

All Year 10 students are sitting trial examinations from Monday 13 June until Friday 24 June 2016. Each student has their own personal timetable. Below are the revision lists of each subject:

Contents

Science.....	2
Maths – Foundation Tier	3
Maths – Higher Tier	4
Philosophy and Ethics.....	6
Physical education.....	7
Business.....	8
Food Technology	11
Resistant Materials	12
Product Design	13
English Language	15
English Literature.....	16
Art.....	17
Spanish.....	18
Geography.....	20
History	23

Science

Subject	Topics	Pages in the Revision Guide
Biology 2	Plant and Animal Cells	3
	Inside Bacteria	4
	DNA	5
	DNA Discovery	6
	Genetic Engineering	7
	Mitosis	8
	Fertilisation and Meiosis	9
	Clones	10
	Stem Cells	11
	Protein Synthesis	12
	Proteins And Mutations	13
	Enzymes	14
Enzyme Action	15	
Chemistry 2	Structure of the Atom	38
	The Modern Periodic Table	39
	Electron Shells	40
	Ions	41
	Ionic Compounds	42
	Properties of Ionic Compounds	43
	Precipitates	44
	Ion Tests	45
	Covalent Bonds	47
	Covalent Substances	48
	Miscible or Immiscible?	49
	Chromatography	50
	Chemical Classification 1	51
Chemical Classification 2	52	
Physics 2	Static Electricity	70
	Uses and Dangers	71
	Electric Currents	72
	Current and Voltage	73
	Resistance, Current and Voltage	74
	Changing Resistances	75
	Transferring Energy	76

Maths – Foundation Tier

Topics	Resources
<ul style="list-style-type: none">• Number Properties• Simplifying & Solving Algebra• Solving Inequalities• Bar Charts & Pictograms• Fractions, Decimals, Percentages• BIDMAS• Area & Perimeter• Ratio & Proportion• Averages• Number Machines• Percentages & Interest• Sequences• Converting Units• Simultaneous Equations• Bank Accounts• Shape Properties & Congruence• Missing Angles• Bearings• Trigonometry• Best Buys• Volume of Prisms & Spheres• Factors & Multiples• Substitution• Factorising• Linear Graphs• Probability• Frequency Tree• Speed, Distance & Time• Venn Diagrams• Area of Circles• Calculator Use• Construction• Standard Form	<p>http://corbettmaths.com/</p> <p>https://www.samlearning.com/</p> <p>W:\Mathematics\Maths Watch\Key Stage 4\MathsWatch (for 2017 exams onwards)</p>

Maths – Higher Tier

Topics	Resources
<ul style="list-style-type: none">• Expanding Brackets• Standard Form• 3D Shapes• Fractions, Decimals, Percentages• Area & Perimeter• Probability• Speed, Distance, Time• Ratio• Construction• Percentages• Pythagoras• Averages & Spread• Trigonometry• Venn Diagrams• Changing the Subject• Equations of a Circle• Recurring decimals• Indices• Iteration• Sequences• Surds• Circle Theorem• Simultaneous Equations• Linear Graphs• Direct Proportion• Calculator Use• Solving Equations & Inequalities• Substitution• Congruence & Similarity• Volume• Equation of Reflection• Interest• Estimating from Grouped Data• Conversion• Factorising Quadratics	<p>http://corbettmaths.com/</p> <p>https://www.samlearning.com/</p> <p><u>W:\Mathematics\Maths Watch\Key Stage 4\MathsWatch (for 2017 exams onwards)</u></p>

- | | |
|---|--|
| <ul style="list-style-type: none">• Quadratic Graph & Turning Point• Histograms & Cumulative Frequency• Angles & Polygons• Bearings• Quadratic Formula• Properties of Numbers• Number Sets• Bounds• Proof• Vectors• Translation• Inverse Functions• Inequalities on a Graph | |
|---|--|

Philosophy and Ethics

Philosophy – Good and Evil:

- The Problem of Evil
- The Fall, Original Sin and Redemption
- Coping with Suffering
- The Devil
- Christian responses to why there is evil in the world.
- Reasons for moral (good) behaviour

Philosophy – Religion and Science:

- Scientific theories about the origins of the world and humanity
- Christian beliefs about the origins of the world and humanity
- Comparing Scientific theories and Christian beliefs the origins of the world and humanity
- Christian beliefs about the relationship between human beings and animals
- Attitudes towards the treatment of animals
- Christian beliefs about *stewardship* and environmental issues

Ethics:

- Sanctity of Life
- Christian Attitudes towards Abortion
- Christian Responses to issues raised by Fertility Treatment
- Christian Responses to issues raised by Cloning
- Christian attitudes towards Euthanasia and suicide
- Christian Beliefs about the use of animals in Medical Research

Physical education

What constitutes a healthy, active lifestyle:

- Key influences
- Sports Participation Pyramid
- Components of Fitness
- PAR-Q
- Principles of Training
- SMART Targets
- Aerobic & Anaerobic activity
- Difference between resting, working & recovery heart rates
- Methods of Training
- Diet
- Effects of smoking, alcohol (recreational drugs) on performance
- Performance Enhancing Drugs

It is predominantly on Diet, Recreational Drugs and Performance Enhancing Drugs. Students have a revision sheet to fill in on these. They also have revision guides they can use.

Business

Skills

Define / List:

- What does the word mean? Support your answer with a definition. What does this thing contain?

Apply / Give Examples:

- Can you relate your answer to the case study or story?

Analyse / Explain:

- Make a point, now say why this point is important to the people in the case study.

Evaluate / Discuss / Recommend:

- Time to use the 4 paragraph layout.
- Start off with the keyword definition and supporting example.
- Move on to the good points and how this affects the case study.
- Next it's time to discuss the drawbacks and how they affect the case study.
- Finally it's the opinion paragraph where you make a recommendation and support it with evidence.

Topics

Business Basics:

- Entrepreneurship
- Aims and Objectives
- Aims and Objectives in different sectors
- Stakeholders
- Sectors of Industry
- Functional Areas of Business
- Social Enterprise
- Factors of Production
- Factors of Location
- Growth of a Business

Types of Ownership:

- Unincorporated Businesses
- Incorporated Businesses
- Franchises
- Government and Location
- Co-ops

Human Resources Management:

- Contracts of Employment
- Job Description and Person Specifications
- Job Adverts
- Job Applications
- Shortlisting
- Interviews
- Training
- Employee Rights and Responsibilities
- Motivational Theory
- Leadership
- Remuneration
- Payslips
- Non-Financial Motivation
- Appraisal and Dismissal
- Trade Unions

Communication:

- Internal and External Communication
- Organisational Structures
- Barriers to Communication
- WOVEN Communication
- Modern Working Practices – Videoconferencing and Flexitime
- Modern Working Practices – Hotdesking and Teleworking
- Business and the Internet

ICT

- Computer systems and mobile technologies
- Current input and output devices
- Storage devices and media
- Communications and entertainment.
- A range of ICT tools and techniques
- Systems life cycle
- Working with information to solve problems
- Operating systems and user interfaces
- Applications software
- Word processing, DTP, web design
- Graphics production and image manipulation
- Spreadsheets and modelling software
- Databases
- Web browsing and e-mail
- Web logs and social networking
- Data logging and control software
- Society's use of ICT
- Legal issues
- Social and economic issues
- Political, ethical and environmental issues
- Collaborative working
- Principles and processes of collaborative working

Further Skills:

- Familiar with data validation look up date range, number range, input mask, logical operators etc
- Ability to interpret and write basic algorithms. (Command Controls)
- Familiar with a wide range of image manipulation tools (air brushing, morphing, erasing, rotating, shading etc).
- Familiar with different types of Data types (Boolean, Number, General, currency) etc.

