

Year 9 End of Year Computing Assessment

The exam paper will be a total of **55 marks**.

Year 9 – 35 marks, Year 8 – 10 marks, Year 7 – 10 marks

Revision tips: We would suggest creating mind maps, record cards with the question one side and answer on the other (self-testing) and try the quizzes (links below).

Methods of Revision Suggestions:	Website Link:
Mind map	http://tinyurl.com/37xezntd
Quizlet (allows you to create flashcards) Sign up using your school email address	http://tinyurl.com/37dubdjik
Padlet (revision board) – Sign up using your school email address	http://tinyurl.com/ysjaahr5
Power Point/Notes	http://tinyurl.com/mprnrj4w

Year 9 topics: (students should use their books and presentations on google classroom)

E-Safety- be able to define sexting, selfies, trolling and age ratings.

Creative Video-

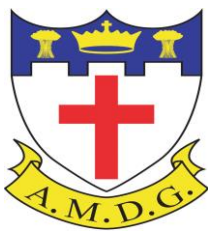
- Lossy and lossless compression- be able to describe the difference between lossy and lossless compression.
- File types- audio, suitability for use and size.

System Architecture & Data Representation

- CPU- definition (carries out an endless cycle of fetch, decode, execute).
- Clock speed – number of F-D-E cycles per second.
- Logic Gates - state the output from given inputs (AND, NOT)
- Binary - binary addition.
- Hexadecimal – decimal to hex, reason why we use hex instead of binary.
- Images- understand how bitmap images are stored on a computer.
- Software – Task carried out by the operating system. Utility software used for security.
- Computational thinking- define, giving examples (algorithms, decomposition, pattern recognition and abstraction).

Helpful resources:

- 1) E-safety: <https://tinyurl.com/2kky6b6c>
- 2) Lossy and lossless compression: <https://tinyurl.com/2p8btax9>
- 3) File types: <https://tinyurl.com/4ctrwsva>



- 4) CPU: <https://tinyurl.com/2jz8z93d>, <https://tinyurl.com/bdcuzzdh>
- 5) Logic gates: <https://tinyurl.com/4m6ada3b>, <https://tinyurl.com/yrek4efm>
- 6) Binary: <https://tinyurl.com/5n8y2shd>, <https://tinyurl.com/yzzv7y2w>
- 7) Hexadecimal: <https://tinyurl.com/mm82b3hz>, <https://tinyurl.com/yc42vr3f>
- 8) Images: <https://tinyurl.com/889z2x2t>
- 9) Software: <https://tinyurl.com/bdd4tw57>,
<https://www.blooket.com/set/61f6cb30ea27e20db2853d7a>,
- 10) Computational thinking: <https://tinyurl.com/2p949ed5>

Year 8 topics (10 marks)

- Define a white hacker.
- Describe a DDoS network attack.
- Identify the law that makes hacking illegal.
- Describe a Star network topology.
- Identify a variable in a python program.
- Know there are 3 programming constructs: Sequence, Selection & Iteration
- Write syntax to extend a program using selection (IF-ELSE)
- Identify syntax to carry out multiplication.

Helpful resources:

- 1) Types of hackers - <https://tinyurl.com/2ccfztc>
- 2) Computer Misuse Act - <https://tinyurl.com/4w4h332y>
- 3) Difference between the internet and world wide web- <https://tinyurl.com/z937nnx8>
- 4) Network Topologies - <https://tinyurl.com/mv88zbde>
- 5) Python - www.w3schools.com/python/

Year 7 topics (10 marks)

- Describe the difference between cyberbullying and online grooming.
- Describe the purpose of the motherboard
- Know the purpose of RAM and ROM.
- State the type of secondary storage e.g. optical, magnetic, or solid state.
- Define an algorithm by an image e.g. pseudocode or flowchart.
- Create and debug python code to output a string e.g.
print("Hello") or carry out calculations e.g print(4/2) divides

Helpful resources:

- 1) E-safety: <https://tinyurl.com/2p8ksmrw>
- 2) Internal computer components: <https://tinyurl.com/ycksthcn>
- 3) RAM and ROM: <http://tinyurl.com/4tjxec4r>
- 4) Secondary storage: <https://tinyurl.com/3fpcnfs2> (Oak Academy)
- 5) What is an algorithm: <https://tinyurl.com/7m9hz643>
- 6) Python arithmetic <https://tinyurl.com/2p96nvif>