



3D Maker

Lesson plan

Aim

Develop skills in 3D modelling by designing a range of objects using 3D modelling software.

Mapping

CES 'I Can' Statements	CMS Themes
<ul style="list-style-type: none"> ★ I can discuss the relevance of skills to the wider world and make connections between skills and the world of work ★ I can demonstrate and apply the skills I have learnt across the curriculum in relation to the world of work 	<ul style="list-style-type: none"> ★ Horizons

Learning Outcomes

Young people will:

- ★ Learn to design a 3D model
- ★ Understand the basics of Tinkercad – a professional Computer Aided Drawing (CAD) software
- ★ Understand the basics of 3D printing.

Activity on next page...



Instructions

Before you start

- ★ You will need access to a laptop or tablet and access to this website to complete the activity
- ★ Access to the 3D Maker Worksheet - you can print this off or view it on screen.
- ★ Access to the [3D Maker video guide](#) (1)
- ★ Access to the [Tinkercad](#) (2) website

Follow-up

The activity looks at roles in design, engineering and manufacturing:

[Design Engineer](#) (3), [Production Worker \(Manufacturing\)](#) (4), [Materials technician](#) (5)

They can find out about related apprenticeships on [Apprenticeships.scot](#) (6)

Foundation Apprenticeships – [Engineering](#) (7), [Creative and Digital Media](#) (8)

Modern Apprenticeships – [Information Security](#) (9), [Engineering](#) (10),
[IT and Telecommunications](#) (11)

Graduate Apprenticeships - [IT: Software Development](#) (12),

[Engineering: Design and Manufacture](#) (13),

[Engineering: Instrumentation, Measurement and Control](#) (14)

Website references

1. 3D Maker activity guide video <https://bit.ly/2Yc7XYp>
2. Tinkercad <https://www.tinkercad.com/>
3. Design Engineer <https://bit.ly/2ZVPkZN>
4. Production Worker (Manufacturing) <https://bit.ly/2MqEd2Y>
5. Materials technician <https://bit.ly/2ZY0xsM>
6. Apprenticeships.scot www.apprenticeships.scot
7. Engineering Foundation Apprenticeship <https://bit.ly/2XtqVJH>
8. Creative and Digital Media Foundation Apprenticeship <https://bit.ly/3eHLLup>
9. Information Security Modern Apprenticeship <https://bit.ly/2U3TKdt>
10. Engineering Modern Apprenticeship <https://bit.ly/2U3TWJJ>
11. IT and Telecommunications Modern Apprenticeship <https://bit.ly/3gP0w0g>
12. IT: Software Development Graduate Apprenticeship <https://bit.ly/3drGbMD>
13. Engineering: Design and Manufacture Graduate Apprenticeship <https://bit.ly/2XsjyC9>
14. Engineering: Instrumentation, Measurement and Control Graduate Apprenticeship <https://bit.ly/3cvs6MF>