

Year 10 – Revision List

English Language – 6th and 12th June (real GCSE exams). Revision is taking place in lessons. The following dates are important for English:

English Cafe – this takes place every Tuesday from 3:30pm.

Monday 5th June – an extra revision session from 3:30pm.

Tuesday 6th June – This is the date of the first examination. There is early revision session that starts at 8am.

Saturday 10th June – this is revision for the second paper from 10am – to 12pm.

Monday 12th June – This is the date of the second examination. There is early revision session that starts at 8am.

Thursday 24th August – students can pick up their results from the Sports Hall at 10am

Assessment window 2: Science: 2nd – 4th May.

All other subjects: Tuesday 13th June – Friday 30th June

In this assessment window you will take tests, under examination conditions, in the sports hall. These tests will be used to work out a GCSE grade you are working at now and what we anticipate you will get at the end of Year 11. This will form a tracking report that goes home to your parents and carers. You will use this tracking report when applying for 6th forms, colleges and apprenticeships as evidence of your anticipated grades and effort, as well as your attendance.

To help you prepare for these tests, each subject has provided a revision list. You will take assessments in

- Science
- Maths
- Option subjects, where relevant

Other subject areas will give you more revision material in session time as well as this revision list.

How can you prepare for these assessments?

- Use your 40 minute daily tutor time wisely
- Revise up to three subjects an evening, for 30 minutes each
- Use 'Sam Learning' to revise important topic areas
- Use 'Active Learn' for Science revision
- Get your friends/parents to test you
- Write revision notes and key terms
- Create a revision map for each subject area

Trial Examination Timetable

All subjects, except English, will be examined in the next assessment window as follows:

Date	Start	Length	Subject
Tue 2 May	09:30	01:00	Biology
Wed 3 May	09:30	01:00	Chemistry
Thu 4 May	09:30	01:00	Physics

Date	Start	Length	Subject
Tue 13 Jun	14:00	01:00	PE and Sport Theory
Wed 14 Jun	All Day		Art Practical Option C
Thu 15 Jun	09:00	01:30	Maths Paper 1
Fri 16 Jun	All Day		Art Practical Option D

Date	Start	Length	Subject
Mon 19 Jun	14:00	01:30	Maths Paper 2
Tues 20 Jun	09:00	01:30	Maths Paper 3
Wed 21 Jun	14:00	01:30	Business Studies Paper 1
Thu 22 Jun	09:00	01:45	Philosophy & Ethics
	14:00	01:00	Business Studies Paper 2

Date	Start	Length	Subject
Mon 26 Jun	09:00	02:00	Food Technology
	14:00	01:00	Spanish
Tues 27 Jun	09:00	01:45	Geography Paper 1
Wed 28 Jun	09:00	01:45	History
	13:30	01:15	Geography Paper 2
Thu 29 Jun	09:00	02:00	Resistant Materials
Fri 30 Jun	09:00	02:00	Product Design

Revision Lists

Maths – Higher Tier

This list covers both the calculator and non-calculator papers. (3 papers)

Topics		
Non-calculator (Paper 1) <ul style="list-style-type: none">• Expand single bracket• Standard form converting• Number as fraction of another with decimals• Faces on pyramids• Circles inside a square area problem• Comparing probabilities• Speed/Distance/Time• Ratio multiples• Perpendicular bisector• Repeated & change• Pythagoras for diagonal of a square• Interquartile range meaning• Cosine values• One fraction as a fraction of another fraction• Venn Diagrams problem• Expand double brackets & collecting terms• Change subject with fraction (+ new subject appears twice)• Circle equation meanings• Area of triangle ($\frac{1}{2}ab\sin C$)• Recurring decimal to a fraction• Reverse percentages• Indices Fractional/negative• Reverse probability from two events• Iterative formulae	Calculator (Paper 2) <ul style="list-style-type: none">• Nth term linear• % as a fraction• $Y=mx+c$• Direct proportion equation• Spot errors in calc use• Solving inequalities• number line inequalities• Substitute into formula• Solve $x^2 = a$• Ratio with part total• Congruent triangles• Volume of spheres• Use spheres to find dimensions of a cuboid• Number as % of another• Set up equations from triangle properties• Solve equation unknown both sides• Number of outcomes• Set up and solve area of triangle equation• Adding surds• Reverse compound interest with added money• Probability tree diagram• Probability and/or• Inequality graphs• Gradient of a line• Convert unit of pressure	Calculator (Paper 3) <ul style="list-style-type: none">• Law of Indices (power/power)• Exterior polygon angles• Opposite Bearings• Pythagorean triple• Error Intervals• Basic Trig ratios• Similar shape lengths• Reverse Mean calculation• Sample Space probability• Formulae substitution• Value as % of another• Simultaneous Equations• Comparing data using %• Numbers in standard form• Two ratios with common part• Quadratic Formula• Set notation• Using calculator correctly• Percentage variance• Upper/lower bounds• Surds multiplication• Set-up equations• Expand double brackets• Simplify algebra• Gradient between points• Perpendicular gradients• Ratio to find a point on a line

