Computing

Lesson 4: Making holes

3D modelling

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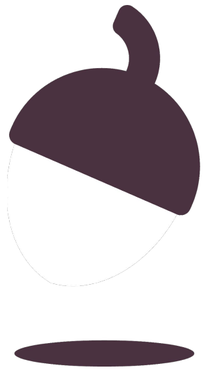
Materials from the Teach Computing Curriculum created by the National Centre for Computing Education

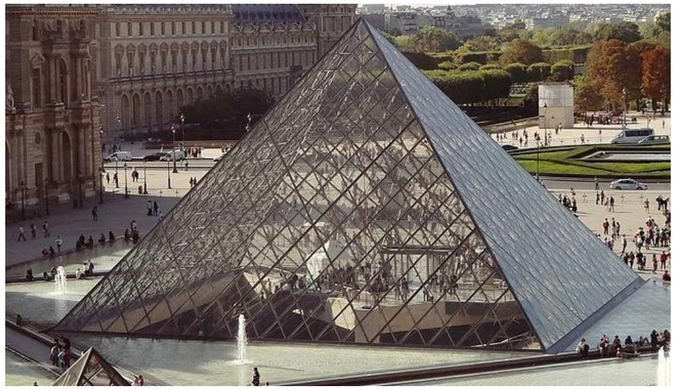


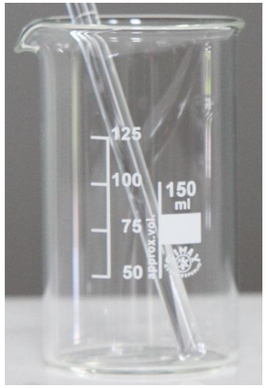
OAK NATIONAL ACADEMY

Task 1 - Dimensions of 3D objects

Create the 3D shapes using the given dimensions:

Credit: F





Cuboid

Width: **100 mm**

Depth: **20 mm**

Height: **80 mm**

Rectangular pyramid

Width: **20 mm**

Depth: **20 mm**

Height: **70 mm**

Cylinder

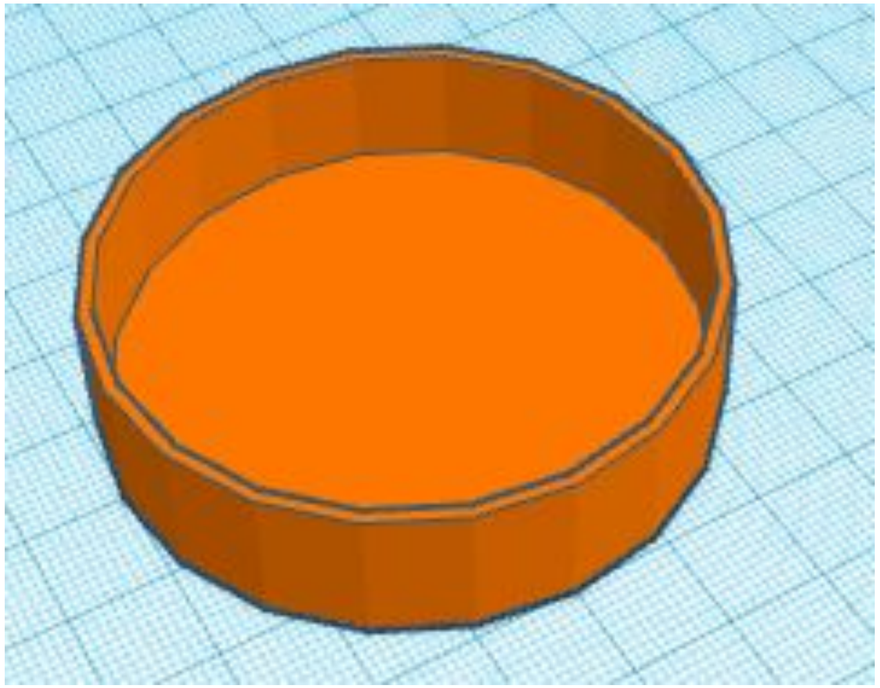
Width: **45 mm**

Depth: **30 mm**

Height: **40 mm**

Task 2 - Grouping 3D objects

- What happens when you try to move grouped 3D objects?
- Can grouped 3D objects be moved in the same way as ungrouped 3D objects?
- Once 3D objects have been grouped, can they be ungrouped?
- How can you alter the size of a hole in a solid 3D object?



