

Skegness Academy

Key Stage 4



GCSE Homework

Overview

Students in Year 10 & 11 will be set template questions based on the units they are studying at that specific time.

The content of the questions will often be studied and explained in class then completed as homework.

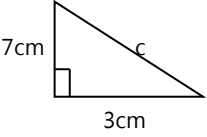

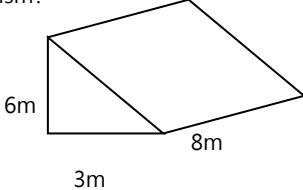
Example:

KS4 Homework: Term 1	
Y10	Y11
Answer the questions about the extract below.	A hero is someone who is brave, courageous and has 'good qualities' – how far do you agree with this statement?
How does the writer use language within the extract for effect?	Research the contextual topic of _____. Write a page in your own words.
Annotate the extract for language devices.	How does Shakespeare present the character of _____ in the play <i>Macbeth</i> ?
Annotate the extract for changes in focus in each paragraph.	How does Shakespeare present the theme of _____ in the play <i>Macbeth</i> ?
How does the writer structure this extract to interest you as the reader?	How does Shakespeare use language in this extract to _____?
Why is the character of _____ so engaging?	How does Shakespeare use structure to show the decline of Macbeth and Lady Macbeth's relationship?
Write a description inspired by the image.	Why has Shakespeare chosen to start the play with the witches?
Write a narrative based on the following theme: _____	Who is responsible for the death of King Duncan? Justify your answer.
Find ten more complex words for the list you've been given.	
Read the model answer and find all the mistakes in spelling, punctuation and grammar.	

All groups will get homework on a weekly basis. The setting of the type and complexity of the task is also dependent on individual and group progress.

All homework focuses on the GCSE skills required in the mathematics exam.

An example is provided below:

Section A: Number		Section B: Algebra		Section C: Using and applying	
C.1 1. To increase an amount by 70%, what single multiplier would you use?		C.6 11. Expand & simplify: $3(x + 1) - 2(x + 5)$		21. 	
C.1 2. Decrease £320 by 70% 		C.6 12. Factorise: $4t + 12$		To find 'c' choose one calculation: $\sqrt{7^2 - 3^2}$ OR $\sqrt{7^2 + 3^2}$	
C.2 3. Divide £45 in the ratio of 7 : 2		C.7 13. Simplify: $c^6 \times 2c^2$		22. 44cm is rounded to nearest whole cm. Write down the minimum possible length it could have been.	
C.2 4. Share 63 in the ratio of 5 : 4		C.8 14. Solve: $x - 2 > -6$			
C.3 5. Work out: $\frac{1}{3} + \frac{3}{5}$		C.9 15. Make a the subject of the formula: $T = a + 6$		23. An apple has a mass of 150g and a volume of 100cm^3 Find its density in g/cm^3 ?	
C.3 6. Work out: $\frac{5}{6} \div \frac{4}{5}$		C.9 16. Work out the value of: $3x + 2y$ When $x = 2$ and $y = -5$			
C.4 7. Round off 3.55 to one significant figure		C.10 17. Write down the nth term of this sequence: 0 5 10 15 20 ...		24. If the relative frequency of getting a 'blue' on a spinner is 0.1, how many reds would you expect to get in 50 spins?	
C.4 8. Estimate the answer to: $341 \div 0.28$		C.10 18. Write down the 2 nd term in the sequence given by: $T(n) = n^2 - 5$			
C.5 9. Give all the factors of 16		C.11 19. If $y = x^2 + 2x$, find the value of y when $x = 3$		25. Work out the volume of this prism? 	
C.5 10. Give the HCF of 16 and 20		C.11 20. A graph cuts the y-axis at -2 and has a gradient of 5. Give its equation.			
Total (A)		Total (B)		Total (C)	
Test Total (A+B+C)		R (0-9)		Y (10-19)	G (20-25)

