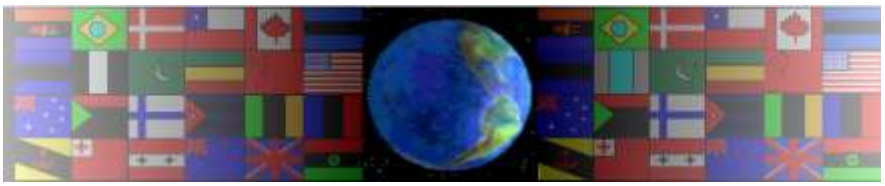
MECHANISMS INFORMATION / WORKSHEETS

On behalf of The World Association of Technology Teachers

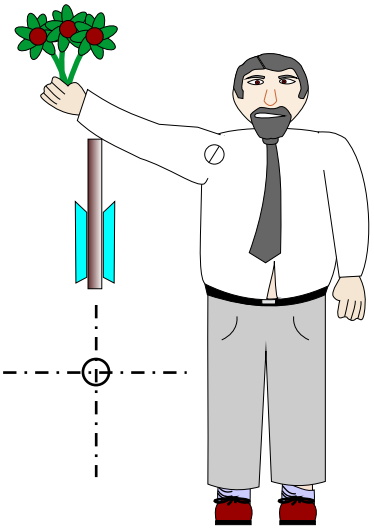
W.A.T.T.



World Association of Technology Teachers

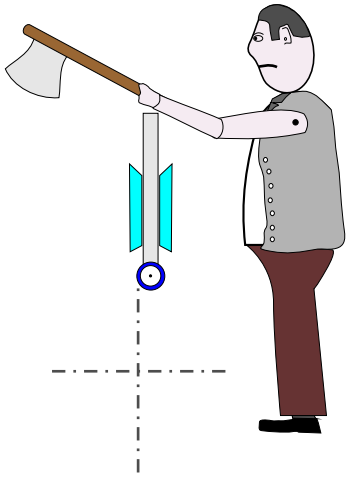
This exercise can be printed and used by teachers and students. It is recommended that you view the website (www.technologystudent.com) before attempting the design sheet .

CAM QUESTIONS



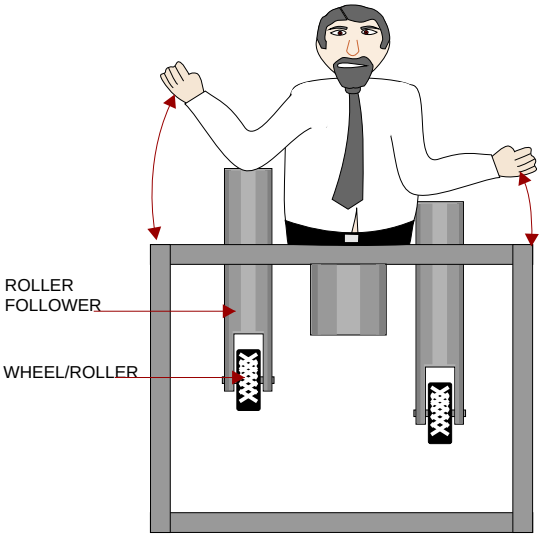
1. A local florist has asked you to design a model to be placed next to the checkout. The mechanism (shown opposite) is nearly complete but a simple mechanism needs adding. The mechanism must make the characters arm move up and down in a fairly smooth movement.

A. Complete the drawing by adding the mechanism.
B. Explain how it works.



2. A museum has asked you to design a model to be placed at the entrance. The mechanism is based on an executioner (shown opposite) and is nearly complete. The mechanism must make the characters arm move up slowly and drop down quickly.

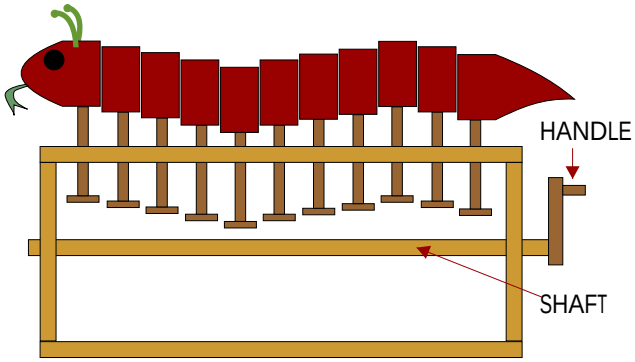
A. Complete the drawing by adding the mechanism.
B. Explain how it works.



3. A local toy shop has asked you to design a model to encourage parents to buy their young children mechanical toys. The partially made model is seen opposite. Add a suitable cam that controls two followers so that they rise and fall.

A. Complete the drawing by adding the cam.
B. Include additional labels on the diagram.
C. Explain how it works and name the type of cam you have used.

CAM QUESTIONS



4. A local company has asked you to complete a mechanical toy by adding suitable cams. The partially made model is seen opposite. The flat followers rise and fall smoothly and at an uniform speed as the handle is turned and the shaft rotates.

A. Name the type of cams and draw them on diagram.
B. Include additional labels on the diagram.
C. Explain how it works.

5. In the space below design device that shows pupils how a range of cams work. The device has a central shaft the rotates when a handle is turned.

A. You are to draw four types of cam profile.
B. The followers must move objects/ characters etc..... up and down.