



Year 7 Computing Summer Assessment

The exam paper will be a total of **50 marks**.

Revision tips: We would suggest creating mind maps/revision clock, record cards with the question one side and answer on the other (self-testing). *A blank revision clock is on the last page for you to print off.*

Section A: E-Safety

Students will be assessed on the following:

- Describe the difference between online grooming and cyberbullying
- Explain the dangers online and person/organisation to report them to.
- Identify a URL (web address) and state common features of a secure website i.e. https and padlock.
- Describe common types of malware: virus, worm, trojan horse and spyware
- Identify methods of prevention i.e. antivirus, not clicking links..

Helpful resources: (Students can use their text books and work on google classroom too)

1) E-safety: <https://tinyurl.com/2p8ksmrw>

2) URLs: <https://tinyurl.com/2s3kedjx>

3) Malware: <https://tinyurl.com/4crtyyqx>

Section B: Computer Systems

- Define a computer, using examples i.e. laptop, desktop and an embedded computer
- Identify internal computer components and their purpose e.g., motherboard and cpu
- Identify examples of input devices (keyboard, mouse, webcam) and output devices (monitor, printer and speakers)
- Describe the purpose of RAM and ROM in a computer system
- State the type of secondary storage device i.e. optical (cd, dvd), magnetic (hard disk), solid state (memory sticks and hard disks)
- Characteristics of secondary storage (cost, durability, reliability, speed)

Helpful resources:

1) Internal computer components: <https://tinyurl.com/ycksthcn>

2) Input and output: <https://tinyurl.com/3hz8b4he>

3) RAM and ROM: <https://tinyurl.com/5xymcby7>

4) Secondary storage: <https://tinyurl.com/3fpcnfs2> (Oak Academy)

Section C: Data Representation



- Understand why computers use binary (switches, on/off)
- Know that binary is known as Base 2 (0 and 1) and decimal is Base 10 (10 numbers)
- Convert decimal numbers to binary and vice versa.

Students need to know that:

128	64	32	16	8	4	2	1
1	0	1	1	0	0	0	1

Binary number: 10110001 = 177 in decimal (128+32+16+1)

- Order the units of measurement from smallest to largest i.e. bit, nibble, byte, kilobyte, megabyte, gigabyte, terabyte, petabyte
- Understand what can be stored in each unit of measurement e.g. bit 0 or 1 could be black or white, Nibble – 4 bits stores decimal numbers 0-15.

Helpful resources:

- 1) Binary conversion: <https://tinyurl.com/y3ekf734>
- 2) Units of measurement: <https://tinyurl.com/5xu4s4d7>

Section D: Computational thinking and programming

- Define using examples computational thinking i.e. algorithms, decomposition, pattern recognition and abstraction.
- Create and debug programs in Scratch.

Helpful resources:

- 1) Computational thinking: <https://tinyurl.com/2p949ed5>
- 2) Scratch tutorials: <https://tinyurl.com/2p9h4ew8>