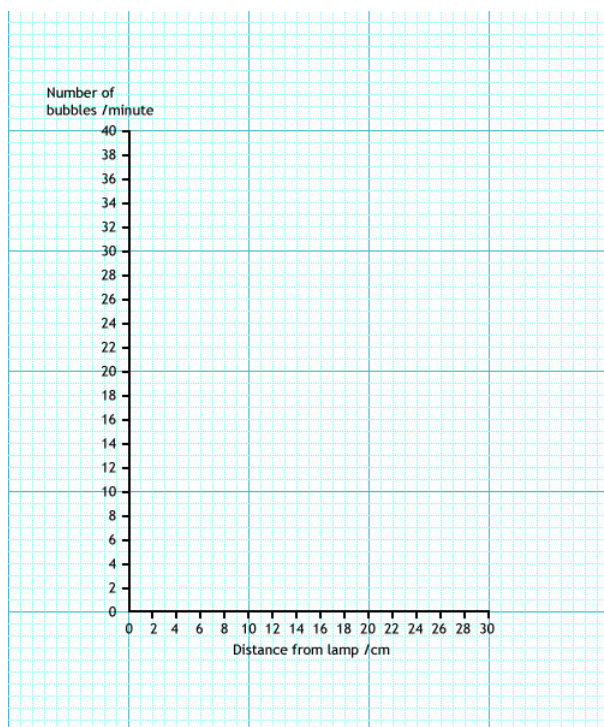
The Science department use the online resource 'Kerboodle' which has a vast array of GCSE science resources for students to use at their pleasure. All students have a log in username and password which was issues to them at the start of the year.

All Kerboodle activities are accessible on tablets and smart devices on

<https://www.kerboodle.com/users/login>

An example of an activity is provided below:

- 1 The bubbles are a gas produced during photosynthesis. Name the gas in the bubbles.
- 2 On the graph paper below, draw a scatter graph of these results.



- 3 Which one of these results looks out of place? What could Roger and Laura do about this?
- 4 What are some of the things that Roger and Laura must have done to get reliable results?
- 5 What can you conclude from these results about the distance of the plant from the lamp and the rate of photosynthesis? (Think about this carefully!)
- 6 What might have prevented the rate of photosynthesis from being higher when the plant was 0–10 cm away from the lamp?

- There will be a piece of homework each week.
- The homework will take students approximately 48 hours to complete.
- When marked, work will be returned to students with feedback to act upon.
- Students must then correct any misconceptions the following lesson in class.

KEY:

C – Comprehension WT – Writing Task DR – Drawing ST – Speaking Task
 R – Reading RS – Research RE - Report

TERM 1	French Homework	Spanish Homework
Week 1	RS WT Following Discussions in Class, google research then write down the conjugations of the main 'Mrs Vandertramp' GCSE verbs in the Present Tense. Write down and learn the regular plus irregular 'er' , 'ir' and 're' verb endings.	RS WT Revise, research and learn the most frequent key verbs in the present, past and future tense.
Week 2	WT RS Complete Unit 4 Writing Task 1 Draft. Check through your work, editing it to incorporate well-structured A* sentences, and at least 6 tenses 250-300 words	WT RS Complete Unit 4 Writing Task 1 Draft. Check through your work, editing it to incorporate well-structured A* sentences, and at least 6 tenses 250-300 words
Week 3	WT RS ST Complete Unit 4 Writing Task 2 Draft. Check through your work, editing it to incorporate well-structured A* sentences, and at least 6 tenses	WT RS ST Complete Unit 4 Writing Task 2 Draft. Check through your work, editing it to incorporate well-structured A* sentences, and at least 6 tenses
Week 4	WT RS ST Complete Unit 3 Speaking Task 1 Draft. Check through your work, editing it to incorporate well-structured A* sentences, and at least 6 tenses	WT RS ST Complete Unit 3 Speaking Task 1 Draft. Check through your work, editing it to incorporate well-structured A* sentences, and at least 6 tenses
Week 5	WT RS ST Complete Unit 3 Speaking Task 1 Draft. Check through your work, editing it to incorporate well-structured A* sentences, and at least 6 tenses	WT RS ST Complete Unit 3 Speaking Task 2 Draft. Check through your work, editing it to incorporate well-structured A* sentences, and at least 6 tenses
Week 6	ST Practice Interviewing Yourself doing the Unit 3 Speaking Task 1 Memorise and use as many well-structured A* sentences as you can, and at least 6 tenses	ST Practice Interviewing Yourself doing the Unit 3 Speaking Task 1. Memorise and use as many well-structured A* sentences as you can, and at least 6 tenses
Week 7	Record Yourself doing the Unit 3 Speaking Task 1 Memorise and use as many well-structured A* sentences as you can, and at least 6 tenses. Then bring the recording into class for Peer Review and Feedback.	

