

Active Revision – Computer Science

Assessment Point – Year 10 End of Year

Research shows that students who do frequent chunks of revision across all 3 stages of revision below are more likely to reach their full potential.

- ✓ **Upload** – consolidate your knowledge
- ✓ **Process** – active retrieval practice
- ✓ **Download** – apply your knowledge



upload



process



download

TOPIC: Systems Architecture

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| <ul style="list-style-type: none"> • Draw a diagram of the fetch-decode-execute cycle | <ul style="list-style-type: none"> • Annotate your diagram to explain how the cycle works with the von Neumann architecture | <ul style="list-style-type: none"> • Write a 100 word summary explaining how the fetch, decode, execute cycle works |
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TOPIC: Memory and Storage

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| <ul style="list-style-type: none"> • Create a table with three columns: Device, Type and Key characteristics. Complete at least 5 different memory and storage devices | <ul style="list-style-type: none"> • Cut out the device and characteristics and try to match them correctly. | <ul style="list-style-type: none"> • A user is building a new computer for gaming and video editing. Recommend the type and size of RAM and a suitable storage solutions. Justify your choice |
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TOPIC: Computer Networks, protocols and layers

<ul style="list-style-type: none"> List all the types of networks you can identify – write a one sentence definition for each. 	<ul style="list-style-type: none"> Draw the TCP/IP Model and label with a description of the function of each 	<ul style="list-style-type: none"> A user wants to stream a video from YouTube, write an explanation of the role of protocols and layers in making this happen
TOPIC: Cyber Security		
<ul style="list-style-type: none"> List a range of cyber security threats 	<ul style="list-style-type: none"> Add to your list of threats ways in which each one can be prevented 	<ul style="list-style-type: none"> Explain the difference between malware and phishing. Outline 2 ways in which you can protect yourself from these threats in your daily lives.
TOPIC: Ethical, legal and environmental impacts		
<ul style="list-style-type: none"> Create a mindmap of the key ethical, legal and environmental issues related to digital technology 	<ul style="list-style-type: none"> Create an example for each of the issues you have named e.g Data protection act – Data must be accurate and kept up to date 	<ul style="list-style-type: none"> To prepare for a school parents evening, students take a blank appointment sheet to each teacher, and book a time slot for their parent/carer to see a teacher. Once complete, they give this sheet to their parent/carer. The school is going to introduce an online booking system instead, where parents can book their own appointments. Identify 3 impacts for each of the 3 stakeholders: students, parents and teachers.
TOPIC: Data Representation		
<ul style="list-style-type: none"> Choose 10 decimal whole numbers and convert into 8-bit binary and Hexidecimal 	<ul style="list-style-type: none"> Take 3 of the binary numbers and add them together 	<ul style="list-style-type: none"> Explain why Hexidecimal is often used in Computer science