

Technical & Communications Faculty

The Technical and Communications Faculty includes the following subjects:

- Design and Technology
- Computing
- Hospitality and Catering
- Enterprise (Business studies)
- Creative iMedia (current Year 10 only)

Contact information:

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Design and Technology

Exam information

Which exam board?

AQA



Number of examinations?

- Written Paper 50% of final grade (Students will need a calculator, pencil and ruler as well as pen)
- NEA 50% of final grade

Length of examinations?

- Written Paper 2 hours
- NEA to be completed April 2024

What will students be assessed on? Written exam



- Core technical principles
- Specialist technical principles
- Designing and making principles

How it's assessed

- •Written exam: 2 hours
- •100 marks
- •50% of GCSE

Questions

Section A – Core technical principles (20 marks)

A mixture of multiple choice and short answer questions assessing a breadth of technical knowledge and understanding.

Section B – Specialist technical principles (30 marks)

Several short answer questions (2–5 marks) and one extended response to assess a more in depth knowledge of technical principles.

Section C – Designing and making principles (50 marks)

A mixture of short answer and extended response questions.

What will students be assessed on? Written exam



CORE TECHNICAL PRINCIPLES

- •new and emerging technologies
- energy generation and storage
- •developments in new materials
- •systems approach to designing
- mechanical devices
- materials and their working properties.

SPECIALIST TECHNICAL PRINCIPLES

- selection of materials or components
- forces and stresses
- ecological and social footprint
- sources and origins
- using and working with materials
- stock forms, types and sizes
- scales of production
- specialist techniques and processes
- surface treatments and finishes.

DESIGNING AND MAKING PRINCIPLES

- •investigation, primary and secondary data
- •environmental, social and economic challenge
- •the work of others
- design strategies
- communication of design ideas
- prototype development
- selection of materials and components
- •tolerances
- material management
- specialist tools and equipment
- •specialist techniques and processes

What will students be assessed on? NEA

Practical application of:

- Core technical principles
- Specialist technical principles
- Designing and making principles

How it's assessed

- •Non-exam assessment (NEA): 30-35 hours approx
- •100 marks
- •50% of GCSE

Task(s)

- Substantial design and make task
- Assessment criteria:
 - Identifying and investigating design possibilities
 - Producing a design brief and specification
 - Generating design ideas
 - Developing design ideas
 - Realising design ideas
 - Analysing & evaluating
- •In the spirit of the iterative design process, the above should be awarded holistically where they take place and not in a linear manner
- •Students will produce a prototype and a portfolio of evidence
- •Work will be marked by teachers and moderated by AQA



How can you support your child when revising for Design and Technology?



- Encourage them to use the resources available in the files section of Teams- this
 includes examples of NEA and knowledge organisers for written exam
- Encourage them to attend intervention sessions to catch up or seek additional support on NEA (Wednesday's and Thursday's after school)
- Offer a range of ways of revising such as look, cover, write, knowledge organisers, revision clocks, flashcards, mindmaps, questioning, exam question practice, seneca etc
- Encourage students to focus on revision topics on Teams for the mock exam
- Talk to your child about what they are designing and making for their NEA, as you
 may have ideas you can share with them.
- Practice papers are available online (link in teams)

Where can students go for extra help?



- Students can attend intervention sessions ran on Wednesday's and Thursday's after school 3.15pm - 4.45pm in Technology block
- Students can use the revision resources found in the 'files' section of the class Teams site
- Students can use the chat facility to contact their teacher or myself for additional support (n.oliver, r.surtees or a.mellor)
- Students can use websites such as technologystudent.com, BBC Bitesize AQA DT, Seneca, Remember More etc
- Students can use the revision guides (AQA)



Computer Science

Exam information

Examboard: OCR

Number of exams: two non calculator written exam papers

Length of examinations: 90 minutes

J277/01: Computer systems

- 1.1 Systems architecture
- 1.2 Memory and storage
- 1.3 Computer networks, connections and protocols
- 1.4 Network security
- 1.5 Systems software
- 1.6 Ethical, legal, cultural and environmental impacts of digital technology