<ul style="list-style-type: none"> • Circle Theorem • Rationalise denominators • Surd Addition/simplification • Simultaneous equations with one quadratic 	<ul style="list-style-type: none"> • Estimation from grouped frequency • Completing the square • Turning points • Right angled & non-right angled trig • Histogram from cumulative frequency 	<ul style="list-style-type: none"> • Algebraic vectors • Parallel vectors • Direct proportion • Distance from speed time graph
<p>Resources:</p> <p>http://corbettmaths.com/</p> <p>https://www.samlearning.com/</p> <p>https://mymaths.co.uk/</p> <p>https://mrcartermaths.com/</p> <p><u>W:\Mathematics\Maths Watch\Key Stage 4\MathsWatch (for 2017 exams onwards)</u></p>		

Maths – Foundation Tier

This list covers the calculator and non-calculator papers. (3 papers)

Topics		
Non-calculator (Paper 1) <ul style="list-style-type: none">• Multiples• Inequality signs• Solve 1 step equation• Show meaning of a term raised to a power• Bar chart → pictogram• Fraction of amount• Basic BIDMAS• Collect like terms• Ratio → fraction• Number machines (inc algebra)• One number as percentage of another• Nth term (picture sequence)• Ratio in context• Algebra angles in a triangle• Square numbers• Multiples in context• Substitution with brackets• Linear factorisation• Probability of 2 events• Networks• Speed/Distance/Time• Venn Diagrams• Ratio from total• Ratio from part total• Circles inside square are problem solving• Comparing probabilities• Standard Form• Repeated percentage change• Perpendicular bisector	Calculator (Paper 2) <ul style="list-style-type: none">• Probability• Units of speed• Calculate a power• Percentage of amount• Ratio of cost and quantity• Read a bar chart• Rounding to 10• Compound units (cost/litre)• Angles in special triangles• Frequency Tree• Relative frequency• Revenue from win/lose scenario• Calculating workers needed for a job• Percentage of amount• Properties of a square split into 2 equal rectangles• Find area from perimeter• Substitution into formulae• Standard form• Correct use of calculator on a given calculation• Solve inequality• Show inequality a on number line• Bearing problem solving• Find errors on a straight line graph• Solve $x^2 = a$• Bust buy with offers	Calculator (Paper 3) <ul style="list-style-type: none">• FDP Conversion• Negative number value• Bank Statements• +/- negative numbers• Calculate probability• Label using probability• Ratio as a fraction• Fraction of amounts• Shapes on a grid• Inverse operations• Fraction → Ratio• Map Scale• Term-to-term sequence• Multi-step using conversions• Area of sector• Simple Interest• Area problem solving with rectangles• Difference of 2 squares• Solve equation with fraction• Angles in triangle/parallelogram• Co-interior angles• Error intervals• State a trig ratio• Similar shapes' lengths• $Y=mx+c$• Reverse mean calculation• Sample space probability• Substitute into area formula given• One number as a percentage of another• Simultaneous Equations• Comparing data using percentages

<ul style="list-style-type: none"> Pythagoras for diagonal of a square 	<ul style="list-style-type: none"> Ratio from a part total Congruent triangles Volume of a sphere Use spheres to find volume of box 1 value as a percentage of another 	
<p>Resources:</p> <p>http://corbettmaths.com/</p> <p>https://www.samlearning.com/</p> <p>https://mymaths.co.uk/</p> <p>https://mrcartermaths.com/</p> <p><u>W:\Mathematics\Maths Watch\Key Stage 4\MathsWatch (for 2017 exams onwards)</u></p>		

