

BISHOP ULLATHORNE CATHOLIC SCHOOL



Revision Guide for Year 10

This booklet will help you to plan your revision for your end of year exams. The practice of revising and taking exams will help to prepare you for your GCSE qualifications in Year 11.

We ask you to search for excellence by trying your best.

When are your exams?

You will have exams the **week beginning 24 June** which will be taking place over two weeks.

To help you, there is an exam timetable informing you of when you will take each paper.

Where will you take your exams?

All your exams will take place in B Block Hall and boys' gym.

What equipment will you need?

You must use a **black** pen for all your exams.

You need to bring a calculator and a geometry set to your maths exams.

What preparation do you need to do now?

Your subject teacher has made a list of the topics you need to revise.

How do you revise?

Step one

- Look at the topics you need to revise.
- If you are missing any notes/ work because you have been absent from school for a time, you should see your subject teacher.

Step two

- Do **not** revise all topics in one subject before moving on to the next subject. You might not leave time for the last subject.
- First, revise one topic from each subject.
- When you have done that, start revising a second topic from each subject.
- Do **not** spend too long on the first topics. Remember that you must revise **all** topics before your exams.

Step three

- A successful way to revise for many subjects is to read for about 10 – 15 minutes and then close your book. Write down some questions to ask yourself.
- Then, either write the answers, or ask someone at home to speak the questions and you can answer verbally.
- Go back to your book to see if you have answered correctly. If you have not, read your notes again.
- **Always ask yourself questions as part of revision. Do not just read your notes.**
- For maths, you can practise questions on line using Hegarty.

How can you help yourself to do your best?

- You need to have slept well the night before each exam so do not go to bed late.
- When you do go to bed, do not look at a TV, mobile phone or computer as this will not help you to sleep.
- Make sure you have breakfast before you come to school.

Good Luck!

Examination Timetable

Year 10 End of Year Examinations - June 2024

WEEK 1

	Reg	P1	P2	P3	P4	P5
Week Commencing Monday 24 June 2024 (36A)						
36A Mon 24 June	English Literature		Option A			
	840am start 1h 45m		PE – 1h 15m Catering (Rm 57) – 1h 20m Product Design – 1h 45m Media – 1h 30m (Hall) Spanish Writing –F 1hr/H 1h 15m Drama – 1h 45m Normal Timetable if not in exam		Normal Timetable	
36A Tues 25 June	Mathematics Paper 1 (Non-calculator)		Biology			
	1h 30m		Combined – 1hr Triple – 1h 30m		Normal Timetable	
36A Weds 26 June	RE Component 1		Humanities			
	1h 30m		History (Medicine/Causes of WW1) - 1h 30m Geography – 1h 20m		Normal Timetable	
36A Thurs 27 June	Chemistry			Computing Paper 2 (On Screen)		
	Combined – 1hr Triple – 1h 30m		Normal Timetable	1h 30m (Room 57) Normal Timetable if not in exam		
36A Fri 28 June	TEACHER TRAINING DAY					

WEEK 2

	Reg	P1	P2	P3	P4	P5
Week Commencing Monday 1 July 2024 (37B)						
37B Mon 1 July	English Language		RE Component 3			
	840am Start 1h 45m		1hr		Normal Timetable	
37B Tues 2 July	Mathematics Paper 2 (Calculator)					
	1h 30m		Normal Timetable		Normal Timetable	
37B Weds 3 July	Option B		Physics			
	Food & Nutrition (Rm 57) – 1h 45m Computing Paper 1 – 1h 30m Business – 1h 30m Music – 1h 30m (Rm 56) Spanish Writing F – 1hr /H 1h 15m French Writing – F 1hr /H 1h 15m <i>Normal Timetable if not in exam</i>		Combined – 1hr Triple – 1h 30m		Normal Timetable	
37B Thurs 4 July	Spanish Reading & Listening (Option A & B)		French Reading & Listening			
	Foundation: Read 45m/Listening 35m Higher: Read 1hr/ Listening 45m <i>Normal Timetable if not in exam</i>		Foundation: Read 45m/Listening 35m Higher: Read 1hr/ Listening 45m <i>Normal Timetable if not in exam</i>		Normal Timetable	
37B Fri 5 July	Normal Timetable		Normal Timetable		Normal Timetable	

