

# OCR A LEVEL – SLR 1 STRUCTURE AND FUNCTION OF THE PROCESSOR

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All files needed for this topic are in this folder.

It covers:      1.1.1a – 1.1.1d from the AS Level specification  
                     1.1.1a – 1.1.1e from the A Level specification

It contains the following three sub-folders:



Activities

Contains all the activities for you to share with your students. We often provide **more** activities than your students could reasonably complete in the time provided. We constantly improve and add to our bank of activities for each SLR, so please check each year for the latest updates! Pick and choose the most appropriate activities for your students as required.



Answers

Contains all the activities **plus** model answers. For you to use as you see fit. Ideal for displaying at the front of the class.



Assessment

Contains the Structure Learning Records for your students to fill out as they carry out the activities above. These provide your method of assessment. There is a video in this folder explaining how to get the most out of our SLRs. Contains answers to the exam questions set in the SLRs.

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 A level Resources

For guidance on how to formally assess your students at the end of this topic and to get the most out of our Structured Learning Records (SRLs) please check out the following video on our YouTube channel:



[🔗 Assessment with Craig'n'Dave – \(AS/A Level\)](#)

# 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](http://student.craigndave.org)

Advise them to pause the video and make notes in an exercise book that they bring to lessons to help them complete the theory activities. The entire specification is covered point by point in these videos.

The screenshot shows the website interface for 'Craig 'n' Dave For Students'. At the top, there is a navigation bar with a power button icon, the text 'Craig 'n' Dave For Students', and links for 'Shop' and 'Videos'. Below this is a red banner with the text 'OCR A Level H046/H446 Videos'. A paragraph below the banner reads: 'To make the most of our videos, we recommend using the Cornell method of note taking. You can read more about it on the [Cornell note taking page](#) on our website.' Below this is a grid of 10 video thumbnails, each with an icon and a title:

- SLR01 – Structure and function of the processor (AS & A'Level)
- SLR02 – Types of processor (AS & A'Level)
- SLR03 – Input output and storage (AS & A'Level)
- SLR04 – Operating systems – Systems software (AS & A'Level)
- SLR05 – Application generation (AS & A'Level)
- SLR06 – Software development (AS & A'Level)
- SLR07 – Types of programming language (A'Level Only)
- SLR08 – Introduction to programming (AS Level Only)
- SLR09 – Compression encryption and hashing (A'Level Only)
- SLR10 – Databases (AS & A'Level)

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
- Teacher marking checklist
- AS recap lessons to use in year 13 before embarking on new material
- Key terminology databases
- Student revision checklists
- Computational thinking exercises
- "Those little extras" pack
- PDF copy of our "Essential algorithms and data structures" book from Amazon
- PDF copy of our "Documenting Defold programming projects OCR H446" book from Amazon
- Cheat sheets

### Network and the internet

Understand physical star topology and logical bus network topology  
Differentiate between them and explain their operation

2. Using the items shown here, construct a diagram that shows your understanding of a physical star topology.

### Internal computer architecture

Understand the basic components of a computer system  
Each other: • processor • main memory • address bus • data bus • control bus • I/O controllers  
In particular, understand the concept of a bus and how address, data and control buses are used

Use a line connector shape to join them together.  
Value = execute

more than one colour?

- Stores the address of the next instruction to be fetched
- Stores the address of the instruction or data to be fetched
- Stores data read from or being written to the RAM
- Stores the instruction currently being executed

Week	Week	Lessons	File
1	1		
2	2	SLR1-4.111	
3	3	SLR1-4.116,7	
4	4	Programming	
5	5	SLR2-4.119	
6	6	SLR2-4.119	
7	7	SLR1-4.123	
8	8	SLR1-4.123	
9	9	SLR4-4.241	
10	10	SLR4-4.241	
11	11	SLR7-4.411	
12	12	SLR7-4.419,9	
13	13	SLR7-4.421	
14	14	Programming	
15	15	SLR9-4.196	
16	16	Programming	
17	17	SLR1-4.541	
18	18	SLR1-4.541	
19	19	Programming	
20	20	SLR1-4.550	
21	21	SLR1-4.550	
22	22	SLR1-4.550	
23	23	TEST	
24	24	SLR4-4.192	
25	25	SLR1-4.821	
26	26	SLR1-4.821	
27	27	SLR1-4.821	
28	28	SLR1-4.821	
29	29	SLR1-4.821	
30	30	SLR1-4.821	
31	31	SLR1-4.821	
32	32	SLR1-4.821	

  

Week	Lessons	File
1	Project intro	Analysis
2	Analysis	Analysis
3	Analysis	Analysis
4	SLR1-4.741	SLR1-4.742
5	SLR1-4.922	SLR1-4.923
6	SLR1-4.922	SLR1-4.923
7	SLR1-4.922	SLR1-4.923

  

2. Describe what each of the following higher-order functions do. [6]

Map:

Filter:

fold or Reduce:

3. What would be the result of making the following function calls? [9]

fold (\*) 2 [1,2,3]

filter (>10) [7,3,10,11,4,12,9]

map (x -> x \* 5) [0,5,10,15]

## README – Getting the most out of our resources

### Our pedagogy

Read more about our pedagogy here:



[craigdave.org/our-pedagogy](https://craigdave.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 A Level Computer Science here:

[craigdave.org/why-teach-with-craigdave-resources](https://craigdave.org/why-teach-with-craigdave-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:



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