



Subject	Topic Lists
Art	Component 1 (Portfolio) Natural Forms
Business Studies	Unit 1: Business activity Unit 2: Marketing Unit 3: People
Computer Science	Paper 1: Binary Arithmetic, Flowcharts, Networks (LAN, WAN, Network speed, Wired and wireless connectivity, topologies), stored program concept, Fetch-decode-execute, Network security, Utility software, Secondary Storage, Operating System. Paper 2: Variables, data types, 1D and 2D Lists, for loops, while loops, Functions, formatting, Procedures, Turtle graphics, Reading and writing files.
Design Technology	<p>Section A (20 marks)</p> <ul style="list-style-type: none"> • Lean manufacture • Inclusive design • Types of energy • Material properties • Modern materials • Mechanisms • Market pull • Metals • Polymers <p>Section B (30 marks)</p> <ul style="list-style-type: none"> • Standard components • Calculation task • Aesthetics • Waste of materials • Material sources • Dining furniture timber • How materials are modified • Scales of production <p>Section C (50 marks)</p> <ul style="list-style-type: none"> • Use of jigs • Product analysis • Ergonomics • Anthropometrics • How products can be made innovative • Ratios task • Orthographic drawing • Costing task • Increase in carbon dioxide related to production of new products • Research



<p>Drama</p>	<p>Component 1 Section A: Theatre roles and terminology</p> <ul style="list-style-type: none"> • Stage configurations • Stage positions • Theatre makers roles and responsibilities <p>Section B: The Crucible</p> <ul style="list-style-type: none"> • Characteristics and context of the play • 4 mark question – design detail: costume, set, lighting, sound. • 8 mark question – use of vocal and physical skill and intended impact on audience. • 12 mark question – use of space, direction and specified impact. • 20 mark question – character interpretation, vocal and physical skills, understanding of the play as a whole.
<p>Engineering</p>	<p>Content Area 2: Maths and Science in Engineering Including equations and SI units</p> <p>Content Area 4: Material Properties Including mechanical properties, material types (wood, metal, polymer, ceramic and composites)</p> <p>Content Area 1: Engineering Disciplines Understanding the various sectors and roles within the industry.</p> <p>Content Area 7: Computer Aided Design Using software to create engineering designs.</p> <p>Content Area 5: Tools and Equipment Safe and correct use of machinery and tools for production.</p> <p>Content Area 3: Reading Engineering Drawings Interpreting technical drawings.</p>
<p>Film Studies</p>	<p>Component 2: Global Cinema Section A: Slumdog Millionaire – key focus: Narrative Section B: Tsotsi – Key Focus: Representation (only what we have studied) Section C: Skyfall – Key Focus: Aesthetics + Genre</p> <p>Stepped Questions for each that could focus on the key area, film form or contexts</p>
<p>Food Preparation & Nutrition</p>	<p>Food, Nutrition and Health Nutrients: Proteins, carbohydrates, fats, vitamins, minerals and water Nutritional needs and health: making informed food choices for a varied and balanced diet. Energy needs. Diet, nutritional and health.</p>



<p>Food Preparation & Nutrition cont...</p>	<p>Food Science Cooking of food and heat transfer: why food is cooked and how heat is transferred to food. Selecting appropriate cooking methods. Functional and chemical properties of food: proteins, carbohydrates, fats and oils, and raising agents</p> <p>Food Safety Food spoilage and contamination: Micro-organisms and enzymes. The signs of food spoilage. Micro-organisms in food production. Bacterial contamination.</p> <p>Food Choice Factors affecting food choice: Factors that influence food choice. Food choices. Food labelling and marketing influences. British cuisine</p> <p>Food Provenance Processing and production: Food production. Technological developments associated with better health and food production.</p>
<p>French</p>	<p>Papers: Reading: Reading comprehension questions and short translation from French Listening: listening comprehension questions and dictée Writing: Writing in paragraphs about a choice of themes and a short translation into French</p> <p>Topics: Module 1: Free time (thematic context My personal world/ Media & Technology) - online activities, sports and hobbies, TV and film, going out. Module 2: Family and Relationships (thematic context My personal world) - describing family and friends, talking about relationships, talking about weekend routines and celebrations. Module 3: School life ((thematic context Studying and my future) - talking about school subjects and giving opinions, discussing school rules, memories of school when you were younger, learning languages, school in the francophone world.</p>
<p>Geography</p>	<p>One Paper of 90 mins in duration that will cover:</p> <ul style="list-style-type: none"> • Changing Urban Environments (30 mins) • UK Physical Landscapes of Rivers (15 mins) and Coasts (15 mins). • Familiar fieldwork questions from Swanage (15 mins) • Unfamiliar fieldwork questions (15 mins)



Geography
cont...