Examination Rules

- Full attendance during the examination season is very important. All exams start at 9am and 1130am and you must be lined up, ready to go in to the exam room at least 10 minutes before these times. Coming to exams late causes unnecessary anxiety and means that you miss vital instructions and information regarding the exam you are sitting.
- Examination rules start from the moment you line up on B Block Playground. You must do this in silence, forming straight lines, in seating order, one behind another, facing forward at all times.
- On entering the exam room you must put your bag where directed by the invigilators and make your way to your seat quickly and in silence. Once seated do not write anything on the exam papers until you are instructed to do so.
- Do not communicate with anyone. This includes turning around and/ or trying to make eye contact with others.
- You must ensure that any mobile phones, internet watches, mp3/iPods, earphones or any other electronic device are switched off and left in your bags before entering the exam halls. These items are not allowed on you under any circumstance during the exams.
- Wrist watches are not allowed. You must remove any wrist watch and put this in your bag before entering the examination room.
- Please make sure that you bring with you to all of your examinations the equipment that you need for your exams. Geometry sets, rulers, calculators and other stationery can be purchased from the Gatehouse.
- Pencil cases must be see through. If you have metal tins containing geometry equipment or other stationery, then you must remove the items you need and leave the tin in your bag – they must not be brought to your exam desk.
- Calculators must not have a lid. If they do, please leave the lid in your school bag.
- The only drinks allowed in the hall are clear, non-coloured bottles of water (not squash or fizzy drinks). Any labels must be removed.
- You must wear correct school uniform to your examinations

BUSINESS

Topics to be assessed:

Business 1: Business activity, Marketing and People

1. Business activity

- The role of business enterprise and entrepreneurship
- Business planning
- Business ownership
- Business aims & objectives
- Stakeholders in business
- Business growth

2. Marketing

- The role of marketing
- Market research
- Market segmentation
- The marketing mix
 - Product
 - Product - stages of the product life cycle
 - Pricing methods
 - Promotion - point of sale
 - Promotion - advertising
 - Place - distribution of products and services
 - Interpretation of market data

3. People

- The role of human resources
- Organisational structures and different ways of working
- Communication in business
- Recruitment and selection
- Motivation and retention
- Training and development
- Employment

CATERING

Topics to be assessed:

1.1 Hospitality and catering provision

- Hospitality and catering providers
- Working in the hospitality and catering industry
- Working conditions in the hospitality and catering industry
- Contributing factors to the success of hospitality and catering provision

1.2 How hospitality and catering providers operate

- The operation of front and back of house
- Customer requirements in hospitality and catering
- Hospitality and catering provision to meet specific requirements.

1.3 Health and safety in hospitality and catering

- Health and safety in hospitality and catering provision
- Food safety

1.4 Food safety in hospitality and catering

- Food related causes of ill health.
- Symptoms and signs of food-related ill health
- Preventative control measures of food-induced ill health
- The Environmental Health Officer

COMPUTER SCIENCE

Topics to be assessed:

Topic 1 – Computational Thinking

- Decomposition and abstraction
- Using subprograms
- Algorithms – pseudocode and flowcharts
- Variables and constants

Topic 2 – Data

- Units of measurement
- Converting binary numbers
- Hexadecimal
- Binary shifts
- Binary addition and 2's complement
- Representing sound in binary
- Representing images in binary

Topic 3 – Computers

- Hardware and software
- Purpose and function of an operating system
- Von Neumann architecture
- CPU
- Embedded systems

Topic 6 – Programming

- Sequence
- Selection
- Iteration
- Maths
- Validation
- Trace Tables
- How to read simple programs

DRAMA

Topics to be assessed:

SECTION A: Bringing Texts To Life

DNA, Dennis Kelly

Students must practically consider the ways and develop ideas in which performers, directors and designers create impact and meaning through the elements of performance, including:

- acting style and purpose, including vocal and physical skills
- set and props, including stage furniture and personal props
- lighting and sound, including colour and music
- costume, makeup and masks as appropriate
- use of stage space and spatial relationships, including levels and entrance points
- intended impact and meaning for the audience.

You will be asked to reflect on HOW a performer communicates to an audience.

You will be asked to reflect on the design elements of a performance e.g. Set, lighting, costume and sound.

SECTION B: Live theatre evaluation: Woman in Black

Students will reflect on their experience as an informed member of an audience at a live theatre performance, enabling them to demonstrate knowledge and understanding of performance through analysis and evaluation.

Knowledge and understanding

Students are required to:

- recognise and understand how theatrical choices are used by theatre makers to create impact
- understand how the meaning of a text can be interpreted and communicated to an audience
- use appropriate vocabulary and subject-specific terminology.

Drama and theatre terminology and how to use it appropriately

You will be asked to reflect on HOW a performer communicates to an audience.

You will be asked to reflect on the design elements of a performance e.g. Set, lighting, costume and sound.

ENGLISH

Ability group: all

Topics to be assessed:

English Language

Language Paper 1 – Explorations in Creative Reading and Writing

How has the writer used language to describe/ show...

