

## Product analysis and evaluation

This homework focuses on product analysis and evaluation. Answer all questions.

1.Explain why designers research (analyse and evaluate) products from other manufacturers before starting to design new products.

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2. Opposite is a baby walker.

Analyse the information provided in the specification and the image to evaluate the product in terms of its;

- **Safety**
- **Suitability for the user**
- **Aesthetics**

### Specification.

- Detachable learning centre packed with activities.
- Stimulates all 5 senses
- Developments hand eye co-ordination.
- Encourages first steps
- Sturdy design
- For ages 6 months and over



### Safety

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### Suitability for the user.

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### Aesthetics

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## Human factors

This page focuses on ergonomics and anthropometrics.

1. Explain the terms ergonomics and anthropometrics.

### Ergonomics

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### Anthropometrics is

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2. Study the image of the electric drill opposite. Identify 4 ergonomic features. Explain each feature.

Feature 1:

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Explanation.....

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Feature 2: .....

Explanation.....

Feature 3: .....

Explanation.....

Feature 4: .....

Explanation.....



3. Study the two crutches opposite. Describe two improved ergonomic features used on crutch B

Feature 1: .....

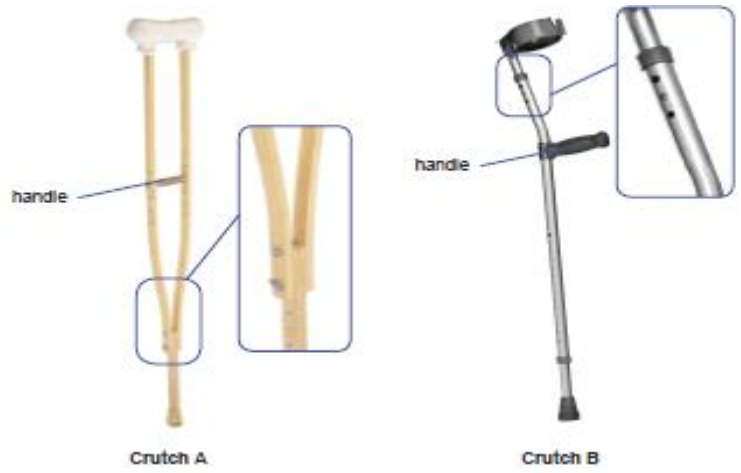
Description:

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Feature 2: .....

Description:

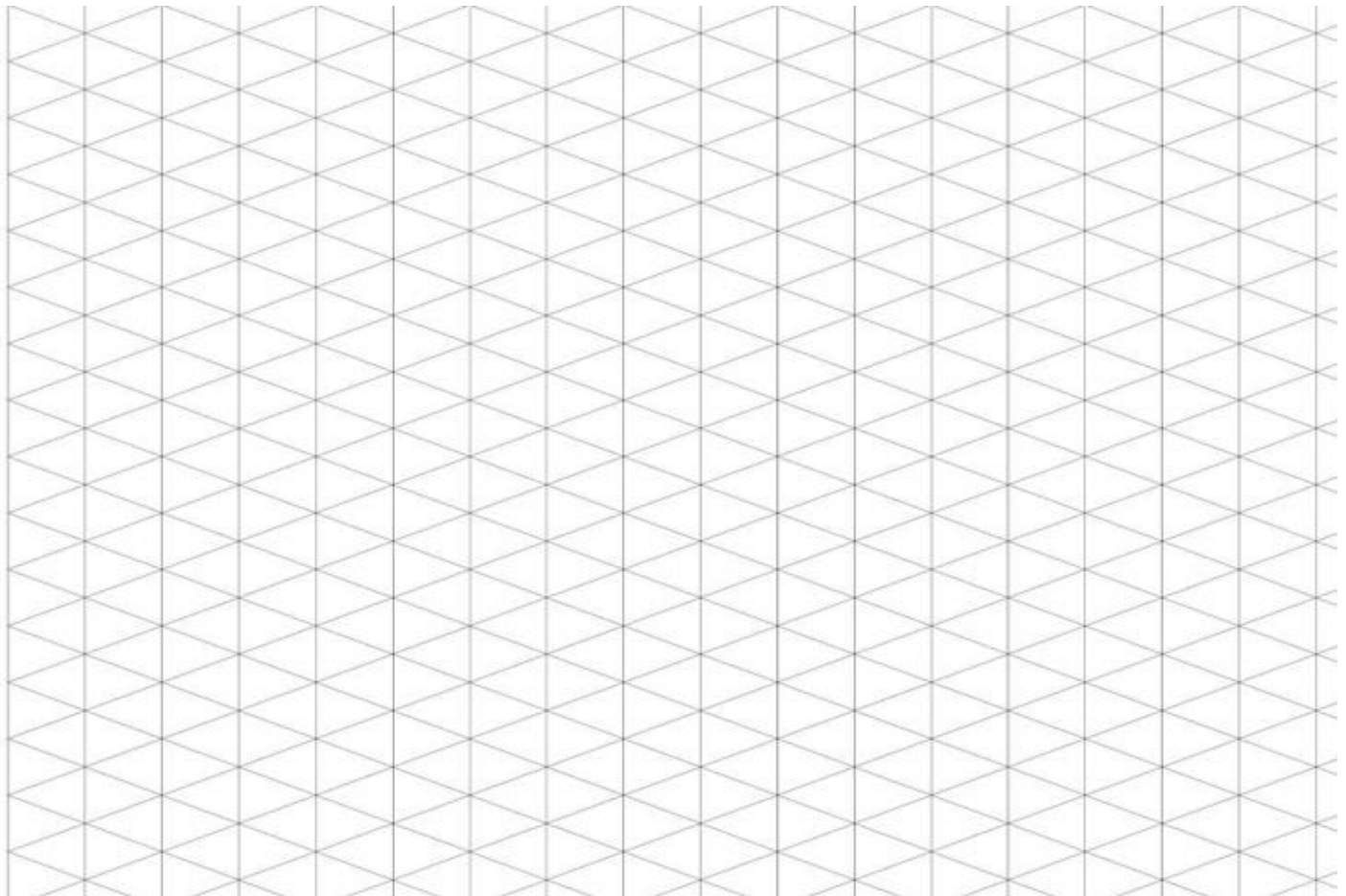
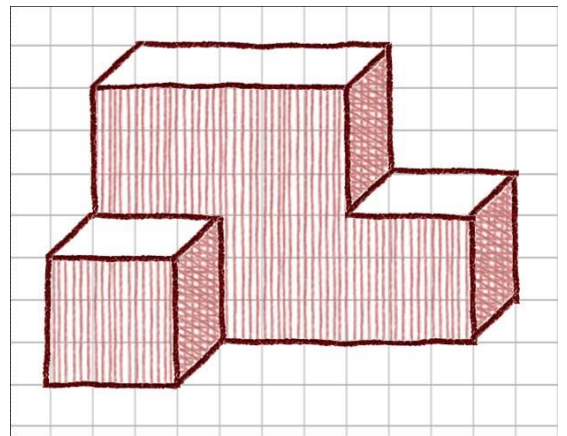
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### Isometric and orthographic drawing

