A level Product design.

- Create a Fusion 360 account using your school email here:
- https://www.autodesk.com/products/fusion-360/students-teachers-educators
- Note- sometimes the school menu doesnt show Nailsea school. If not you can add it or just choose one of the Bristol schools as i don't think this makes a difference.

- To begin please follow the video & PDF tutorials linked below.

- https://warwick.ac.uk/fac/sci/wmg/about/outreach/resources/fusion_tutorials/

Product analysis, design and development.

Gardening aids

GARDENING CHAIR

Mobility gardening aid | Hops and rocks | High portability

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Task 1:Existing product analysis

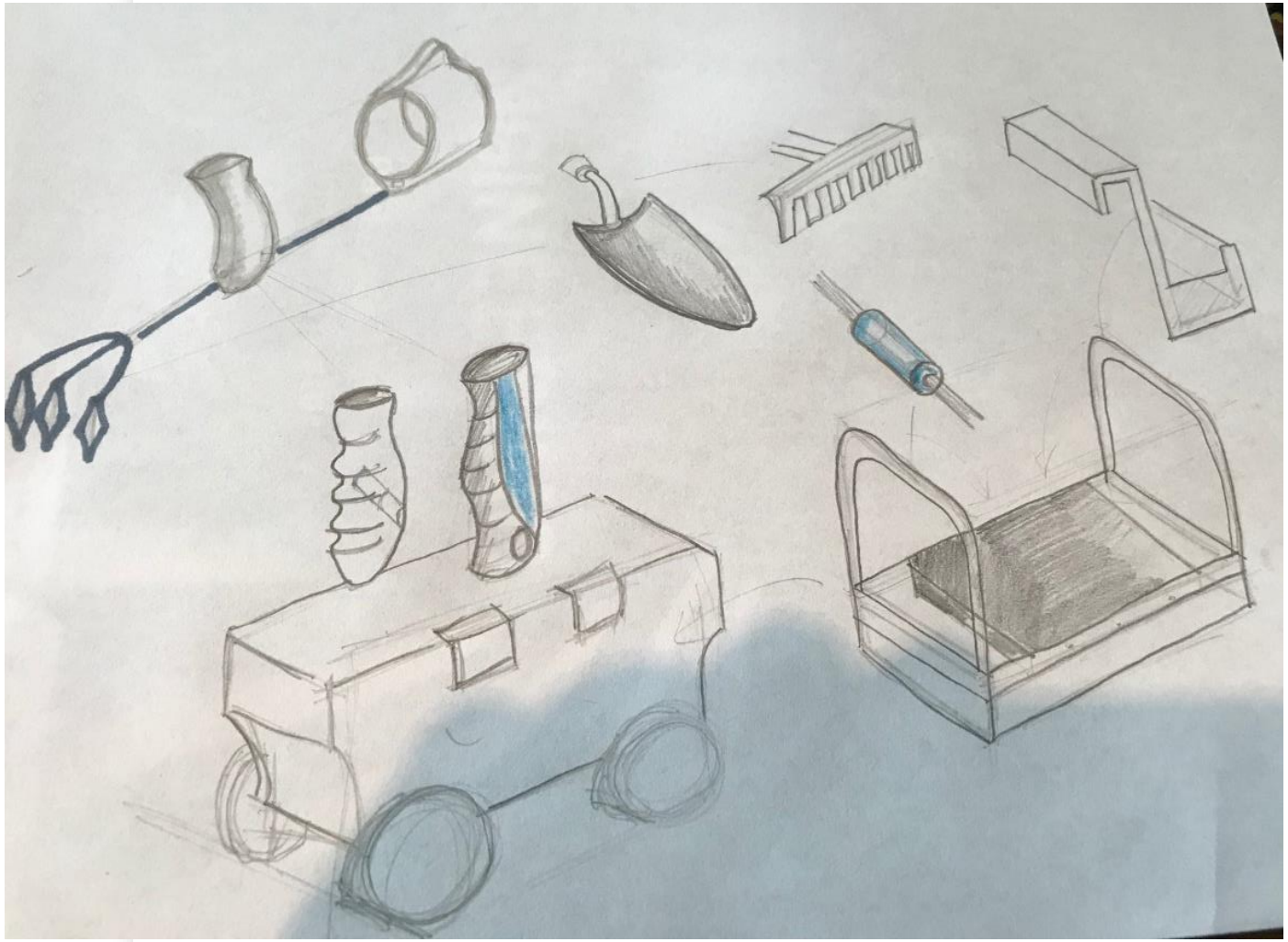
Analyse 2 different gardening aids using the ACCESS FM headings.