- Writer's word choices
- Sentence choices
- Language features/ techniques

How has the writer structured the text to interest you as a reader?

- Narrative focus at the start of an extract
- Narrative shifts (time/ character focus)
- Narrative structural features (dialogue / setting / foreshadowing ...)

One student wrote: "...". To what extent do you agree?

- Establish a clear line of argument
- Fully explain and justify a line of argument
- Comment on writer's methods (language/ structural)

Creative writing: Write a description of ... as suggested by this picture:

- Technical accuracy and expression (spelling/ Punctuation and grammar)
- Use of paragraphs
- Discourse markers
- Interesting vocabulary
- Interesting use of language methods for effect.

Topics to be assessed:

English Literature

Literature Paper 1

- Macbeth
- Dr Jekyll and Mr Hyde

OR

- A Christmas Carol
 - Character/ theme
 - Learn important quotes
 - Context (Jacobean times & Tragedy/ Victorian times Gothic/ Detective genre)
 - Identify and analyse the writer's methods to convey meanings.

Food Preparation and Nutrition

Ability group: All

Topics to be assessed:

Food commodities

Bread, cereals, flour, oats, rice, potatoes, pasta

Fruit and vegetables

Milk, cheese, yoghurt

Meat, fish, poultry, eggs

Soya, tofu, beans, nuts, seeds

Butter, oils, margarine, sugar and syrup

For each food commodity:

- know the value of the commodity within in the diet
- know the features and characteristics of each commodity with reference to their correct storage to avoid food contamination
- know the origins of each commodity
- experiment with the commodity to explore physical and chemical changes that occur as a result of given actions
- consider complementary actions of a commodity in a recipe
- prepare and cook dishes using the commodities

Principles of nutrition

- the definition of macronutrients and micronutrients in relation to human nutrition
- the role of macronutrients and micronutrients in human nutrition

Macronutrients

- protein
- fats, oils, lipids
- carbohydrates

Micronutrients

- fat soluble vitamins and water-soluble vitamins
- minerals: calcium, iron, potassium and magnesium

- trace elements e.g. iodine and flouride

Diet and good health

Energy requirements of individuals

- Recommended Daily Intake for different life stages, dietary needs or specific lifestyles
- how nutrients work together in the body
- Basal Metabolic Rate and Physical Activity Level

Plan balanced diets

- recommended guidelines for a healthy diet
- how nutritional needs change due to age, life style choices and state of health

Calculate energy and nutritional values of recipes, meals and diets

Use nutritional information to determine why and how to make changes to a recipe, meal or diet.

The science of food

The effect of cooking on food

- why food is cooked
- how heat is transferred to food through conduction, convection and radiation
- how cooking methods can conserve or modify nutritive value, or improve palatability
- use of micro-organisms in dairy products

Food spoilage

Where food comes from

Food provenance

- food origins and how foods are grown, reared, or caught
- food miles and the impact on carbon footprint
- impact of packaging on the environment
- sustainability of food
- food security

Food manufacturing

- primary and secondary stages of processing and production
- how processing affects the sensory and nutritional properties of ingredients
- technological developments
- positive and negative effects of food modification on health and food production
- additives

Cooking and food preparation

Factors affecting food choice

- how sensory perception guides the choices that people make
- sensory qualities of foods
- food labelling

Preparation and cooking techniques

Developing meals and recipes

GEOGRAPHY

Ability group: All

Topics to be assessed:

10R1 with Mr Challis and 10L2 with Miss Dodd

- Coastal Erosion
- Coastal Protection
- Coastal Features
- Map skills including direction
- Low pressure storms and their impacts
- Ecosystems including hot semi-arid grasslands, also known as the Savannah grasslands
- Climate graphs
- Desertification

10L1 with Miss Eke

- Coastal Erosion
- Coastal Protection
- Coastal Features
- Map skills including direction
- Low pressure systems including cyclones
- Ecosystems and food chains
- Managing ecosystems

HISTORY

Ability group: Mixed

Topics to be assessed:

Paper 1 Conflict and tension, 1894–1918 (WW1)

1. Why did Europe divide into 2 alliances?
2. The crises in Morocco (1905 and 1911) and the Balkans (1908–1909)
3. What effect did Anglo-German rivalry have on European tensions?
4. How and why did Slav nationalism trigger the start of war in 1914?
5. What was the Schlieffen Plan and how did it help to escalate the conflict?

Paper 2 Britain: Health and the people c1000-the present day

Part one: Medicine stands still

1. What did a medieval doctor know?
2. How did Christianity affect medieval medicine?
3. How did Islam affect medieval medicine?
4. How good was Medieval Surgery?
5. Where was public health worse in the medieval period?
6. Where was public health better in the medieval period? Consequences of poor public health: the Black Death.

