2 Concept of drawing three different views: front, top and side

Orthographic projection is a means of representing a 3D object (for example a cube) in two dimensions.

It is a form of parallel projection, where all the projection lines are orthogonal (right angles) to the projection plane. The result of this is that every plane of the cube can be seen as a 2D shape.

Activity 2 Simple cubes

1 Look at the drawing in **FIGURE 5**. Label the three views as follows:
   - **a** the front view, top view and right-hand side view.
   - **b** looking from the right-hand side of the front view notice the arrow.

The 45° projection line enables us to carry measurements such as length, width and height from one view over to another view. If we do it this way, we do not have to measure again. It is very important to understand this concept as it shows why drawing instruments do not have to be used again. It also saves time.

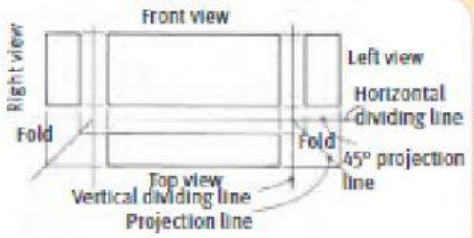


FIGURE 5 The drawing shows how the XY lines are filled in and how simple objects must be placed in the frame

Revision

Always draw views 10 mm away from the dividing lines and folded lines. Also draw views 10 mm apart from the X1Y1, X2Y2 and X3Y3 lines. This helps us to see each individual view clearly.

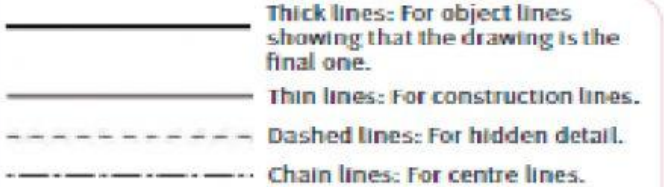


FIGURE 6 We use different lines to indicate different aspects of a drawing

LIVEWORKSHEETS

Now you are going to follow the instructions given above and upload your drawing to the platform.
Using the online geometry link for your drawing.

LIVEWORKSHEETS