Graphing Inequalities	Angles in Polygons	Standard form		
Inequalities	Transformations	Bounds		
Drawing quadratic graphs		Error intervals		
Rearranging		HCF and LCM		
Equation of a straight line				

Year 9 FOUNDAT	ION TOPICS			
Algebra	Geometry	Number	Data	Ratio/Proportion
Linear sequence	Name 2D and 3D shapes	Convert between % , decimals and fractions	Interpret a bar chart	Money problem
Expanding / factorising	Use of Scale drawing	Order numbers by size	Interpret pictogram	Use of ratio
Solve two step equation	Enlargement	Rounding	List possible outcomes	Speed calculation
Simplify	Convert units of length	Square numbers	Use a two-way table	Real life graphs
Indices	Order decimals	Fraction of an amount	Line graph	
Inequalities on a number line	Reflection	Triangular numbers	Interpret a pie chart	
	Angle facts	Factors and multiples		
		BIDMAS		
		Write one quantity as a fraction of another		
		Use a calculator		
_		Compare fractions		



For more detail on the topics above, ask your teacher.

How do I revise for Maths?

- Use the notes in your exercise book. Take note of the 'working out' methods.
- Use the questions in your homework book to practice answering questions.
- Use MyMaths (lessons and online tasks). If you can't remember your personal login, ask your teacher.
- Use MathsWatch to support your revision. There are fantastic one-minute clips on all topics.



To revise Maths, you MUST 'do' Maths. You can't just read from your exercise book.

Equipment needed:

Pen, pencil, eraser, pencil sharpener, ruler, compass, protractor, calculator.

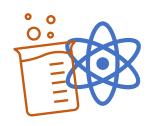


Science Revision

REVISION TOPICS:

- The following list provides the revision topics for Biology, Chemistry, Physics and Combined Science.
- These are the page titles from the CGP revision guides.
- There will also be targeted questions on Seneca Learning and on Show My Homework.
- The topics include essential topics covered in Year 7 and Year 8.

B1	Cell Biology – 16
B1	Cells, Microscopy, Diffusion, Osmosis and Active Transport
B1	Exchange surfaces (All about surface area)
B2	Organisation
B2	Cell Organisation – The Lungs and Heart
B2	Circulatory System - Blood vessels
B2	Risk Factors for Non-Communicable Diseases
B2	Plant Cell Organisation
B2	Transpiration and Translocation and Stomata
C1	Atomic Structure and the Periodic Table – 18
C1	Atoms, Elements, Compounds
C1	Chemical Equations
C 1	Mixtures and Chromatography
C 1	Distillation
C1	The History of the Atom, Electronic Structure
C1	Development of the Periodic Table, The Modern Periodic Table
C1	Metals and Non-Metals
C1	Group 1 Elements, Group 7 Elements, Group 0 Elements
C2	Bonding Structure and Properties of Matter - 16
C2	Formation of Ions, Ionic Bonding, Ionic Compounds
C2	Covalent Bonding
C2	Allotropes of Carbon
C2	States of Matter
C2	Changing State
P1	Energy – 13
P1	Energy Stores and Systems, Kinetic and Potential Energy Stores
P1	Specific Heat Capacity (Required Practical)





P1	Conservation of Energy and Power
Р3	Particle Model of Matter – 16
P3	The particle model and motion of gases
P3	Density of Materials (Required Practical)
P3	Internal Energy and Changes of State
P3	Specific Latent Heat

These checklists can be used to focus your revision.

Biology

Key Point	
Cells & microscopy	
Label the major features of animal, plant and bacterial cells	
Describe differences between animal and plant cells	
Describe the functions of all the parts – e.g. nucleus, ribosomes etc	
Use Magnification=Image/Actual to calculate size of cells or magnification	
Use prefixes centi, milli, micro and nano and change numbers between units	
Describe how microscopy has developed over time and give advantages of the electron microscope over the light microscope	
Transport	
Describe diffusion and the factors that can affect the rate	
Describe how organs and surfaces are specialised for effective diffusion – lungs, gills in fish, roots and leaves in plants	
Define the term osmosis and give examples of where it happens	
Define the term 'Active Transport' and explain why it is necessary	
Organisation	
Name the organs in the digestive system	
Label a diagram of the major structures of the heart	
Label a diagram of the major structures of the lungs	



Describe the features of arteries, veins and capillaries	
Name and describe the functions of the four components of blood	
Describe what 'coronary heart disease' is, describe and evaluate treatment options	
Describe some of the diseases linked with lifestyle factors	
Name the different plant tissues and describe how they are adapted for their function	
Explain how transpiration happens and describe factors that can affect the rate	
Explain what is meant by 'translocation'	

Physics

Key Point	
Energy	
Name the different types of energy 'store' and describe how energy is transferred between them	
Identify where energy is wasted and describe where this goes	
Calculate the efficiency of devices	
Use Sankey diagrams to represent energy transfers or calculate efficiency	
Define and calculate kinetic energy	
Define and calculate gravitational potential energy	
Use values for GPE to calculate maximum theoretical velocity of a raised object	
Explain why theoretical velocity will not normally be reached	
Calculate the elastic potential energy in a stretched or squashed object	
Use and manipulate the specific heat capacity equation to calculate energy/mass/temperature change/specific heat capacity given the others	
Define specific heat capacity	
Calculate power using P=E/t or P=Work done/t	
Describe the relationship between watts and joules	



Define a 'closed system' and explain what happens to total energy when energy transfers happen in a closed system	
Particle theory	
Describe density in terms of particle arrangement	
Use Density = mass/volume to calculate values and use the correct units	
Explain the term 'internal energy'	
Describe differences in particle arrangement and energy in solids, liquids and gases	
Explain what happens to particles during a change of state	

Chemistry

Key Point	
Atomic Structure & the Periodic Table	
Describe the structure of an atom and calculate numbers of protons, neutrons and electrons given a periodic table	
Describe the development of the nuclear model of the atom from earlier models – e.g the plum pudding	
Describe how mixtures can be separated using filtration, evaporation, distillation and chromatography	
Compare the size of atoms to other items	
Explain what is meant by an isotope and calculate the Atomic mass of an element given the percentage abundance of its isotopes	
Draw the electron configuration for any of the first 20 elements in the periodic table.	
Describe some of the steps in the development of the Periodic Table	
Describe how atoms become ions and represent this using diagrams	
Explain why group 0 do not form ions and describe the properties of group 0 elements	
Describe the properties of the Group 1 metals and their reactions with oxygen and water	
Explain why Group 1 reactivity increases going down the group	
Describe the properties of group 7 elements.	



3		
Describe and explain the trend in reactivity of group 7 down the group		
Interpret practical observations to prove reactivity in group 7 – ie displacement of less reactive halogens		
Bonding & Properties	•	
Describe the particle arrangement in solids, liquids and gases and explain how changes of state occur		
Describe the formation of ionic bonds between metal and non-metal atoms and represent this in diagrams and models		
Use dot and cross diagrams to show the transfer of electrons in ionic bonding		
Describe the properties of ionic compounds		
Represent covalent bonds using dot and cross diagrams		
Describe the properties of simple and giant covalent substances		
Describe the structure and bonding of carbon in the forms of diamond, graphite and fullerenes and relate their properties to the bonding		
Represent the bonding in polymers using diagrams and explain why most polymers are solids at room temperature		
Describe the bonding in metals and relate the properties of metals to the bonding		



History Revision

WHAT YOU NEED TO REVISE

BRITAIN: Migration, Empires, and the People

You will complete two questions:

Explain the significance of... [8 marks]

Compare X and Y. In what ways are they similar? [8 marks]



Content to revise:

The Impact of the Vikings on Britain including both positive and negative impact

For example:

- Death and destruction caused through raids learn some examples
- Danelaw
- Forcing Anglo Saxons to become second-class citizens. Learn specific dates, people and detail.
- Introducing new ways of making things (farming, crafts, amber, different foods, slavery). Learn examples.
- Introducing a new language, many words of which we still use today. Give examples such as 'Thursday' and 'Dirt'

