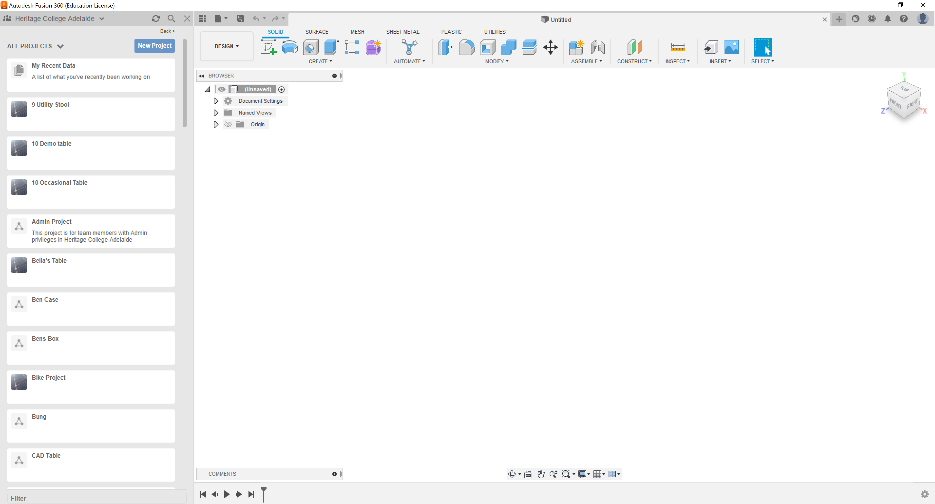
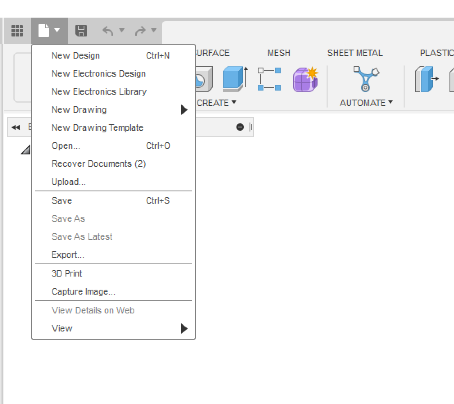
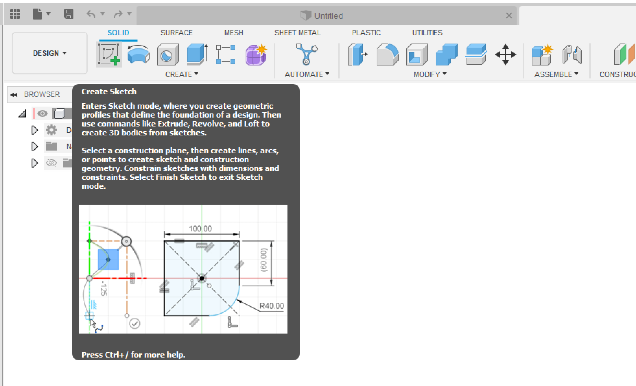
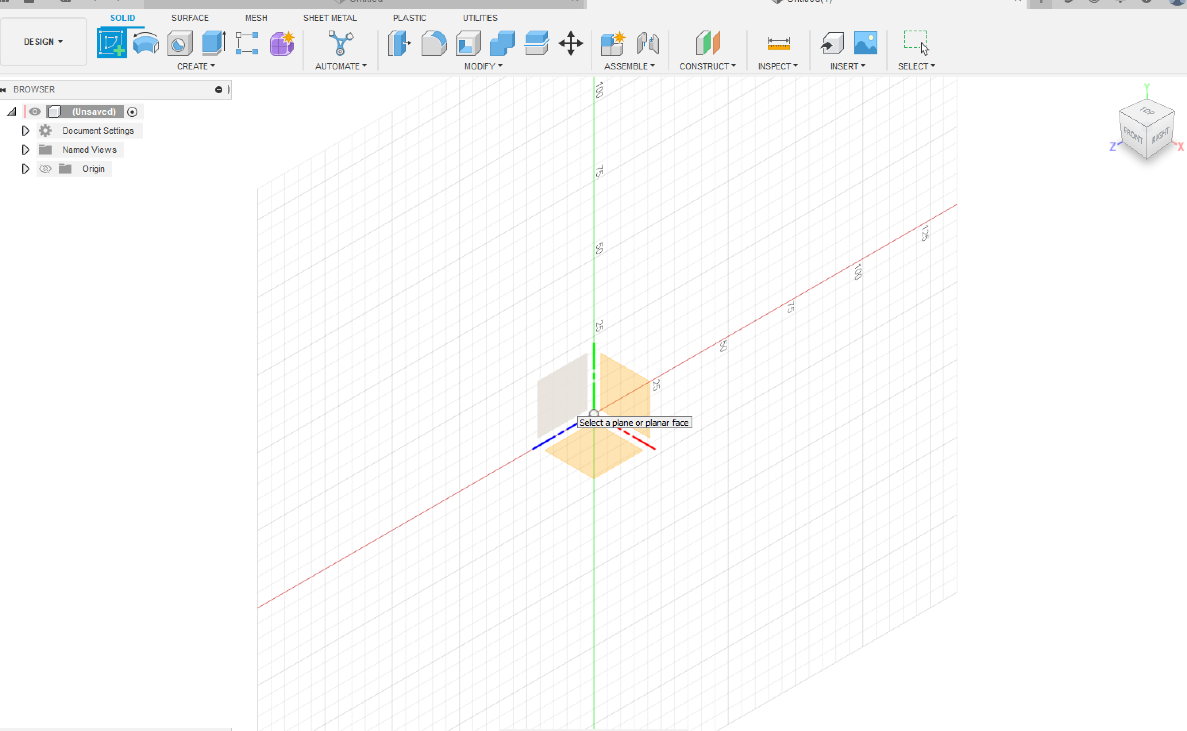
**YEAR 8 WOODEN TOY CAD TUTORIAL**

**TASK:**

This task is designed to help develop creative thinking and problem-solving skills using Computer aided Design software. The following is a step-by-step guide to creating a simple wooden toy design using Fusion 360.

1. Open Fusion if you don’t have an account your teacher can help.
2. Your screen will look something like this but will have no project folders.
3. Select file – **New Design**

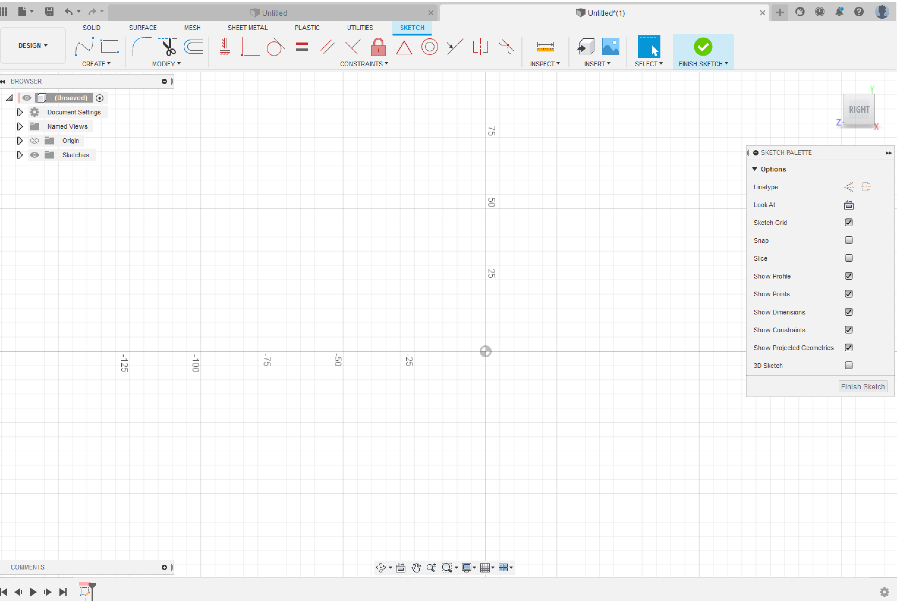
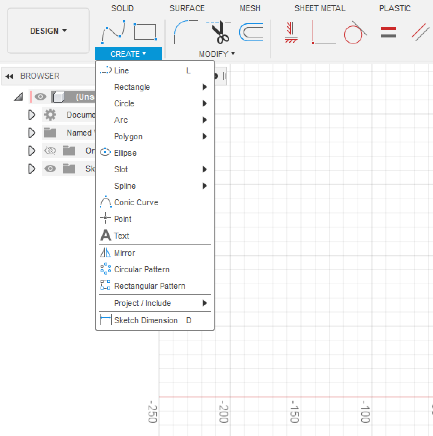


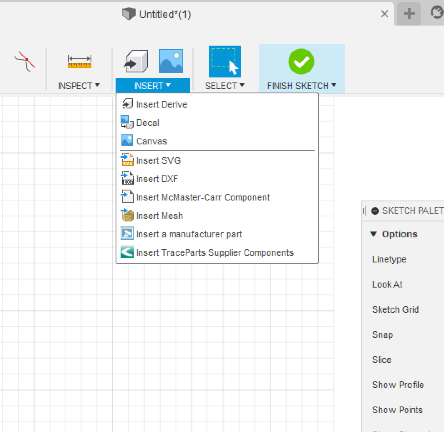
1. Select **Sketch** (notice the drop-down box giving information about the tool selected)
2. your drawing space will appear with a set of planes a navigation cube and a browser on the left. (Note how the X,Y&Z are oriented on the planes and cube).