A:	Aesthetics, what does the product look like.
C:	Cost, how much does the product cost to buy?
C:	Customer, who would buy or use the product?
E:	Environment, where would the product be used or stored?
S:	Size, how big or small is the product?
S:	Safety, how safe during normal use?
F:	Function, how does the product work?
M:	Material, what is the product made of?

- **<u>Example 1</u>**
- Aesthetics- ***A yellow and green ergonomically designed gardening fork. The fork has a smooth plastic texture but includes a green rubber grip.***
- Cost: £59.99 mobility smart
- Environment- This product will be used in a outdoor environment such as a garden or alotment.
- Customer- Designed for gardeners working from a seated positon, or those with bending difficulties.
- Function- To provide a ergonomic and comfortable gardening tool for users with mobility or dexterity conditions.
- Material- Stainless steel fork handle. ABS plastichand and arm support. Rubber comfort grip.
- Manufacture-INjection moulded plastics parts, Stainless steel die shaped.

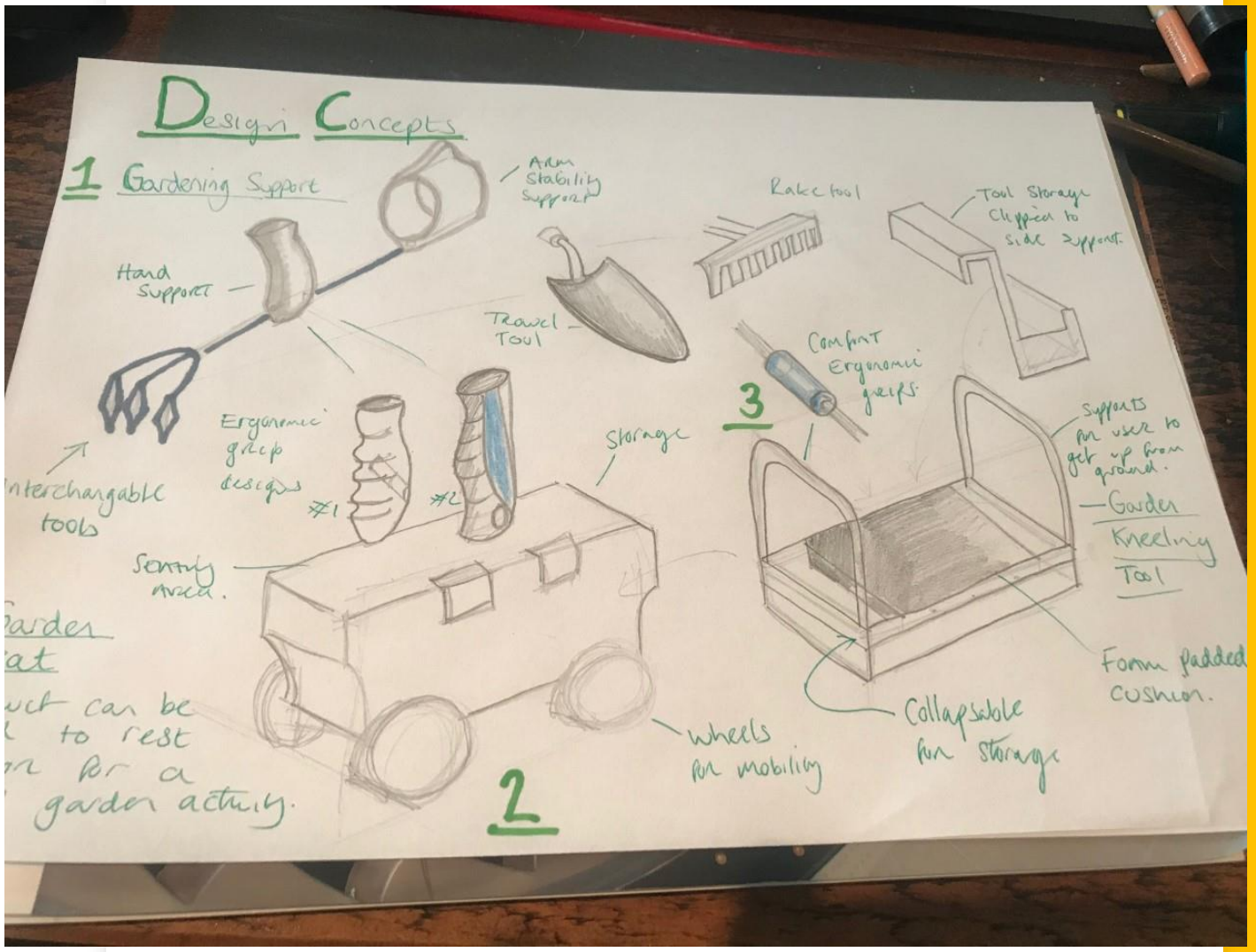
Task 2:Concept sketches

- Create a full page of multiple pencil sketches to show different ideas. This should be a visual page that displays forms of ideas.