Impact of the British on 17th century North America

- For example, the impact on indigenous tribes, including:
- Intermarriages
- · Raids and massacres
- European diseases
- Displaced tribes
- Decrease in the population of indigenous people

The significance of the slave trade, including:

- The economic and social impact of the slave trade on Britain
- Jobs created
- Involvement of Monarchs
- Growth of British ports such as Bristol and Liverpool

Why the British fell out with the American colonists, including:

- Taxation and the stamp Act of 1765
- The Boston Massacre of 1770



Geography Revision

PHYSICAL LANDSCAPES IN THE UK - COASTS:

Landforms

- Spits, beaches, arch, cave, stack, stump, sand dunes
- Case study Old Harry Rocks



Processes

- Erosion (hydraulic action, abrasion, attrition, solution)
- Transportation (longshore-drift, saltation, traction, solution, suspension)
- Deposition
- Coastal management strategies soft and hard engineering. How effective are they?
- Case studies Lyme Regis and Medmerry. Coastal defence strategies. Examine and compare hard and soft engineering and managed retreat strategies.

WHAT SKILLS YOU NEED TO FOCUS ON:

Map skills:

- 4 and 6-Figure Grid References
- Contour lines
- Ordnance survey maps

Exam skills:

Command words e.g. 'List', 'Describe', 'Compare', 'Explain', 'Sequence'

Geographical vocabulary:

Key words for processes of erosion and transportation.

Structuring an answer:

- Logical sequencing (firstly, secondly, finally...)
- Appropriate use and annotation of diagrams
- Use key words and terminology, e.g. named processes, named examples.



Design Technology & Art Revision

GCSE DESIGN ENGINEERING REVISION

You'll have two 50-minute papers to complete. The first will include the ability to re call specific knowledge, to apply learning to practical situations, the second to be able to draw items using design techniques and to be able to solve deign based questions. The following are areas within those topics that would be good for you to focus your revision on:



- Properties of design
- Joints/Finishes
- Property of woods
- Uses/Market
- Environmental impacts
- Sustainability 6 R's
- Manufacturing

Practical Skills:

Design Sketching

- 2D: working technical drawings
- 3D: Isometric and tonal rendering
- Annotations: ACCESS FM

ART REVISION

Aquatic Life final response

In the 10 hours provided (during lesson time), produce your personal response for the title "Aquatic Life".



Your outcome should reflect your experimentation and ideas that have been produced throughout this year's portfolio.

Ensure all the materials you may need are available in school prior to you starting your exam. You are free to bring in additional resources.

ICT Revision



The ICT exam will focus on areas that we have covered so far this year:

Chapter 1 – Problem Solving

- Representing Algorithms
 - o What are the 4 concepts that make up Computational Thinking?
- Understanding Algorithms
 - o What is an algorithm?
 - o What makes an Algorithm work?
- Searching Algorithms
 - o What are the 2 types of 'search algorithms' that we looked at?
 - o How do they work?
 - o What are their advantages and disadvantages?
- Sorting Algorithms
 - o What are the 2 types of 'sorting algorithms' that we looked at?
 - o How do they work?
- Truth Tables
 - o Be able to complete a 2 / 3 combination gate truth table.

You will be given more information on specific areas closer to the time of the exam, so keep an eye on SMHW!





Food Technology Revision

WHAT YOU NEED TO REVISE:

You will be asking a mock GCSE question paper. This will consist of 20 multiple choice questions followed by a series of longer, exam style questions. Some will involve one-word answers, some will involve longer answers that involve you constructing a response worth up to 8 marks.



All of the questions that will be in the test will be based on information that can be found in your project booklets or that you will have covered in homework tasks. To revise please read your project booklets and ensure you have a good knowledge of the following topics we have covered this year.

- · Health and safety in the food room
- Food science including Raising agents, Gelatinisation, Denaturisation of proteins etc
- Food provenance (where food comes from)
- The Eatwell guide and nutrition
- Food and religion
- Dietary guidelines
- Obesity
- Vitamins, including fat and water soluble
- Staple foods

WHAT SKILLS YOU NEED TO FOCUS ON:

- Knowledge Do you know the keywords & terminology of the topics listed above?
- Describe Can you describe the topics listed above and place them into context of your cooking or feeding yourself?
- Explaining Can you explain your answers using specific PEE chains when necessary?
- Analyse Can you analyse your answers to suggest improvements?