Navigation Cube

X,Y,Z Planes

Browser

1. Once you select a plane your screen will open in sketch mode (Note the navigation cube, the history at the bottom of the screen and the drawing tools on the top ribbon).
2. Click on Create and a palette of tools will appear, you can click on any of these to create a shape or line.



1. At this point you can create your own design or copy an existing design. If you bring in a design, you will need to choose a side view image and save it to a folder that you can access. To bring it into your drawing space select **Insert – Canvas.**
2. Chart

   Description automatically generatedGraphical user interface, application, table, Excel

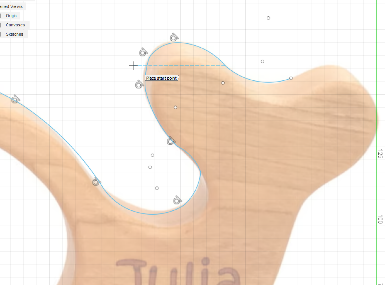
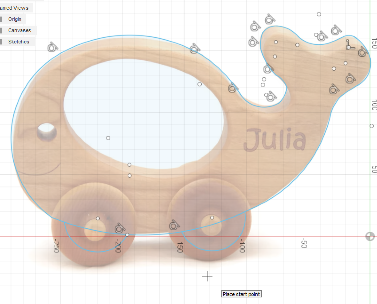
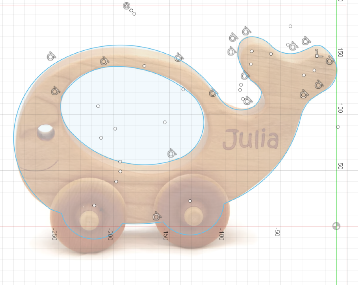
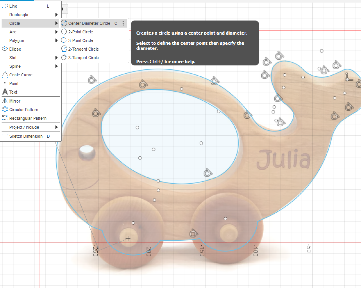
   Description automatically generated

Select the face

1. Diagram

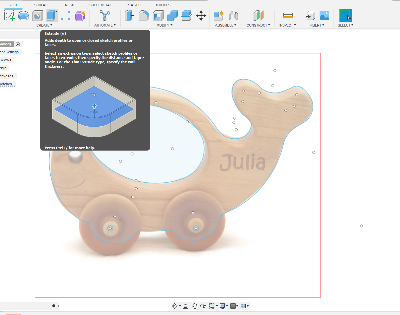
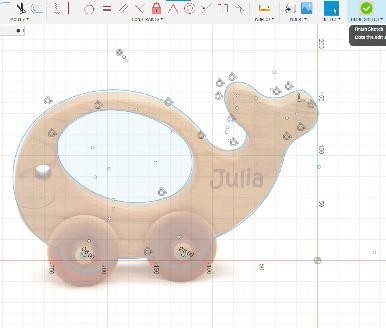
   Description automatically generatedUse the handles to move and size your image to suit the 300 x 200 mm constraints given
2. Diagram

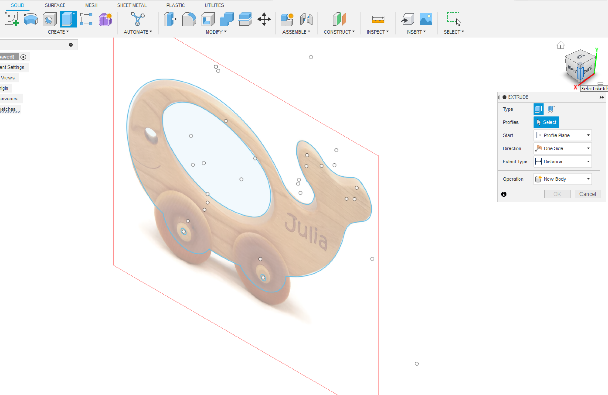
   Description automatically generatedPlace the design over the rulers on the screen to provide a guide to the size.
3. A picture containing chart

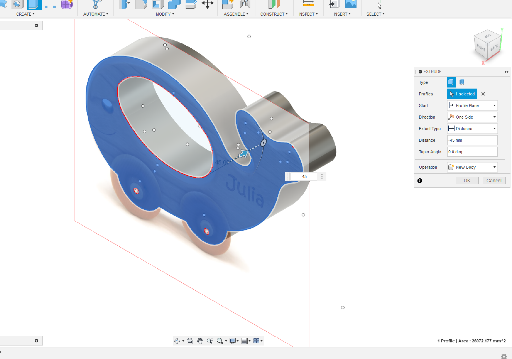
   Description automatically generatedChoose your drawing tools, in this case we will use the 3-point arc tool to draw the curved whale shape.
4. A picture containing chart

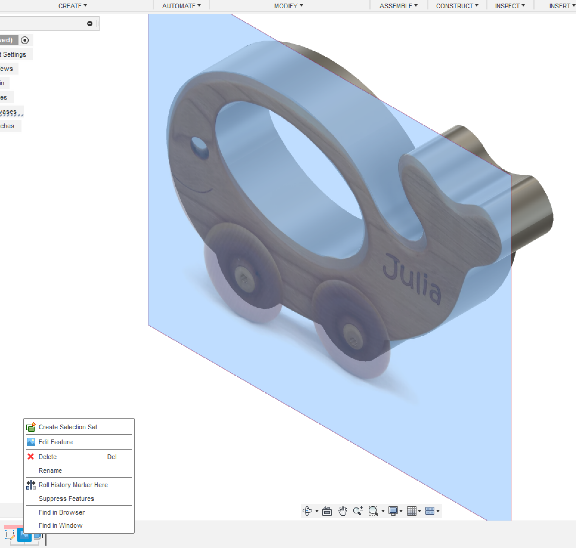
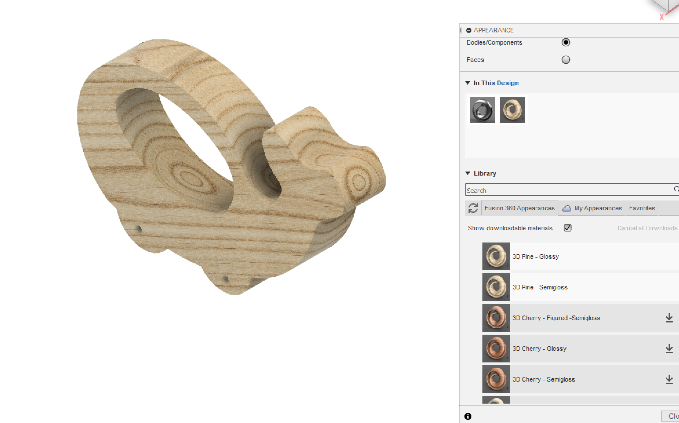
   Description automatically generated

Use the centre point circle for the axle holes 6mm diameter.

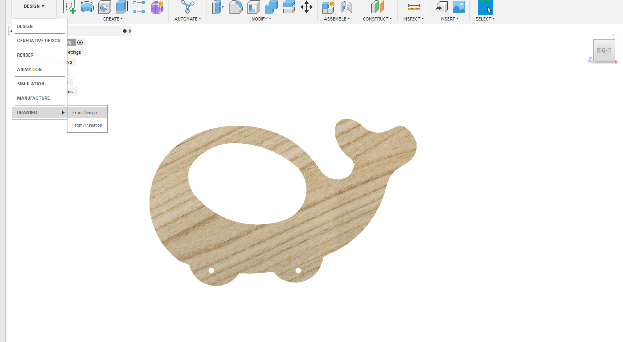
1. ****At this point you have completed your shape, select **Finish Sketch.** The workspace and ribbon now allow us to create 3D shaping of our design.

1. Extrude your design 45mm. You can make this step a little easier by using the cube to turn the design allowing the extrusion to be viewed.



1. The image used can now be deleted by right clicking on the image icon in the bottom history ribbon.
2.  The Appearance of the design can now be changed by right clicking and selecting **Appearance.** The first time this is done will result in a small download which will take a moment or two.
3. The last step is to complete the task by handing in a drawing. Present your design side on and select **Design** – **Drawing** **- From Design**.

Diagram

Description automatically generated

Diagram, engineering drawing

Description automatically generated

Print your design and submit it for assessment. This page can also be used as a template for cutting the design.