J277/02: Computational thinking, algorithms and programming

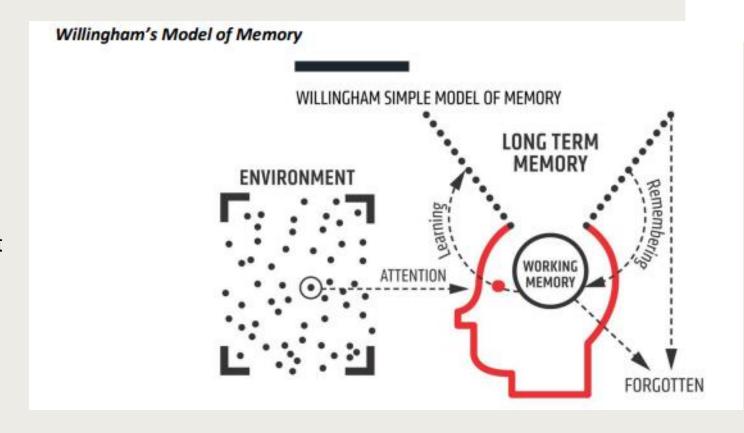
- 2.1 Algorithms
- 2.2 Programming fundamentals 2.3 Producing robust programs
- 2.4 Boolean logic
- 2.5 Programming languages and Integrated Development Environments





Revise in a quiet environment without distractions. Overloading working memory by splitting your attention will prevent you from being able to retain as much information.

Research shows recall works best when the conditions information is learnt in is replicated when recalled. You wont be sitting an exam whilst listening to Spotify, watching YouTube, messaging on SnapChat and playing Xbox don't study like this.

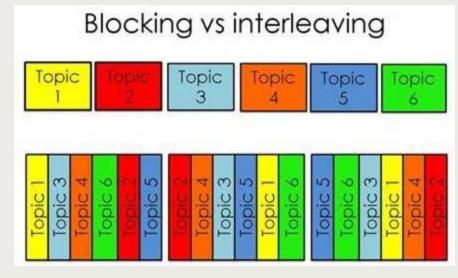




In blocked practice, you only need to bring the correct methodology to mind once. After you've solved the first question, and especially once you've done a few, it becomes easy to do more. You no longer need to recall the method you need: it's already in memory from the previous run of questions.

Sadly, most exams aren't like that. They'll continually have you switching to new types of problem.

To use interleaving well, you're aiming to introduce a certain amount of "desirable difficulty": just like a physical workout, a mental workout (studying / learning) should be at least somewhat challenging to give you the maximum benefit in the shortest space of time.

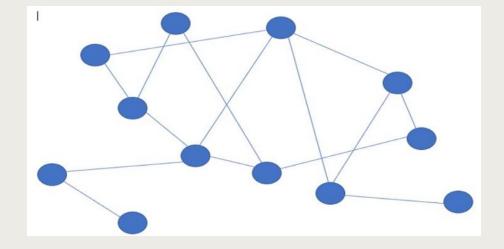


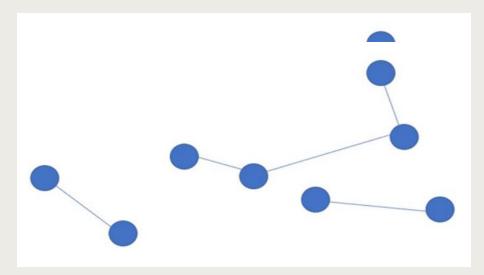




Better academic performance -Research shows that students assigned to an interleaved revision condition performed almost 7% better in their final exam, than those assigned the blocked revision condition. In Computer Science there is only an 18% gap between a 4 and a 6 so this can make a big difference!

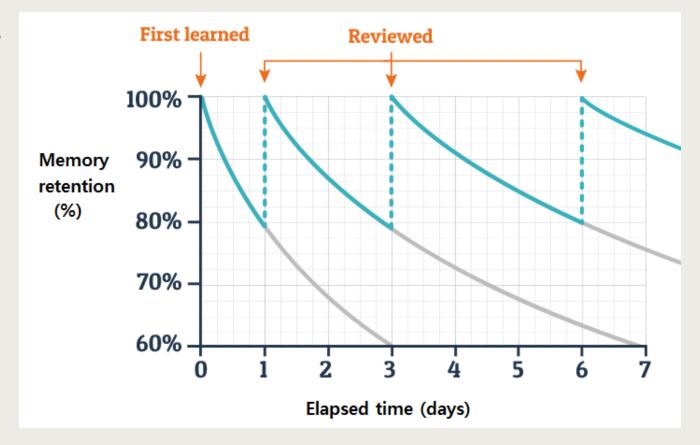
Many psychologists believe that interleaving strengthens memory associations. Interleaving focuses on recalling previously learnt information. The ability to remember this knowledge is enhanced as the brain is being forced to continuously retrieve information as each question in interleaved revision is different from the last.