Part two: The beginnings of change

1. What was the Renaissance?
2. The impact of the Renaissance on Britain: the work of Vesalius: How important were Paré's discoveries?
3. How did Harvey make his discovery?
4. How scientific was seventeenth- and eighteenth-century medicine?
5. How did doctors deal with the Great Plague?
6. How did hospitals change in the eighteenth century?
7. Why should we remember John Hunter?

Part three: A revolution in medicine

1. What was Edward Jenner's contribution to the defeat of smallpox?
2. How was pain conquered?
3. How did doctors in Britain discover that germs caused diseases?
4. How important was Joseph Lister?
5. How did scientists discover that germs caused human diseases? The

debate continues in Britain: accepting Pasteur's Germ Theory.

6. The search for vaccines and cures in Europe and Britain
7. How dirty were Britain's towns in the early 1800s?
8. Fighting one of Britain's deadliest diseases: cholera
9. The Great Stink

Part four: Modern medicine

1. What can a study of penicillin tell us about the development of modern medicine?
2. How have drugs and treatments developed since 1945?
3. Beyond mainstream medicine
4. What impact has war and technology had on surgery?
5. Why did the government try to improve the nation's health after 1900?
Into the twenty-first century

MATHS

Attainment group: Foundation Tier (10R3, 10R2, 10L3 & 10L4)

Topics to be assessed:	
PAPER 1	Sparx Code
Converting between fractions, decimals and percentages	U888
Finding fractions of shapes	U679
Understanding and ordering decimals	U435
Adding and subtracting with negative numbers	U742
Solving equations with one step	U755
Identifying parts of circles	U767
Finding factors and using divisibility tests	U211
Angles on a line and about a point	U390
Understanding, measuring and drawing angles	U447
Reading and plotting coordinates	U789
Calculating midpoints	U933
Plotting horizontal and vertical lines	M797
Use a written method to multiply decimals, Solve direct proportion word problems	U293, U721
Adding and subtracting with integers	U417
Estimating calculations	U225
Calculating the mean	U291
Simplifying algebraic fractions by cancelling common factors	U103
Simplifying expressions by collecting like terms	U105
Factorising into one bracket	U365
Finding percentages of amounts without a calculator	U554
Converting between ratios, fractions and percentages	U176
Finding percentages of amounts, Finding fractions of amounts	U554, U881
Multiplying fractions	U475
Solving direct proportion word problems	U721
Adding & subtracting integers, Writing numbers as percentages of other numbers	U417, U925
Using algebraic notation	U613
Position-to-term rules for arithmetic sequences	U498
Using a written method to divide with decimals	U868
Adding and subtracting mixed numbers	U793
Find the surface area of cubes & cuboids, Find the volume of cubes & cuboids	U929, U786
Drawing and interpreting frequency polygons	U840
Venn diagrams with set notation	U476, U748
Interpreting scatter graphs	U277
Using lines of best fit	U128
Finding original values in percentage calculations	U286
Finding the volume of cylinders, Calculating with pressure	U915, U527
Solving simultaneous equations graphically	U836
Index rules with positive indices, Index rules with negative indices	U235, U694
Using the exact values of trigonometric ratios	U627

Tree diagrams for independent events	U558
PAPER 2	Sparx Code
Understanding and ordering integers	U600
Converting between fractions, decimals and percentages	U888
Simplifying expressions containing a single variable	U105
Converting units of length, mass and capacity	U388
Ordering negative numbers	U947
Finding areas using grids	M900
Finding perimeters using grids	M920
Using probability phrases	U803
Probabilities of mutually exclusive events	U638
Line and shape properties	U121
Properties of 3D shapes	U719
Calculating the median	U456
Calculating the range	U526
Drawing bar charts	U363
Reading, converting and calculating with time	U902
Constructing and solving equations	U599
Finding averages from diagrams	U854
Interpreting pie charts	U172
Interpreting distance-time graphs	U914
Plotting distance-time graphs	U403
Calculating speed from distance-time graphs	U462
Solving direct proportion word problems	U721
Using equivalent ratios to find unknown amounts	U753
Rotation	U696
Measuring and drawing bearings, Drawing and interpreting scale diagrams	U525, U257
Solving equations with two or more steps	U325
Simple interest calculations	U533
Simplifying expressions using index laws	U662
Expanding single brackets	U179
Finding percentages of amounts with a calculator	U349
Angles on parallel lines, Geometric proofs with angle facts	U826, U471
Solving inverse proportion word problems	U357
Finding the HCF and LCM using prime factor decomposition	U520
Calculating with rates, Reading, converting and calculating with time	U256, U902
Interpreting graphs of quadratic functions	U667
Solving quadratic equations graphically	U601
Calculating with density	U910
Writing and simplifying ratios, Standard form with a calculator	U687, U161
Using standard form with negative indices	U534

