

Year 11 into 12 Transition Work for T Level Digital Production students

Programming basics task

Approx. 4 hours

An introduction to the basics of programming tasks Learning to “code” is a fun and essential part of A Level Computer Science. This task is ideal if you haven't done the GCSE in Computer Science or you simply want a nice refresher ahead of starting your A Level course.

1. Head over to the web site: <https://www.learnpython.org/>

2. Complete the following python tutorials under the heading: (GCSE Computer Science students see extension task below before completing this task)

- Hello, World!
- Variables and Types
- Lists
- Basic Operators
- String Formatting
- Basic String Operations
- Conditions
- Loops
- Functions

3. Each section presents you with theory, code to run and exercises to try out. Please print screen/snip evidence that you have complete the tasks and put them in a document to show your journey through the course.

4. If you want to practice writing your own python programs you can download and install a simple python development tool here: <https://www.python.org/downloads/>

Extension task:

For those who have already studied GCSE Computer Science please pick 3 to 4 of the python programming basics tasks from the list above to refresh and maintain your practice and complete those before doing the following task.

Applying technical knowledge in context task - Augmented reality

Approx. 1.5 hours

A key skill at T 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: