

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

[BACK TO SCHOOLS ITQ](#) [1]

[Handbook home page](#) [2]

- [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

- [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/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>
- [7] <https://theingots.org/community/sml2u1x#1.1>
- [8] <https://theingots.org/community/sml2u1x#2.1>
- [9] <https://theingots.org/community/sml2u1x#1.2>
- [10] <https://theingots.org/community/sml2u1x#2.2>
- [11] <https://theingots.org/community/sml2u1x#1.3>
- [12] <https://theingots.org/community/sml2u1x#2.3>
- [13] <https://theingots.org/community/sml2u1x#1.4>
- [14] <https://theingots.org/community/sml2u1x#2.4>
- [15] <https://theingots.org/community/sml2u1x#1.5>
- [16] <https://theingots.org/community/sml2u1x#2.5>
- [17] <https://theingots.org/community/sml2u1x#1.6>
- [18] <https://theingots.org/community/sml2u1x#2.6>
- [19] <https://theingots.org/community/sml2u1x#1.7>
- [20] <https://theingots.org/community/sml2u1x#2.7>
- [21] <https://theingots.org/community/sml2u1x#1.8>
- [22] <https://theingots.org/community/sml2u1x#2.8>
- [23] <https://theingots.org/community/sml2u1i>