NOTE:

MFL 2016 DEPARTMENT FEEDBACK

In all MFL Homework Project Assessments marking will assess MFL Reading/Writing/Listening & Speaking skills in line with new MFL Skill levels GCSE 9-1 (old G-A*)

KS4 Homework: Term 1

Y10

Design a booklet on Medieval Medicine and treatment. Include pages on the following:

- 1) Cover page
- 2) Contents
- 3) What did medieval people believe caused illness and disease? (superstition, religious ideas, rational ideas, eg Four Humours)
- 4) How did beliefs about the causes of illness and disease affect the treatments used? (prayer, bleeding, herbal remedies etc)
- 5) What different people treated the sick in the middle ages? (doctors, apothecaries, "wise women," monasteries)
- 6) The Church and Medicine – did religious faith help or hinder medical progress? Explain how (universities, caring for the sick, hospitals; ban on dissections, focus away from scientific ideas)
- 7) The Black Death – what were the causes and symptoms? How did medieval people try to prevent catching it, or curing it?
- 8) Why were medieval people unable to stop the Black Death?

You can use pictures and diagrams on each page as well as writing.

To be handed in by Friday 21st October 2016

Y11

Design a booklet on Hitler' s Foreign Policy and the Origins of WWII. It should have eight pages as follows:

- 1) Cover page
- 2) Contents
- 3) Hitler' s main foreign policy objectives – what did Hitler want to achieve and what would he have to do to get it?
- 4) Remilitarisation of the Rhineland – What did Hitler do? How did Britain and France react, and why?
- 5) Anschluss with Austria – What did Hitler do? Why did Britain and France not try to stop him?
- 6) The Munich Conference – What was it all about? Why was it unfair on Czechoslovakia? Why did Britain and France give in to Hitler' s demands?
- 7) The Nazi-Soviet Pact – What was it all about? How did it make WWII inevitable?
- 8) Whose fault was WWII – Hitler' s, or Britain and France? Explain why

You can use pictures and diagrams on each page as well as writing.

To be handed in by Friday 21st October 2016

The homework for year 11 GCSE geography will be in the form of a booklet contain exam questions from the units they covered last year at GCSE, they will use the revision guides to complete the questions, these will then be marked in lessons with the teacher.

The year 10 pupils will complete exam style questions on the topics they are studying, alongside this they will be expected to do some independent research, including reading newspapers and watching the news. Individual year 10 teacher may set different homework tasks.

Examples:

KS4 Homework: Term 1	
Y10	Y11
<p><u>Term 1: Natural Hazards</u></p> <p>Give one condition that is needed for a tropical storm to form. (1 mark)</p> <p>Give two reasons why tropical storms eventually lose their energy. (2 marks)</p> <p>Outline one reason why the concentration of carbon dioxide in the atmosphere has changed over time. (2 marks)</p> <p>'The weather of the UK is becoming more extreme.' Use evidence to support this statement. (6 marks)</p> <p>Choose either an earthquake or a volcanic eruption. Assess the extent to which primary effects are more significant than secondary effects. (9 marks + 3SPAG = 12 marks)</p>	<p><u>Term 1: Restless Earth</u></p> <p>Name two landforms that are found at a destructive plate margin. (2 marks)</p> <p>What is an earthquake? (2 marks)</p> <p>Outline one reason why the largest earthquakes do not always cause the most deaths. (2 marks)</p> <p>Outline the characteristics of a shield volcano. (2 marks)</p> <p>Explain the formation of a composite volcano. (4 marks)</p> <p>How is a supervolcano different from a volcano? (2 marks)</p> <p>Describe the likely global consequences of a supervolcano eruption. (4 marks)</p> <p>Describe the positive and negative impacts of volcanic activity. (6 marks)</p>

Catering Year 10:

Using the 6 lined revision cards given to you, you need to produce a card for each of the following minerals:

Iron – Fe
Magnesium – Mg
Potassium – K
Sodium – Na
Phosphorous – P
Calcium – Ca

For each mineral you need to find out the following information:
Function in the body.
Foods it comes from
What happens if we have to much
What happens if we don' t get enough

Using the 4 lined revision cards given to you, you need to produce a card for each of the following trace elements:

Iodine – I
Zinc – Zn
Fluoride – F-
Selenium - Se

For each trace element you need to find out the following information:
Function in the body.
Foods it comes from
What happens if we have to much
What happens if we don' t get enough

Using the 4 lined revision cards given to you, you need to produce a card for each of the following fat soluble vitamins :

Vitamin A – retinol
Vitamin E – tocopherol
Vitamin K –
Vitamin D - Cholecalciferol

For each fat soluble vitamins you need to find out the following information:
Function in the body.
Foods it comes from
What happens if we have to much
What happens if we don' t get enough

Using the 9 lined revision cards given to you, you need to produce a card for each of the following water soluble vitamins:

B1 – Thiamin
B2 – Riboflavin
B3 – Niacin
B5 – Pantothenic Acid
B6 – Pyridoxine
B7 – Biotin
B9 – Folate
B12 – Cobalamin
Vitamin C – Acorbic Acid

For each water soluble vitamins you need to find out the following information:
Function in the body.
Foods it comes from
What happens if we have to much
What happens if we don' t get enough

Name two examples for each of the following:

Citrus Fruit
Root Vegetables
Fruits rich in vitamin A
Leafy Green Vegetables

BRING IN INGREDIENTS FOR BAKED APPLES

Explain why it is important to include a variety of fruit and vegetables in the diet. (6)
Suggest ways of encouraging young people to eat more fruit and vegetables. (4)

BRING IN INGREDIENTS FOR CARROTT CAKE

Describe steaming as a method of cooking. (3)
Discuss the benefits of steaming as a method of cooking vegetables in the diet. (4)

BRING IN INGREDIENTS FOR JAM AND JELLIES

Fruit can be preserved in many ways.
Discuss how a family can preserve fruit to save money and minimise waste. (8)

Catering Year 11:

Answer the following questions:

- (a) Suggest a selection of hot and cold dishes that could be served for a breakfast buffet. (4)
(b) Explain the benefits of a "buffet style" breakfast service to both customer and caterer. (4)
- (a) Give two reasons why vending machines are popular in schools. (2)
(b) Name two items that could be sold from a vending machine and give a reason for each choice. (4)
- The local Carnival committee is organizing a barbeque.
 - Suggest three foods, other than burgers and sausages, that can be cooked on a barbeque. (3)
 - Name two different salads that could be served at the barbeque. (2)
 - What food safety points must be followed
 - when storing meat before barbequing (2)
 - to make sure barbequed meat is cooked thoroughly (2)
- Breakfast is often sold "buffet style" in hotels.
 - Suggest a selection of hot and cold dishes that could be served for breakfast. (4)
 - Explain the benefits of a "buffet-style" breakfast service to both customer and caterer. (4)

Complete at least 1 outstanding piece of coursework.

Bring in ingredients for Cheesy Broccoli Bake

- (a) Suggest three important qualities a restaurant manager would look for when appointing new wait staff (waiters/waitresses). (3)
(b) Describe the duties of wait staff in a busy restaurant. (3)
- (a) Describe the role of waiting staff (waiters/waitresses) in a hotel restaurant. (5)
- (a) Outline the main qualities of a successful chef. (3)
- (a) Discuss the role of the wait staff (waiter/ess) in a buffet food service system. (4)
(b) A customer complains that the hot food served from the buffet is luke warm. Explain how to deal with this situation. (4)

Bring in ingredients for Chicken Kiev's

Complete at least 1 outstanding piece of coursework.

Bring in ingredients for Chicken Kiev's

Answer the following questions:

- Describe how good hygienic practices when preparing and serving food can reduce the risk of an outbreak of food poisoning in a residential home. (8)
- Many food poisoning outbreaks are caused by salmonella or listeria bacteria.
 - Name two foods where salmonella bacteria can be found (2)
 - Name two foods where listeria bacteria can be found. (2)
 - Describe how each of the following can help prevent food poisoning:
 - Checking deliveries (3)
 - Storing food at low temperatures (3)
 - Personal hygiene of food handler (3)
- (a) Name two bacteria that can cause food poisoning. (2)
(b) How can food poisoning be prevented when preparing food and cooking food? (6)
(c) A food poisoning outbreak has been traced to a local café. Discuss the effects this outbreak may have on the business. (4)
- You have just been appointed as Head Chef in a restaurant. A visit by the Environmental Health Officer has highlighted some poor hygienic practices that you are keen to resolve. Discuss your responsibilities as Head Chef under the Food Hygiene Regulations. (You may need to consider the following: food premises, personal hygiene of employees and hygienic practices.) (12)

Bring in ingredients for chocolate tartlets.

Environmental Health Officers are concerned with the hygiene and safety of all food and food premises.

Discuss the areas an Environmental Health Officer (EHO) would look at when making a routine visit to food premises. (6)

Assess the consequences of not complying with the EHO recommendations for improvement. (6)

For food premises owner

For the employees

For the customers

Bring in ingredients for strawberry and cream layers.

Resistant Materials:

Students in Resistant Materials work through past exam papers to get familiar with the structure.