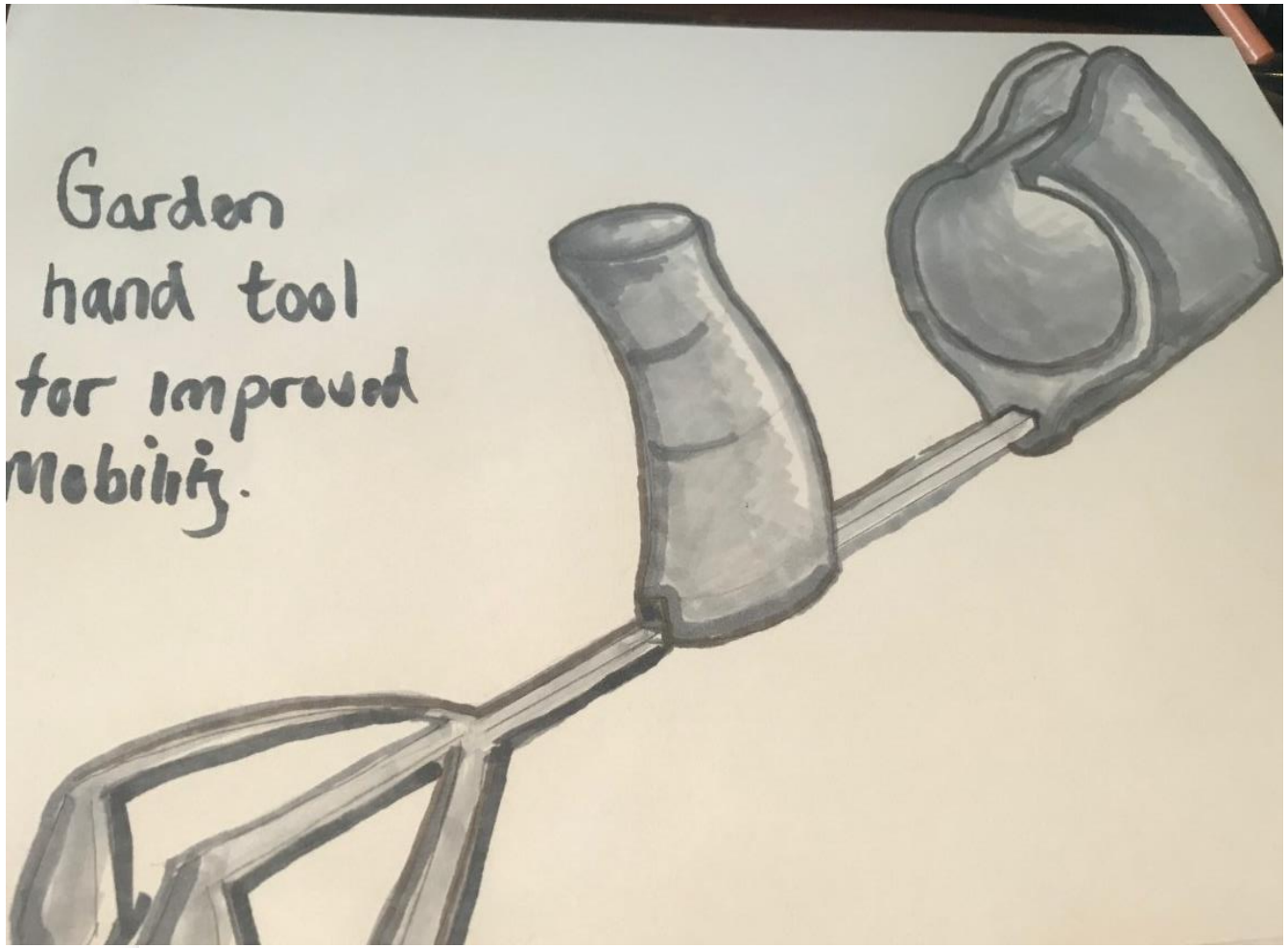
Task 3:Annotate design sketches

- Add any information to help explain your thought process. The annotations are not meant to be too detailed at this point but help to show your thoughts.



