

3D Printing Project-based Boot Camp: suitable for students in Stages 4 - 5

## Students will design their own 3D object and use a 3D printer to create it!

Designing and creating your own 3D object is deeply satisfying and 3D printing is the ultimate constructivist learning activity! It's also highly motivational and increasingly accessible from the classroom. 3D printing inspires problem solving and creativity and covers a range of ICT skills in the one activity.

## INTRODUCTORY BOOT CAMP

This boot camp excursion begins with students observing 3D printers in action along with practical advice about using them. In small groups, they begin constructing creative solutions to 3D problems. Students learn to use 3D design computer applications. After working with a collection of fun logic puzzles groups will design and print their 3D puzzle using simple and free 3D design software. In this hands-on workshop, students will:

- learn about 3D printing and examine a range of 3D printed objects
- use 3D design software (e.g. Google SketchUp, 3DTin)
- design their own 3D logic puzzle
- use a 3D printer to print their design to take away.

Students get to take their creations home!



Change Dimensions:

11.48mm 34.45mm 22.97mm

Maximum Size

David Grover

David held the position of Head Teacher of Computing at Chatswood High School for many years and is the author of many computing texts including the leading NSW text for the Stage 4 and 5 project-based computing course, Information and Software Technology. He has been involved with 3D printing for many years. His students have constructed their own 3D printers and he has lost count of the number of objects he

has designed and printed! David is a long-time workshop presenter for ICTENSW, the professional body for NSW teachers of computing.



## **HOW TO BOOK**

MakerBot

Contact the Centre to arrange a date:

macictsupport@det.nsw.edu.au (02) 9850 4310

**WHEN** During school terms. Dates on

negotiation.

**TIME** 9am - 2:30pm

**LOCATION** Macquarie ICT Innovations Centre

Building C5B Macquarie University

North Ryde NSW

STUDENT We can take a strict maximum of 20 STUDERS students per day.

OST | Flat rate of \$528 inclGST per o

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PAYMENT Govenment schools will be charged internally by the NSW Department of Education and Communities. This will be reflected on your sundry tax invoice statement.

Private schools will be invoiced by the NSW Department of Education and Communities.