Science

Specification reference	Specification topic name	Edexcel Combined Science resources reference
BIOLOGY		
Topic 1	Key concepts in Biology	CB1 Key Concepts in Biology
Topic 2	Cells and control	CB2 Cells and Controls
Topic 3	Genetics	CB3 Genetics
Topic 4	Natural selection and genetic modification	CB4 Natural Selection and Genetic Modification
CHEMISTRY		
Topic 1	Key concepts in Chemistry	CC3 Atomic Structure CC4 The Periodic Table CC5 Ionic Bonding CC6 Covalent Bonding CC7 Types of Substance CC9 Calculations Involving Masses
Topic 2	States of matter and mixtures - States of matter	CC1 States of Matter
Topic 2	States of matter and mixtures - Methods of separating and purifying substances	CC2 Methods of Separating and Purifying Substances
PHYSICS		
Topic 1	Key concepts in Physics	NA *
Topic 2	Motion and forces	CP2 Forces and Motion
Topic 3	Conservation of energy	CP3 Conservation of Energy
Topic 4	Waves	CP4 Waves
Topic 5	Light and the electromagnetic spectrum	CP5 Light and the Electromagnetic Spectrum

Physical Education

UNIT	LESSON TITLE
Health, Fitness & Well Being	Physical, emotional and social health
	Lifestyles
	Practical
	Balanced diet and role of nutrients + Dietary manipulation for sport (carb-loading and hydration)
Skeletal System	Structure of the Skeletal System + Structure and function of ligaments and tendons
	Skeletal system – functions applied to performance in physical activities and sports
	Skeletal System – Classification of bones & function
	Joint Types (ball & socket etc.) and Joint Movements (flexion, extension etc.)
Muscular System	Muscular System – Voluntary location & Roles
	Types of muscle, fibre types & types of contractions
	Antagonistic Pairs
CV System	Structure and function
	Structure and function of blood vessels & Vascular Shunting
	CV system-function and importance of components of blood for physical activity
Respiratory System	Composition of Air & Components

History

Tudors – Elizabeth I only

Hardwick Hall

The History of British Medicine 1000AD to the present.

Geography

Dynamic Development

6.1. Why are some countries richer than others?	
a. What is development and how can it be measured?	<ul style="list-style-type: none">• Definition of 'development' and the ways in which countries can be classified, such as AC, EDC and LIDC.
	<ul style="list-style-type: none">• Global distribution of ACs, EDCs and LIDCs.
	<ul style="list-style-type: none">• Economic and social measures of development, such as GNI per capita and Human Development Index, and how they illustrate the consequences of uneven development.
b. What has led to uneven development?	<ul style="list-style-type: none">• Outline the human and physical factors influencing global uneven development.
	<ul style="list-style-type: none">• Explore the factors that make it hard for countries to break out of poverty, including debt, trade and political unrest.
a. How has an LIDC developed so far?	<ul style="list-style-type: none">• Overview of the economic development of an LIDC, including influences of population, society, technology and politics, particularly in the past 50 years, or post-independence.
	<ul style="list-style-type: none">• Explore whether Rostow's model can help determine the country's path of economic development.
	<ul style="list-style-type: none">• The extent to which the relevant Millennium Development Goals have been achieved for this LIDC.
	<ul style="list-style-type: none">• Investigate how the LIDC's wider political, social and environmental context has affected its development.
b. What global connections influence its development?	<ul style="list-style-type: none">• The country's international trade, such as potential reliance on a single, or few, commodities and how this influences development.
	<ul style="list-style-type: none">• The benefits and problems of trade and Trans National Company (TNC) investment for development.
	<ul style="list-style-type: none">• The advantages and disadvantages of international aid or debt relief for its development.
c. What development strategy is most appropriate?	<ul style="list-style-type: none">• Compare the advantages and disadvantages of one top-down and one bottom-up strategy in the country.

