

Name:

Class:

Summer Holiday Transition Project - From Year 10 to Year 11

Task 1 – Theme: *The Impact of Digital Technology on Society*

Choose **ONE** of the following technologies to investigate:

Artificial Intelligence (AI), Driverless cars, Facial recognition systems, Social media platforms, Smart home technology, Wearable technology, Cloud computing, Virtual Reality (VR) or Augmented Reality (AR), Robotics and automation, Internet of Things (IoT)

Prepare a PowerPoint presentation of 10 slides in which you:

- **Give a brief description** of the technology, how it works, examples of where it is currently used. Include images, diagrams or screenshots where appropriate.
- **Discuss any ONE of the following areas of impact of digital technology on society.**
 1. Ethical - Examples of ethical issues to consider include - Bias and discrimination, Job losses due to automation, Surveillance, Misinformation, Digital divide, Accessibility, Dependence on technology
 2. Legal - Explain how the data protection act, computer misuse act, copyright designs and patent act and software licencing relate to your chosen technology
 3. Privacy - Explain how your chosen technology affects privacy. Consider what personal information is collected? How is data stored? Could users be monitored or tracked? What risks exist if data is stolen?
 4. Cultural - Explain how your chosen technology has changed society and people's lifestyles in Communication, Education, Employment, Entertainment, Relationships, Equality of access. Include both advantages and disadvantages.
 5. Environmental - Energy consumption, Electronic waste (e-waste), Manufacturing impacts, Carbon emissions, Reduced travel, Reduced paper use, Improved efficiency
- **Summarise your research by answering the following question** - "Overall, has your chosen digital technology had a positive or negative impact on society?" Your answer should: Present arguments for both sides, Include examples and evidence, Reach a justified conclusion

Name:

Class:

Task 2

Scenario

You have been asked to design software for an electronics company. The software must allow users to test simple logic circuits before building them physically.

Your program must allow users to

1. Choose to test a 2 input AND gate or OR gate
2. Enter a value of 0 or 1 for each of the 2 inputs
3. Output a result depending on the input
4. Keep testing until the user chooses to quit.

Your program must:

1. Make use of functions
2. Validate inputs (only a 0 or 1 can be input)

Submit a word document report with the following content:

1. Analysis: A break down of tasks and success criteria for the tasks
2. Design: Structure diagram, flow charts and pseudocode
3. Code
4. Testing to meet your success criteria