
Schools ITQ - Unit 24 Additive Manufacture (Gold Unit 24)

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- [General guidance for interpreting OCF 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.
- National Strategies [APP criteria](#) [5] are relevant from Entry 3 upwards.
- References to [personal learning and thinking skills \(PLTS\)](#) [6]

Unit 1, Additive Manufacture (3 credits)

1. use a brief to design 3D objects.

[1.1 explain the need for a specified design.](#) [7]

[1.2 describe design constraints.](#) [9]

[1.3 select appropriate software to develop the design.](#) [11]

[1.4 research information to support a design.](#) [13]

[1.5 create a set of information on which to base a design, starting from a template, image trace or pre-existing object.](#) [15]

[1.6 create a 3D design through customising existing templates or instructions.](#) [17]

[1.7 make checks to ensure the model will print.](#) [19]

[1.8 amend errors and ensure design quality.](#) [21]

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

[2.1 export a file for additive manufacture.](#) [8]

[2.2 explain the need for appropriate file format and dimensions.](#) [10]

[2.3 import files into additive manufacture software.](#) [12]

[2.4 use the appropriate settings to create a build file.](#) [14]

[2.5 explain possible issues related to print speed, quality, size and overall outcome.](#) [16]

[2.6 use the 3D printed final product to identify possible improvements.](#) [18]

[2.7 identify how an additive manufacture design can be used alongside or to aid existing design and manufacture processes or systems.](#) [20]

[2.8 communicate a written evaluation of the design process to others.](#) [22]

Source URL: <https://theingots.org/community/sil2u24x>

Links

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- [3] https://theingots.org/community/QCF_levels
- [4] <https://theingots.org/community/SML2U1>
- [5] <http://nationalstrategies.standards.dcsf.gov.uk/focuses/959/861/110166>
- [6] <http://curriculum.qcda.gov.uk/key-stages-3-and-4/skills/plts/planning-for-plts/index.aspx>
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