

Answer **ONE** question only.

1 Young children are encouraged to take part in active physical activities, both indoors and out. Parents are often concerned about the risk of injury this may cause.

A range of protective clothing/equipment is required.

Data

- Market research has shown that initially 5,000 units will be required.

Theme: Active play.
Focus Area: Textiles.

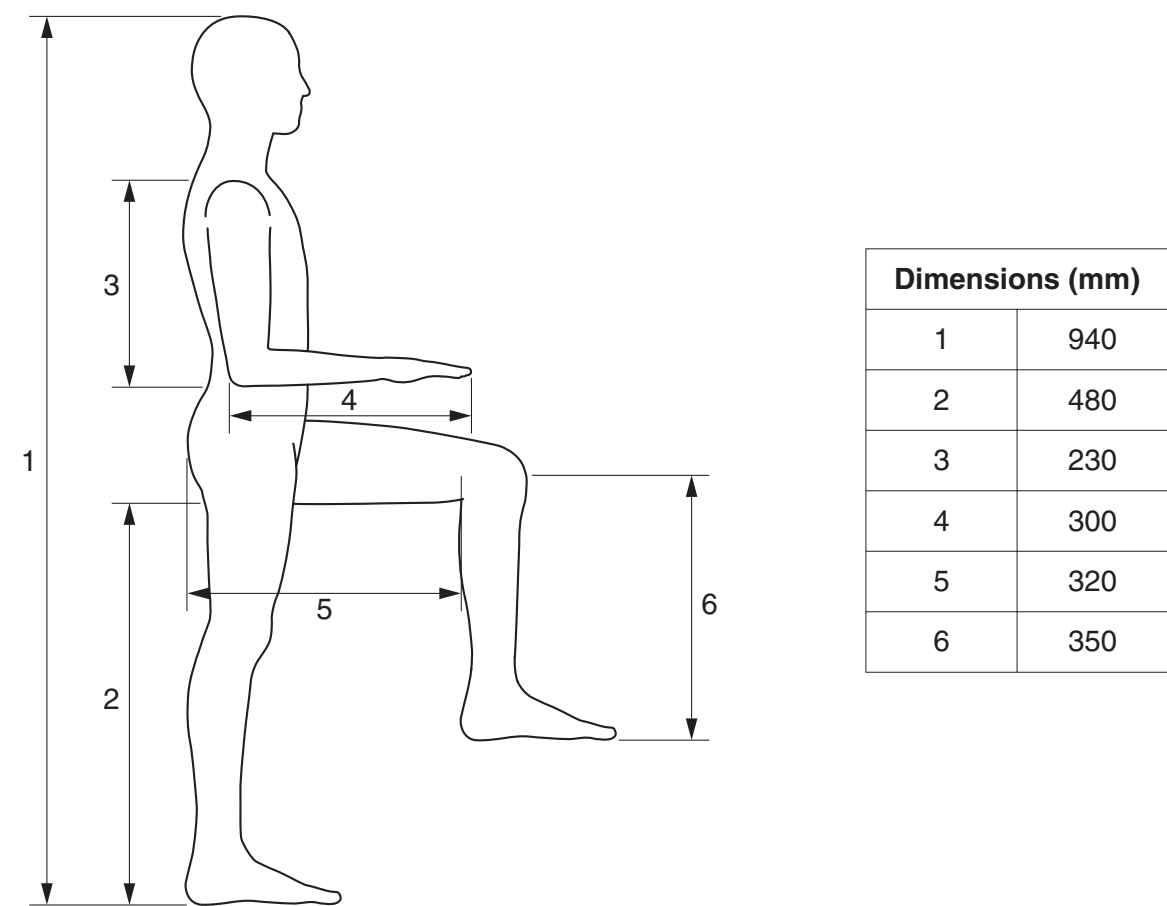


Fig. 1 Anthropometric data for standing child

ALLOCATION OF MARKS FOR PAPER 2524/02

- | | |
|---|-------------|
| (a) specification points. | [16] |
| (b) initial ideas. | [38] |
| (c) features suitable for development. | [8] |
| (d) communication skills and techniques. | [10] |

[Total: 72]

All dimensions are in mm.