Sustaining Ecosystems

4.1. Why are natural ecosystems important?	
a. What are ecosystems?	<ul style="list-style-type: none"> Understand the concept of an ecosystem as being the interdependence of climate, soil, water, plants and animals. Outline the global distribution of polar regions, coral reefs, grasslands, temperate forests, tropical forests and hot deserts. Overview of the climate, flora and fauna within these ecosystems.
a. What biodiversity exists in tropical rainforests?	<ul style="list-style-type: none"> The distinctive characteristics of a tropical rainforest ecosystem, including the climate, nutrient cycle, soil profile and water cycle. The interdependence of climate, soil, water, plants, animals and human activity in tropical rainforests.
b. Why are tropical rainforests being 'exploited' and how can this be managed sustainably?	<ul style="list-style-type: none"> Explore the value of tropical rainforests through the study of their goods and services. Human impacts in the tropical rainforest from activities such as logging, mineral extraction, agriculture and tourism. A case study to illustrate attempts to sustainably manage an area of tropical rainforest, such as ecotourism, community programmes, biosphere reserves and sustainable forestry, at a local or regional scale.
a. What is it like in Antarctica and the Arctic?	<ul style="list-style-type: none"> Outline the distinctive characteristics of Antarctica and the Arctic, including climate, features of the land and sea, flora and fauna. The interdependence of climate, soil, water, plants, animals and human activity in either the Antarctic or the Arctic polar region. Explore a range of impacts of human activity on either the Antarctic or the Arctic ecosystems, such as scientific research, indigenous people, tourism, fishing, whaling and mineral exploitation.
b. How are humans seeking a sustainable solution for polar environments?	<ul style="list-style-type: none"> A case study to examine one small-scale example of sustainable management in either the Antarctic or the Arctic such as sustainable tourism, conservation and whaling. A case study to examine one global example of sustainable management in either the Antarctic or the Arctic by investigating global actions such as Earth Summits or the Antarctic Treaty.

Philosophy and Ethics

Christianity

The nature of God:

- God as omnipotent, loving and just, and the problem of evil and suffering
- The oneness of God and the Trinity: Father, Son and Holy Spirit.
- Different Christian beliefs about creation

Religion, violence, terrorism and war

- The meaning and significance of:
 - peace
 - justice
 - forgiveness
 - reconciliation.
- Violence, including violent protest.
- Terrorism.
- Reasons for war, including greed, self-defence and retaliation.
- The just war theory, including the criteria for a just war.
- Holy war.
- Pacifism.

Religion and belief in 21st century conflict

- Religion and belief as a cause of war and violence in the contemporary world.
- Nuclear weapons, including nuclear deterrence.
- The use of weapons of mass destruction.
- Religion and peace-making in the contemporary world including the work of individuals influenced by religious teaching.

Hindu belief about Brahman

The Trimurti

Lesser gods and goddesses, including symbols

Hindu Mandir – internal and external features

The importance of the Mandir to the community

Home shrines

Worship in the mandir and the home

Puja symbols

Choosing a marriage partner

Marriage ceremonies in Christianity and Hinduism

Religious attitudes towards: sex outside marriage, contraception, divorce, remarriage.

The role of the family

The role of men and women in Hindu and Christian families.

Resistant Materials Assessment

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 coursework you have completing over the last year is worth 60% of the GCSE marks, the final exam is worth 40%. Careful, planned revision and a good exam technique are therefore essential to make the most of the marks available. Doing well in the exam paper will ensure that the grade you achieved during your coursework will stick. If you do really well you can improve your overall grade.

Tiers of Entry and the exam

There is only one paper covering all grades A* to G. All students will sit the same exam. The exam paper is 2 hours long and is worth 40% of the total marks of the GCSE.

The paper contains two sections:

Section A; 30 marks; a design question based on the context supplied before the exam. (The Preparation Sheet) Section B; 90 marks; covers all aspects of the specification content.

The exam will test your understanding of the Design Process, your ability to design, evaluate and develop solutions to a set brief and your general knowledge of materials and processes.

The Preliminary Material

Each year the exam has a set context/theme and this is set out on a printed sheet. You will be given this sheet on or soon after the 1 March, which is the earliest we are able to distribute them. Targeted revision can then begin. 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 assessment 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

Obviously, staff at school cannot guess every question that will be in the paper and there are always some which catch students out. The best way to prepare for this is through a sound, general knowledge of the subject. This should be completed at home as part of your revision programme.

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 use name are below:
Username:
student@landauforte31299
Password: m2i8ehfyi

For information straight from the exam board Exam (AQA Specification code: 4557) including Product Design past papers and general advice on exam preparation use www.aqa.org.uk. They have a lot of useful information aimed at students.

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

Y10 Food preparation and nutrition

The exam paper is made up of number of short answer and long answer questions.

You will be expected to answer all questions on the paper.

Question 1 -5 are multiple choice questions based on the following topics:

- **Food, nutrition and health**
- **Food safety**
- **Food science and bread making**
- **Food provenance**
- **Food choices**

Question 6 is a long answer question based on **diet, nutrition and health**. When answering this question you will be expected to use extended writing skills.

Question 7 is about **cooking food**. This will include identifying ingredients, special dietary needs, describing heat transfer methods in cooking and identifying & explaining function of ingredients.