MATHS

Attainment group: Higher Tier (10L1, 10L2, 10R1)

Topics to be assessed:

PAPER 1	Sparx Code
Using a written method to divide with decimals	U868
Adding and subtracting mixed numbers	U793
Find the surface area of cubes and cuboids, Find the volume of cubes and cuboids	U929, U786
Drawing and interpreting frequency polygons	U840
Venn diagrams	U476
Venn diagrams with set notation	U748
Interpreting scatter graphs	U277
Using lines of best fit	U128
Finding original values in percentage calculations	U286
Finding the volume of cylinders, Calculating with pressure	U915, U527
Solving simultaneous equations graphically	U836
Angles in polygons, Constructing and solving equations	U427, U599
Simplifying expressions using index laws	U662
Tree diagrams for independent events	U558
Constructing direct proportion equations	U407
Index rules with negative indices	U694
Indices of the form a/b	U772
Interpret equations of straight lines, Equations of parallel & perpendicular lines	U669 U898
Finding the surface area of spheres, Simplifying surds	U893, U338
Changing the subjects of formulae	U556
Calculating with ratios and algebra	U676
Using the product rule for counting	U369
Finding inverse functions*	U996
Finding composite functions*	U448
Circle theorems*	U459, U489
Trigonometry in 3D shapes*, Using the exact values of trigonometric ratios (Higher)	U170, U319
Rationalising denominators containing two terms	U281
Solving quadratic inequalities*	U133

PAPER 2	Sparx Code
Simplifying expressions using index laws	U662
Expanding single brackets	U179
Finding percentages of amounts with a calculator	U349
Angles on parallel lines, Geometric proofs with angle facts	U826, U471
Solving inverse proportion word problems	U357
Finding the HCF and LCM using prime factor decomposition	U520
Calculating with rates, Reading, converting and calculating with time	U256, U902
Interpreting graphs of quadratic functions	U667
Solving quadratic equations graphically	U601
Calculating with density	U910
Finding percentages of amounts with a calculator	U349
Finding unknown sides in right-angled triangles	U283
Drawing box plots*	U879
Comparing populations using box plots and cumulative frequency graphs*	U507
Expanding triple brackets	U606
Writing algebraic proofs*	U582
The cosine rule, Finding the area of sectors	U591, U373
Factorising the difference of two squares	U963
Factorising the difference of two squares, Writing algebraic proofs	U963, U582
Enlargement by a positive or negative scale factor	U134
Estimating gradients of non-linear graphs using tangents*	U800
Calculating speed from distance-time graphs	U462
Finding the surface area of frustums	U334
Graphs of exponential functions	U229
Converting recurring decimals to fractions	U689
Factorising to solve quadratic equations, Adding & subtracting algebraic fractions*	U960, U685
Identifying parallel vectors*, Constructing and solving simultaneous equations	U660, U137
Equations of circles and tangents	U567
Calculating with ratios and algebra, Multiplying algebraic fractions*	U676, U457

MFL - French

Ability group: Higher and Foundation

Topics to be assessed:

Theme 1 Units 1-4

Family and relationships
Social media and Technology
Free time
Customs and festivals

Theme 2 Units 5-8

My house and my local area
Social issue and healthy/unhealthy eating
Global issues, Environment and the homeless
Holidays

Theme 3 Units 9-12

School and studies
Post 16 plans
Jobs and future plans

All revision cards and materials are on our Quizlet groups.
Use Language gym website to help you revise vocabulary and tenses.
Speaking examination booklets have been marked and returned to you,
ready for your mock speaking exam in July.

MFL - Spanish

Ability group: Higher and Foundation

Topics to be assessed:

Theme 1 Units 1-4

Family and relationships
Social media and Technology
Free time
Customs and festivals

Theme 2 Units 5-8

My house and my local area
Social issue and healthy/unhealthy eating
Global issues, Environment and the homeless
Holidays

Theme 3 Units 9-12

School and studies
Post 16 plans
Jobs and future plans

All revision cards and materials are on our Quizlet groups.
Use Language gym website to help you revise vocabulary and tenses.
Speaking examination booklets have been marked and returned to you,
ready for your mock speaking exam in July.

MEDIA

Topics to be assessed:

For your end of year 10 assessment you will need to revise the following Close Study Products:

Music Videos

Black Pink, How you like that - Music Industry and Audience

Arctic Monkeys - I bet that you look good on the dancefloor - Music Industry and Audience

Magazines

Tatler magazine - Language and Representation

Heat magazine - Language and Representation

Online, Social, Participatory

Marcus Rashford social media - Language, Representation, Audience, Industry

Kim Kardashian: Hollywood - Language, Representation, Audience, Industry

Lara Croft: Go - Language, Representation, Audience, Industry

Advertising

Galaxy Chocolate - Language and Representation

NHS - Language and Representation

OMO - Language and Representation

All revision topics can be accessed through the knowledge organisers and class work books

MUSIC

Topics to be assessed:

Using the notes you have as well as the knowledge organisers provided.

Concerto Through Time

- Baroque Solo Concerto
- Baroque Concerto Grosso
- Classical Concerto
- Romantic Concerto

Conventions of Pop

- Rock and roll
- Rock anthems
- Pop ballads
- Solo artists

Musical elements for all of the areas of study covered so far, including:

- Features of melody
- Articulation
- Dynamics – symbols and names
- Textures of music
- Time signatures
- Structure
- Instrumentation
- Rhythm and metre (time signatures)
- Key signatures
- Tonality
- Cadences / chords
- Tempo
- Music Technology features

GCSE PE

Topics to be assessed:

- Information Processing Model
- Guidance and Feedback
- Sportsmanship/gamesmanship
- Goal Setting
- Different types of data
- Classification of Skill
- Arousal and Inverted U theory
- Motivation
- Aggression
- Personality
- Commercialisation
- Sponsorship
- Media
- Diet
- Energy Use
- Somatotype
- Performance Enhancing Drugs
- Participation Levels and Engagement patterns of different social groups
- Technology in Sport
- Spectator Behaviour

PRODUCT DESIGN

Ability group: All

Topics to be assessed:

40% Core Content:

Topic	Example content	Links for revision
1.1 The impact of new and emerging technologies	e.g. enterprise, crowdfunding, pollution, 3D printing, impact of technology on people and cultures, changes in job roles, production systems like one off, batch, mass	BBC Bitesize - New and Emerging Technologies (1-7) https://www.bbc.co.uk/bitesize/guides/zh2w7p3/revision/1 Seneca 1.1 New & Emerging Technologies
1.2 Evaluating new and emerging technologies to inform	e.g. ethical and environmental perspectives, carbon footprint, Life Cycle Analysis	BBC Bitesize - Informing Design Decisions https://www.bbc.co.uk/bitesize/guides/zh2w7p3/revision/8 Seneca 1.1 New & Emerging Technologies
1.3 Energy: generation, storage and choosing appropriate sources	e.g. non-renewable energy sources – coal, oil, gas, renewable energy sources – biomass, tidal, wind, solar, types of power systems e.g. batteries	BBC Bitesize - Energy Generation and Storage (1, 3-5) https://www.bbc.co.uk/bitesize/guides/zd4bcj6/revision/1 Seneca 1.2 Energy Generation and Storage
1.4 Smart and composite materials, and technical textiles	e.g. smart materials – shape memory alloys, photochromic glass, conductive inks, composites – concrete, plywood, glass reinforced plastic / carbon fibre reinforced plastic	BBC Bitesize - Modern and Smart Materials https://www.bbc.co.uk/bitesize/guides/zn67xfr/revision/1 BBC Bitesize - Composite Materials https://www.bbc.co.uk/bitesize/guides/zn67xfr/revision/2 BBC Bitesize - Technical Textiles https://www.bbc.co.uk/bitesize/guides/zn67xfr/revision/3 Seneca 1.3 Developments in New Materials
1.5 Mechanical devices used to produce movement	e.g. four types of movement, class 1 / 2 / 3 levers, pulleys, gears, cams, followers	BBC Bitesize - Mechanical Devices https://www.bbc.co.uk/bitesize/guides/zvfhsrd/revision/1 Seneca 1.4 Mechanical Devices