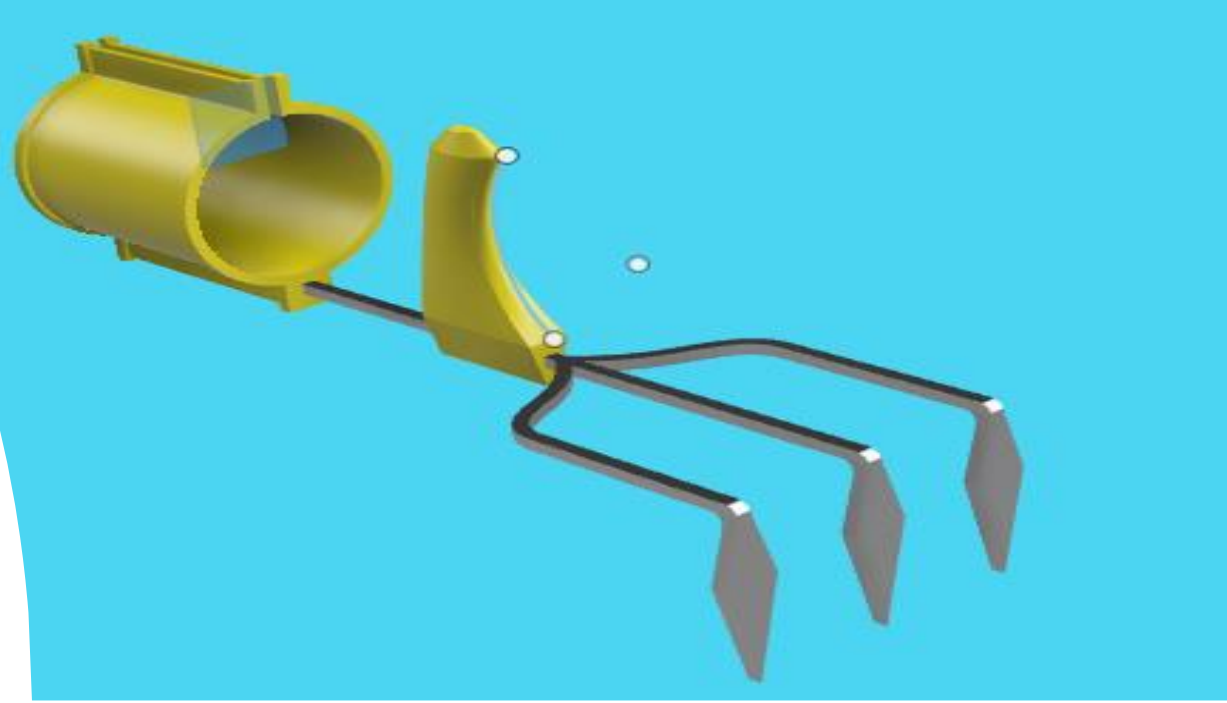
Task 4- Isometric final design

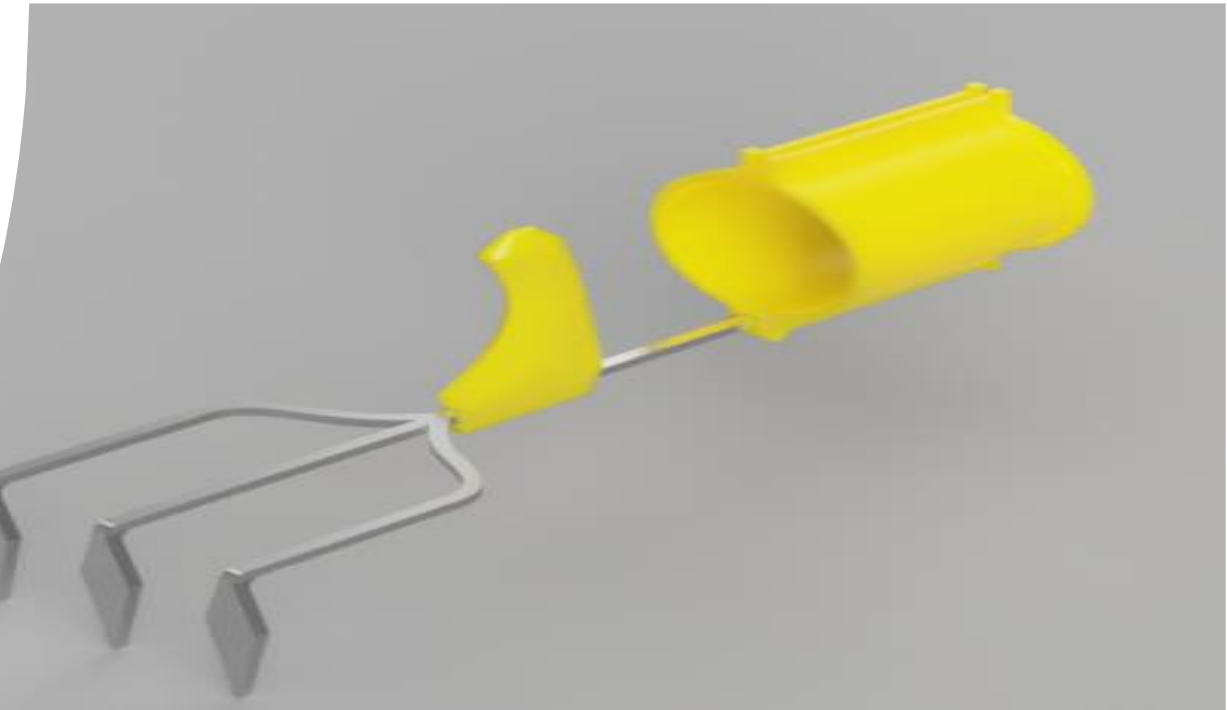
- Draw 1 selected idea in isometric.
- Colour render to show light and darkness and textures.



