



GCSE – NEW

3540U10-1

FRIDAY, 9 JUNE 2023 – AFTERNOON

DIGITAL TECHNOLOGY – Unit 1

The Digital World

Paper version of on-screen assessment

**1 hour 30 minutes plus your additional
time allowance**

Surname _____

First name(s) _____

Centre Number _____

Candidate Number 0 _____

For Examiner's use only

Question	Maximum Mark	Mark Awarded
1.	11	
2.	9	
3.	6	
4.	4	
5.	8	
6.	6	
7.	8	
8.	10	
9.	8	
10.	10	
Total	80	

ADDITIONAL MATERIALS

A calculator.

INSTRUCTIONS TO CANDIDATES

Use black ink, black ball-point pen or your usual method.

Write your name, centre number and candidate number in the spaces provided on the front cover.

Answer ALL questions.

Write your answers in the spaces provided in this booklet. If you run out of space, use the additional page(s) at the back of the booklet, taking care to number the question(s) correctly.

(Turn over)

INFORMATION FOR CANDIDATES

The number of marks is given in brackets at the end of each question or part-question.

You are reminded of the necessity for good English and orderly presentation in your answers.

Answer ALL questions.

1. Analogue and digital are two main types of data.

(a) Tick (✓) the correct boxes to show whether the following devices are analogue or digital. [3 marks]

DEVICE	ANALOGUE	DIGITAL
Electric guitar	<input type="checkbox"/>	<input type="checkbox"/>
Tablet	<input type="checkbox"/>	<input type="checkbox"/>
Smart watch	<input type="checkbox"/>	<input type="checkbox"/>

(Turn over)

1 (b) (i)

State what is meant by analogue data. [1 mark]

(ii) State what is meant by digital data. [1 mark]

1 (c) Complete the following table.

[3 marks]

MEASURE	NAME
1 or a 0	<hr/>
<hr/>	1 Byte
<hr/> bytes	1 Kilobyte

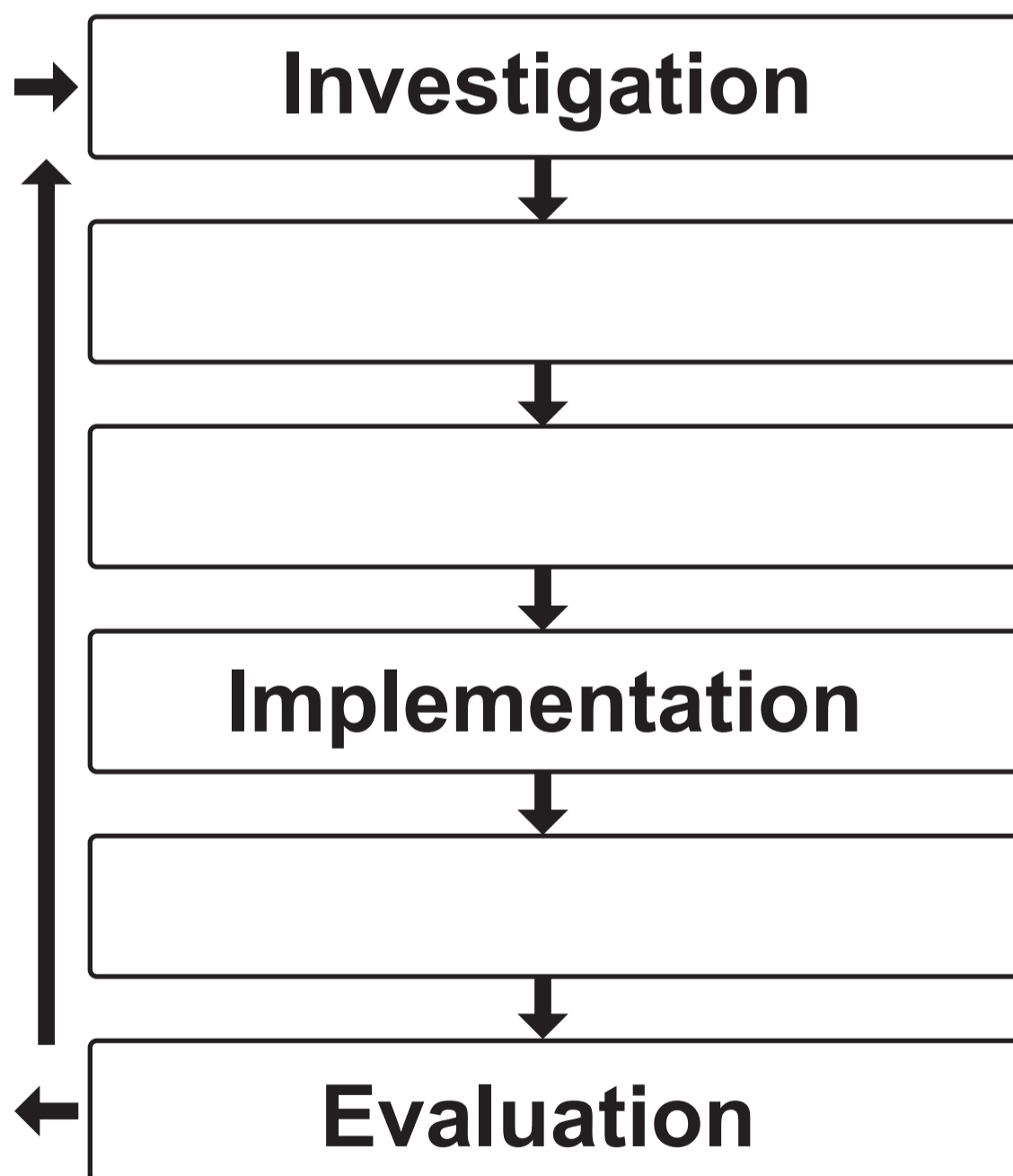
(Turn over)

2. There are many different software types, functions and backup methods.

(a) Describe the difference between bespoke software and applications software. [2 marks]

3. A systems analyst follows the **Systems Development Life Cycle** when creating a new system.

(a) Complete the gaps in the following **Systems Development Life Cycle** diagram. [3 marks]



(Turn over)

5. Tomas is using the Internet to complete a school project.

(a) Not all information on the Internet is accurate. Explain TWO issues with Tomas using online sources for a school project. [4 marks]

(Turn over)

6. New digital systems can be implemented in many different ways.

(a) Describe how the ‘big bang’ method of implementing a new digital system would work. [2 marks]

6 (b) A school is going to implement a cashless system for lunches.

**Identify TWO advantages and TWO disadvantages of implementing this system using the 'big bang' method.
[4 marks]**

Advantage 1: _____

Advantage 2: _____

Disadvantage 1: _____

Disadvantage 2: _____

(Turn over)

7. A large pharmacy in North Wales is piloting the use of autonomous drones to deliver prescription medicines to patients.

Explain, giving examples, the advantages and disadvantages of using autonomous drones to deliver medicines. Your answer should consider the impact on the pharmacy and the patients.

[8 marks]

(Turn over)

8 (b) Explain the different ways in which social media can be used to promote products and attract new custom for a business. [6 marks]

(Turn over)

9. Parkwood Vale Insurance Group monitors its employees' internet activity.

(a) (i) Describe, giving an example, what is meant by an active digital footprint.

[2 marks]

(Turn over)

9 (a) (ii)

Describe, giving an example, what is meant by a passive digital footprint.

[2 marks]

(Turn over)

10. You have been appointed as the Security Manager for the Parkwood Vale Finance company and have been asked to look at threats to data.

Explain the various threats to data stored on the company's digital systems, including:

- how data can be at risk from accidental corruption or deletion**
- how data can be at risk from malicious and deliberate damage.**

You should include security measures that can protect networks, digital systems, transmitted and stored data. [QWC] [10 marks]

(Turn over)