Each week specific pages of the exam paper will be set (see below):

Week 1 question 1-3

Week 3 Questions 4-7

Week 5 Question 8-10

Students should also follow the following coursework checklist:

Investigating the Design Context			
Page	Sub heading	Description	Tick
7- 8 marks		Discrimination shown when selecting and acquiring relevant research that will promote originality in designing Excellent understanding and analysis of the design context Detailed analysis of relevant existing products or systems undertaken related to design intentions Comprehensive analysis of relevant and focused research undertaken Clear and specific design criteria identified, reflecting the analysis undertaken Target market identified and the intended consumer/user profiled	
5-6		Good understanding and analysis of the design context Good analysis of relevant products or systems undertaken Good analysis of relevant research and context Design criteria which reflects the analysis undertaken Target market for product has been identified	
Page 1	Rich picture / Brain Storm	At the Beginning of the project place the theme at the centre. Put Words / themes that are connected to it, around it.	
Page 1	Design Brief	Show clearly how you intend to solve the problem. Who your client or target market group is.? What the requirements are you will need to follow? What the product will need to do or be like in order to be successful? Where the product will be used	
	ANOTHER ALTERNATIVE APPROACH TO FINDING A PROBLEM AND WRITING A BRIEF	How to Identify an Everyday Design Problem. Advice - The Problem / Situation / Identification of Need Advice - Writing about the Client, Potential Customer Range and Brief	
Page 1	Introduction/problem and context.	You need to identify and introduce the controlled assessment task you have chosen and relate this to a very clearly defined design context/situation: What is the work that needs to be undertaken? Why does it need to be undertaken? What is the current situation? Why is this inadequate? Who is the client? Who are the potential users? How will the proposed new product benefit them?	
Page 2	CUSTOMER PROFILE	Developing a Customer Profile - page1 - Who are your potential customers? Carry out a Customer Profile Questionnaire . You need to build a Potential Customer Profile . Then produce a final Client/Customer Profile Sheet , once you have been commissioned to design and make a product	
Page 3	Analysis	List as many questions as you can about the project you are attempting. E.G what materials can I use? What safety considerations must I keep in mind?	
Page 3	Synthesis	Answer the questions in the analysis	
Page 4 / 5	Research	If you are to get a high grade you must put effort into this section. Remember, all research must be relevant to your project and constantly refer to the problem you are trying to solve. Produce at least one sheet on each of the following: Suitable materials for your project.	

		<p>Investigate the ways in which materials can be joined together - joints and fixings. The ergonomic factors that apply to your project. REVISION CARDS - The Difference between Anthropometrics and Ergonomics Safety factors related to your design problem. Write letters to manufacturers / shops. Research using the library. Research using the Internet / CD-ROMs/DVDs. Interview people with the aim of helping you to solve the design problem (record the interview). Carry out a survey / questionnaire and present the results as a pictogram/table of results Product Review - select an existing product and determine how it could be improved. This will help you develop your own ideas later. Collect pictures of existing products - photographs/catalogue pictures. How are existing products manufactured? Research other relevant areas such as electronic circuits.</p>	
	<p>ALTERNATIVE APPROACH TO RESEARCH - <u>FOCUSSED ANALYTICAL RESEARCH</u></p>	<p>Focussed Analytical Research of Existing Products - This is research fully focussed on features and functions of existing products, that will help you design your product.</p> <p>Focussed Ergonomics Research based on the Direct Needs of the Client.</p> <p>Focussed Questionnaire</p>	
Page 6	Evaluation of research	<p>This page will help you achieve a high grade for this section. You must mention how your research is relevant, how you could use your research and how it has help you determine how your product will be produced. If parts of your research isn' t relevant explain why.</p>	
Development of Design Proposals (including modelling)			
26–32 marks	<p>Imaginative and innovative ideas have been developed, demonstrating creativity, flair and originality. Further developments made to take account of ongoing research A coherent and appropriate design strategy, with clear evidence of a planned approach, adopted throughout The implications of a wide range of issues including social, moral, environmental and sustainability, are taken into consideration and inform the development of the design proposals Excellent development work through experimentation with a wide variety of techniques and modelling (including CAD where appropriate) in order to produce a final design solution Appropriate materials/ingredients and components selected with full regard to their working properties Fully detailed and justified product/manufacturing specification taking full account of the analysis undertaken</p>		
19–25 marks	<p>Imaginative ideas demonstrating a degree of creativity, which are further developed to take account of ongoing research An appropriate design strategy, with evidence of planning, adopted for most aspects Development of design proposals take into account the main aspects relating to a variety of social, moral, environmental and sustainability issues Good development work achieved through working with a variety of techniques and modelling</p>		

		(including CAD where appropriate) Appropriate materials/ingredients and components selected with regard to their working properties Product/manufacturing specification is complete and reflects key aspects of the analysis undertaken	
Page Number	Sub heading	Description	Tick
Page 7	SPECIFICATION	Once you have completed your design you should specify in a paragraph or two what exactly you are going to do to solve this problem. Always refer to your research.	
	ALTERNATIVE APPROACH WRITING A JUSTIFIED SPECIFICATION	Higher grade How to write a Justified Specification , with evidence / support through research and analysis.	
Page 8/10	IDEAS	Draw at least six ideas, with notes. The ideas should be different and not just the same idea slightly changed. Include environmental considerations (See additional sheet). Use Computer Aided Design (CAD) when drawing some of your designs/ideas.	
Page 11/13	DEVELOPMENT	To get the higher grades you must take your best idea and develop it further. One way of starting this section is to draw your best idea again and point out areas that can be improved. Areas may include, safety, colour scheme, cost, using a spreadsheet , shape, materials, mechanisms, circuits, systems diagram and the environment . You must show that you have considered Safety and the Consumer . You also need to develop a circuit for your project. You may need to show how mechanisms can be used as part of your design. How will all the parts/components be joined together? What joints and fixings will be needed? Stages of programming a microcontroller circuit (flow chart) . Make a series of models and evaluate each one. Carry out a Product Comparison to help develop a design. Click here for Product Comparison layout sheet and templates . Include a Technical Data Sheet in your design project - Technical Data Sheet Template . Ask a Focus Group (group of individuals) their advice regarding your designs and models. Consider the Life Cycle of your product, presenting it as a graphical design sheet . Developing A Design From A Theme (1) - Developing A Design From A Theme (2) Practice Examination Question - Sample 'Theme' Development Design Sheet	
	ALTERNATIVE APPROACH (GCSE LEVEL) BASIC IDEAS AND INITIAL DEVELOPMENT	Instead of producing an Ideas section followed by the Development section, combining both is an alternative design approach. Each design sheet should start with an initial idea and include some development. Sample Ideas Sheet 1 Sample Ideas Sheet 2 - Starting with an Existing Idea Sample Ideas Sheet 3 - Starting with Properties of Materials Sample Ideas Sheet - Starting with an Iconic Design Materials Research / Development - a Practical Approach Materials Research / Development Summary Sheet Advanced Material Tests	
	ALTERNATIVE APPROACH - DEVELOPING AN IDEA THROUGH	Modelling an Idea with Corrugated Card The Card Model Development Section Model Making - Record of Manufacture Sample Scaled Model Summary Sheet	

	MODELLING	<p align="center"> Sample Layout to Model Making Sequence Drawing Sheets Model Making Sequence Drawing - 1 Model Making Sequence Drawing - 2 </p>	
Page 14	SOLUTION	Produce a working drawing of your solution with a parts list. This must have measurements and constructional details. You may prefer to produce a Parts Sheet first. A three dimensional drawing can also be attempted.	
Making			
26–32	Marks	<p>Final outcome(s) shows a high level of making/modelling/finishing skills and accuracy</p> <p>Selected and used appropriate tools, materials and/or technologies including, where appropriate, CAM correctly, skilfully and safely</p> <p>Worked independently to produce a rigorous and demanding outcome</p> <p>Quality controls are evident throughout the project and it is clear how accuracy has been achieved.</p> <p>The outcome has the potential to be commercially viable and is suitable for the target market</p>	
19–25	Marks	<p>Final outcome shows very good level of making/modelling/finishing skills</p> <p>Selected and used appropriate tools, materials and/or technologies including, where appropriate, CAM correctly and safely</p> <p>Outcome demonstrates a high level of demand</p> <p>Quality control checks applied in the manufacture of the product</p> <p>The outcome is suitable for the target market and could be commercially viable with further development</p>	
Page number	Subheading	Description	Tick
15	MANUFACTURE	<p>Produce planning sheets to show each stage of production - a flowchart, time chart, and sketch sequence drawings.</p> <p>Further information on sequence drawings.</p> <p>Make a further model.</p> <p>Make the solution. Keep a Basic Logbook up to date</p> <p>Real World Manufacture (explanation and sample sheets). Revision Cards - Real World Manufacturing.</p>	
	ALTERNATIVE DETAILED LOGBOOK / PRODUCTION LOG	<p align="center"> A Detailed Log Book of Manufacturing Key Terminology to be included in a Manufacturing Log Book Example Production Log Example Statements / Sentences for a Production Log My Economic use of Materials </p>	
Page 16	MANUFACTURING SPECIFICATION	<p>The Manufacturing Specification is an alternative to producing separate sheets for the manufacturing flow chart, sequence drawing and final 3D drawing. It is a concise sheet, which summaries each of these design sheets.</p> <p>When creating this sheet, check everything you write and draw against the specification you wrote earlier in the project, after the research section.</p> <p>Click here for further information on the Manufacturing Specification.</p>	

Page 17	<u>EVALUATION</u>	Do not forget this important section. Evaluate your product. State the good and bad points. Does the solution answer the design brief ? Spend some time on this section. You should include social issues, health and safety, ethical and environmental issues	
Page 18	TESTING AND EVALUATION - AN ALTERNATIVE APPROACH	<p>An alternative approach to evaluating a product, is to test evaluate in an integrated way. Using this approach, a developed product (usually a prototype) is put through a number of tests and the results recorded.</p> <p><u>Testing and Evaluation - Why?</u> <u>Testing and Evaluation Sheet 1</u> <u>Testing and Evaluation Sheet 2</u></p>	



SKEGNESS
ACADEMY

ICT:

6 Mark Exam Question Preparation

Discuss the impact of the internet on the use of news and information services (6)

6 Mark Exam Question Preparation

Ryan and Michael take their personal digital devices with them when they travel to international competitions. Discuss what they need to consider if they wish to use their devices when they are away from home (6)

Describe the features of navigation aids

What do they do?

How do they work?

Revision Websites:

http://www.teach-ict.com/gcse_computing/ocr/GCSE_A451_topics.html

(Covers Topics with fun revision games)

<http://www.bbc.co.uk/education/subjects/z34k7ty>

(Covers Exam Topics with quizzes at the end of each subject)

http://gcsecomputing.org.uk/support/network/NWB_SIM.swf

(Network Simulation good for understanding network basics)

<http://codingbat.com/prob/p116624>

(Help with programming exercises to get students thinking)

<http://gcsecomputing.org.uk/support/index.html>

<http://gcsecomputing.org.uk/support/index.html>

Revision Books:

OCR Computing for GCSE (Computing Systems and Programming)

Sean O' Byrne & George Rouse

OCR Computing for GCSE (A451 Computer Systems and Programming Revision Guide) Alan Milosevic & Dorothy Williams

Computing:

1 (a) State what is meant by a storage device, an input device and an output device in a computer system.

A secondary school is upgrading its computer equipment.

1 (b) Complete the table below to show whether magnetic, optical or solid state storage is most appropriate for each of the following uses.

Give a reason for each case. The first one has been done for you.

Use	Magnetic, optical or solid state	Reason why this is most appropriate
Storing pictures in a digital camera	solid state	Is not affected by the camera being moved around
Handheld device used by students for field work	
Storage drives on the school's main file server	
Videos of the school production to be given to parents	

[6]

1 (c) The secondary school wants the computer systems to be more accessible to students with disabilities.

Describe, with examples, input and output devices which are available for students with disabilities. The quality of written communication will be assessed in your answer to this question. (6)

A grocery shop uses a database with a DBMS to keep records of its stock.

2 (a) Explain what is meant by a DBMS. (3)

2 (b) The database uses forms and reports. Describe each of these and give one example of how it would be used in the shop's database.

Here is some data from the supermarket's database.

ProductID	Description	Supplier	Quantity Left	Reorder Level	Discontinued	Price
0001	6 eggs	Hill Farm	50	20	FALSE	£0.98
0002	2 litres of milk	Hill Farm	17	20	TRUE	£1.20
0003	1kg apples	Killey's	42	50	FALSE	£0.79
0004	250g butter	Hill Farm	12	25	FALSE	£0.49
0005	500g Moku Flakes	Moku Foods	0	10	TRUE	£0.99
0006	6 salad tomatoes	Killey's	30	30	FALSE	£0.89
0007	580g can baked beans	Moku Foods	27	30	FALSE	£0.42
0008	Family tomato ketchup	Moku Foods	41	20	FALSE	£1.45

2 (c) The shop runs queries using logical operators to select data for different purposes.

(i) State the Product ID of the products in the above sample which fit the following criteria.

Supplier = Killey's

Price > £1.00 OR Supplier = Hill Farm

[4]

(ii) Write the criteria which can be used to select all products which are not discontinued and where the Quantity Left is lower than the Reorder Level. (3)

A rock band uses an internet website to advertise its music. (2)

(a) The website uses HTML.

(i) Describe HTML.

