Design a unit that could be used to transport several logs into the house.

(a) List four additional points about the function of such a unit that you consider to be important. [4]

(b) Use sketches and notes to show two ways by which logs could be stacked. [4]

(c) Develop and sketch three ideas for the unit. [12]

(d) Evaluate your ideas and justify why you have chosen one idea to develop more fully. [8]

(e) Draw, using a method of your own choice, a full solution to the problem. Include construction details and important dimensions. [12]

(f) Suggest two suitable specific materials for your solution and give reasons for your choice. [4]

(g) Outline a method used to manufacture one part of your solution. [6]
Design a portable display for use in a community centre that will show the advantages of using wood as a fuel source rather than coal or oil. The display should include a moving feature to add interest.

(a) List four additional points about the function of such a portable display that you consider to be important.

(b) Use sketches and notes to show two ways by which movement could be achieved on such a portable display.

(c) Develop and sketch three different ideas for the portable display.

(d) Evaluate your ideas and justify why you have chosen one idea to develop more fully.

(e) Draw, using a method of your own choice, a full solution to the problem. Include construction details and important dimensions.

(f) Suggest two suitable specific materials for your solution and give reasons for your choice.

(g) Outline a method used to manufacture one part of your solution.
It is often difficult to hold tree branches securely when attempting to cut them into logs 400 mm long.

Design a device for holding tree branches at a convenient height so that they can be cut into 400 mm logs.

(a) List four additional points about the function of such a device that you consider to be important. [4]

(b) Use sketches and notes to show two methods of gripping logs. [4]

(c) Develop and sketch three ideas for the device. [12]

(d) Evaluate your ideas and justify why you have chosen one idea to develop more fully. [8]

(e) Draw, using a method of your own choice, a full solution to the problem. Include construction details and important dimensions. [12]

(f) Suggest two suitable specific materials for your solution and give reasons for your choice. [4]

(g) Outline a method used to manufacture one part of your solution. [6]