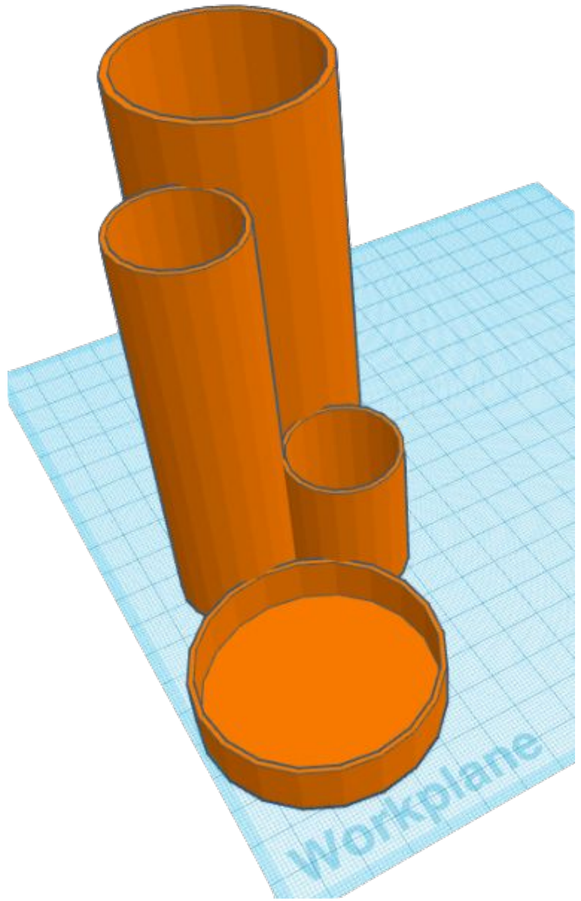
Credit: Tinkercad

Task 3 - Creating a model of a 3D pencil holder

Open tinkercad.com

Create a model that looks like the image.

Use the dimensions on the following slides to help you.



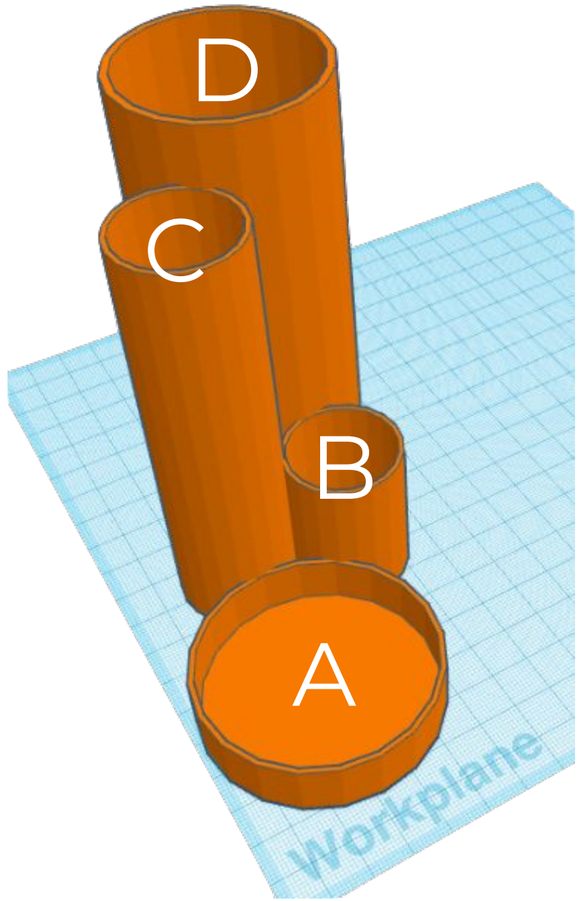
Credit: Tinkercad

Task 3 - Creating a model of a 3D pencil holder

The height of each section's base is **2 mm**

The width of each section's side is **1 mm**

A	B
Width: **60 mm**	Width: **30 mm**
Depth: **60 mm**	Depth: **30 mm**
Height: **15 mm**	Height: **40 mm**



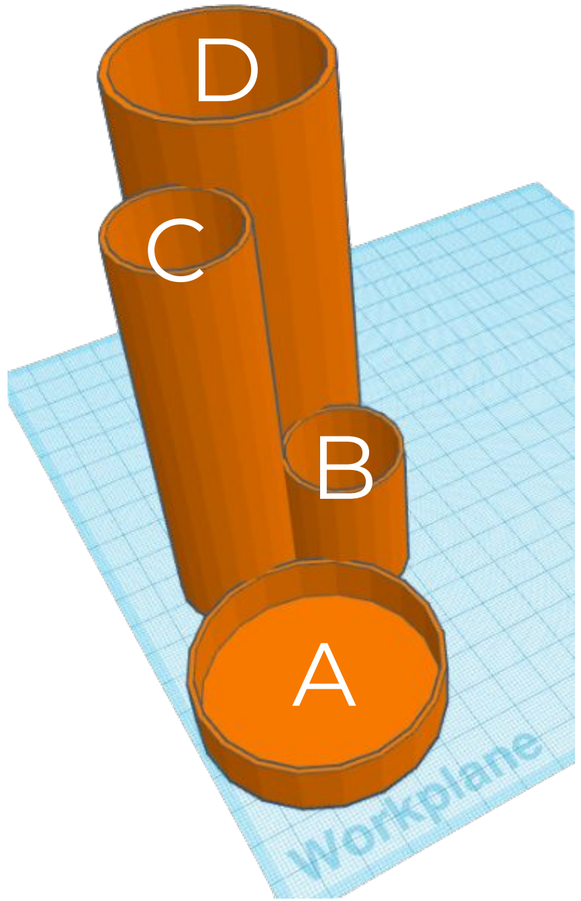
Credit: Tinkercad

Task 3 - Creating a model of a 3D pencil holder

The height of each section's base is **2 mm**

The width of each section's side is **1 mm**

C	D
Width: **30 mm**	Width: **50 mm**
Depth: **30 mm**	Depth: **50 mm**
Height: **110 mm**	Height: **125 mm**



Credit: Tinkercad