Food Technology

Section 1

Context – Bread based snacks

Design Theme – Savoury snack and dip products

For this section make sure you research a range of bread based products from a range of countries.

- You will be designing bread based snacks with accompanying dips to meet set design criteria. Make sure you are prepared to explain how your snacks meet the design criteria.
- You will need to be prepared to produce a manufacturing plan of how to make one of your dishes – this will need to include health, hygiene and quality control checks.
- You will be asked about some of the key nutrients in your snack and how dishes need to be adapted to suit different dietary and cultural needs.

Section 2

This section is about more general food topics and covers the rest of the syllabus.

I would advise to you revise and practice answering questions about:

- Product Analysis and comparing products
- Explaining the cooking terms marinade, seal and simmer
- Safe cooking temperatures and food poisoning
- GDA (guideline daily amounts), why they are important and useful to some people
- Different types of pastry and the ratio of fat to flour used to make them (shortcrust, rough puff and choux)
- Sensory testing and how it is carried out fairly in industry
- Different types of flour and the difference in health benefits
- Use of computers in quality control of products
- How to achieve quality finishes on products
- Use of food additives
- Organic and locally sourced foods
- Uses of craters, steamers and hand blenders in test kitchens
- Food contamination

Resistant Materials

Section 1

You will be asked by a company that designs and manufactures personal hi-fi equipment to produce a range of casing designs for an mp3 player docking station with speakers.

- You will be expected to be able to write a list of design criteria (specification points) for the product.
- You will then need to create 5 design ideas for the product (don't be afraid to be creative).
- You will have to develop 1 of your ideas in detail.
- Finally need to evaluate your developed design.

Section 2

This section is about more general Resistant Materials topics and covers the rest of the syllabus.

I would advise to you revise and practice answering questions about:

- Hand tools and equipment, their correct names and uses
- Health and safety procedures and signs
- Explaining how to manufacture a product from marking out to finishing (using correct tool names and explaining how multiple copies of the product can be made consistently)
- Identifying materials (using specific names not just wood, metal and plastic) and their properties
- Environmental impact of using metals to manufacture products
- Maintenance of a product to keep it in good working order
- Use of jigs and templates in manufacture of products
- Sustainability

Good sources of information to use are found at:

- www.focuselearning.co.uk (log in with user name - student@landauforte31299 and password - m2i8ehfyi) and use the resistant materials section.
- www.technologystudent.com

Product Design

The Preliminary Material

A large section of the exam will be set around the given theme. Below is a summary of the advice given by the AQA to students regarding these sheets:

Research into the theme can be completed individually by students and may include something as simple as being extra observant when out and about or taking the initiative to discuss the theme with family and friends in order to gain a greater understanding. Students should not produce too much research material individually as a large volume of it might become too much to digest. No research material may be taken into the exam room.

The context for the Preliminary Material is;

To Design in the style of Memphis Style.

You will need to understand the main elements of Memphis design. The **colours, shapes and materials used**, etc. you will also need to understand key fact and dates about the design style, **Key people, dates and places**.

Revision

General Revision

Places to look for help with revision:

- Text books from school, you will have access to them.
- technologystudent.com: great website.
- bbc.co.uk/schools/gcsebitesize/design
- Television featuring D&T such as Mythbusters/How things are made etc.
- www.focuselearning.co.uk is another great website and the log in and user name are below:

Username: student@landauforte31299

Password: m2i8ehfyi

Revision Area's that should cover all aspects contained within this Product Design Exam;

- Materials and finishes.
- Smart materials
- Product marketing-Branding

- Advertising
- Batch production methods
- Packaging symbols
- Sustainability
- Environmental issues
- Quality Assurance and Quality Control
- Product development
- Use of ICT in Design

English Language

Question/Skill	Activities/Websites that will help you 😊
<p>Question 1/finding specific information. Worth 4 marks, this question will ask you to take specific information from a small part of the source.</p>	<p>Practise reading a fiction text using the example below. Pick out details from each paragraph about specific events or characters.</p>
<p>Question 2/analysing language. Worth 8 marks, this question will ask you to analyse how language is used in a small extract from the source.</p>	<p>Practise analysing language by looking at paragraph 3 ‘At one end...’ – annotate and write about how the writer uses language to describe Major.</p> <p>You can also revise and complete activities on the following link: http://www.bbc.co.uk/education/guides/z2psfg8/revision</p>
<p>Question 3/analysing structure. Worth 8 marks, this question will ask you to analyse how structure is used in the whole of the source.</p>	<p>Practise analysing structure by looking at the whole source – annotate and write about how the writer uses structure to interest the reader.</p> <p>You can also revise and complete activities on the following link: http://www.bbc.co.uk/education/guides/z2psfg8/revision</p>
<p>Question 4/evaluating the source. Worth a whopping 20 marks, this question will give you someone else’s opinion on the text and then ask you how far you agree. It wants analysis to support your ideas.</p>	<p>For Q4, you need to personally respond to the text. Use the web page below and revise using the activities. http://www.bbc.co.uk/education/guides/z3kdwmn/revision</p>
<p>Question 5/descriptive or narrative writing. Worth 40 marks, you will either respond to an image or another task, writing descriptively and maybe narratively. Remember to write with accuracy.</p>	<p>Remind yourself of literary techniques. Revise writing by using these revision pages: http://www.bbc.co.uk/education/topics/zwfw2p3</p> <p>Revise the accuracy of your writing by using these: http://www.bbc.co.uk/education/topics/z2b2tyc</p>

English Literature

Question/Skill	Activities/Websites that will help you 😊
<p>Section A/An Inspector Calls. Worth 34 marks, this will test your knowledge of the whole play and your skills of analysis/.</p>	<p>Read the text again and make sure you know something about each character and can support your ideas with evidence from the play. Revise and complete activities from: http://www.bbc.co.uk/education/topics/zxmb4j6</p>
<p>Section B/power & conflict poetry. Worth 30 marks, this will test your ability to analyse and compare two poems.</p>	<p>Re-read the poems and link each of them to others by themes of: power, conflict, pride, fear and loss. Revise and complete activities from: http://www.bbc.co.uk/education/topics/z4nc87h</p>
<p>Section C/Unseen poetry (1). Worth 24 marks, you will be given a poem you won't have seen before. You will need to show understanding of the poem and be able to analyse its meaning, language, structure and form.</p>	<p>Revise and complete activities from this website, which is specifically about how to approach poetry: http://www.bbc.co.uk/education/guides/zcrpycw/revision</p> <p>Also, try reading and responding to some of the other poems in your anthology – look at their meaning.</p>
<p>Section C/Unseen poetry (2). Worth 8 marks, you will be given a 2nd unseen poem and will be asked to compare it to the 1st. This question tests your ability to understand meaning, analyse and compare.</p>	<p>Try reading and responding to some of the other poems in your anthology – look at their meaning. Compare poems within the 'relationships' section to practise.</p> <p>Revise and complete the activities here: http://www.bbc.co.uk/education/guides/zcf2tyc/revision</p>

Art

Your task is to produce a piece of work in the style of Dorit Elisha.



Prior to the examination you must have completed the following:

1. Chosen a colour scheme for your work. This will probably be 2 colours plus black and white.
2. Print examples of spotty and stripy paper in your chosen colour scheme.
3. Select a theme for your work ie mobile technology, make up, accessories.
4. Find and print examples of pictures which link to your theme. You need a variety of pictures and a variety of sizes. Similar to the ones shown on the back of this page.
5. Collect or print papers such as book paper, tissue paper, newspaper etc which you think would work within your work.

Spanish

This found in the students' revision booklet

1. Introduction p1
2. Grammar Checklist p5
3. Adjectives p7
4. Miscellaneous Vocab p10
5. Numbers p11
6. Places and Nationalities p12
7. Sentence Vocabulary p13
8. Time Phrases p15
9. Verbs p16
10. Reading and Listening Vocabulary
 - a. Personal information
 - i. General Information p23
 - ii. General Interest p26
 - iii. Leisure Activities p30
 - iv. Family and Friends p33
 - v. Lifestyle p40
 - b. Customer Service
 - i. Customer Services p48
 - ii. Shops p51
 - iii. Cafes and Restaurants p57
 - iv. Dealing with Problems p62
 - c. Out and About
 - i. General p64
 - ii. Transport and Directions p70
 - iii. Accommodation p75
 - iv. Local Amenities p78

- v. Visitor Information p80
 - vi. Weather p84
 - d. Education and Work
 - i. General p86
 - ii. The Internet p90
 - iii. Job Adverts 91
 - iv. Job Applications 93
 - v. School p95
 - vi. Work and Work Experience p101

- 10. Speaking and Writing Vocabulary
 - a. Media and Culture
 - i. Fashion, Celebrities and Religion p106
 - ii. Blogs and Internet p109
 - b. Sports and Leisure
 - i. Hobbies p110
 - ii. Sporting Events p114
 - iii. Lifestyle Choices p115
 - c. Travel and Tourism
 - i. Holidays p122
 - ii. Accommodation p127
 - iii. Eating, Food and Drink p130
 - d. Business, Work and Employment
 - i. Work Experience p134
 - ii. Products and Service Information p139

Geography

Topic 1 - Extreme Environments (Mountains AND Deserts)

Topic - Mountains
What are mountains like? (weather, climate, altitude, gradient)
How do mountains impact on humans? (Where do people live, what jobs do they do etc?)
How are mountains represented in cultural resources? (paintings, movies, books etc)
Where are mountains found?
How are mountains created? (destructive and collision plate boundaries)
What is the climate like in mountains?
Why do tourists visit mountains? (Machu Picchu, ski resorts)
What positive and negative impacts do tourists have on mountains?
How can mountain regions be used to generate electricity (geothermal and hydro electric power)
What are mountain landscapes like? Glacial erosion leads to the formation of corrie/cirque/tarn, arête, pyramidal peak, U-shaped valley/hanging valley and truncated spur/ribbon lake.
How is material transported in mountain environments? Glacial transportation and deposition lead to the formation of moraines (lateral, medial and terminal)
How do people use mountain environments? (research, tourism, sports)

What are the impacts of tourism on Machu Picchu (Andes)?
What challenges do mountains pose? (altitude, gradient, accessibility and transport, food and water supplies and how they are managed.)
How are natural hazards managed in mountain environments? (earthquakes, volcanoes, land slides)
How are mountain environments managed sustainably? (farming methods, hydro-electric power, geothermal power and eco-tourism.)
How are mountain environments managed un-sustainably? (tourism, farming, culture conflicts)
How might climate change affect mountain environments?

Topic - Deserts
What are deserts like? (weather, climate, altitude, gradient)
How do deserts impact on humans? (Where do people live, what jobs do they do etc?)
How are deserts represented in cultural resources? (paintings, movies, books etc)
Where are deserts found?
How are deserts formed? (Rain Shadow, Monsoon, Trade Wind, Coastal)
What is the climate like in deserts?
Why do tourists visit deserts? (Sahara)
What are desert landscapes like? Weathering and erosion - Sand dunes, rock pedestal, wadi, yardang etc.

Desert Ecosystems – Animals and Plant Adaptations.
How do people use desert environments? (research, tourism, sports, power – oil)
What challenges do deserts pose? (accessibility and transport, food and water supplies and how they are managed.)
How are desert environments managed sustainably? (farming methods, hydro-electric power, geothermal power and eco-tourism.)
How are deserts environments managed un-sustainably? (tourism, farming, culture conflicts)
How might climate change affect desert environments?