1.6 Electronic components	e.g. input devices, control, output devices, sensors, components – resistors, thermistors, light dependent resistors	BBC Bitesize - Electronic Systems (1-5) https://www.bbc.co.uk/bitesize/guides/zhxqmsg/revision/1 Seneca 1.5 Systems Approach to Designing
1.7 Programmable components	e.g. flowcharts, switching inputs on and off, analogue inputs, feedback loops	BBC Bitesize - Electronic Systems (1-5) https://www.bbc.co.uk/bitesize/guides/zhxqmsg/revision/1 Seneca 1.5 Systems Approach to Designing
1.8 Ferrous and non-ferrous metals	e.g. ferrous – mild steel, stainless steel, cast iron, non-ferrous – aluminium, copper, brass, alloys, properties – ductility, malleability, hardness	BBC Bitesize - Ferrous and Non-Ferrous Metals https://www.bbc.co.uk/bitesize/guides/zdkr97h/revision/3 Seneca 1.6 Materials Categories
1.9 Papers and boards	e.g. papers – copier, tracing, cartridge, boards – folding boxboard, corrugated, solid white, properties – flexibility, printability, biodegradability	BBC Bitesize - Paper and Boards https://www.bbc.co.uk/bitesize/guides/zdkr97h/revision/1 Seneca 1.6 Materials Categories
1.10 Thermoforming and thermosetting polymers	e.g. thermoforming – acrylic, HIPS, biopol, thermosetting – urea formaldehyde, polyester resin, properties – insulator of heat/electricity, toughness	BBC Bitesize - Polymers https://www.bbc.co.uk/bitesize/guides/zdkr97h/revision/4 Seneca 1.6 Materials Categories
1.11 Fibres and Textiles	e.g. natural fibres – wool, cotton, synthetic fibres – polyester, acrylic, woven textiles – calico, denim, non-woven textiles – felted wool, bonded fibres/webs, knitted textiles – warp, weft knitted, properties – elasticity, resilience, durability	BBC Bitesize - Textiles https://www.bbc.co.uk/bitesize/guides/zdkr97h/revision/5 Seneca 1.6 Materials Categories
1.12 Natural and manufactured timbers	e.g. hardwoods – oak, mahogany, beech, balsa, softwoods – pine, cedar, manufactured boards – MDF, plywood, properties – hardness, toughness, durability	BBC Bitesize - Natural and Manufactured Timbers https://www.bbc.co.uk/bitesize/guides/zdkr97h/revision/2 Seneca 1.6 Materials Categories

1.13 D&T practice takes place within contexts which inform outcomes	e.g. mechanical properties – elasticity, ductility, toughness, physical properties – conductivity, corrosion, optical, selecting appropriate materials	BBC Bitesize - Design Contexts: Properties and Manufacturing Processes (1-2) https://www.bbc.co.uk/bitesize/guides/zk9g4qt/revision/1 Seneca 1.7 Materials Properties
1.14 Challenges that influence the processes of design and making	e.g. respect for social / ethnic / economic groups, environmental issues and green design, designing to suit human capability	BBC Bitesize - Environmental, Social and Economic Challenges (1-5) https://www.bbc.co.uk/bitesize/guides/z6xqmsg/revision/1
1.15 Investigate and analyse the work of professionals and companies to inform design	e.g. product analysis – form, function, user requirements, performance requirements, production systems and cost. Alessi, Apple, Tesla, Pixar, Zaha Hadid, Heatherwick Studios, Raymond Loewy, Joe Casely-Hayford	BBC Bitesize - Analysing Products and Designers and Design Companies (1-2) https://www.bbc.co.uk/bitesize/guides/zrrvgdm/revision/1 Seneca 1.8 The Work of Others – only do 1.8.5 Product Design Companies
1.16 Use of different design strategies	e.g. scamper, user-centred design, systems thinking	BBC Bitesize - Design Strategies (1-4) https://www.bbc.co.uk/bitesize/guides/zijkw6f/revision/1 Seneca 1.9 Design Strategies
1.17 Communication techniques to present design ideas	e.g. isometric and perspective drawing, orthographic projection, CAD	BBC Bitesize - Communication of Ideas (1-8) https://www.bbc.co.uk/bitesize/guides/zffhsrd/revision/1 Seneca 1.10 Communication of Design Ideas

60% Polymers:

Topic	Example Content	Video links for revision
4.1 Design contexts	e.g. the first polymer 'Bakelite', how polymers are used	BBC Bitesize Polymers – Sources and Origins https://www.bbc.co.uk/bitesize/guides/zdmqmsg/revision/1
4.2 Sources and properties	e.g. different types of thermoforming (PVC, ABS, Styrofoam) and thermosetting polymers, their uses and properties, where polymers come from, environmental impact of producing polymers	BBC Bitesize Polymers – Characteristics and Properties https://www.bbc.co.uk/bitesize/guides/zdmqmsg/revision/2 BBC Bitesize Polymers – Social and Ecological issues https://www.bbc.co.uk/bitesize/guides/zdmqmsg/revision/3

