



Year 9 Progress Booklet



Name	
Group	Teacher:

Target Grade:

ASSESSMENT TRACKING SHEET

Complete this table with all of your results for exam practised assessed work and end of unit assessment. It will enable you to keep track of your performance. USE IT to understand where your strengths lie and where there are areas for improvement.

Date	Subject of Assessment	Grade	Relation to Target	Written Feedback	Verbal Feedback
			(I.e +1/ -1)	(tick if received)	(tick if received)

Policies

- Classwork will be monitored but not marked
- It is your responsibility to track your progress using this Progress log.
- Feedback will be achieved in a variety of ways: Written, Orally, Peer, Self and Teacher.
- Each unit will have an end of unit test, which will manage your progress over time.
- For Home work and Class work you must be done to show understanding and not copied and pasted solely from the internet or other sources.

Percentage	9-1 Grade	Old A*-G Grade
90%	9	A**
80%	8	A*/A
70%	7	A
60%	6	В
50%	5	B/C
40%	4	C
30%	3	D/E
20%	2	E/F
10%	1	F/G

Approx. Grade Boundaries

Example PLC

Here the candidate did not know anything about the purpose of the CPU but after the lesson they did.

Using a Red, Amber, Green rating allows you to see where you need to improve and revise when you come to take the End of Topic Test.



What Went Well.....

I got the questions about [insert topic here] right

I got [insert score here] which allowed me to achieve/exceed my target grade.

I really understood [insert topic here].

What do I need to do to achieve/exeed target grade?

I must learn [insert topic here] as I got those questions wrong.

I must learn to apply my knowledge to the scenario in the question.

I must break down problems into smaller steps.

HOW THE GCSE IS STRUCTURED

Component	Marks	Duration	Weighting
Computer systems (01)	80	1 hour 30 mins	50%
Calculators not allowed			
Computational thinking, algorithms and programming (02)*	80	1 hour 30 mins	50%
Calculators not allowed			

* Algorithm questions are not exclusive to component 02 and can be assessed in all components.

Component 01: Computer systems

Introduces students to the central processing unit (CPU), computer memory and storage, wired and wireless networks, network topologies, system security and system software. It also looks at ethical, legal, cultural and environmental concerns associated with computer science.

Component 02: Computational thinking, algorithms and programming

Students apply knowledge and understanding gained in component 01. They develop skills and understanding in computational thinking: algorithms, programming techniques, producing robust programs, computational logic, translators and data representation. The skills and knowledge developed within this component will support the learner when completing the Programming Project.

Programming Project

Students use OCR Programming Project tasks to develop their practical ability in the skills developed in components 01 and 02.

AO1	Demonstrate knowledge and understanding of the key concepts and		
	principles of Computer Science.		
AO2	Apply knowledge and understanding of key concepts and principles of		
	Computer Science.		
AO3	Analyse problems in computational terms:		
	 To make reasoned judgements 		
	 To design, program, evaluate and refine solutions. 		

Assessment Objectives

Relationship between AO and Components

Component	% of overall GCSE		
	AO1	AO2	AO3
Computer systems (J276/01)	15	22	3
Computational thinking, algorithms and programming (J276/02)	14	14	12
Programming project (J276/03/04)	1	4	15
Total (%)	30%	40%	30%

Assessment Objectives Broken Down

	Assessment Objective
AO1	Demonstrate knowledge and understanding of the key concepts and
	principles of computer science.
AO1 1a	Demonstrate knowledge of the key concepts and principles of
	computer science.
AO1 1b	Demonstrate understanding of the key concepts and principles of
	computer science.
AO2	Apply knowledge and understanding of key concepts and principles of
	computer science.
AO2 1a	Apply knowledge of key concepts and principles of computer science.
AO2 1b	Apply understanding of key concepts and principles of computer
	science.
AO3	Analyse problems in computational terms:
	 to make reasoned judgements
	 to design, program, evaluate and refine solutions.
AO3 1	To make reasoned judgements (this strand is a single element).
AO3 2a	Design solutions.

AO3 2b	Program solutions.
AO3 2c	Evaluate and refine solutions.

Level of Response

Highest mark:	If clear evidence of all the qualities in the band descriptors is shown, the	
	HIGHEST Mark should be awarded	
Middle mark:	This mark should be used for candidates who are secure in the band.	
	They are not 'borderline' but they have only achieved some of the	
	qualities in the band descriptors.	
Lowest mark:	If the answer shows the candidate to be borderline (i.e. they have	
	achieved all the qualities of the bands below and show limited evidence	
	of meeting the criteria of the band in question) the LOWEST mark should	
	be awarded.	

	AO2.1a	AO2.1b
Highest	Precision in the use of terminology.	Understanding of concepts is consistently
mark:	Knowledge shown is consistent and well-	applied to context enabling a logical and
	developed. Clear appreciation of the	sustained argument to develop. Examples
	question from a range of different	used enhance rather than detract from
	perspectives making extensive use of	response.
	acquired knowledge and principles of	
	computer science.	
Middle	Awareness of the meaning of the terms in	Understanding of concepts is shown and is
mark:	the question. Knowledge is sound and	applied to context. There is clear evidence
	effectively demonstrated. Demands of	that an argument builds and develops
	question understood although at times	through the response but there are times
	opportunities to make use of acquired	when opportunities are missed to use an
	knowledge and concepts are not always	example or relate an aspect of understanding
	taken.	to the context provided.
Lowest	Confusion and inability to deconstruct	Inability to apply understanding of key
mark:	terminology as used in the question.	concepts in any sustained way to context
	Knowledge partial and superficial. Focus on	resulting in tenuous and unsupported
	question narrow and often one-dimensional.	statements being made. Examples if used are
		for the most part irrelevant and
		unsubstantiated.
0 Marks	No response or no response worthy of	No response or no response worthy of credit.
	credit.	

Autumn Term 1

1.1 Systems Architecture

Content	Before	After
The purpose of the CPU		
Von Neumann architecture:		
 MAR (Memory Address Register) 		
 MDR (Memory Data Register) 		
 Program Counter 		
 Accumulator 		
Common CPU components and their function:		
 ALU (Arithmetic Logic Unit) 		
 CU (Control Unit) 		
o Cache		
The function of the CPU as fetch and execute		
instructions stored in memory		
How common characteristics of CPUs affect their		
performance:		
 clock speed 		
o cache size		
 number of cores 		
Embedded systems:		
 purpose of embedded systems 		
 examples of embedded systems. 		

RAW SCORE	GRADE	ADOVE/BELOW TARGET

What do I need to do to achieve/exceed target grade?
1.
2.
3.
What do I need to do to achieve/exceed target grade?
1.
2.
3.
Think Pink
Go Green
7

Autumn Term 2

1.2 Memory

Content	Before	After
The difference between RAM and ROM		
The purpose of ROM in a computer system		
The purpose of RAM in a computer system		
The need for virtual memory		
Flash memory		

1.3 Storage

Content	Before	After
The need for secondary storage		
Know the difference between, bit, byte, KB, MB, GB, TB		
etc.		
Common types of storage:		
Optical		
Magnetic		
Solid state		
Suitable storage devices and storage media for a given		
application and the advantages and disadvantages of		
these using characteristics:		
Capacity		
Speed		
Portability		
Durability		
Reliability		
Cost		

RAW SCORE	GRADE	ADOVE/BELOW TARGET

What do I need to do to achieve/exceed target grade?
1.
2.
3.
What do I need to do to achieve/exceed target grade?
1.
2.
3.
Think Pink
Go Green

Spring Term 1

1.7 Systems Software

Content	Before	After
The purpose and functionality of systems software		
Operating systems:		
User interface		
Memory management/ multitasking		
Peripheral management and drivers		
User management		
File management		
Utility system software:		
Encryption software		
Defragmentation		
Data compression		
The role and methods of backup:		
Full		
Incremental.		

RAW SCORE	GRADE	ADOVE/BELOW TARGET

What do I need to do to achieve/exceed target grade?
1.
2.
3.
What do I need to do to achieve/exceed target grade?
1.
2.
3.
Think Pink
Go Green

Spring Term 2

2.6 Data Representation

Content	Before	After
1.Units		
bit, nibble, byte, kilobyte, gigabyte, terabyte, petabyte		
how data needs to converted into a binary format to be processed		
by a computer		
2. Numbers		
how to convert positive denary whole numbers (0-255) into 8 bit		
binary numbers and vice versa		
how to add two 8 bit binary integers and explain overflow errors		
which may occur		
binary shifts		
now to convert positive denary whole numbers (0-255) into 2 digit		
hexadecimal numbers and vice cersa		
versa		
check digits		
3. Characters		
the use of binary codes to represent characters		
the term 'character set'		
the relationship between the number of bits per character set abd		
the number of characters which can be represented (for example		
ASCII, extended ASCII and Unicode)		
4. Images		
how an image is represented as a series of pixels represented in		
binary		
metadata included in the file		
the effect of colour depth and resolution on the size of an image file		
5. Sound		
how sound can be sampled and stored in digital form		
file and the quality of its playback		
sample size		
bit rate		
sampling frequency		
6. Compression		
need for compression		
types of compression		
lossy		
lossless		

RAW SCORE	GRADE	ADOVE/BELOW TARGET

What do I need to do to achieve/exceed target grade?
1.
2.
3.
What do I need to do to achieve/exceed target grade?
1.
2.
3.
Think Pink
Go Green

Summer Term 1

1.4 Wired and Wireless Networks

Content	Before	After
Types of networks:		
LAN (Local Area Network)		
WAN (Wide Area Network)		
Factors that affect the performance of networks		
The different roles of computers in a client-server and		
a peer-to-peer network		
The hardware needed to connect stand-alone		
computers into a Local Area Network:		
Wireless access points		
Routers/switches		
NIC (Network Interface Controller/Card)		
Transmission media		
The internet as a worldwide collection of computer		
networks:		
DNS (Domain Name Server)		
Hosting		
The cloud		
The concept of virtual networks.		

RAW SCORE	GRADE	ADOVE/BELOW TARGET

What do I need to do to achieve/exceed target grade?
1.
2.
3.
What do I need to do to achieve/exceed target grade?
1.
2.
3.
Think Pink
Go Green

Summer Term 2

1.8 Ethical, legal, cultural and environmental concerns

Content	Before	After
How to investigate and discuss Computer Science technologies while considering:		
Ethical issues		
Legal issues		
Cultural issues		
Environmental issues		
Privacy issues.		
How key stakeholders are affected by technologies		
Environmental impact of Computer Science		
Cultural implications of Computer Science		
Open source vs proprietary software		
Legislation relevant to Computer Science:		
The Data Protection Act 1998		
Computer Misuse Act 1990		
 Copyright Designs and Patents Act 1988 		
Creative Commons Licensing		
Freedom of Information Act 2000		

RAW SCORE	GRADE	ADOVE/BELOW TARGET

What do I need to do to achieve/exceed target grade?
1.
2.
3.
What do I need to do to achieve/exceed target grade?
1.
2.
3.
Think Pink
Go Green

5e. Command words

The command words below will be used consistently in all assessment material and resources.

Add: Join something to something else so as to increase the size, number, or amount.

Analyse: Break down in order to bring out the essential elements or structure. To identify parts and relationships, and to interpret information to reach conclusions.

Annotate: Add brief notes to a diagram or graph.

Calculate: Obtain a numerical answer showing the relevant stages in the working.

Compare: Give an account of the similarities and differences between two (or more) items or situations, referring to both (all) of them throughout.

Complete: Provide all the necessary or appropriate parts.

Convert: Change the form, character, or function of something.

Define: Give the precise meaning of a word, phrase, concept or physical quantity.

Describe: Give a detailed account or picture of a situation, event, pattern or process

Design: Produce a plan, simulation or model.

Discuss: Offer a considered and balanced review that includes a range of arguments, factors or hypotheses. Opinions or conclusions should be presented clearly and supported by appropriate evidence.

Draw: Produce (a picture or diagram) by making lines and marks on paper with a pencil, pen, etc.

Evaluate: Assess the implications and limitations; to make judgements about the ideas, works, solutions or methods in relation to selected criteria.

Explain: Give a detailed account including reasons or causes.

Give: Present information which determines the importance of an event or issue. Quite often used to show causation.

How: In what way or manner; by what means.

Identify: Provide an answer from a number of possibilities. Recognise and state briefly a distinguishing factor or feature.

Justify: Give valid reasons or evidence to support an answer or conclusion.

Label: Add title, labels or brief explanation(s) to a diagram or graph.

List: Give a sequence of brief answers with no explanation.

Order: Put the responses into a logical sequence.

Outline: Give a brief account or summary.

Show: Give steps in a derivation or calculation.

Solve: Obtain the answer(s) using algebraic and/or numerical and/or graphical methods.

State: Give a specific name, value or other brief answer without explanation or calculation.

Tick: Mark (an item) with a tick or select (a box) on a form, questionnaire etc. to indicate that something has been chosen.

What: Asking for information specifying something.