Sociology Revision

We are covering the requirements for Component 1 of the exam. You have studied the introductory module, and we are now looking at Families. Your End of Year exam will be based on both these modules.



Please revise:

Key concepts and processes of socialisation:

- 1) Norms and Values
- 2) Nature versus nature debate
- 3) Primary and secondary socialisation what are the agents and how they contribute to the development of the individual? (consider for both primary and secondary socialisation)
- 4) The formation of gender identity

Families:

- 1) What is the functionalist view of the family? Who are the key theorists and what did they identify?
- 2) What is the Marxist view of the family?
- 3) What is the feminist view of the family?
- 4) Conjugal roles and the symmetrical family



Drama Revision

You will be assessed on your Component 1 Mock Exam Devised Performance and Portfolio of Evidence. 40% of the GCSE.

To revise for this, you should ensure you know all your lines and movements you will achieve this through rehearsing with your group frequently. You should also ensure that you have consistently used the practitioner or genre techniques in each scene.

You will also be assessed on your Portfolio of Evidence which makes up 50% of the marks for this Component. You will be given writing scaffolds like the one below and examples to support you with this in lesson time.

POINT

This is where you make it clear to the examiner that you are aware of what the question is asking of you. Make sure your point links to the wording of the question.

- One idea that was researched and developed in response to the stimulus 'behind the door' was...
- Another idea I personally had was...
- One Rehearsal technique we explored was...
- One way I developed my physical skills was...
- An idea we refined during the rehearsal process was...
- I communicated the meaning of our chosen genre by...

EVIDENCE

This is where you include evidence to support the arguments you make. This evidence can usually be your illustrative material.

- The reason for this is that...
- One way I researched/developed this idea was by...
- This is shown in my photo of...
- YouTube
- Films/Books
- Facts
- Professional Productions
- Script
- Rehearsal

EXPLAIN

This is where you explain how the evidence you have used links to the question asked. It is best practice to use the wording in the question again to show the examiner that you have clearly understood the question and that you can justify why you have used your chosen piece of evidence.

- This helped to develop the piece by...
- This clearly shows that....because...
- This helped us develop the stimulus by...
- This helped us to incorporate the genre of TIE/Physical Theatre by... due to this, we amended our piece, and it was improved by...



Dance Revision

For your exam you will be filmed and assessed on the set phrases. You will also sit an exam on the following skills which reflects section A of your official exam.

Safe working practices

Warmups / cool downs / hazards / nutrition and hydration



Physical Skills

Posture / alignment / co-ordination / balance / flexibility / extension / isolation / mobility / elevation / stamina / strength / control

Technical skills

Actions / dynamics / space / relationships / choreographic devices

Expressive skills

Projection / focus / spatial awareness / facial expression / phrasing / musicality / sensitivity / communication of choreography

Mental Skills

Movement memory / commitment / concentration / confidence

GCSE DANCE:

You will be assessed on Section A of a mock paper. This will include the following:

Part 1

You will be given a stimulus and you must answer questions on your ideas based on that stimulus.

Example questions:

- Outline a dance idea/theme
- How would you structure your dance?
- Give 2 ways relationships could be used to show your theme
- Describe a motif you could use to show your theme
- Describe an ending to the dance
- · Describe an aural setting



Part 2

Testing knowledge and understanding of performance skills

Performance skills include:

- Physical skills: Posture / Alignment / Extension / Balance / Coordination / Control / Flexibility / Strength / Stamina / Mobility / Isolation
- Technical skills: Actions / Dynamics / Space / Relationships
- Expressive skills: Focus / Musicality / Projection / Emphasis / Spatial Awareness / Facial expression / Phrasing / Sensitivity to other dancers / Communication of intent

Example questions:

- Define 'elevation'
- Give advice for a dancer moving safely from standing to floor work
- Tick the correct definition of focus

There will be only 1, 2, 3 marks in this section.

Good luck – you'll be great!

Please remember to ask your teachers if you need any help.

