

# Child's Mechanical Toy

## Product information

In this task you are producing graphics for a toy manufacturer. The toy is a simple mechanical cam and follower which uses geometric shapes and forms. These toys tend to be made from wood or plastics, and often coloured to suit a young child.

## You are tasked with:

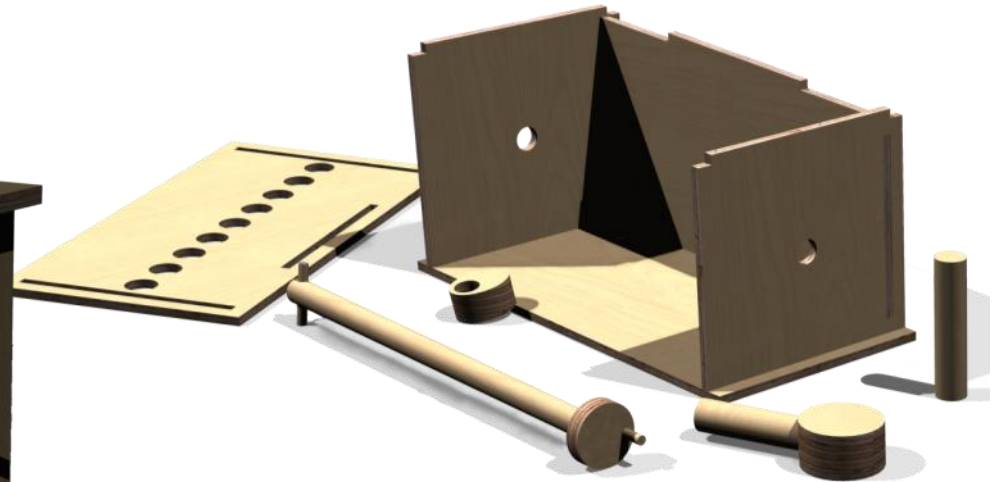
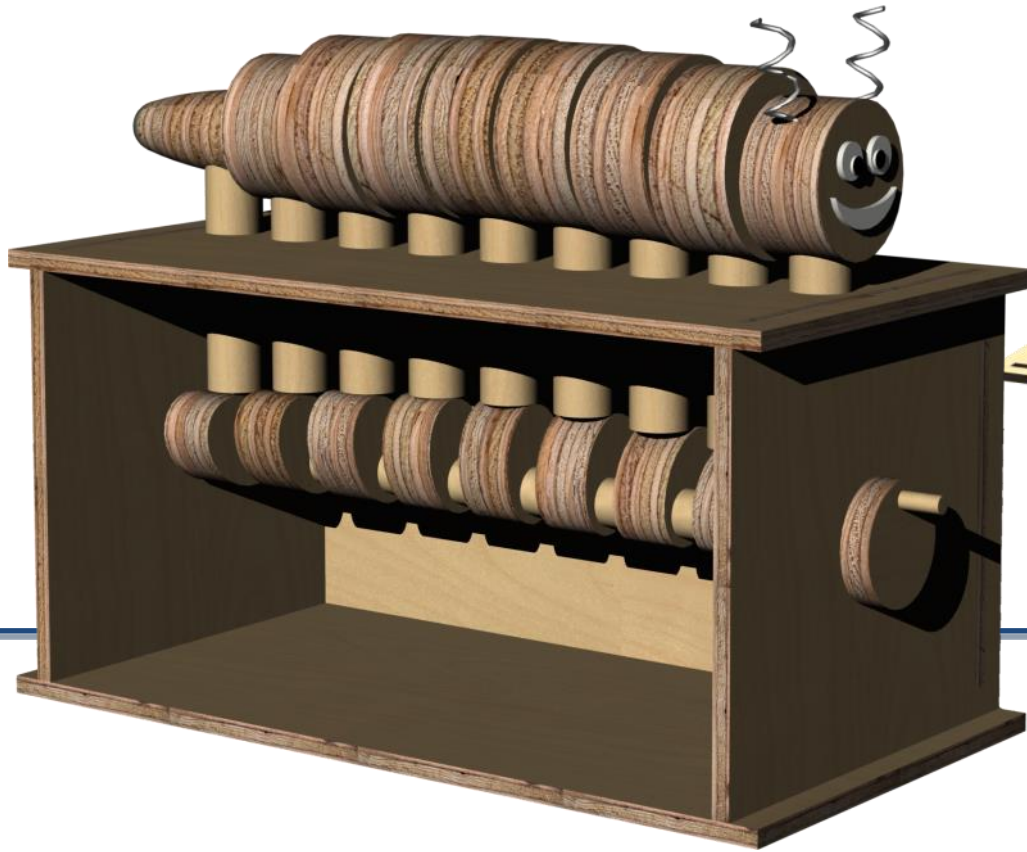
- ◆ planning a 3D CAD model, including the use of sketching techniques, with a minimum of three components; a cam, a follower and a case
- ◆ producing an assembled pictorial drawing of a mechanical toy which includes a minimum of two cams and two followers
- ◆ producing an exploded pictorial drawing of a mechanical toy which includes a minimum of one cam, one follower and the crank shaft
- ◆ producing an orthographic drawing of the elliptical cam
- ◆ producing a realistic pictorial illustration of the assembled mechanical toy

## In tackling your work, you should:

- ◆ plan a simple mechanical toy; you do not have to use the mechanical toy shown on the next page (although you can if you wish) — this is given to assist you
- ◆ produce a sketched 3D modelling plan that will communicate your mechanical toy idea. A sketch with the dimensions for an elliptical cam is shown on the next page — you may use these dimensions or change them to fit your own mechanical toy

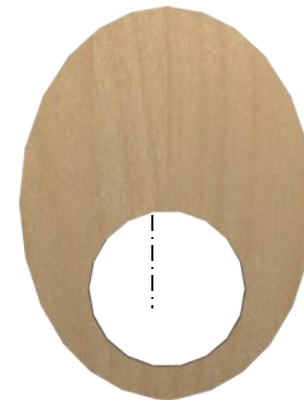
## Additional advice and product information

- ◆ You may take sizes of the cam from the data sheet or produce your own to different dimensions. You should decide on your own material's thickness for the cam.

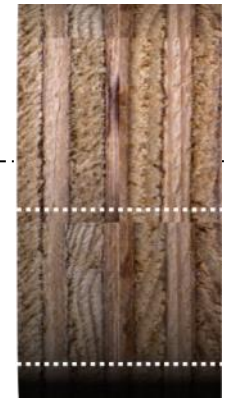


Major axis = 60mm  
Minor axis = 40mm  
Hole diameter = 20mm

Hole should be on-centre horizontally and  
off-centre vertically



Elevation



End elevation

Scale 1:1