4.3 Selecting polymers	e.g. aesthetics, environmental factors, cost factors, additives, planned obsolescence, properties	BBC Bitesize Polymers – Selecting Polymers https://www.bbc.co.uk/bitesize/guides/zdmqmsg/revision/4
4.4 impact of forces and stresses	e.g. compression, tension, shear, flexibility, frame structures, triangulation,	BBC Bitesize Polymers – Reinforcing and Stiffening https://www.bbc.co.uk/bitesize/guides/zdmqmsg/revision/6
4.5 Calculating quality	e.g. stock forms	BBC Bitesize Polymers – Stock Forms https://www.bbc.co.uk/bitesize/guides/zdmqmsg/revision/5
4.6 Alternative manufacturing processes	e.g. blow moulding, press moulding, extrusion, injection moulding, polymer welding, line bending, production systems – one off, batch, mass, techniques for making products in quantity – templates, jigs, quality control, tolerances, computer aided manufacture	BBC Bitesize Polymers – Production in Quantity https://www.bbc.co.uk/bitesize/guides/zdmqmsg/revision/7 BBC Bitesize Polymers - Shaping https://www.bbc.co.uk/bitesize/guides/zdmqmsg/revision/8
4.7 Specialist techniques for making prototypes and products	e.g. laser cutting and engraving, cutting, filing, shaping, bending, casting, vacuum forming, assembling, adhesives, addition (3D printing)	BBC Bitesize Polymers – Fabricating and Assembling https://www.bbc.co.uk/bitesize/guides/zdmqmsg/revision/9
4.8 Surface treatments	e.g. polishing, texture of moulds, laser engraving, vinyl stickers, GRP pigments	BBC Bitesize Polymers – Surface Finishes https://www.bbc.co.uk/bitesize/guides/zdmqmsg/revision/10

RELIGIOUS EDUCATION

Ability group: All

Topics to be assessed:

Paper 1: Component 1: Foundational Catholic Theology

Theme 1 - Origins and Meanings

- Catholic and scientific beliefs and teaching about the origins of the universe
- Catholic beliefs and teachings about the origin and sanctity of life and the concept of Image Dei, including abortion and stewardship and how these beliefs are expressed through Art
- How Christians serve communities

Theme 2 - Good and Evil

- Catholic perspectives on the origin of evil: original sin and evil
- Alternative Christian and non-Christian views on the nature and the origin of evil and the difference between moral and natural evil
- The nature of the Trinity and Incarnation
- Jesus moral teaching
- The purpose and effects of sculpture, prayer and pilgrimage

Paper 2: Component 3: Judaism Beliefs and Practices

Theme 1 – Judaism Beliefs

- Jewish beliefs about the covenants, and the importance of the Mitzvot
- The nature of the Messiah
- Interpretations on the afterlife
- The Nature of God

Theme 2 – Judaism Practices

- Worship at home and in the Synagogue, including Shabbat and the use of Holy Scripture
- Rituals of Brit Milah, Bar Mitzvah, Marriage and Funerals
- Festivals of Rosh Hashanah, Yom Kippur, Sukkot and Pesach

SCIENCE – Combined (Foundation and Higher)

Topics to be assessed:

Biology

- B1 – Cell Biology
- B2 – Organisation
- B3 – Infection and response
- B4 – Bioenergetics
- B7 – Ecology

Chemistry

- C1 – Atomic structure and the periodic table
- C2 – Bonding, structure, and the properties of matter
- C5 – Energy changes
- C6 – The rate and extent of chemical change
- C7 – Organic chemistry
- C8 – Chemical analysis
- C9 – Chemistry of the atmosphere
- C10 – Using resources

Physics

- P1 – Energy
- P2 – Electricity
- P3 – Particle model of matter
- P4 – Atomic structure

SCIENCE – Triple (Foundation and Higher)

Topics to be assessed:

Biology

- B1 – Cell Biology
- B2 – Organisation
- B3 – Infection and response
- B4 – Bioenergetics (the nervous system, the brain and the eye only)
- B7 – Ecology

Chemistry

- C1 – Atomic structure and the periodic table
- C2 – Bonding, structure, and the properties of matter
- C5 – Energy changes
- C6 – The rate and extent of chemical change
- C7 – Organic chemistry
- C9 – Chemistry of the atmosphere
- C10 – Using resources

Physics

- P1 – Energy
- P2 – Electricity
- P3 – Particle model of matter
- P4 – Atomic structure

To help organise your revision it can be good to have a timetable so that all of your subjects are covered.

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
4pm – 4.30pm							
4.30pm – 5pm							
5pm – 5.30pm							
5.30pm – 6pm							
6pm – 6.30pm							
6.30pm – 7pm							

Remember to schedule times to eat and take short breaks to help you re-focus

Choose one day at the weekend to revise and another for relaxing or spending time with family and friends

Always place any mobile devices out of the room when revising, they will impact your ability to concentrate.