This homework focuses on isometric and orthographic drawing.

Look at the oblique drawing on the right. You must convert (draw) it in isometric. Use the isometric paper below.



## Isometric and orthographic drawing

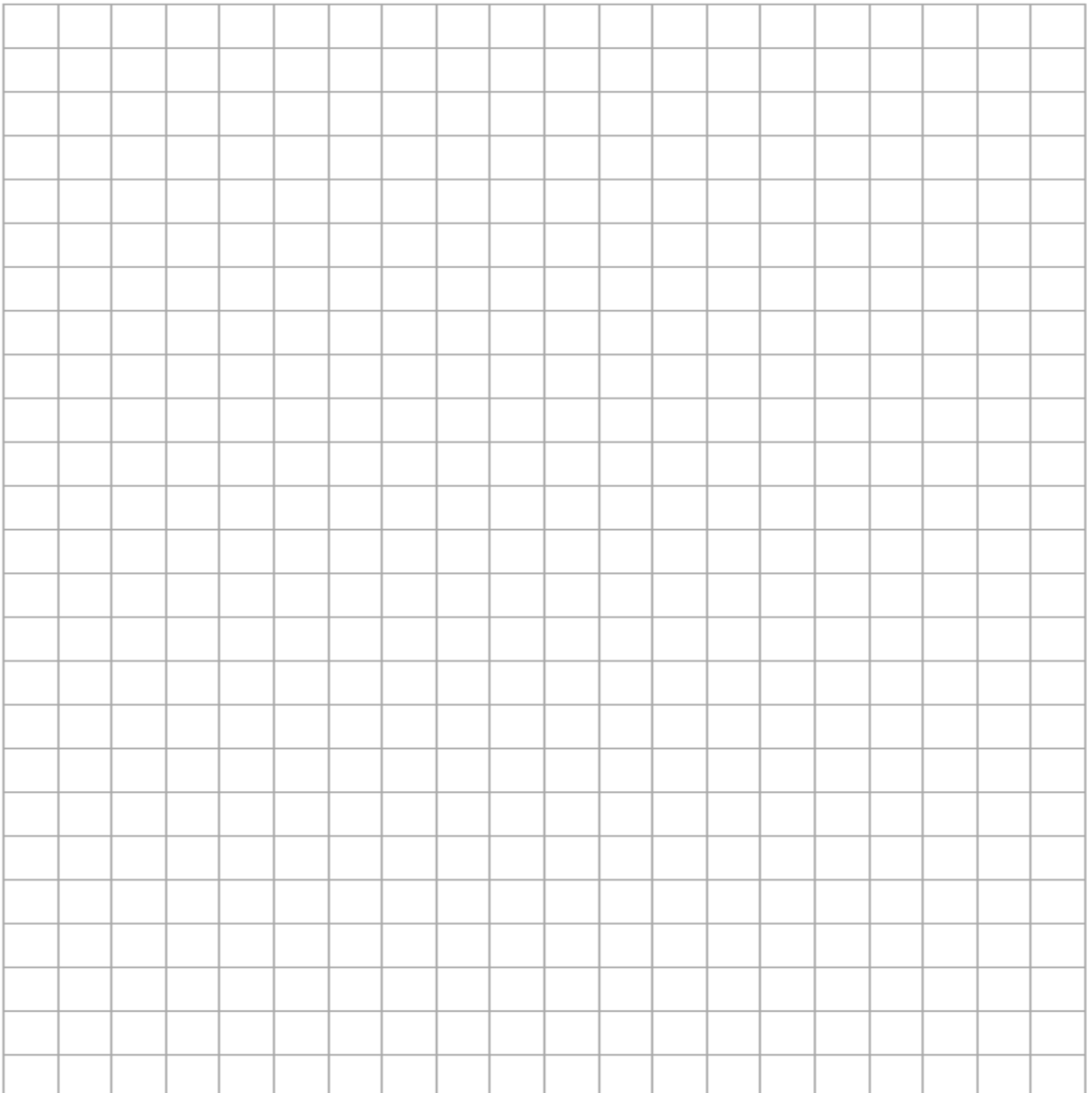
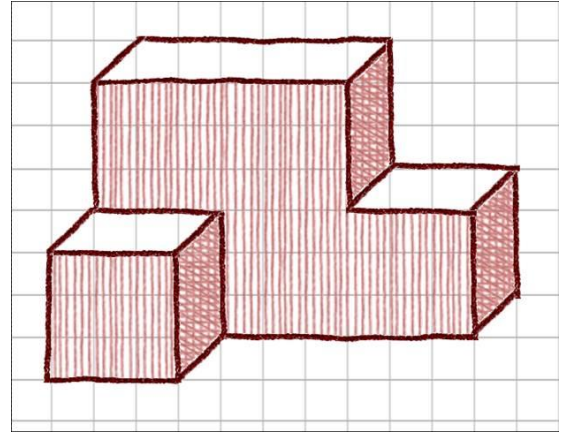
Using the oblique shape to the right and your isometric drawing you now must convert it into orthographic projection on the grid below. Keep the sizes in proportion.

Remember to use;

**Plan**

**Front**

**Side.**



**Production Aids**

Study the wooden bookcase and the side of the bookcase shown below. Ten wooden bookcases are to be made in a school workshop

Produce a labelled drawing of a simple production aid (template) that could be used when drilling the holes into the sides of the wooden bookcases



Wooden bookcase



Side of bookcase

Explain how the use of production aids such as; jigs, moulds and templates affect (improve) the manufacture of products. Firstly, plan out your answer using the bullet points below

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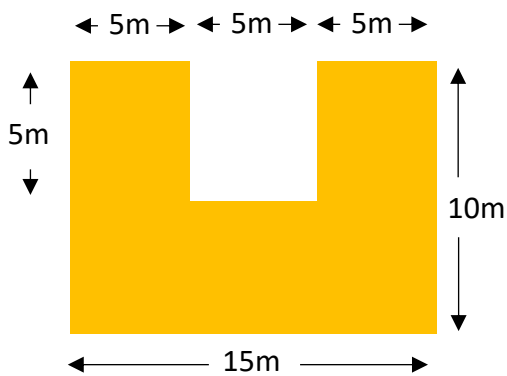
## Maths in Technology

This homework focuses on the maths that can be applied to Design Technology. Lots of it can be applied to everyday life.

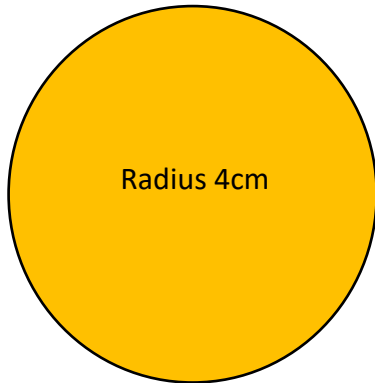
You will be asked to calculate the area of the following shapes; squares, rectangles, circles and triangles. Write the formula needed to calculate the area for each

- Square/ rectangle: .....
- Circle: .....
- Triangle: .....

Look at the shape below is a plan view of a living room. Mr Blake wants to fit new laminate flooring. You must calculate the total area of the room so he knows how much to buy. Show all your working



Look at the shape below is a plan view of a garden patio. Mr Blake wants to fit a patio. You must calculate the total area of the patio show he knows how much to buy. Show all your working



Look at the triangle below. Calculate the area of the triangle, show all of your working out.