Changing urban Environments

- Pattern of urban change.
- What is urbanisation & the growth of megacities
- An example of a major LIC city (Mumbai) to cover:
 - Location and importance on different scales
 - Causes of population growth
 - How urban growth has created opportunities socially, economically and environmentally – Dharavi slum
 - How urban growth has created challenges in terms of managing slums (Dharavi) and providing clean water, sanitation and energy. How is health and education services provided. Reducing crime and unemployment as well as managing environmental issues such as waste disposal, traffic congestion and air / water pollution.
 - How is urban planning improving life for the urban poor?
- An example of a major HIC city (London) to cover:
 - Location and importance on different scales
 - Causes of population growth
 - How has urban change created opportunities in terms of **social and economic**: cultural mix, recreation and entertainment (think Shoreditch), employment, integrated transport systems and for **environmental**: urban greening
 - how urban change has created challenges: **social and economic**: urban deprivation, inequalities in housing, education, health and employment. **Environmental**: dereliction, building on brownfield and greenfield sites, waste disposal. The impact of urban sprawl on the rural–urban fringe, and the growth of commuter settlements.
- An example of an urban regeneration project to show:
 - reasons why the area needed regeneration.
 - the main features of the project (Stratford regeneration in the Lower Lea Valley).

Rivers

- How the river valley changes as it goes downstream (long and cross profiles). Know your processes of erosion (x4), transport (x4) and deposition (x1).
- Know the distinctive river landforms in the upper, middle and lower course that result from these processes. Know the River Tees as an example.
- different management strategies can be used to protect river landscapes from the effects of flooding. Know your hard and soft river management strategies. Know an example of a river flood management scheme – Banbury.



**Geography
cont...**

Coasts

- The coast is shaped by a number of physical processes. Know how coastlines are affected by wave types and characteristics (constructive vs destructive) and the processes of weathering, mass movement, erosion, transportation and deposition.
- Distinctive coastal landforms are the result of rock type, structure and physical processes. Know the various landforms that can be created along discordant and concordant coastlines (Lulworth Cove and Stair Hole from the trip).
- Different management strategies can be used to protect coastlines from the effects of physical processes. Know your hard and soft engineering strategies and the impact of them (Holderness Coast)

Familiar Fieldwork

Students know their TWO key fieldwork investigations inside out. These are:

Physical – To what extent is hard engineering successful in Swanage Bay?

Human – Is Swanage a sustainable tourist destination?

Unfamiliar Fieldwork

You can't really revise for this other than practising questions on past papers (Paper 3). It is about transferring your geographical and fieldwork skills including know all about:

- OS Map Skills.
- Maps in association with photographs.
- Graphical skills to include:
 - Line charts
 - Bar charts
 - Pie charts
 - Pictograms
 - Histograms with equal class intervals
 - Divided bar
 - Scattergraphs
 - Population pyramids

Student should know how to construct each, when to use them and what the pros and cons are.

Numerical skills to include:

- An understanding of number, area and scales, and the quantitative relationships between units
- Design fieldwork data collection sheets and collect data with an understanding of accuracy, sample size and procedures, control groups and reliability
- Understand and correctly use proportion and ratio, magnitude and frequency
- Draw informed conclusions from numerical data.



