Visual Communication – Term1 Freehand drawing

Visual Communication is developing your visual literacy so you can communicate and present your design ideas effectively.
The tool that differentiates humans from other animals is language; without language we cannot think, talk, draw or write. Language allows us to communicate ideas. In this course you will be developing your drawing skills to better enable you to communicate ideas.
It is not about the quality, type or method of drawing, but about whether the drawing is effective in meeting the needs of the drawer.

Freehand drawing, sketching, visual roughs, and thumbnails are all names for drawings that share the common purpose of explaining or representing ideas. Drawing can also be used as a thinking tool by drawing thoughts and ideas on paper to solve problems or to generate more ideas.

A builder on a work-site will draw a quick freehand drawing on a wood off-cut to show how to construct an element of the building. An architect may use a computer-aided design (CAD) program to draw a house to scale to show that it meets the building regulations for site coverage; both are effective, just as both freehand and instrumental drawings are effective when their advantages and disadvantages are understood.

Now doodle an egg in a pan:

The base of all visual communication is the dot . and from this tiny dot all forms of drawings are created.

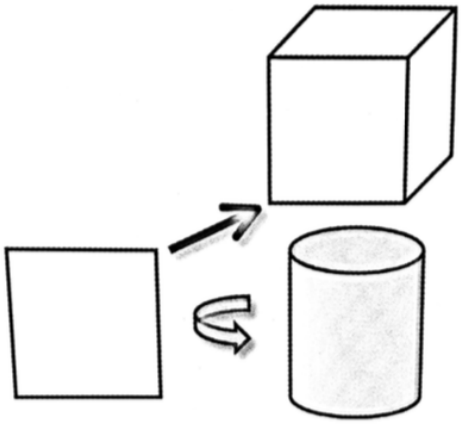
A path of moving dots ▪ ▪ ▪ ▪ ▪ ▪ ▪ ▪ ▪ ▪ ▪ ▪ will make a line ▬▬▬▬▬▬▬▬

A line can be used to communicate:

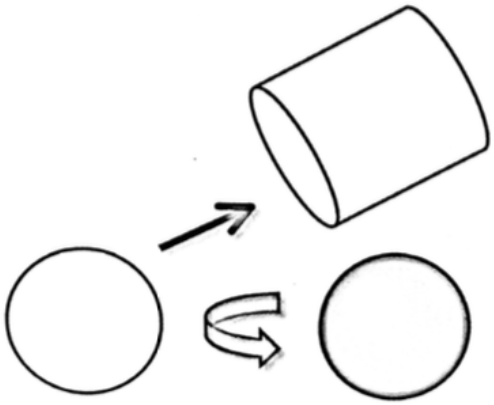
Direction : ⟶ or emotion : =)

When a line crosses itself it becomes a shape like a simple paper clip:

Shapes can be extruded or rotated around an axis to create another form or shape. A form is represented in drawings by creating the illusion of depth.



A square extruded to form a cube, then rotated to form a cylinder



A circle extruded to form a cylinder, then rotated to form a sphere

Fact: one pencil can draw a line 50 kilometres in length!

Lines

There are different lines for different purposes. And there are different thicknesses and degrees of darkness of lines.

Construction lines

The first lines of every drawing. They are very light, thin lines and are easily erased.

Outline

The darkest lines. These are thin, dark lines to show outlines and outside edges of objects.

Hidden detail

Medium darkness lines. They are short, thin dashes that show parts that are hidden behind surfaces. They are placed on the drawing after the outlines.

Centre lines

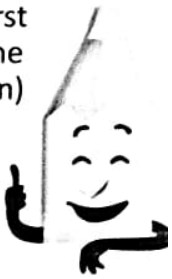
Medium darkness, thin lines. They are a short dash and a long line to show objects/parts that are equal each side of a centre (circles, etc).

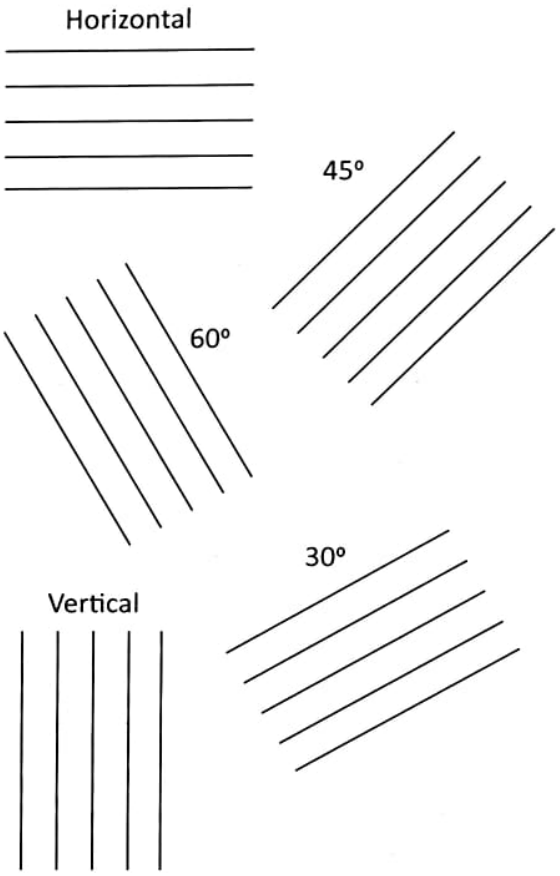
Reference lines

Medium darkness, thin lines. They are a long line broken by two short dashes to show the fold lines between planes in an orthographic projection.

On **Worksheet 1 Getting Started**, practice drawing the lines as shown.

Use your 2H pencil to make them construction lines first (very light). Then turn some into outlines (dark and thin) by carefully placing the darker line directly on top of the construction line.



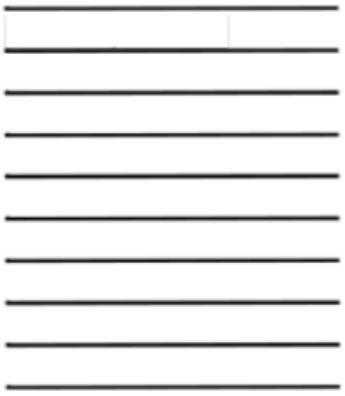


Rules

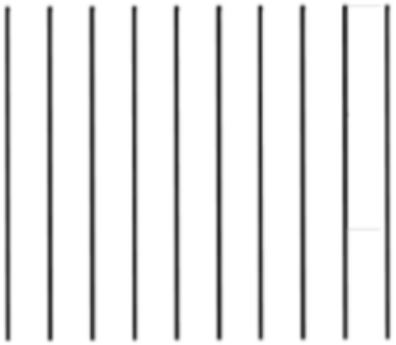
- Drag your pencil, never push it.
- When making outlines (called lining in) **twist your pencil** as you draw to keep the end sharp and the line thin.

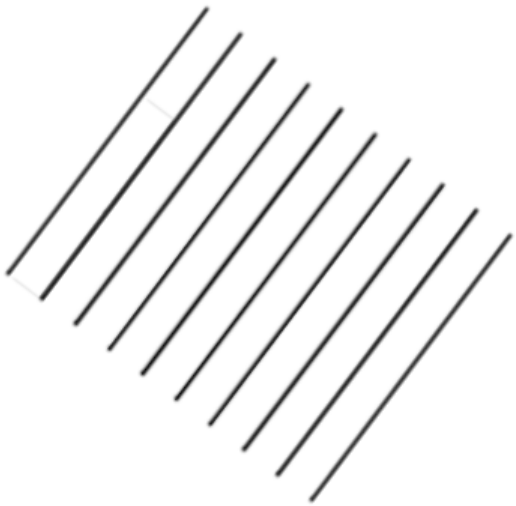
Freehand line drawing exercise:

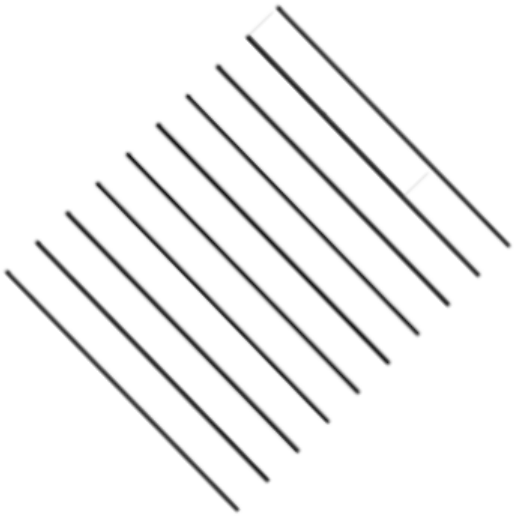
Use a soft pencil. Do not use an eraser, just keep practising. Place your paper at an angle, and **using your whole arm**, **not just your wrist**, draw a short, straight line. By drawing with your arm **moving away from you**, your lines will tend to be straighter. Use A3 paper and fill the page with these lines. Practise getting the lines parallel to one another.



By rotating your piece of paper, you can continue to use your preferred drawing angle and create pictures. On the fourth and fifth step, you can 'ghost' (your pencil hovers backwards and forwards over the existing line) to ensure you have the correct angle.

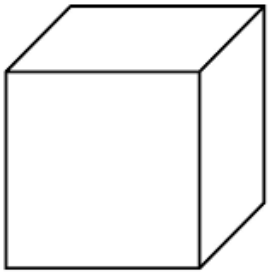






Drawing a cube using parallel lines:

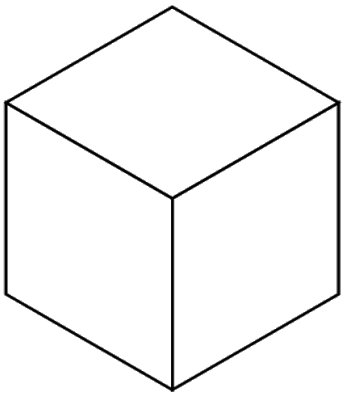
Freehand drawing of **Oblique** cube:



Watch this video: https://www.youtube.com/watch?v=QwgWhYr8hfA

Now you try on A4 paper.

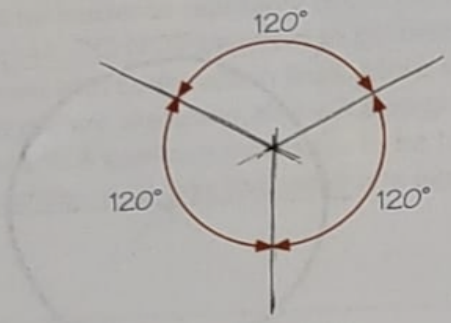
Freehand drawing an **isometric** cube:



Watch this video: https://www.youtube.com/watch?v=jfa_pCe3-yE

Sketching a cube

Step 1 • Start by sketching a Y. Try to keep all the angles of the Y as even as possible e.g. 120 degrees each.

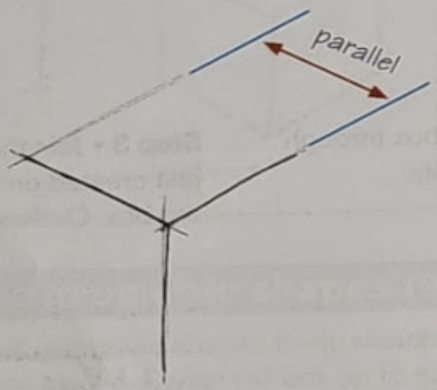


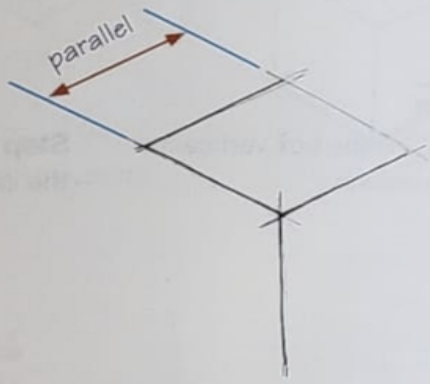
Common Mistake: If the initial Y is not drawn with equal angles it will distort the final sketch.

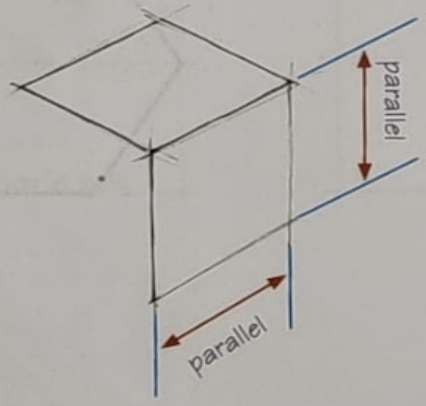
Incorrect

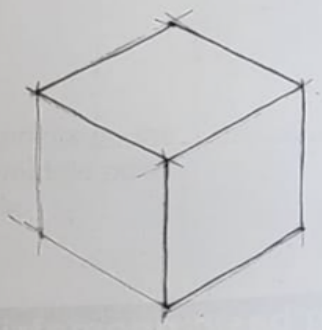
Incorrect

Step 2 • Sketch the background outline parallel to the Y.

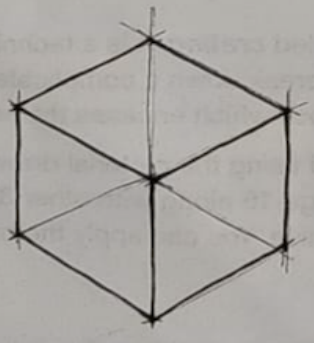








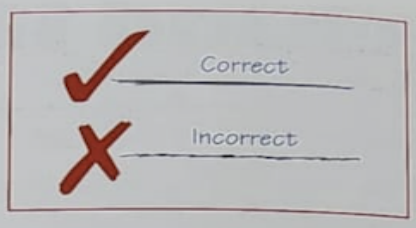
Step 3 • Darken the outline of the cube.

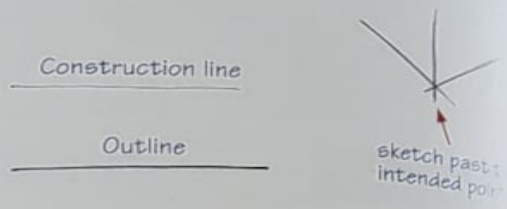


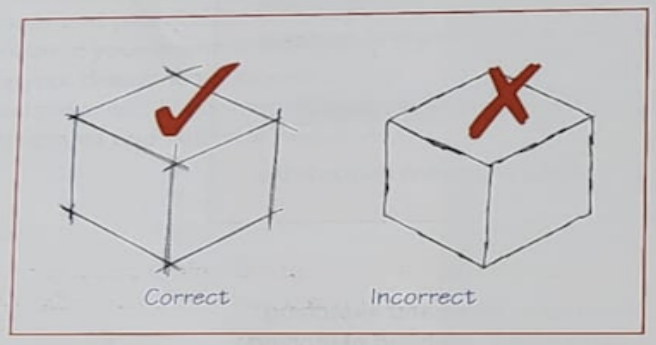
Now you try on A4 paper.

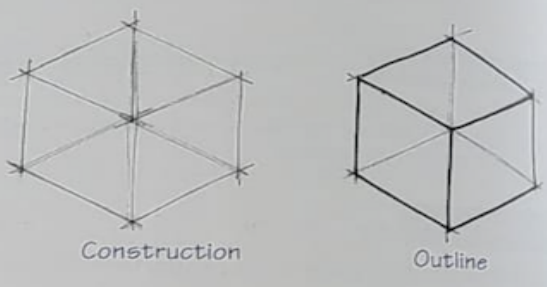
Line work

When sketching, lightly construct the object before outlining the image. Hold the pencil loosely, use your whole arm and do not worry about sketching past an intended point. If you keep the sketching really tight it will be harder to represent good proportion in your sketches. DO NOT be afraid to go over the area several times with construction lines. Move your page around as you are sketching, this will also give you more freedom. A common mistake is to be too tight when sketching which has the result of a jagged line.







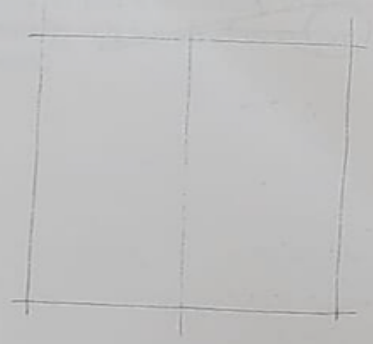


Sketching basic geometric shapes (2D)

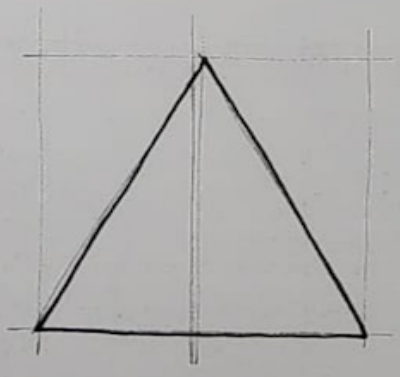
To help construct basic geometric shapes firstly sketch a box where the intended object is to be placed. Divide the box up to gain the required points.

Triangle

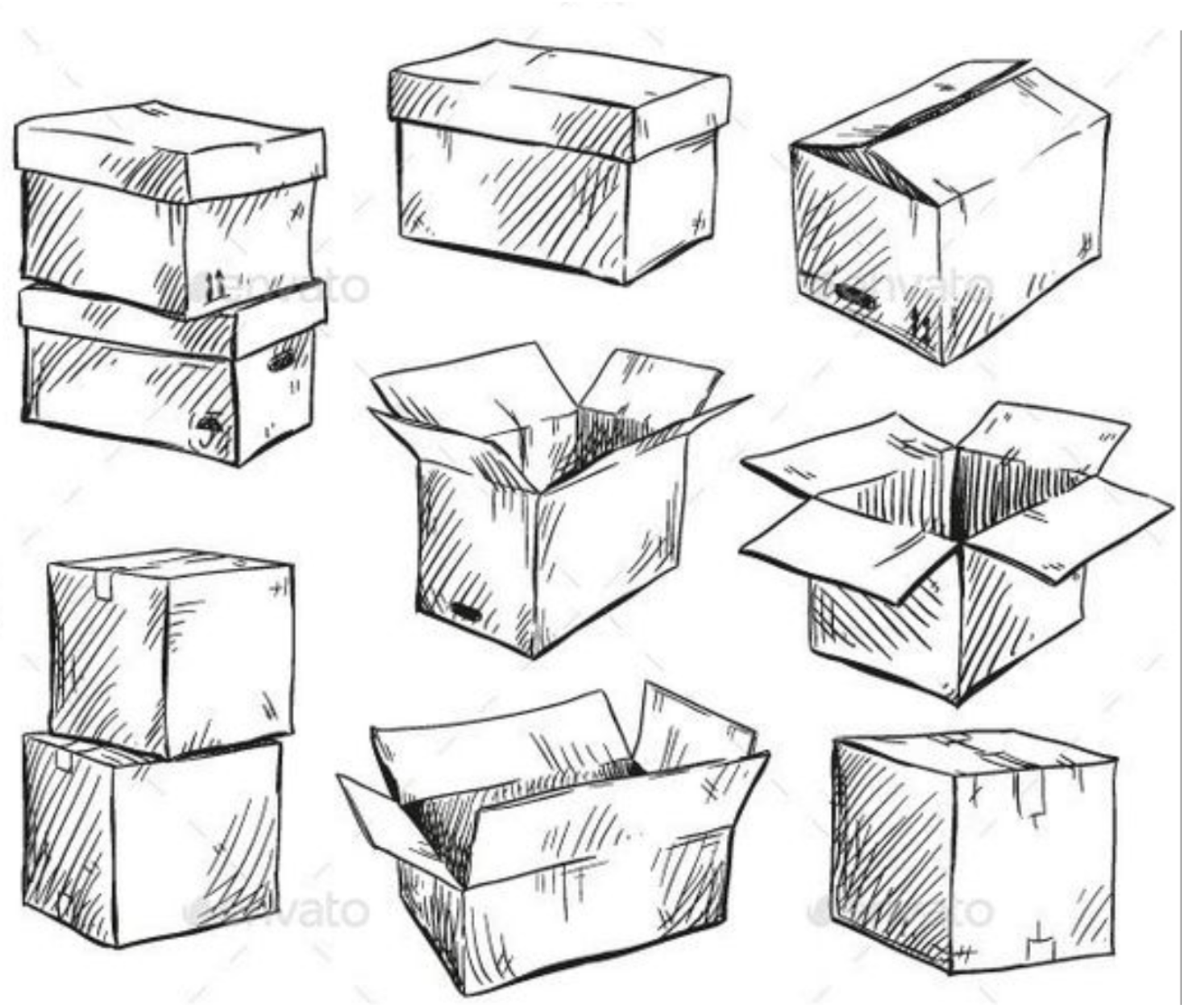
Step 1 • Divide the box in half.



Step 2 • Join the points on the base and the top middle point. Outline the triangle.



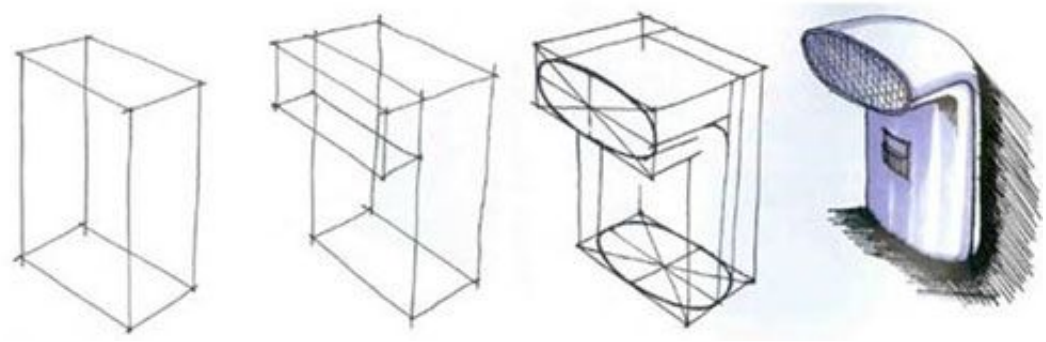
Now practice freehand drawing these boxes:
Use A3 paper



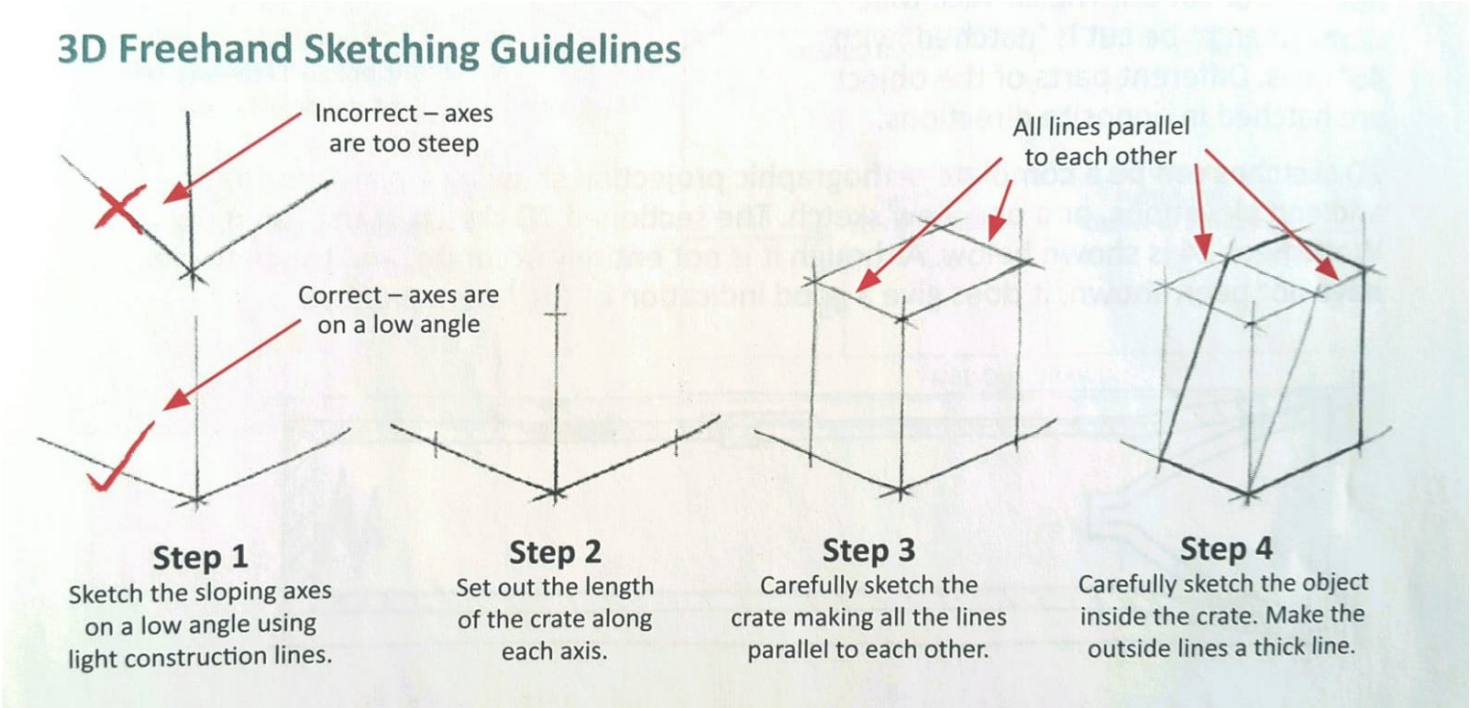
Crating:

Crating is a useful method of drawing a 3D object in isometric inside a crate or wireframe. Crating is imagining the object you are drawing is inside a 3D box.

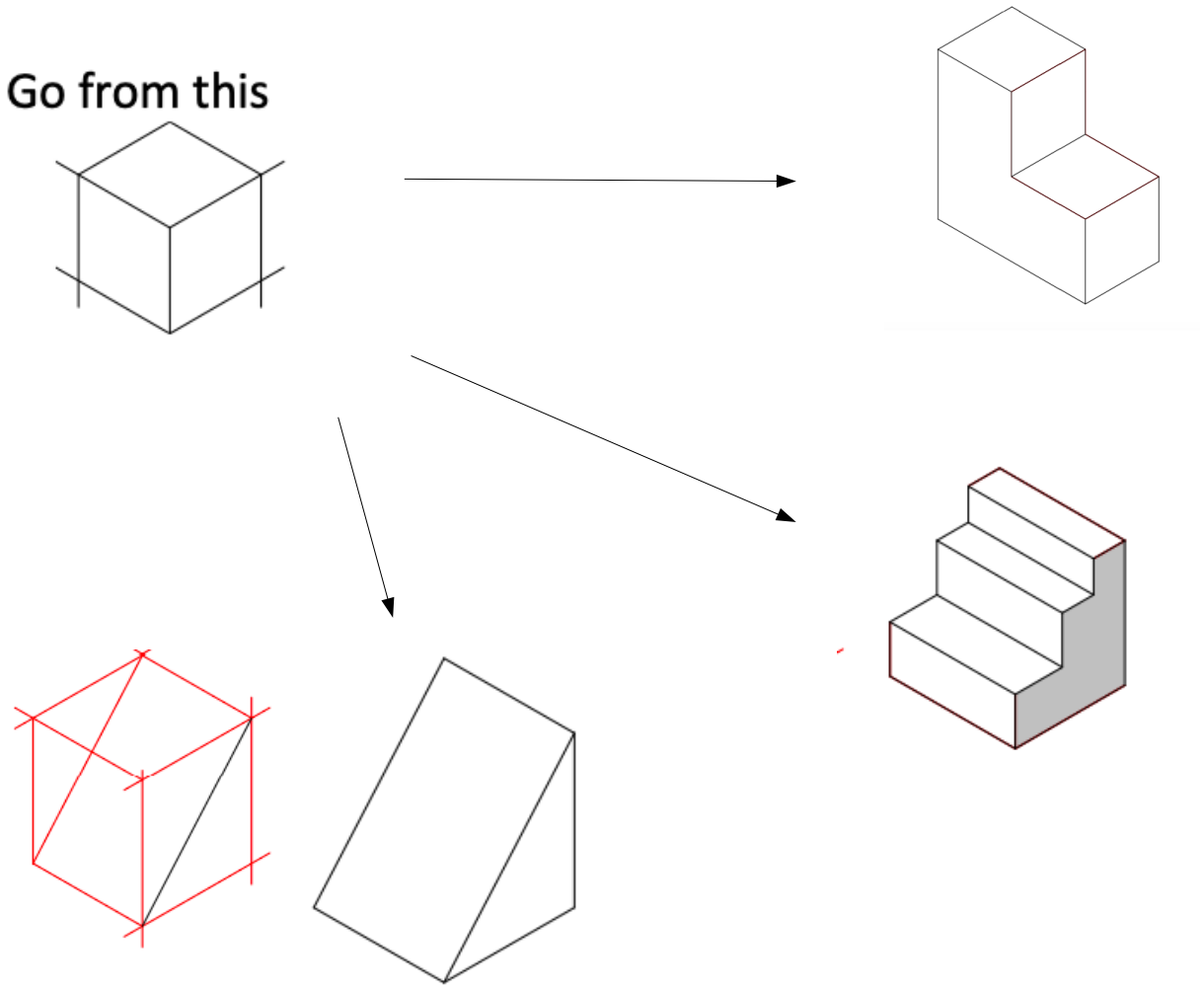
Example:



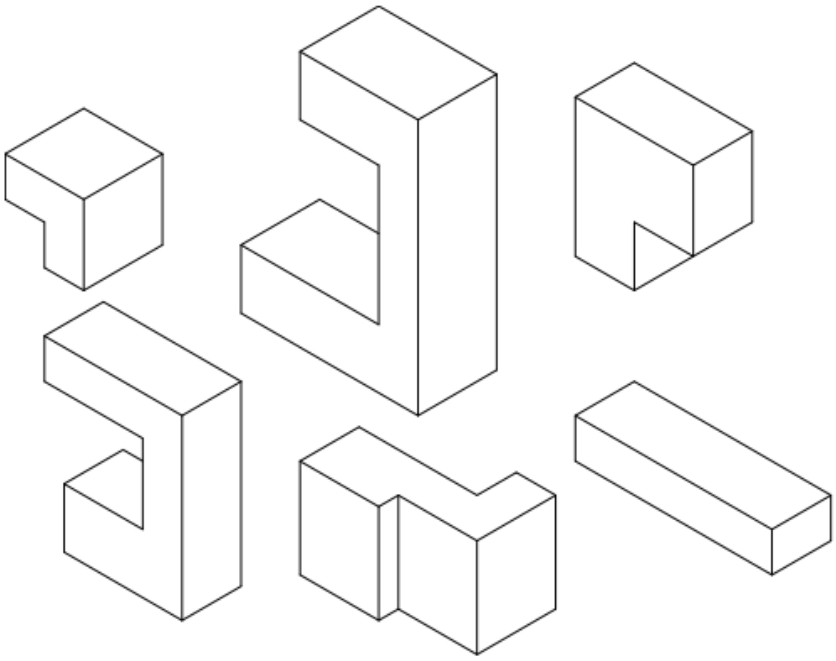
Watch this video: https://www.youtube.com/watch?v=SAOvF-wPAIM



Now freehand draw these shapes on A3 paper:

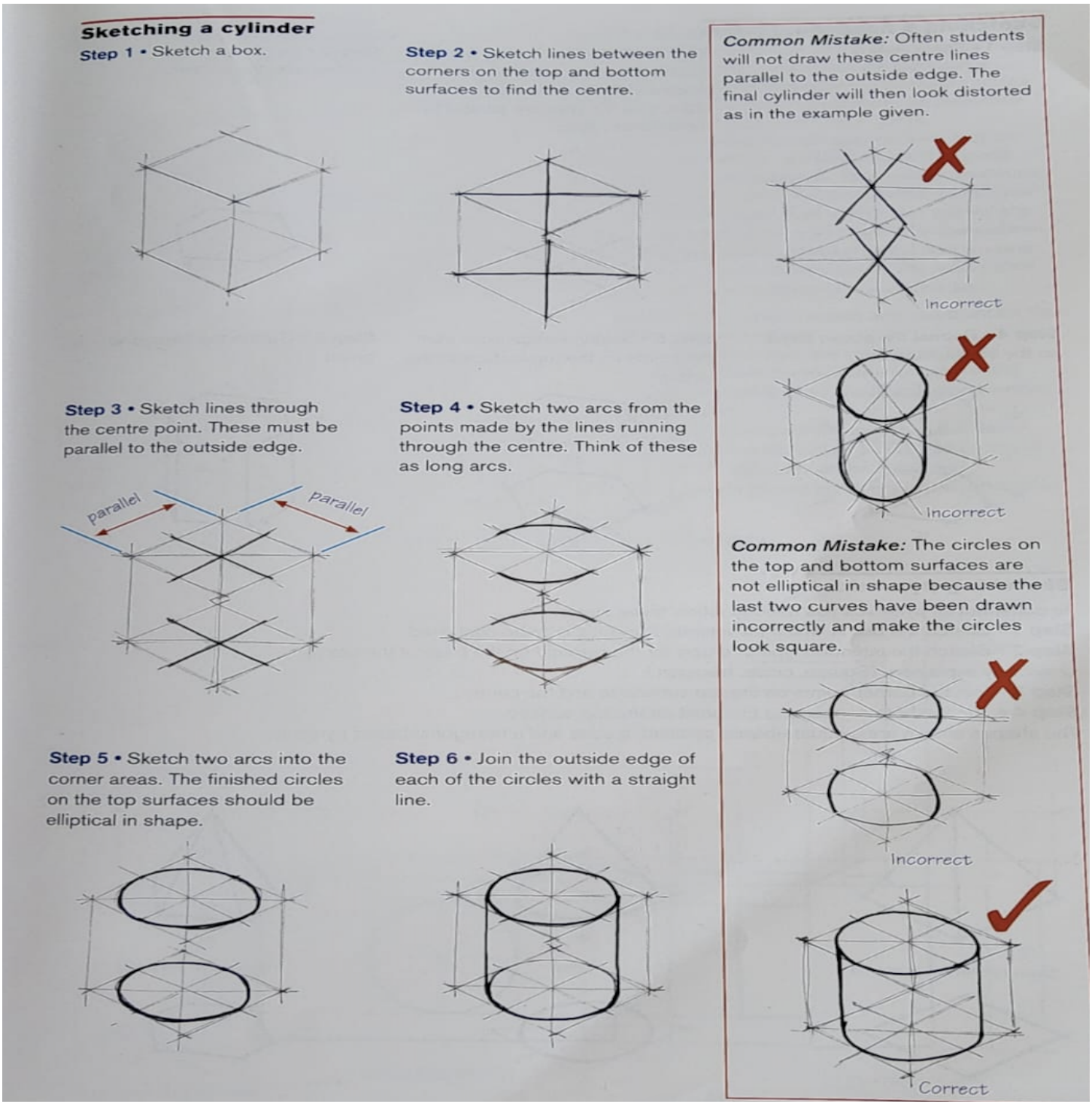


And then these ones:



Crating circles and curves:

Drawing a cylinder in a crate:

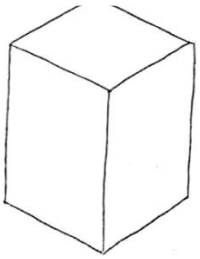


Now Watch this video:

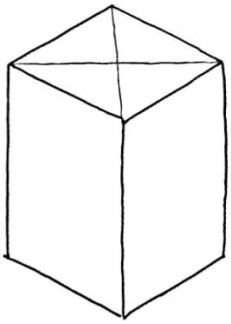
https://www.youtube.com/watch?v=x9L9Vfj0UFE **And then draw the mug**

Drawing a pyramid in a crate:

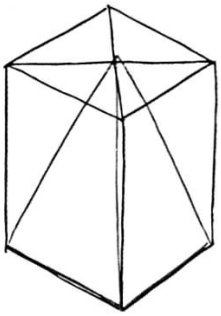
1. Draw a crate.



2. Find the centre.

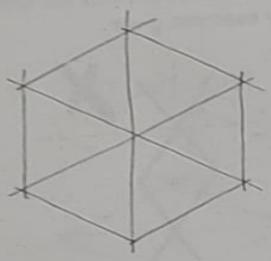


3. Draw the pyramid.

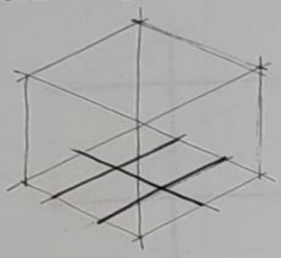


Sketching a hexagonal prism

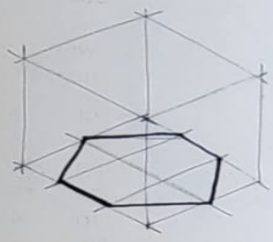
Step 1 • Sketch a box.



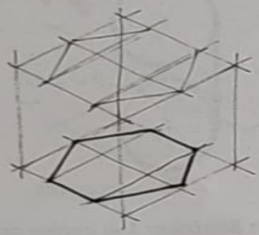
Step 2 • Divide the bottom of the box through the centre and into three in the opposite direction. Make sure the lines are parallel to the outside edges.



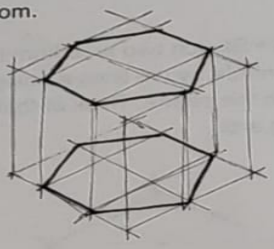
Step 3 • Join the six points that are created from the division.



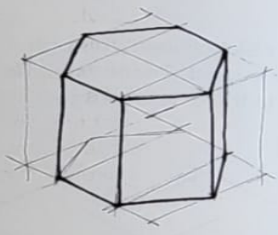
Step 4 • Repeat the above steps on the top surface.



Step 5 • Sketch vertical lines from the points on the top surface to the bottom.

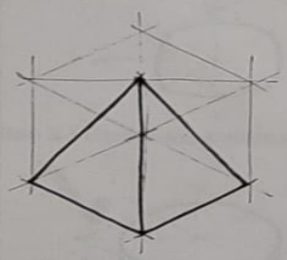


Step 6 • Outline the hexagonal prism.

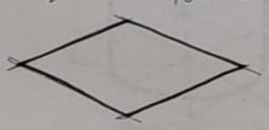


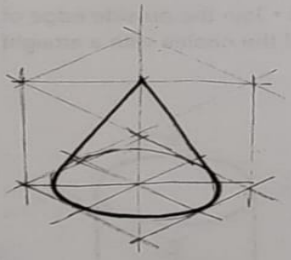
Sketching pyramids

To construct all pyramids you need to follow these steps:
Step 1 • Sketch the box in which the intended pyramid is to be contained.
Step 2 • Sketch the intended type of shape for the pyramid on the base of the box as previously explained. (Square, circle, hexagon.)
Step 3 • Join the corner points on the top surface to find the centre.
Step 4 • Join the bottom shape to the point on the top surface.
The shapes shown are a square-based pyramid, a cone and a hexagonal-based pyramid.

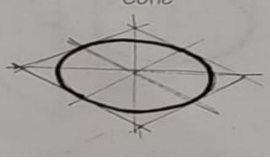


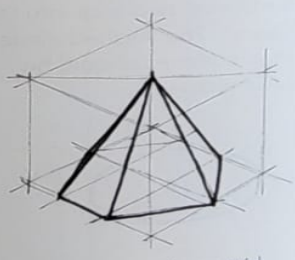
Square-based pyramid



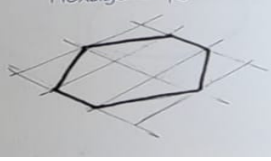


Cone



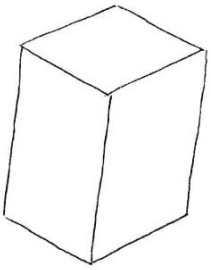


Hexagonal pyramid

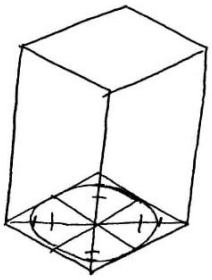


Drawing a cones in a crate:

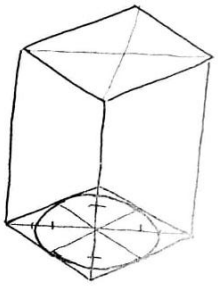
1. Draw a crate.



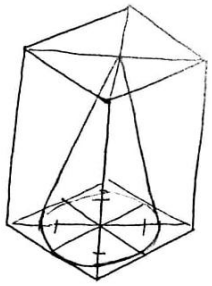
2. Draw a circle on the base.



3. Find the centre of the top.



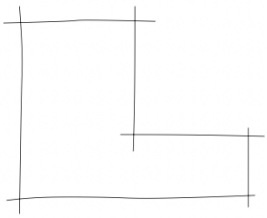
4. Add the limit lines.



Freehand Drawing Of 3D shapes using Oblique & Isometric Methods – Advanced Shapes

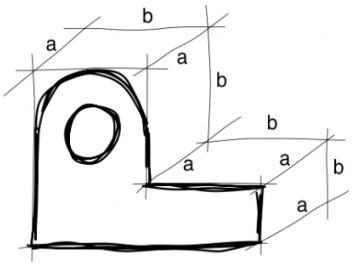
Exercise -1

Oblique:

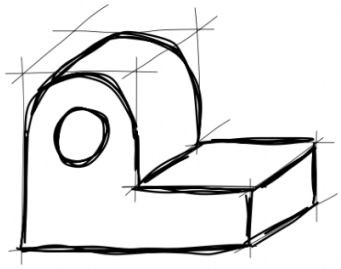


Step 1

Step 2

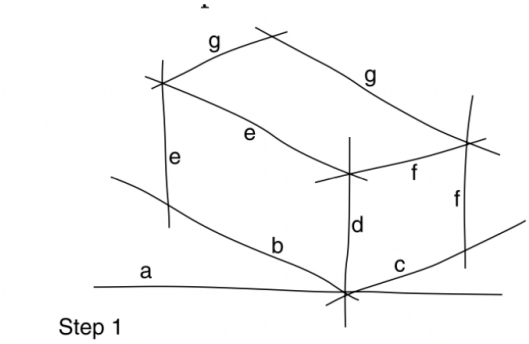


Step 3

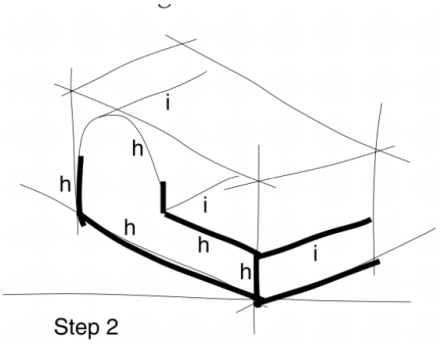


Step 4

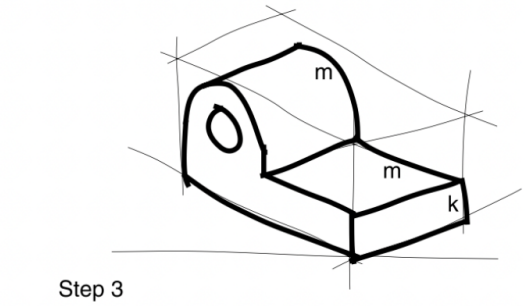
Isometric:



Step 1



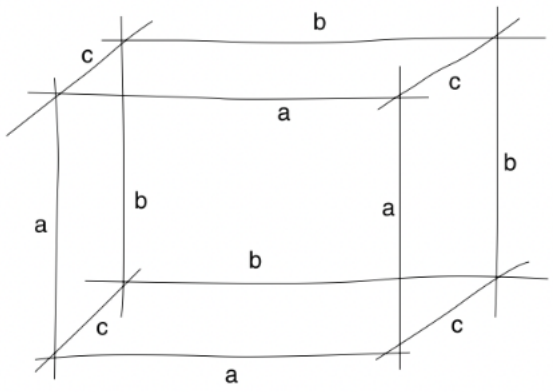
Step 2



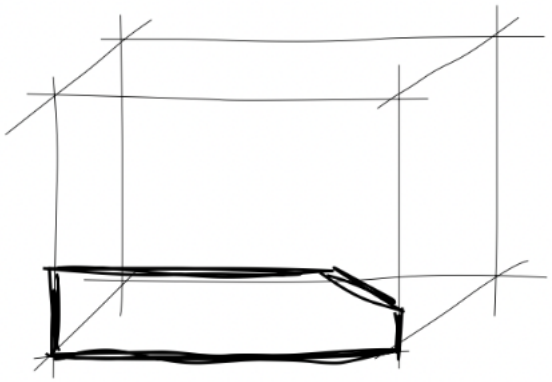
Step 3

Exercise -2

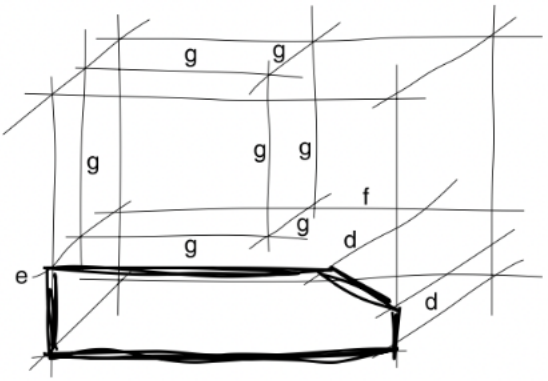
Oblique:



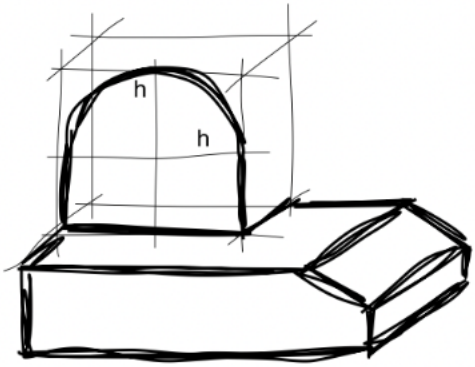
Step 1



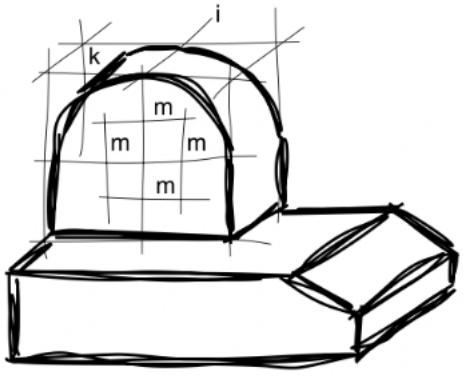
Step 2



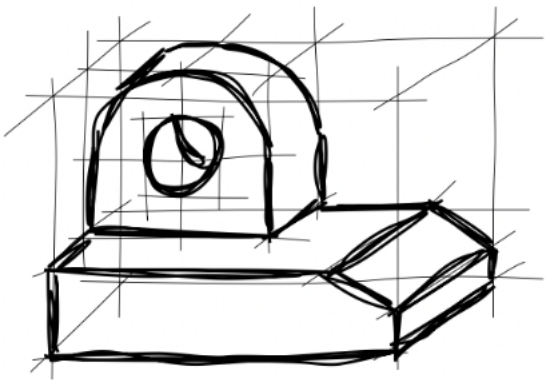
Step 3



Step 4

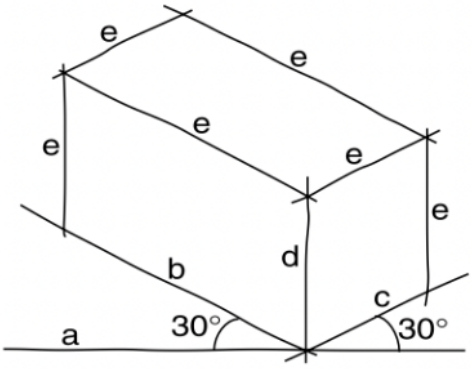


Step 5

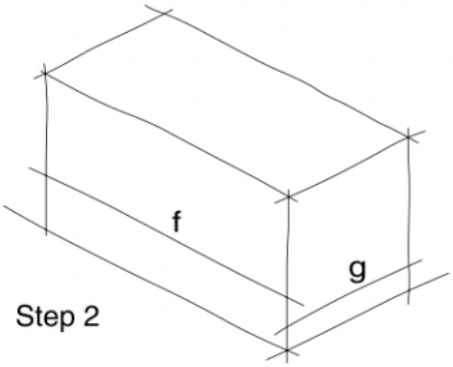


Step 6

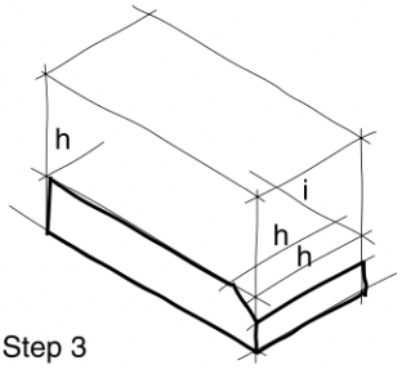
Isometric:



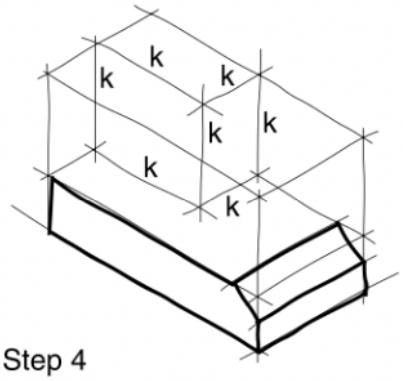
Step 1



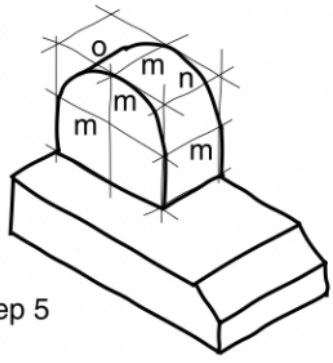
Step 2



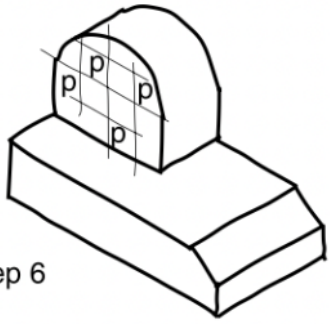
Step 3



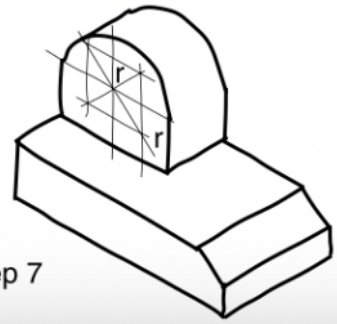
Step 4



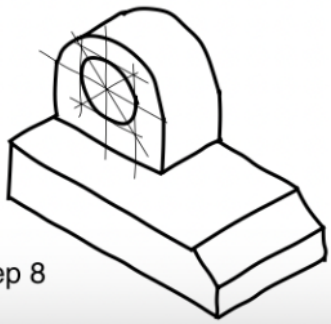
Step 5



Step 6



Step 7

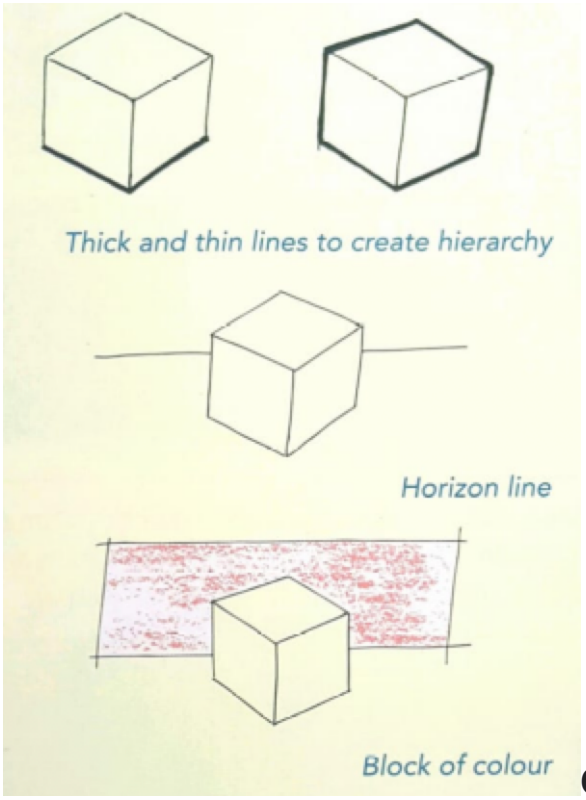


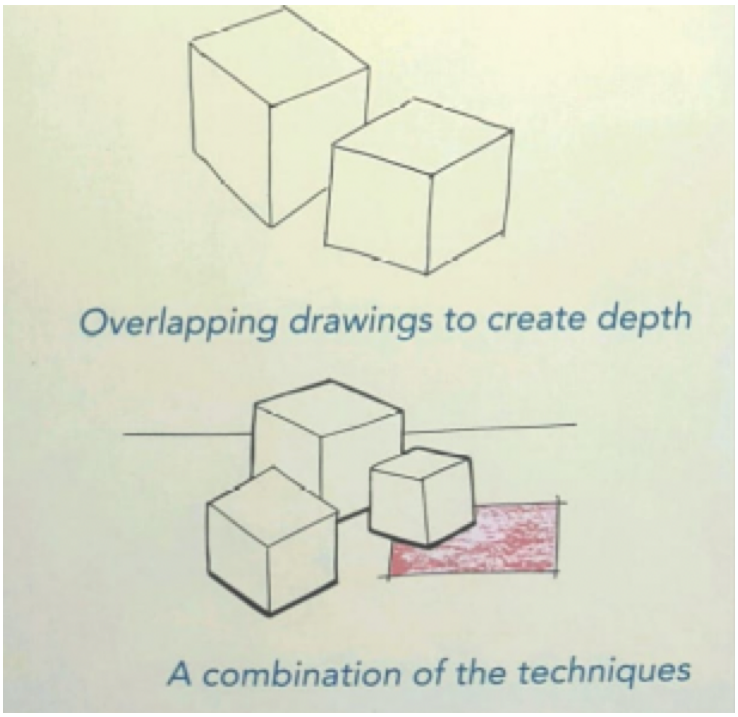
Step 8

Enhancing the form of an object:

Conveying depth:

As we are presenting a 3D shape on a 2D paper, we need to use techniques that creates the illusion of depth.





Conveying Light & Solid rendering

Light creates shadow, and shadow creates form. Without light there is no form.

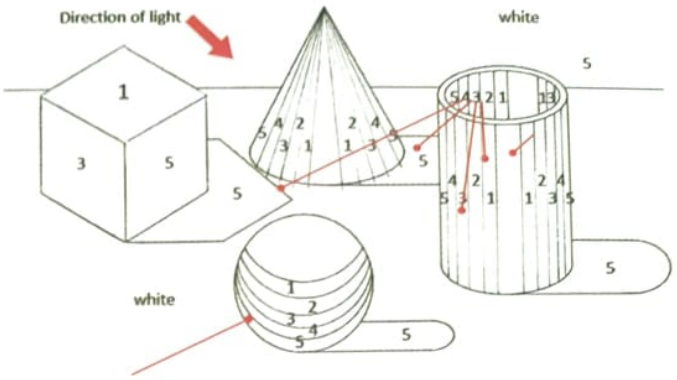
Watch this video:

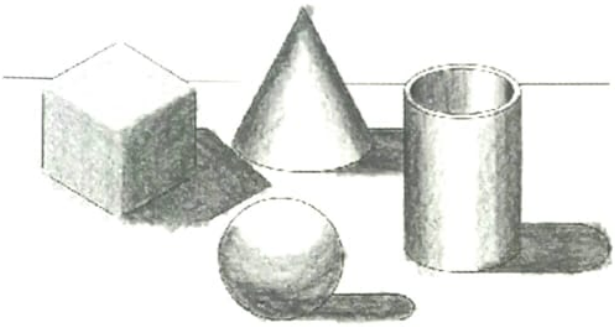
https://www.youtube.com/watch?v=vMr6eimcolc

Before rendering the solids, determine the direction of light ie; from the top left corner.

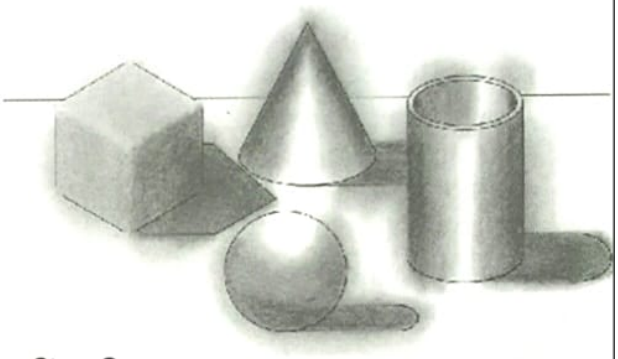
Divide the solids into imaginary parts as shown in the diagram.

The numbers on each part relate to the tonal scale. This will determine how dark each part will be.

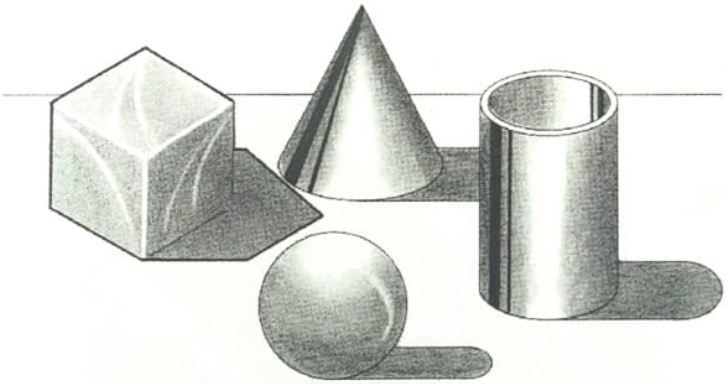




Step 1
Apply 4B pencil to the surfaces, working parallel to the edges and circular on the sphere.



Step 2
Smudge the 4B pencil tones with a tissue, working parallel to the edges and circular on the sphere.

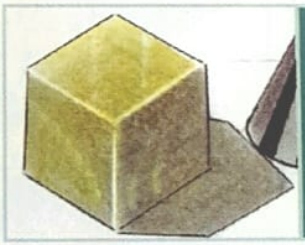


The final rendering shows the drawing cleaned up with an eraser and erasing shield.

Note:

- A thick line around the objects (shown on the cube).
- White highlights applied with an eraser (shown on the surfaces of the cube and sphere).
- Dark stripes on the cone and cylinder to add visual interest (must be parallel to edges).

Make an erasing shield with a thin slot to make the sharp, white edges of the cube.



Coloured pencil can be used to apply a colour on the top of the 4B tone.

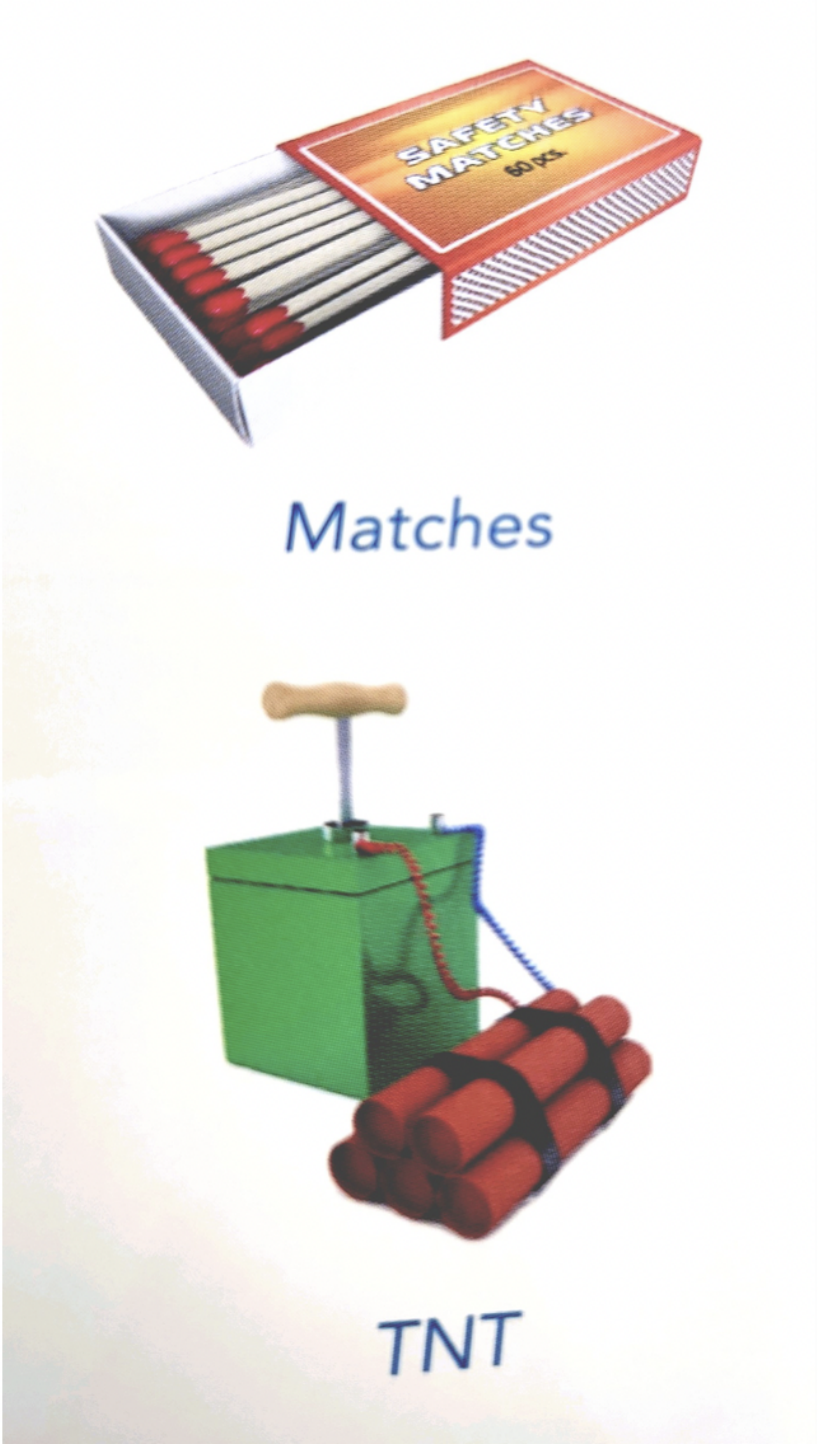
Watch this video: https://www.youtube.com/watch?v=OZTvsI1_7U4

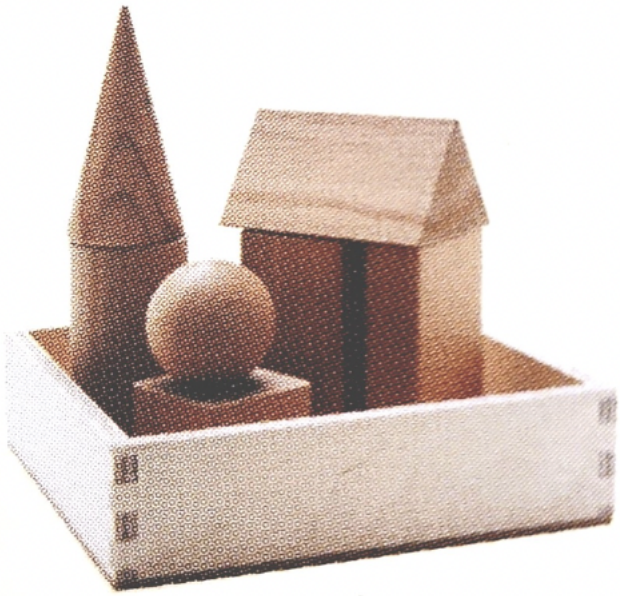
Freehand drawing real life objects:

Use your knowledge and what you have already learned this term to:

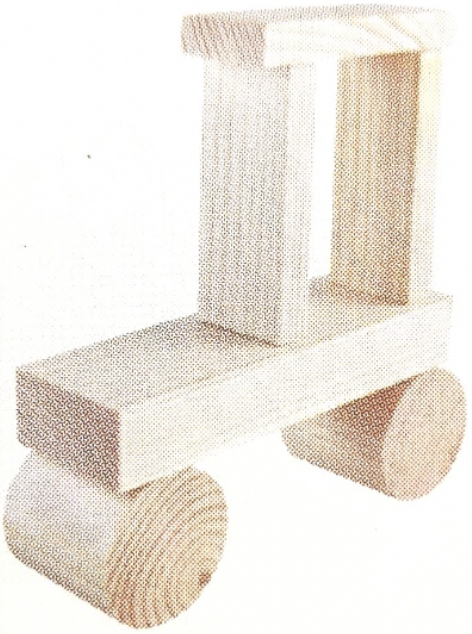
- Freehand draw the following objects in the photos below. Don't forget to start with drawing a crate first.

- Use colour pencils to render at different tones





Blocks in a box



Wooden train