Spaced practice – revisit topics at regular intervals. You don't need to do a whole topic again but revisiting summary notes, testing your self on the topic filling in a knowledge organiser will help you commit learning to long term memory.





Help students to self regulate and take responsibility for their learning. When revising it is important to:

- 1. Delay rewards until a set amount of work has been done.
- 2. Use flash cards or a revision guide to as a series of questions about what they have learned previously.
- 3. Talk to them about how they are going to revise that day, what techniques will they use, what has been successful before.
- 4. After revising use flash cards they have created or a materials they have used to test them on what they have learnt.
- 5. Ask them to reflect on what worked during the revision they have done that day, what was less effective and what will they do differently next revision session.



Where can I go for further resources?

Dallam School

- Create your own set of Flashcards
- Use your knowledge organisers and revision guide
- Practice writing and planning exam questions using the past-paper questions on https://vinaccia-c.wixsite.com/cjvcomputing
- Complete eRevision online assessments:
 - Seneca online resources
 - BBC Bitesize
 - YouTube computer science tutor
 - Quizlet
 - Quizizz
- Pair up with a Peer to Q&A



Hospitality and Catering

Exam information

Which exam board?

WJEC



Number of examinations?

- Unit 1- Written Exam (completed in June)
- Unit 2- Controlled Assessment- 12 hours (completed in class)

Length of examinations?

- Unit 1- 1 hour 20 minutes
- Unit 2- 12 hours (including 3 for practical component)

What will students be assessed on?

Unit 1 Written Exam:

40% of overall grade

Number of marks: 80



- 1.1 Hospitality and catering provision
- 1.2 How hospitality and catering provisions operate
- 1.3 Health and safety in hospitality and catering
- 1.4 Food safety in hospitality and catering

Unit 2 Controlled Assessment:

60% of overall grade

Number of marks: 120 marks

Format: An assignment brief will be provided by WJEC, which will include a scenario and several tasks. The assignment brief will be set annually by WJEC and issued to centres in an assessment pack via the WJEC Secure Website.

- 2.1 The importance of nutrition
- 2.2 Menu planning
- 2.3 The skills and techniques of preparation, cooking and presentation of dishes
- 2.4 Evaluating cooking skills



How can you support your child when revising for Hospitality and Catering?



- Encourage them to use the resources available in the files section of Teams- this includes revision sheets and revision methods
- Encourage them to attend intervention sessions to catch up or seek additional support on areas they are finding more challenging
- Offer a range of ways of revising such as look, cover, write, knowledge organisers, revision clocks, flashcards, mindmaps, questioning, exam question practice.
- Ensure they are prepared for their practical exam by practicing elements or the
 whole 2 dishes with accompaniments at home within 3 hours. Ensure they know
 what ingredients they will need and that they have their timeplan printed either from
 home or school.

Where can students go for extra help?



- Students can attend intervention sessions ran on Friday lunchtimes in Room 37
- Students can use the revision resources found in the 'files' section of the class Teams site
- Students can use the chat facility to contact me for additional support (s.edwards)
- Students can use websites such as BBC
 Bitesize https://www.bbc.co.uk/bitesize/subjects/zbtvxyc
- https://www.bbc.co.uk/bitesize/subjects/zdn9jhv
- Students can use the revision guides/knowledge organisers provided



BTEC Enterprise

Exam/Coursework information



BTEC Tech Awards Enterprise



2 Controlled Assessments (each worth 30%)

Component 1 – completed Spring Term Year 10 (local businesses)

Component 2 – Completed by December 2023 (Creating their own micro-business plan)

What will students be assessed on?