Question 8 is about **food provenance**. This will include seasonal foods and avoiding food wastage.

Question 9 is about **understanding recipes**, their nutritional content and illnesses caused by bad dietary choices.

Question 10 is about **food preparation and food safety**.

You have access to the dynamic learning software package (user name = school login, password = password)

You can also borrow a copy of the text book from Mr Bell or Miss Latham.

Spanish

Assessment Window 2 Year 10 Independent Revision

How can I achieve my target grade?

To be successful in this assessment you will need knowledge of the following skills (all of which we have been practising since Year 7!)

Skills

Knowledge of

- Articles (definite and indefinite)
- Adjectives
- Quantifiers and intensifiers
- Adverbs (time, frequency and place)
- Interrogatives (asking questions)
- Verbs
 - Present tense (regular / irregular)
 - Ser / estar
 - Gustar
 - Preterite (regular / irregular)
 - Imperfect tense
 - Near future tense & the future tense
 - Conditional tense
 - Present continuous (gerund)
- Using three tenses together / extended opinions

Theme

Local area, holiday and travel
Identity and culture
School

Additional Skills

Speaking
Reading
Writing
Listening
Translation

Assessment Window 2 Year 10 Independent Revision

Skills continued

- Pronouns
 - Subject pronouns
 - Reflexive pronouns
 - Emphatic pronouns
 - Possessive pronouns
- Verbs
 - The imperfect continuous tense
 - The perfect tense
 - The pluperfect tense
 - Reflexive verbs (present / past)
 - Preterite or imperfect tense?

Theme

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Listening
Translation

ICT

TLM Level 2 Certificate for IT User Skills in Open Systems and Enterprise

The following principles will apply to the design and structure of each exam:

- Efficient use of applications/cost savings – you need to be able to show your understanding of:
 - the efficient use of technology to improve your productivity and work in other subject areas
 - The emphasis on using open systems for the free and legal use of technical tools and resources and how this contributes directly to social inclusion and equality of access to the tools needed to support further learning.
 - how to use common IT tools efficiently, safely and effectively
- Knowledge of data standards/interoperability
- Making judgements in a probably unfamiliar context
- Analysis of data/information in an IT context
- Dealing with quantifiables and calculations
- Safety, security, acceptable use
- IP - copyright, trademarks, patents

The exam will be a mixture of multiple choice questions and open-ended free response questions.

Your tutor will give you a more detailed revision list

Business

A292 Business and People Exam

Skills

1. Define / List:

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

2. Apply / Give Examples:

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

3. Analyse / Explain:

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

4. 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.

The Need for Business Activity

1. Entrepreneurship
2. Aims and Objectives
 - i. SMART Objectives
3. Aims and Objectives in different sectors
 - i. Private
 - ii. Public
 - iii. Voluntary
4. Stakeholders
 - i. Internal
 - ii. External
5. Sectors of Industry
 - i. Primary
 - ii. Secondary
 - iii. Tertiary
6. Functional Areas of Business

Business Ownership, Growth and Location

1. Unincorporated Businesses
 - i. Sole Trader
 - ii. Partnerships
 - iii. Unlimited Liability
2. Incorporated Businesses
 - i. LTD
 - ii. PLC

- iii. Limited Liability
- 3. Franchises
 - i. Franchisor
 - ii. Franchisee
- 4. Co-operatives
- 5. Social Enterprise
- 6. Growth of a Business
- 7. Factors of Location
- 8. Government and Location
 - i. RDA

Communication

- 1. Internal and External Communication
- 2. Barriers to Communication
- 3. WOVEN Communication
- 4. Modern Working Practices
 - i. Hotdesking
 - ii. Teleworking
 - iii. Videoconferencing
 - iv. Flexitime
- 5. Leadership Styles
- 6. Organisational Structures
 - a. Flat
 - b. Hierarchical / Tall

Employment and Retention

- 1. Contracts of Employment
 - a. Permanent and temporary
 - b. Full time and part time
- 2. Job Description and Person Specifications
- 3. Job Applications
- 4. Shortlisting
- 5. Interviews
- 6. Training
 - a. On the job
 - b. Off the job
 - c. Induction
- 7. Employee Rights and Responsibilities
- 8. Remuneration
 - a. Bonus
 - b. Piece rate
 - c. Commission
 - d. Time rate
- 9. Payslips
- 10. Appraisal and Dismissal
- 11. Trade Unions