

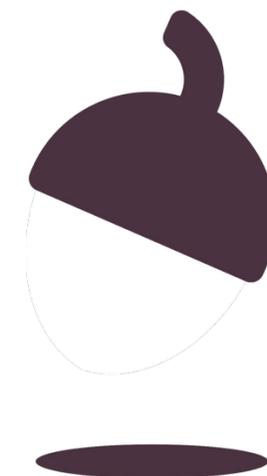
Computing

Lesson 4: Making holes

3D modelling

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



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Task 1 - Dimensions of 3D objects

Create the 3D shapes using the given dimensions:



Credit: P

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**

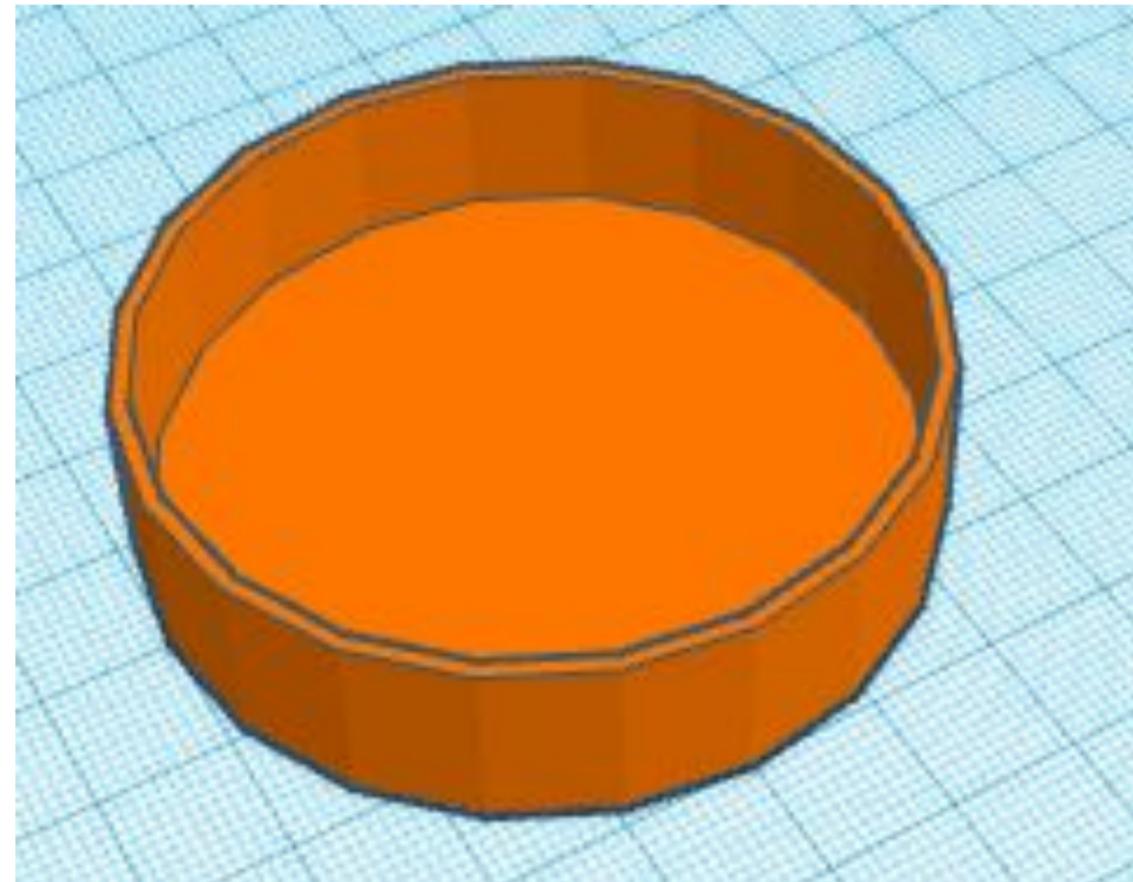
Depth: **30 mm**

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



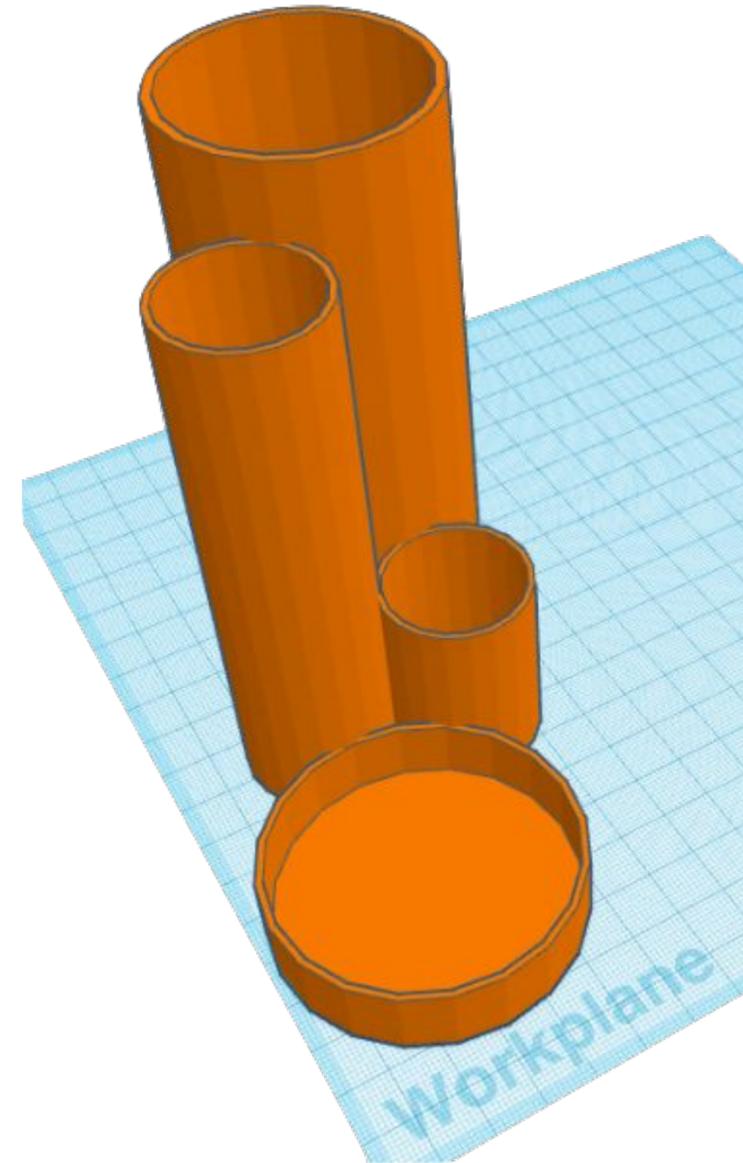
Task 3 - Creating a model of a 3D pencil holder

Open

oaknat.uk/comp-tinkercad

Create a model that looks like the image.

Use the dimensions on the following slides to help you.