Topics to revise:

Component 3 Promotion and Finance in Enterprise

Learning Aim A – Promotion

- A1 Targeting and segmenting the market
- A2 4Ps of the Marketing mix
- A3 Factors influencing the choice of marketing methods
- A4 Trust, reputation and loyalty

Learning Aim B – Financial Documents and Statements

- **B1** Financial documents
- B2 Payment methods
- B3 Revenue and costs
- **B4** Financial statements
- B5 Profitability and Liquidity

Learning Aim C - Financial planning and forecasting

- C1 Budgeting
- C2 Cash flow
- C3 Suggested improvements to cash flow problems
- C4 Break-even analysis and break-even point
- C5 Sources of business finance



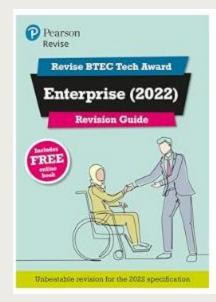
Where can students go for help?

A complete Knowledge Organiser for Component 3 (the exam) is pinned at the top of each Team



Students have been given the link to a revision guide from which they can work - Pearson REVISE BTEC Tech Award Enterprise 2022 Revision Guide

Students can contact Mr Blyth or Mr Rand via Teams to arrange extra sessions or to clarify revision concerns



How can you support your child when revising for BTEC Enterprise?

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Practice assessments:

1) Students to watch the following video clips: https://www.youtube.com/watch?v=mGZ36hNwEto

<u>BTEC Enterprise Exam Technique - Component 3 - Level 1/2 - Calculations (Cashflow Statements) - YouTube</u>

2) Students can download this sample assessment material: https://qualifications.pearson.com/content/dam/pdf/btec-tec-awards/enterprise/2017/specification-and-sample-assessments/SAM-%20BTEC-L1-2-Tech-Award-Enterprise.pdf

3) Students can watch this video
Bee Business Bee playlist
https://www.youtube.com/watch?v=OMCQU9AM63k&list=PLBuW3SAj0djla6My6g07fYHzFTQMDy9U110)htt
ps://www.youtube.com/watch?v=mGZ36hNwEto

4) Students wanting to go a little further, can use this website even though it is for GCSE/IGCSE Digital revision materials/websites:

Tutor2U: https://www.tutor2u.net/business/blog/gcse-igcse-business-studies-revision-notes-master-listing

Command Words

Key words/Command verb	Definition
Calculate	Obtain a numerical answer, showing relevant working. If the answer has a unit, this must be included.
Complete	Provide the missing information for a table/diagram so that it is complete (contains all the necessary information).
Discuss	Consider the different aspects in detail of an issue, situation, problem or argument and how they interrelate
Draw	Produce a diagram either using a ruler or using freehand OR create a graphical or visual representation of information.
Evaluate	Consider various aspects of a subject's qualities in relation to its context such as: strengths or weaknesses, advantages or disadvantages, pros or cons. Come to a judgement supported by evidence which will often be in the form of a conclusion.
Explain	Requires identification of a point and linked justification/exemplification of that point. The answer must contain some linked reasoning
Give	Learners provide one or more piece(s) of information.
Identify	Usually requires some key information to be selected from a given stimulus/source
Label	Requires the addition of labelling to a stimulus material given in the question, for example labelling a diagram or adding units to a table.
Match	Learners match between two sets of options.
State	Learners provide one or more piece(s) of information.





Creative iMedia

Exam information

Dallam School

Which exam board?

OCR (Cambridge Nationals)

Number of examinations?

- Written Paper 40% of final grade (Students will need a calculator, pencil and ruler as well as pen)
- NEA 1: R094- Visual Identity and Digital Graphics 25% of final grade
- NEA 2: R097- Interactive Digital Media 35% of final grade

Length of examinations?

- Written Paper 1.5 hours, June 2025
- NEA 1 to be completed May 2024, NEA 2 May 2025

What will students be assessed on? Written exam



- The media industry
- Factors influencing product design
- Pre-production planning
- Distribution considerations

How it's assessed

- •Written exam: 1.5 hours
- •70 marks
- •40% of Award

Questions

Section A – (10 marks)

- This will have between 7 and 10 closed response, multiple choice and short answer questions which assess the recall of knowledge and understanding.
- Questions will sample content from all topic areas, with at least one question relating to each area.

Section B – (60 marks)

- This will have context-based questions. Students will be presented with a short scenario which develops through the paper and will apply their knowledge of Creative iMedia concepts to produce relevant responses.
- It will include closed response, short answer questions and three extended response questions.
- Two of the extended response questions will assess analysis and evaluation, while the third will assess the recall and application of knowledge and understanding.
- Content will be sampled from all topic areas, with at least one question relating to each area.

What will students be assessed on? Written exam



The Media Industry

•1.1 Media industry sectors and products•1.2 Job roles in the media industry

Factors Influencing Product Design

- 2.1 How style, content and layout are linked to the purpose
- 2.2 Client requirements and how they are defined
- 2.3 Audience demographics and segmentation
- 2.4 Research methods, sources and types of data
- 2.5 Media codes used to convey meaning, create impact and/or engage audiences

Pre-Production Planning

- •3.1 Work planning
- •3.2 Documents used to support ideas generation
- •3.3 Documents used to design and plan media products
- •3.4 The legal issues that affect media

Pre-Production Planning

- •4.1 Distribution platforms and media to reach audiences
- •4.2 Properties and formats of media files

What will students be assessed on? NEA 1- Visual Identity and Digital Graphics

Practical application of:

- Developing a visual identity
- •Planning digital graphics for products
- Creating a visual identity and digital graphics

How it's assessed

- •Non-exam assessment (NEA): 10-12 hours approx
- •50 marks
- •25% of Award

Topic Area 1-20 marks

- Develop a Visual Identity for a client
- •Planning digital graphics for products
- Assessment criteria:
 - Design a fully suitable visual identity for a client
 - Producing detailed planning documentation
 - Justify your design ideas and why they are fit for purpose

Topic Area 2-30 marks

- •Planning digital graphics for products
- Creating a visual identity and digital graphics

Assessment criteria:

- Use technical skills and imaging software to create logos and other graphics for the visual identity
- Prepare a digital graphic using software
- Justify your design ideas and why they are fit for purpose



What will students be assessed on? NEA 2- Interactive Digital Media



Practical application of:

- •Plan interactive digital media
- Create interactive digital media
- •Review interactive digital media

How it's assessed

- •Non-exam assessment (NEA): 15–20 hours approx
- •70 marks
- •35% of Award

Topic Area 1-20 marks

•Planning an Interactive Digital Media product. This could be a website, phone app, kiosk system, game (or anything the user can interact with which will meet the client brief supplied by the exam board).

Assessment criteria:

- Produce an interpretation of a client brief
- Produce detailed pre-production and planning documentation.
- Demonstrate understanding of how assets will contribute to the effectiveness of the final product.

Topic Area 2-34 marks

- •Plan interactive digital media
- Create interactive digital media

Assessment criteria:

- Use of technical skills to create the component parts
- Use of technical skills to create the final product
- Save the created media in a suitable format

What will students be assessed on? NEA 2- Interactive Digital Media



Practical application of:

- •Plan interactive digital media
- Create interactive digital media
- •Review interactive digital media

How it's assessed

- •Non-exam assessment (NEA): 15–20 hours approx
- •70 marks
- •35% of Award

Topic Area 3-16 marks

- •Planning an Interactive Digital Media product.
- •Review your Interactive digital media
- Assessment criteria:
 - Test and check the product and review the technical properties
 - Define areas for improvement and further development

How can you support your child when revising for Creative iMedia?



- Encourage them to use the resources available in the files section of Teams- this
 includes examples of NEA and knowledge organisers for written exam
- Encourage them to attend intervention sessions to catch up or seek additional support on NEA.
- Offer a range of ways of revising such as look, cover, write, knowledge organisers, revision clocks, flashcards, mindmaps, questioning, exam question practice, seneca etc

Where can students go for extra help?



- Students can attend intervention sessions- days/ times to be organised- check Teams for updates
- Students can use the revision resources found in the 'files' section of the class Teams site and their Class Notebook in Teams.
- Students can use the chat facility to contact us for additional support (p.dixon/ a.mellor)
- Students can use websites such as BBC Bitesize