<p>Geography <i>cont...</i></p>	<p>Statistical skills to include:</p> <ul style="list-style-type: none"> • Use appropriate measures of central tendency, spread and cumulative frequency (median, mean, range, quartiles and inter-quartile range, mode and modal class) • Calculate percentage increase or decrease and understand the use of percentiles • Describe relationships in bivariate data: sketch trend lines through scatter plots, draw estimated lines of best fit, make predictions, interpolate and extrapolate trends • Be able to identify weaknesses in selective statistical presentation of data.
<p>History</p>	<p>History paper 1:</p> <p>Section A- <u>Whitechapel, c1870–c1900: crime, policing and the inner city</u> The social and economic problems of living in Whitechapel The tensions arising from the settlement of immigrants from Ireland and Eastern Europe. The policing of Whitechapel The investigation of criminal activity in Whitechapel</p> <p><i>Historical Skills:</i> <i>Describing features</i> <i>Assessing the utility of evidence</i></p> <p>Section B- <u>Crime and Punishment in Britain c.1000- present</u> <u>The story of Criminal Activity c.1000- present- The nature of Criminal Activity</u> C. 1000–c1500: Crime in medieval England C. 1500–c1700: Crime in early modern England C. 1700–c1900: Crime in eighteenth- and nineteenth century Britain C. 1900–present: Crime in modern Britain</p> <p><u>The story of Law Enforcement c.1000- present- The nature of law enforcement</u> C. 1000–c1500: law enforcement in medieval England C. 1500–c1700: law enforcement in early modern England C. 1700–c1900: law enforcement in eighteenth and nineteenth century Britain C. 1900–present: law enforcement in modern Britain</p> <p><u>The story of punishment c.1000- present- The nature of punishment</u> C. 1000–c1500: punishment in medieval England C. 1500–c1700: punishment in early modern England C. 1700–c1900: punishment in eighteenth- and nineteenth century Britain C. 1900–present: punishment in modern Britain</p>



<p>History cont...</p>	<p><i>Historical Skills:</i> <i>Explaining change over time</i> <i>Explaining causation</i> <i>Assessing the significance of causes</i></p> <p>History paper 2: <u>British Depth Study B4: Early Elizabethan England, 1558–88</u> Queen, government and religion, 1558–69 Challenges to Elizabeth at home and abroad, 1569–88 Elizabethan society in the Age of Exploration, 1558–88</p> <p><i>Historical Skills:</i> <i>Describing features</i> <i>Explaining causation</i> <i>Assessing the significance of causes</i></p>
<p>Music</p>	<p>Listening Paper:</p> <ul style="list-style-type: none"> • Elements of Music – DR T SMITH • Key Signatures (Sharps and Flats) • Africa and Badinerie • Popular music • Music for Ensembles • Descriptive/Film Music (Long answer 10 Marker question) • Dictation of Notation • Key Words
<p>PE</p>	<p>Paper 1: Physical Factors affecting performance</p> <p>1.1 Applied Anatomy and Physiology</p> <ul style="list-style-type: none"> • The structure and function of the skeletal system (location of bones, functions, synovial joints). • The structure and function of the muscular system (location of muscles, role in movement). • Movement analysis (Levers, mechanical advantage, planes / axis). • The cardiovascular and respiratory systems (structure and function of both systems, aerobic / anaerobic exercise). • Effects of exercise on the body systems (short- and long-term effects on the body systems – skeletal, muscular, cardiovascular and respiratory). <p>1.2 Physical Training</p> <ul style="list-style-type: none"> • Components of fitness (definitions, sporting examples and relevant fitness tests). • Applying the principles of training (principles of training, methods of training, warm up, cool downs). • Preventing injury (how to minimise risks, identify potential hazards).



Textiles	<p>Section A:</p> <ul style="list-style-type: none">• Systems Approach.• Forces.• Metals & their finishes.• Production systems.• Smart materials.• Planned obsolescence.• Thermosetting polymers.• Levers.• Softwoods.• Natural fibre properties.• Corrugated card properties.• Renewable energy. <p>Section B:</p> <ul style="list-style-type: none">• Stock Forms.• Mass production system.• Industrial processes.• Characteristics and properties of silk.• Impact on society & the environment. <p>Section C:</p> <ul style="list-style-type: none">• Past & present design companies.• Ergonomics.• Functionality.• Design innovation.• Primary Research.• Secondary Research.• Design Specification.• Two-point perspective drawing.• Nesting / lay planning.• Fabric cutting techniques.• Fabric / garment shaping techniques.• Percentages. Bar Charts.
-----------------	--