Topic 2 Earthquakes

Topic
Where do earthquakes happen?
What are the different types of plate boundary?
What happens at each type of plate boundary?
How are earthquakes measured?
What are the primary impacts of earthquakes (Haiti)?
What are the secondary impacts of earthquakes (Haiti)?
How can earthquakes be managed? (building design, preparation)

History

This list is not exhaustive, especially for Paper 2.

Topic	Details
The Cold War – Post 1945 Europe	How WW2 ended The two atomic bombs Japanese surrender Yalta Potsdam Containment The key leaders – USA, GB and USSR Countries under the influence of Stalin What the Cold War was Greece Truman doctrine Marshall Plan Berlin blockade Examiner favourite A divided Germany NATO
The Cold War - Cuba	Containment What a nuclear missile is Other minor areas of war (Angola, Chile, Israel, Afghanistan) Atom bomb propaganda and fear Missile gap Batista Facts about Fidel Castro Bay of Pigs Why did Khrushchev put missile on Cuba? Examiner favourite! The detail about the Cuban missile crisis The key leaders – Kennedy etc Kennedy's options What happened Impact on Khrushchev Turkey missiles Outcomes
The Cold War - Vietnam	France and Japan –early invaders Why did the USA get involved Containment Domino Theory USA presidents involved

	<p>North and South Vietnam leaders NVA and Viet Cong Tactics and weapons used La Drang My Lai Rolling Thunder Search and Destroy Tet USA leaves (side point to revise is Nixon and Watergate) Evacuation of Saigon 1975 Nguyen Ngoc Loan shooting American and world media Protest groups – hippies, students, Ali, Christians, women etc. Protest music and film Death statistics</p>
USA	<p>Impact of WW1 Republican policies USA rich in natural resources What was the boom Henry Ford / assembly line Problems in farming Who did not benefit from the boom Rural v urban Impact of Christianity Music / jazz / radio / films –make sure that you can give examples of film stars and films Female film actresses (know examples) Morals Impact of the motor car on society Flappers Female limitations / freedoms Eleanor Roosevelt Immigration / New York / limits Red Scare Sacco and Vanzetti KKK Paul Robeson Marcus Garvey Native Americans</p>

	<p> Monkey Trial Prohibition – why introduced (favourite) Prohibition and the law Gangsters 4 reasons why it failed Why the WSC occurred (favourite) Shares and speculation The WSC itself Weaknesses in the US economy The Depression Hooverilles Bonus Marchers 1932 Election Roosevelt’s 100 days (favourite) The First New Deal (favourite and know all alphabet agencies) The Second New Deal (know all acts) Dorothea Lange and her photo’s TVA 3 groups who opposed the New Deal (favourite) Was the ND a success? Common essay question </p>
<p> Paper 2 - One of these three topics or a blend of topics will come up. Revise all 3 well. </p>	<p> Liberal Reforms and poverty Early history of poverty Dirty Victorian cities Cholera / rickets / scurvy Philanthropy Charles Booth William Booth John Galt Seebohm Rowntree Edwin Chadwick Dr Barnado Ragged children / foundlings Free education The Liberal Reforms – must know all detail Political parties and politicians Lloyd George Churchill Asquith Boer war / Haldane Reforms Opposition of the rich / tax payer Assessment of the reform’s impact </p>

	<p>Women and the Vote Caroline Norton Mary Wollstonecraft Jane Austen Queen Victoria All Pankhursts Fawcett Emily Wilding Davison WSPU NUWSS Failed laws and Acts Actions taken by both groups WW1 – jobs and impact Cat and Mouse act 1918 and 1928 Women’s football</p>
	<p>WW1 and the Home Front How the war started Kaiser Wilhelm II George V Woodrow Wilson and the USA Schlieffen Plan / Belgium British / Battle of Mons Why trenches formed Trench life WW1 weapons Gas Tanks Aeroplanes / zeppelins Battle of Loos 1915 Ypres Battle of the Somme (favourite) Haig Censorship / lies /Somme movie Propaganda – home and trench DORA – massive topic!!! Rationing Women Passchendaele 1917 U boats How the war ended Battle of Jutland</p>