Task 5-CAD Model

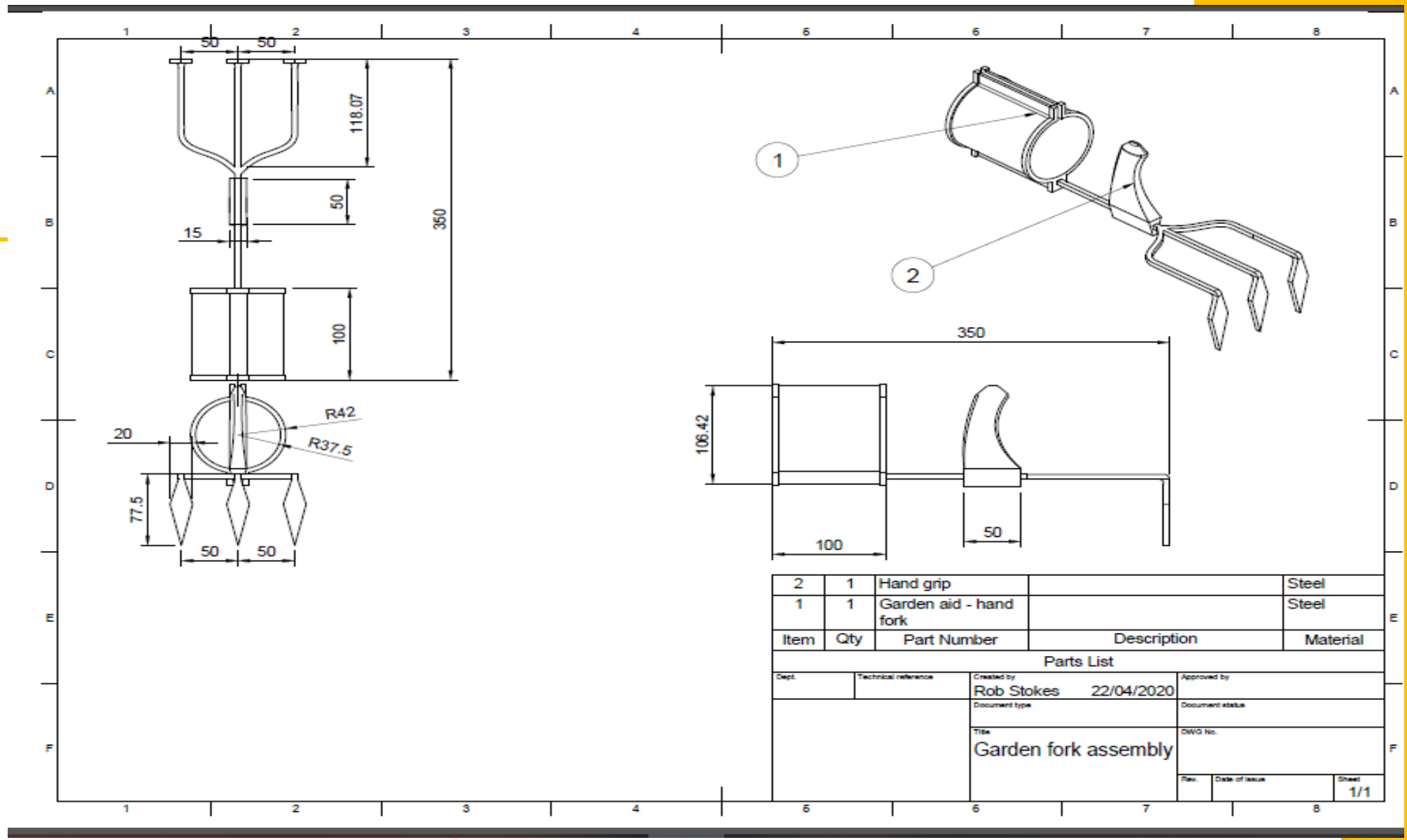
- Create a CAD model of your chosen final design.
- I recommend your design the model in components so you can explode them and change the materials at a later time.
- Add 1 page of photo rendered models.





Task 6- Assembly drawings.

- Create a assembly drawing to show all compoent sizes.
- Your drawing must include a mimimum of 3 views and a title box.
- All dimensions should be shown in mm.



Task 7-Part drawing

- Create part drawings for each component.
- These should include 3 views and show hidden detail where required.

Exploded diagram

- Optional task- Explode your model in fusion to show how it goes together. You can either take a picture or create a drawing as a wireframe.