

# EDEXCEL GCSE (1CP2) – SLR 5 NETWORK AND CYBER SECURITY

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All files needed for this topic are in this folder.

It covers:        Three areas (4.2.1, 5.3.1 and 5.3.2) from the specification

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.

If you wish to follow our dedicated scheme of learning and delivery calendars these can be downloaded separately from your premium resources login by selecting the following tile:

- Other GCSE Resources

For guidance on how to formally assess your students at the end of this 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 – Getting the most out of our 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](https://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

## Edexcel GCSE 1CP2


### Videos



GCSE EDEXCEL Topic 1A – Computational thinking and algorithms



GCSE EDEXCEL Topic 1B – Computational logic



GCSE EDEXCEL Topic 2A – Binary



GCSE EDEXCEL Topic 2B – Data representation & compression




GCSE EDEXCEL Topic 3A – Hardware



GCSE EDEXCEL Topic 3B – Software & programming languages



GCSE EDEXCEL Topic 4 – Networks and network security



GCSE EDEXCEL Topic 5 – Issues and impact



GCSE EDEXCEL Topic 6A – Developing code



GCSE EDEXCEL Topic 6B – Programming fundamentals

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 – Getting the most out of our resources

### Additional resources

Don't forget, your subscription comes with full access to all our additional resources. These can all be downloaded from your premium resource's login. 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
- Paper 2 exam revision unit
- Pseudocode cheat sheet
- Text-based adventure game (Telium)

GCSE COMPUTER SCIENCE CALENDAR 2016-17				
YEAR 10				
Week	Date	Lessons		
1	05/09/2016	Introduction lesson	1.1 Lesson 1	1.1 Lesson 1
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 1
5	03/10/2016	1.2 Lesson 2	1.2 Lesson 3	Programming
6	10/10/2016	1.2 Test	1.2 Action	1.3 Lesson 1
7	17/10/2016	1.3 Lesson 2	1.3 Lesson 3	1.3 Lesson 3
Half Term				
1	01/10/2016	1.3 Test	1.3 Action	Programming
2	07/11/2016	1.4 Lesson 1	1.4 Lesson 2	1.4 Lesson 3
3	14/11/2016	1.4 Lesson 4	1.4 Lesson 5	1.4 Lesson 6
4	21/11/2016	1.4 Lesson 7	Programming	Programming
5	28/11/2016	1.4 Test	1.4 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	1.5 Lesson 3
2	09/01/2017	1.5 Lesson 2	1.5 Lesson 3	1.5 Lesson 3
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 3
2	27/02/2017	1.6 Lesson 4	1.6 Lesson 5	1.6 Lesson 6
3	06/03/2017	1.6 Lesson 7	1.6 Lesson 8	1.6 Lesson 9
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 3
6	27/03/2017	1.7 Lesson 4	Programming	Programming
7	03/04/2017	SLR 1.7 Test	Programming	SLR 1.7 Act
Easter				
1	24/04/2017	1.8 Lesson 1	1.8 Lesson 2	1.8 Lesson 3
2	01/05/2017	1.8 Lesson 4	1.8 Lesson 5	1.8 Lesson 6
3	08/05/2017	1.8 Lesson 6	1.8 Lesson 7	1.8 Lesson 8
4	15/05/2017	Programming	Programming	Programming
5	22/05/2017	SLR 1.8 Test	Programming	SLR 1.8 Act
Half Term				

#### GCSE 1CP2 Paper 1 | SLR1 – Systems architecture and storage

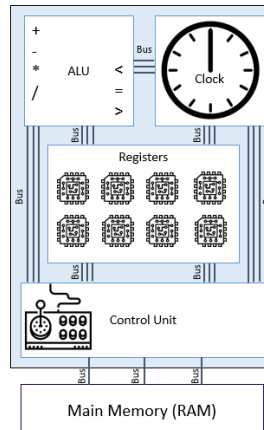
Craig'n'Dave

##### About the CPU

The CPU has several major components, they are:

Component name:	Arithmetic Logic Unit (ALU)	Control Unit (CU)
Role / Purpose:	Performs calculations, e.g. addition/subtraction and logical decisions, e.g. does this equal...?	Decodes instructions and sends signals to control how data moves around the CPU.
Component name:	Bus	Clock
Role / Purpose:	A collection of wires through which data and instructions are 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 collection of small, super fast areas of memory on-board the CPU, which can be accessed/used by the 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:



#### GCSE 1CP2 Paper 1 | SLR1 – Systems architecture and storage

Craig'n'Dave

##### STARTER

###### The toy railway

The starter activity is titled "The toy railway". It features a diagram of a toy railway track with a train. The track is divided into segments, and the train is shown moving along it. The activity asks the student to calculate how long it takes the train to travel around the inside track, given that it takes 1 second to travel on each segment of track. The activity is presented in a grid format with various questions and answers.

## README – Getting the most out of our resources

### Our pedagogy

Read more about our pedagogy here:



[craigndave.org/our-pedagogy](https://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](https://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](https://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](mailto:admin@craigndave.co.uk)

