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

**Additive manufacture is also known as 3D Printing.**

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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 personal learning and thinking skills (PLTS) [5]

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## 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]

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