Credit: Tinkercad

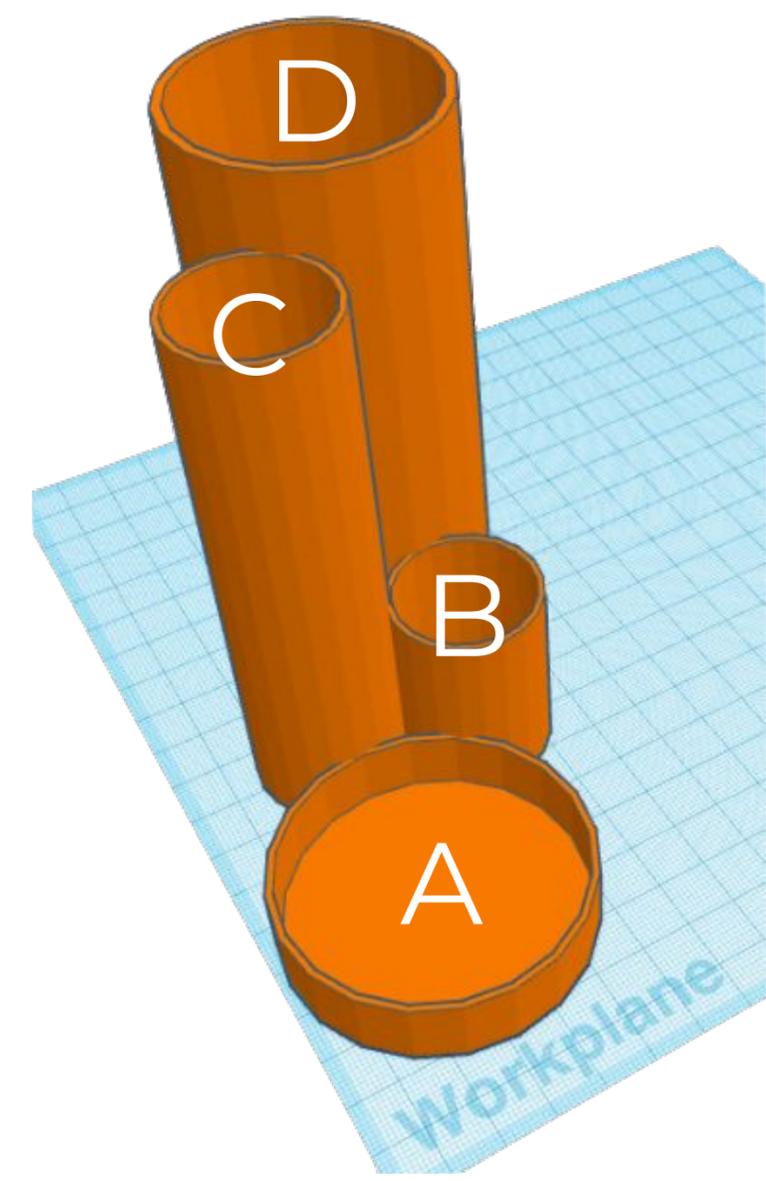


Task 3 - Creating a model of a 3D pencil holder

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

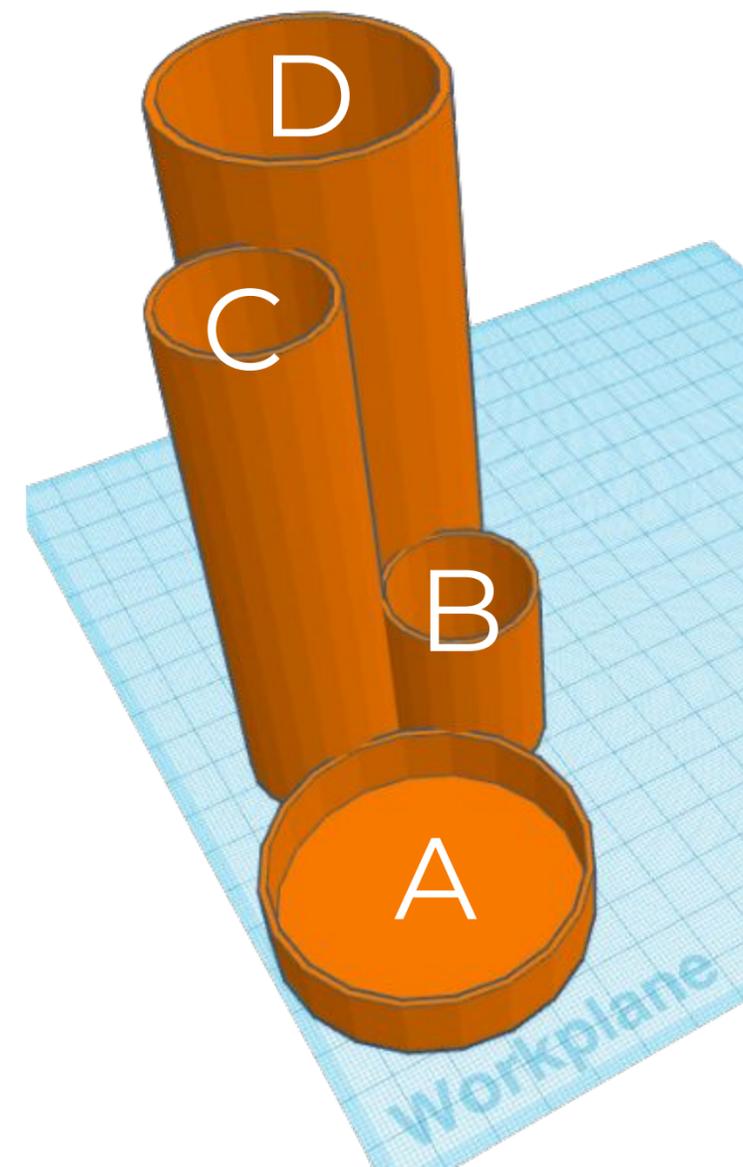


Task 3 - Creating a model of a 3D pencil holder

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