Where necessary, calculators may be used.

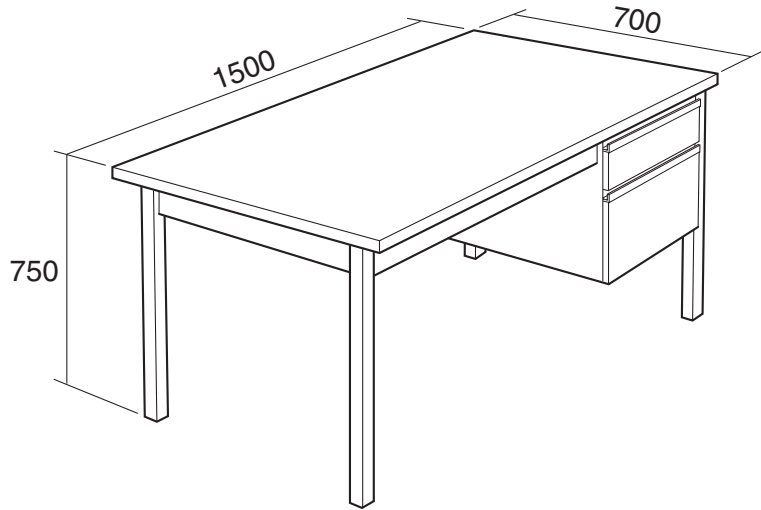
2 Modern working practice often requires more than one person to share an office desk.

A product which allows a standard desk to be quickly customised to suit an individual’s needs and cleared at the end of working is required.

Data

- Market research has shown that initially 500 units will be required.

Theme: Office work.
Focus Area: Graphic Products/Resistant Materials/Textiles.



Not to scale

Fig. 2 Dimensions of typical office desk

3 Many people with hobbies that involve craft activities, such as small scale model making, do not have access to dedicated spaces in which to work.

A portable modelling/craft activity work station is required.

Data

- Market research has shown that initially 10,000 units will be required.

Theme: Craft activities.
Focus Area: Graphic Products/Resistant Materials.

4 For many skilled workers transporting tools from their vehicle to and from the location of their day's work is time consuming and physically tiring.

A product to help transport tools, equipment and commonly used consumable items is required.

Data

- Market research has shown that initially 5,000 units will be required.

Theme: Portable tools and equipment.
Focus Area: Graphic Products/Resistant Materials/Textiles.

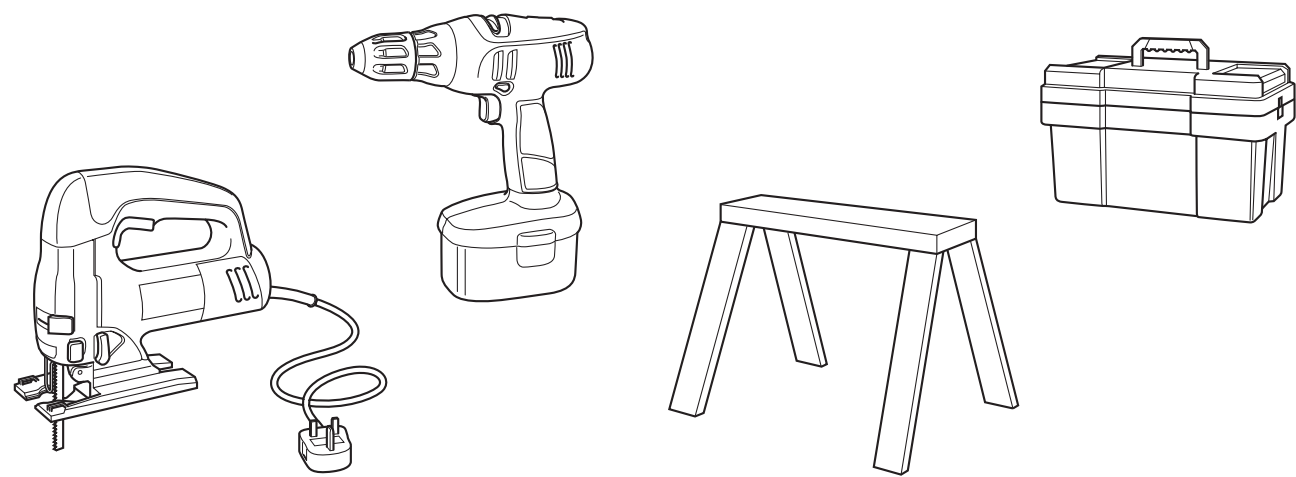
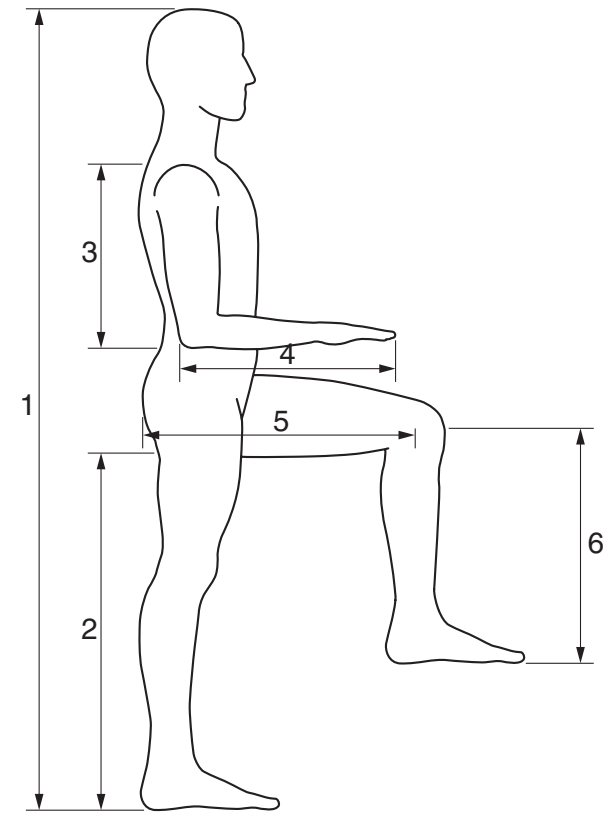


Fig. 3 Typical power tools and equipment



Dimensions (mm)		
	Male	Female
1	1755	1630
2	840	770
3	360	335
4	480	435
5	550	490
6	500	470

Fig. 4 Anthropometrics for standing male and female adults

5 In recent years the range of equipment and products used to clean and valet motor cars has increased dramatically.

A product to store car cleaning products is required.

Data

- Market research has shown that initially 10,000 units will be required.

Theme: Car care.
Focus Area: Graphic Products/Resistant Materials/Textiles.



Fig. 5 Typical car care products

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Circle the question number you are answering

12345

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(a) A list of **eight** qualified specification points, directly related to the given situation, that initial ideas should meet. **[16]**

1

2

3

4

5

6

7

8

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USE ONLY

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(b) Initial ideas:

- Range of ideas. [10]
- Design ideas relating to the functional aspects raised in your specification. [5]
- Quality of design thinking relating to the volume production and wider market issues. [5]
- Consideration of construction. [5]
- Consideration of specific materials and components (may include calculations.) [5]
- Consideration of dimensional detail (may include calculations). [3]
- Evaluation of the suitability of the ideas with reference to the Specification. [5]

[Total: 38]

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(c) Features suitable for development.

- Appropriate features identified and clearly described. [4]
- Appropriate justification of the features identified with reference to the Specification. [4]

[Total: 8]

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