3 (ii) Explain the importance of HTML in the creation of web pages. (2)

3 (b) A list of file extensions for common file standards used on the internet is shown below.

JPG PDF MP3 MPEG ZIP

The rock band allows some files to be downloaded by fans.

Complete the table below to show which file format from the list given above may be used for each of the following files.

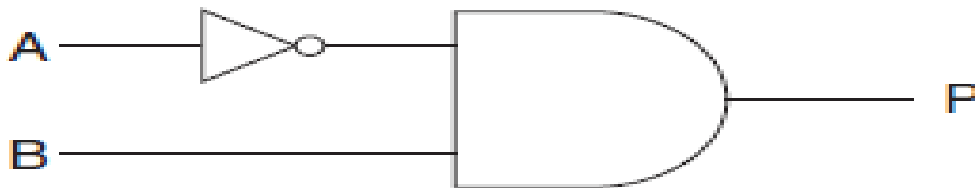
File	File Format
A high resolution image of the band to use as a desktop background.	
Sheet music of their songs ready to be printed in the correct format for guitar players.	
A short video extract from their latest concert tour.	
A compressed collection of 200 plain text files containing the lyrics of all their songs.	
An audio recording of a song from their album.	

4 (a) Some of the file formats use compression.

Explain the importance of compressing files when transmitting them via the internet. (2)

4 (ii) Describe the difference between lossy and lossless compression and give an example where each would be used. (4)

The following logic circuit can be written as $P = (\text{NOT } A) \text{ AND } B$



Complete the following truth table for the circuit given above.

A	B	P
0	0	0
0	1	
1	0	
1	1	

5 (b) Draw the circuit diagram which will represent the circuit $P = \text{NOT } (A \text{ AND } B)$ (2)

Describe the following types of common utility programs.

6 (a) Antivirus

[2]

(b) Disk defragmenter

[2]

7(a) Convert the hexadecimal number 6A to denary. (2)

7(b) Convert the hexadecimal number 6A to binary. (2)

7(c) Convert the binary number 00111101 to hexadecimal. (2)

7(d) Explain why hexadecimal numbers are often used to represent binary numbers. (2)

A program contains the following code to calculate the circumference of a bicycle wheel, using the wheel size (diameter).

```
BEGIN
CONSTANT Pi = 3.14
INPUT WheelSize
Circumference = Pi * WheelSize
OUTPUT Circumference
END
```

8(a) The code uses one constant and two variables. (2)

8(ii) Explain one difference between a constant and a variable. (2)

8(b) The data type of WheelSize is integer and the data type of Circumference is real number.

Explain the difference between an integer and a real number. (2)

9 A large company with 200 employees uses a local area network (LAN) which includes all the computers in its head office.

Describe the security measures and network policies which can be used to safeguard the security and privacy of the company' s data on the network.

The quality of written communication will be assessed in your answer to this question. (6)

10 A dog that is 5 years old is equivalent to a 42 year old human. Ashok is writing a program which converts the age of a dog to the equivalent age for a human.

The program uses the following method:

- The user inputs age of the dog in years
- If the age is 2 or less, the human equivalent is 12 times the age
- If the age is more than 2, the human equivalent is 24 for the first 2 years, plus 6 for every additional year.

Write an algorithm to calculate and output the human equivalent of the age of a dog using the method described.

SKEGNESS
ACADEMY

Week beginning	Brief description of homework task	Resources needed
5 th September 2016	Pupils to complete exam response using differentiated writing frames. This will be used in the following lesson for self and peer reflection. 4 mark exam question: Explain 2 reasons why the trinity is important to Christians.	Differentiated writing frame.
12 th September 2016	Pupils will each be given an alternative creation story. Next lesson they will present the key concepts of this to other pupils in their group. They will then discuss the similarities and the differences that the creation stories share.	Differentiated creation stories. Paper.
19 th September 2016	QMA task. Pupils will complete one the tasks in their QMA booklet. Specifically, 1 Timothy 3: 16. Pupils will be welcomed to use books and internet resources in order to challenge how the teaching is put into action by Christians.	QMA booklet which the pupils have already been given.
26 th September 2016	Revision tasks for short assessment. This will be based on the life and death of Jesus.	Exercise books.
3 rd October 2016	Complete a survey of 5 people about their beliefs on the afterlife. Peers may survey one another. This will be used as a discussion point during the following lesson.	
10 th October 2016	Reading task on the 39 articles of faith with comprehension. This will be used as a basis in which to discuss eschatology.	Differentiated worksheets
17 th October 2016	Revision for assessment.	