### Schools ITQ Level 1 - Unit 24 - Additive Manufacture (3 credits)

Additive manufacture is also known as 3D Printing. BACK TO SCHOOLS ITO [1]

Handbook home page [2]

- General guidance for interpreting QCF qualification levels [3]
- Link to assessor's guide to interpreting the criteria for this unit [4]
- Click on the links in the table below for specific guidance on the assessment criteria.
- References to <u>personal learning and thinking skills (PLTS)</u> [5]

### Unit 1, Additive Manufacture (3 credits)

# 1. use a brief to design 3D objects.

- 1.1 identify the need for a specified design. [6]
- 1.2 identify design constraints. [8]
- 1.3 select appropriate software to develop the design. [10]
- 1.4 gather information to support a design. [12]
- 1.5 create a design, starting from a template, image trace or pre-existing object. [14]
- 1.6 make checks to ensure the model will print. [16]
- 1.7 amend errors and ensure design quality. [18]

# 2. enable 3D manufacture from a 3D design.

- 2.1 follow instructions to export a file for additive manufacture. [7]
- 2.2 use appropriate file formats and dimensions. [9]
- 2.3 import files into additive manufacture software. [11]
- 2.4 use the appropriate settings to create a build file. [13]
- 2.5 identify issues related to print speed, quality, size and overall outcome. [15]
- 2.6 identify changes to machine settings to improve build quality. [17]
- 2.7 use the final product to identify possible improvements. [19]
- 2.8 identify how an additive manufacture design can be used alongside or to aid existing design and manufacture processes. [20]

### Source URL: https://theingots.org/community/sil1u24

#### Links

- [1] https://theingots.org/community/ITQ unit development
- [2] https://theingots.org/community/handbook2
- [3] https://theingots.org/community/QCF levels
- [4] https://theingots.org/community/SML1U24X
- [5] http://curriculum.qcda.gov.uk/key-stages-3-and-4/skills/plts/planning-for-plts/index.aspx
- [6] https://theingots.org/community/sml1u1x#1.1
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