

AQA GCSE (8525) FREE RESOURCES

These free resources provide everything you need to cover the following topics:

It covers: **Systems architecture, Hardware and software, Algorithms**

This folder contains the following files:



Lesson overview PowerPoints

One for each lesson to be displayed at the front of the classroom to provide structure to the lesson.



End of topic test

Written using exam style questions.
All tests are out of 20 so easy comparisons can be made between different topics.
Full answers provided.



Student workbook

This is the main file students complete as they progress through a topic. Includes an opportunity for assessment and feedback. Includes a RAG rating self-assessment page.



Student workbook (answers)

A grade 9 model answer version of the blank student workbook.
Doubles up as an excellent knowledge organiser to hand out to students when needed.

It also contains a blank copy of our “GCSE Level Key Terminology” document.

Students can use this to build up a glossary of the key terms throughout the course. It is not essential, but will provide them with a useful revision tool. Definitions are included in the premium resources.

For guidance on how to formally assess your students at the end of each topic and to get the most out of our “Student workbooks” please check out the following video on our YouTube channel:



[🔗 Assessment with Craig'n'Dave – \(GCSE\)](#)



README – Our free resources


Theory coverage

With Craig 'n' Dave resources, you do not need to teach the content of the course from the front of the class. Instead, you set students a video to watch ahead of the lesson from our student page:

student.craigndave.org


Advise them to pause the video when they see the notes icon and record the key theory in an exercise book that they will then bring to the lesson to help them complete the activities. The entire specification is covered point by point in these videos.




 Craig 'n' Dave For Students Shop Videos

AQA GCSE 8525


Videos




AQA 8525 – SLR1 – Systems architecture




AQA 8525 – SLR2 – Memory and storage




AQA 8525 – SLR3 – Computer networks, protocols and layers




AQA 8525 – SLR4 – Cyber security




AQA 8525 – SLR5 – Hardware and software




AQA 8525 – SLR6 – Ethical, legal and environmental impacts




AQA 8525 – SLR7 – Algorithms



AQA 8525 – SLR8 – Basic programming concepts



AQA 8525 – SLR9 – Advanced programming concepts



AQA 8525 – SLR10 – Robust and secure programming

If you wish to deliver our theory videos in a more traditional approach however we also provide them as PowerPoints file. These can be downloaded from your premium resources login.



README – Our free resources

Additional resources

Don't forget a premium subscription comes with full access to **ALL UNITS / TOPICS** as well as all our additional resources, these include:

- Programming resources (Python, C#, T.I.M.E, Defold games development)
- Delivery guides/calendars
- Key terminology databases
- Student revision checklists
- "Those little extras" pack
- PDF copy of our "Essential algorithms and data structures" book from Amazon
- Exam revision unit
- Pseudocode cheat sheets
- Text-based adventure game (Telium)

GCSE COMPUTER SCIENCE CALENDAR 2016-17				
YEAR 10				
Week	Date	Lesson		
1	05/09/2016	Introduction lesson	1.1 Lesson 1	1.1 Lesson
2	12/09/2016		1.1 Lesson 3	1.1 Lesson 4
3	19/09/2016	Programming	Programming	Programming
4	26/09/2016	1.1 Test	1.1 Action	1.2 Lesson
5	03/10/2016	1.2 Lesson 1	1.2 Lesson 3	1.2 Lesson
6	10/10/2016	1.2 Test	1.2 Action	1.3 Lesson
7	17/10/2016	1.3 Lesson 1	1.3 Lesson 3	1.3 Lesson
Half Term				
1	31/10/2016	1.3 Test	1.3 Action	Programming
2	07/11/2016	1.4 Lesson 1	1.4 Lesson 2	1.4 Lesson
3	14/11/2016	1.4 Lesson 4	1.4 Lesson 5	1.4 Lesson
4	21/11/2016	1.4 Lesson 7	Programming	Programming
5	28/11/2016	1.5 Test	1.5 Action	Programming
6	05/12/2016	Programming	Programming	Programming
7	12/12/2016	Programming	Programming	Programming
Christmas				
1	02/01/2017		1.5 Lesson	
2	09/01/2017	1.5 Lesson 2	1.5 Lesson 3	1.5 Lesson
3	16/01/2017	1.5 Lesson 6	1.5 Lesson 7	Programming
4	23/01/2017	Programming	Programming	Programming
5	30/01/2017	1.5 Test	1.5 Action	Programming
6	06/02/2017	Programming	Programming	Programming
Half Term				
1	20/02/2017	1.6 Lesson 1	1.6 Lesson 2	1.6 Lesson
2	27/02/2017	1.6 Lesson 4	1.6 Lesson 5	1.6 Lesson
3	06/03/2017	1.6 Lesson 7	1.6 Lesson 8	1.6 Lesson
4	13/03/2017	1.6 Test	1.6 Action	Programming
5	20/03/2017	1.7 Lesson 1	1.7 Lesson 2	1.7 Lesson
6	27/03/2017	1.7 Lesson 4	Programming	Programming
7	03/04/2017	SLR 1.7 Test	Programming	SLR 1.8 Act
Easter				
1	24/04/2017	1.8 Lesson 1	1.8 Lesson 2	1.8 Lesson
2	01/05/2017		1.8 Lesson 4	1.8 Lesson
3	08/05/2017	1.8 Lesson 6	1.8 Lesson 7	1.8 Lesson
4	15/05/2017	Programming	Programming	Programming
5	22/05/2017	SLR 1.8 Test	Programming	SLR 1.8 Act
Half Term				

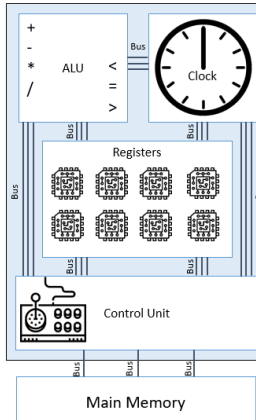
GCSE 8525 SLR1 | Systems architecture

About the CPU

The CPU has a number of major components, they are:

Component name:	Arithmetic Logic Unit (ALU)	Control Unit (CU)
Role / Purpose:	This component performs calculations, e.g. addition/subtraction and logical decisions, e.g. does this equal...?	This component decodes instructions and sends signals to control how data moves around the CPU.
Component name:	Bus	Clock
Role / Purpose:	These are a collection of wires through which data is transmitted from one component to another.	The electronic unit that synchronises related components by generating pulses at a constant rate.
The CPU also makes regular use of Registers, what are these?	A collect of small, super areas of memory onboard the CPU, which can be accessed/used by the various other components.	
The CPU also makes regular use of Main Memory, what is this?	This memory provides fast access to frequently used instructions and data without having to go to the main memory (RAM).	

A diagram of the CPU:



Systems architecture

STARTER

The toy railway

It is quicker to get instructions and data from cache.

15 seconds

20 seconds

The processor core, cache and RAM are like stations on the track, with the train representing data

READY TO BUY?

If you like what we have to offer then head over to our online shop to purchase.

All purchases come with a lifetime sitewide licence for a single institution.



 shop.craigndave.org/store

README – Our free resources

Our pedagogy

Read more about our pedagogy here:



craigndave.org/our-pedagogy

We have additional videos which you might find useful which explain the Flipped Classroom method of teaching on our YouTube channel:



youtube.com/watch?v=ErJIJ5xhW-M&list=PLCiOXwirraUBEEFcJfSQgE2P-pcor9b9c

More reasons to teach with Craig 'n' Dave

Find out more about why we think our resources are the best available for delivering GCSE Computer Science here:

craigndave.org/why-teach-with-craigndave-resources

If you have issues opening any of the files or experience any other problems, or you just want to ask us a question / provide feedback feel free to email us:



admin@craigndave.co.uk

