

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

Additive manufacture is also known as 3D Printing.

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- References to [personal learning and thinking skills \(PLTS\)](#) [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>

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- [3] [https://theingots.org/community/QCF\\_levels](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>
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