

Year 11 into 12 Transition Work for A Level Computer Science students

You have 2 tasks to complete:

Task 1:

Independent research task - Emerging computer technology

Approx. 2 hours

In this task you get to investigate any area of emerging computer technology which interests you. You can pick any area which interests you, but examples could be:

- Artificial intelligence
- Robotics
- Automated self-driving cars
- Quantum computing

In no more than ONE side of A4 summarise the area you have chosen under the following four headings:

1. What is it?
2. What are the possible Social, Moral, Cultural and Ethical benefits of this technology on society
3. What are the possible Social, Moral, Cultural and Ethical risks of this technology on society
4. My conclusion on this technology and what it will mean for our world 10 years from now

Additional help: For additional help and support in structuring your answer you might like to watch some of the videos <https://student.craigndave.org/aqa-alevel-videos>

AQA: SLR 19: Moral, social, legal, cultural issues <https://student.craigndave.org/videos/slr19-moral-social-legal-cultural-issue>

Task 2:

Applying technical knowledge in context task - Augmented reality

Approx. 1.5 hours

A key skill at A Level is being able to take a topic and then discuss it in the context of different scenarios. Most theory-based exam questions will be asked in the form of a scenario, simply regurgitating what you know on the topic without contextualising your answer to the scenario will often result in low marks! The topic for this exercise is “Augmented Reality”. It is a truly fascinating area of technology which has the potential to change almost every aspect of our daily lives. Watch this brief video to learn more:

<https://www.youtube.com/watch?v=vQtwWzfzKXI>

After watching the video answer the questions below (typed or handwritten) which ask you to discuss the benefits, limitations, and risks of augmented reality in set contexts:

Augmented reality

- **Medicine & health care** Discuss the benefits, limitations and risks of augmented reality in this context:
- **Gaming & entertainment** Discuss the benefits, limitations and risks of augmented reality in this context:
- **Schools & learning** Discuss the benefits, limitations and risks of augmented reality in this context:
- **Travel & tourism** Discuss the benefits, limitations and risks of augmented reality in this context:
- **Social media** Discuss the benefits, limitations and risks of augmented reality in this context:
- **Transport & navigation** Discuss the benefits, limitations and risks of augmented reality in this context: