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.

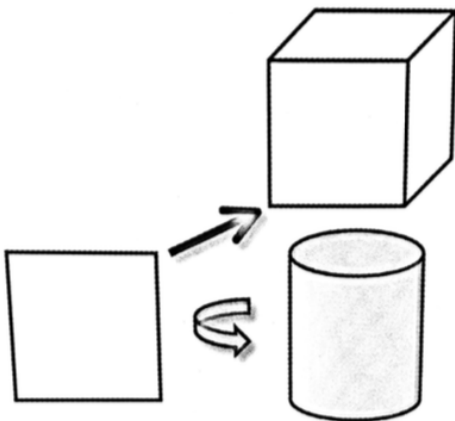A path of moving dots ▪▪▪▪▪▪▪▪▪▪▪▪▪▪ will make a line ▬▬▬▬▬▬▬

A line can be used to communicate:

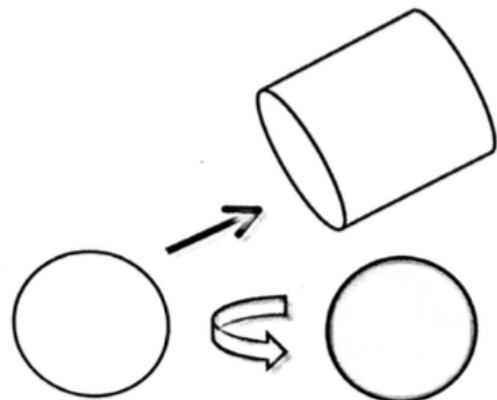Direction : ➡ or emotion : **=)**

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.
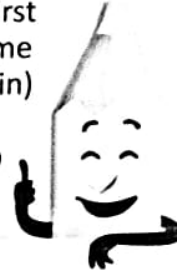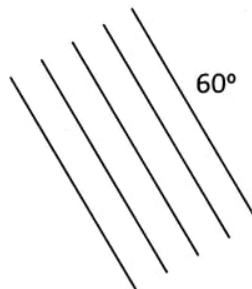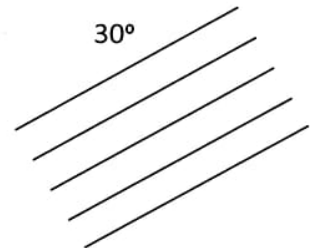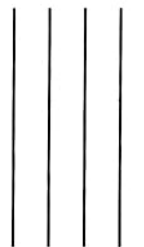
Horizontal
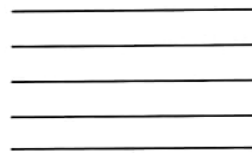
45°
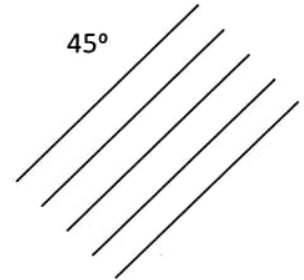
60°

30°

Vertical

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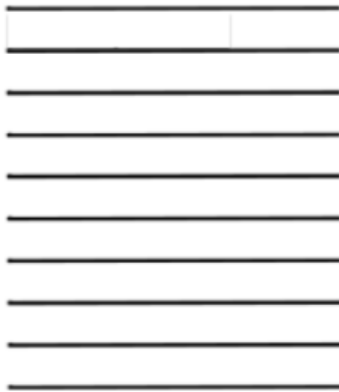
By rotating your piece of paper, you can continue to use your preferred drawing angle and create pictures. On the fourth and fifth step, you can 'ghost' (your pencil hovers backwards and forwards over the existing line) to ensure you have the correct angle.
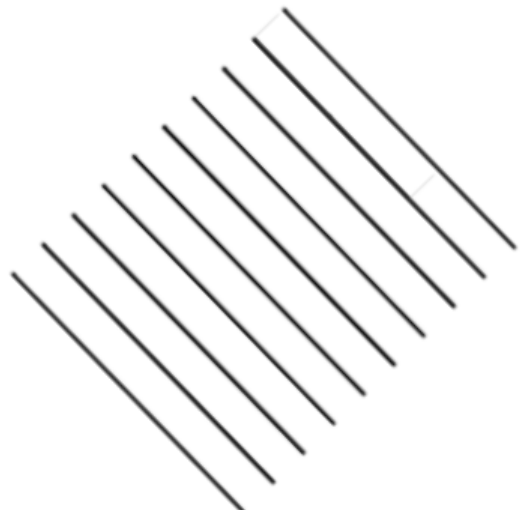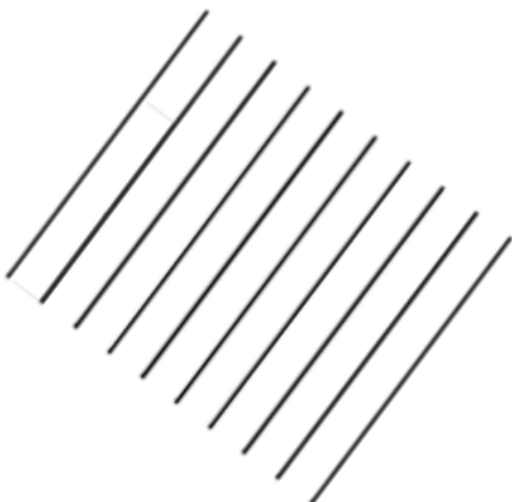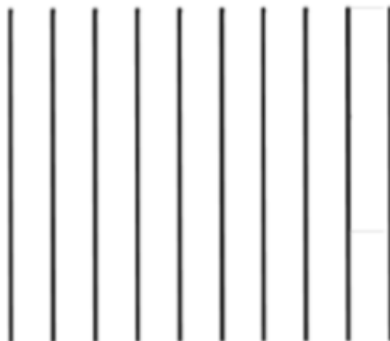
Drawing a cube using parallel lines:

Freehand drawing of **Oblique** cube:

Watch this video: https://www.youtube.com/watch?v=QwgWhYr8hfA
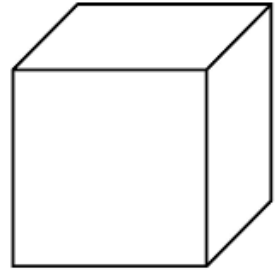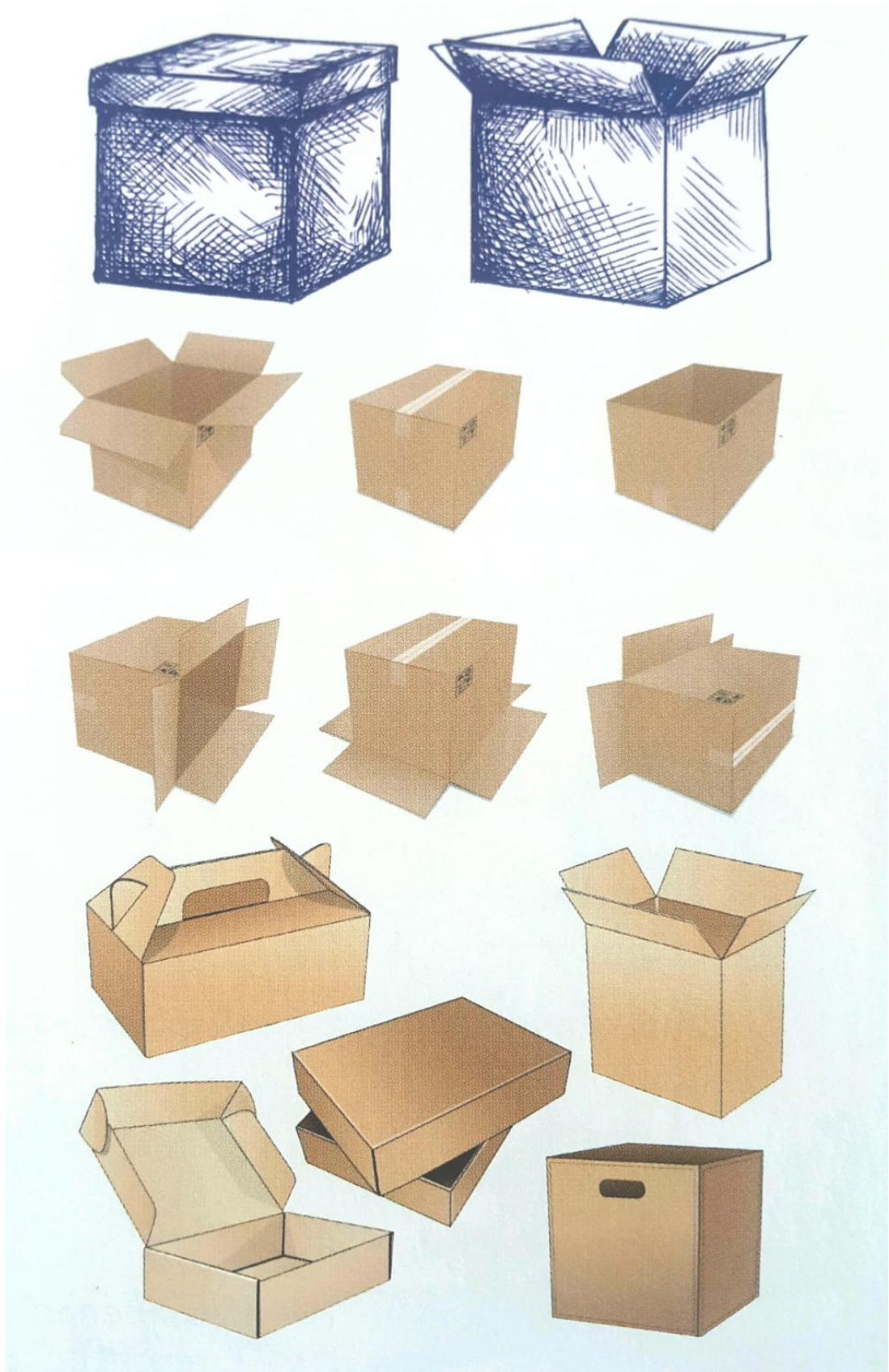
Now you try on A4 paper.

Freehand drawing an **isometric** cube:

Watch this video: https://www.youtube.com/watch?v=jfa_pCe3-yE
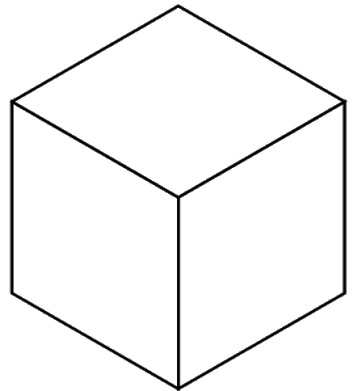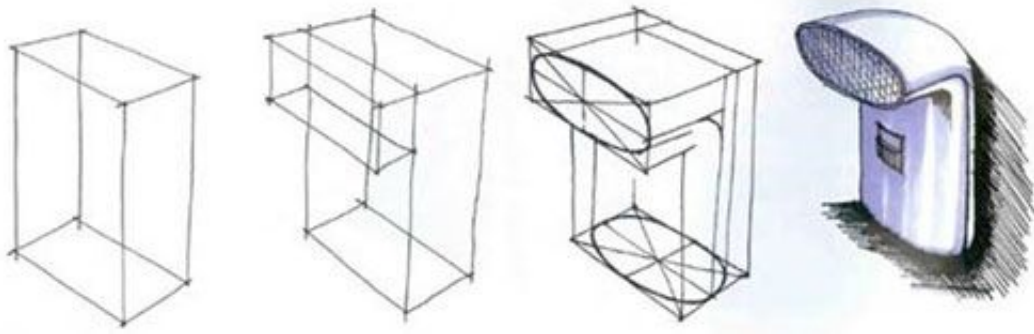
Now you try on A4 paper.

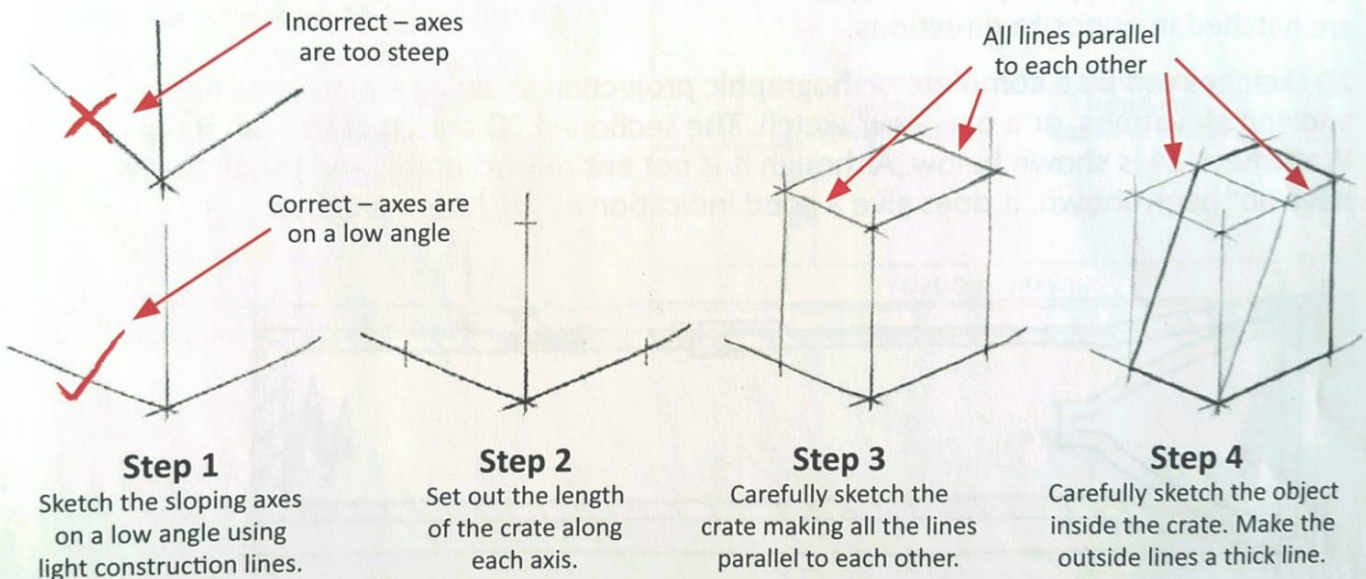**Now practice freehand drawing these boxes:**
Use A3 paper

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.
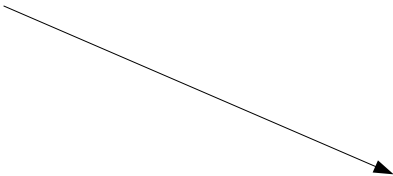
Example:

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

3D Freehand Sketching Guidelines

Incorrect – axes are too steep

Correct – axes are on a low angle

All lines parallel to each other

Step 1
Sketch the sloping axes on a low angle using light construction lines.

Step 2
Set out the length of the crate along each axis.

Step 3
Carefully sketch the crate making all the lines parallel to each other.

Step 4
Carefully sketch the object inside the crate. Make the outside lines a thick line.

Now freehand draw these shapes on A3 paper:
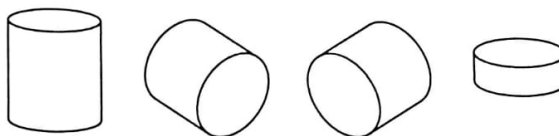
Go from this
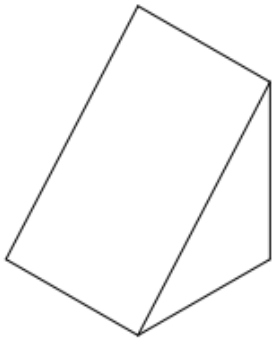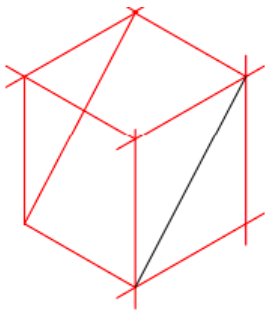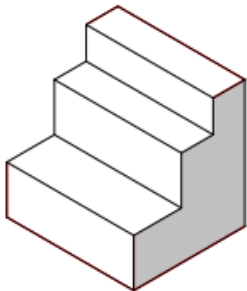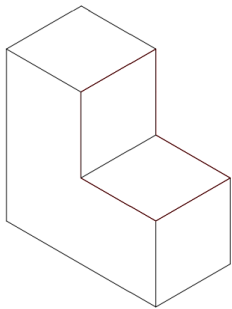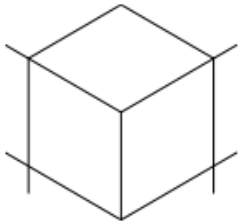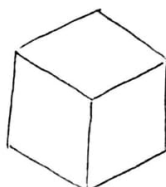

And then these ones:
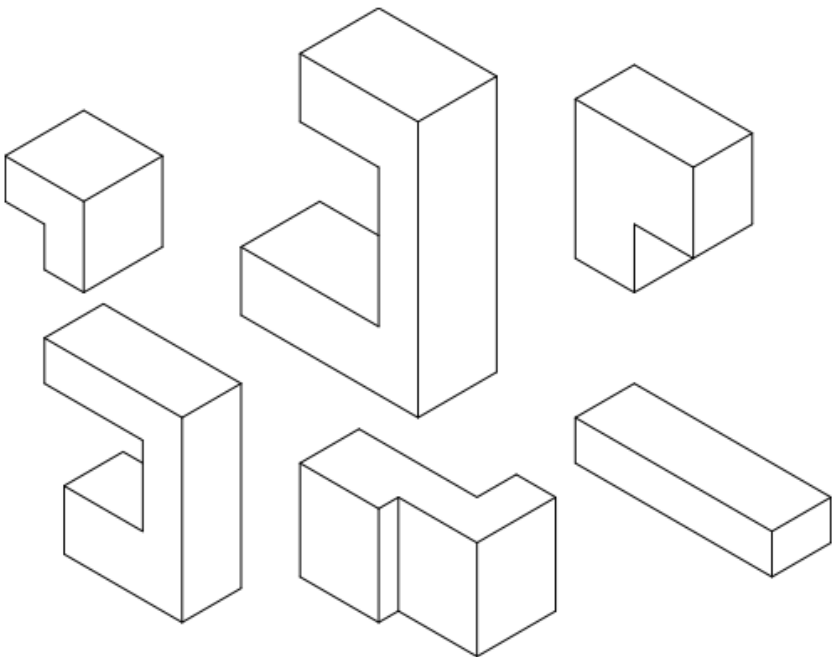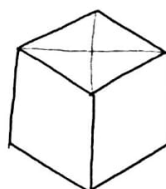
Crating circles and curves:
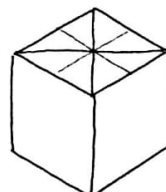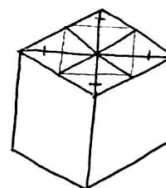
Drawing a cylinder in a crate:
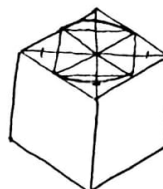
1. Draw a crate.

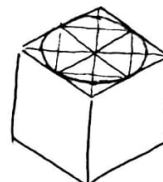2. Find the centre.

3. Divide the top into quarters.

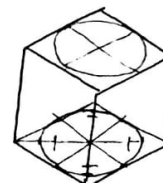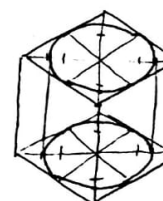4. Divide the quarters into quarters.

5. Line in the arcs.

6. Complete the circle.

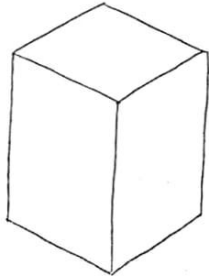7. Repeat steps 2–6 in the lower square.

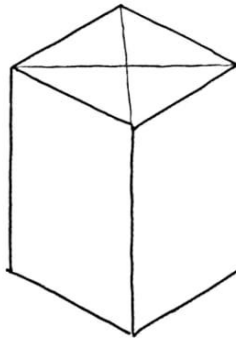8. Add the limit lines.

Now Watch this video:

And then draw the mug
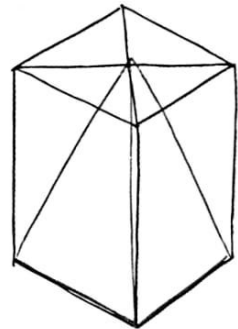
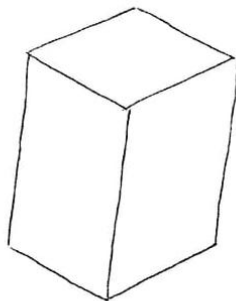# Drawing a pyramid in a crate:

1. Draw a crate.

2. Find the centre.

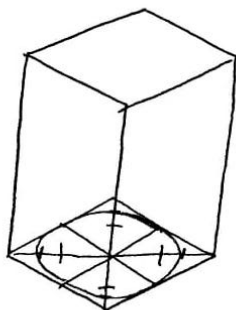3. Draw the pyramid.

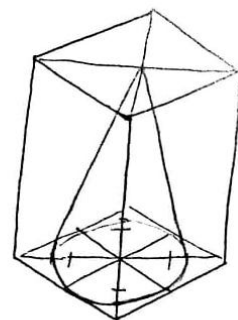# Drawing a cones in a crate:

1. Draw a crate.

2. Draw a circle on the base.
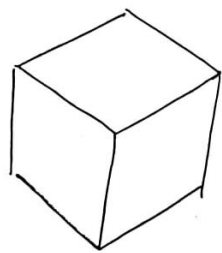
3. Find the centre of the top.

4. Add the limit lines.

Evaluating your drawing skills:

|	✓	✗
Lines are confident		
Lines are straight		
Lines are parallel		
Axes are equal		
Lines intersect because you have drawn them 'away' from you		
Crating used to construct the drawing		
The spaces are divided to improve accuracy and proportion		
Limit lines define the outer limits of the shape		
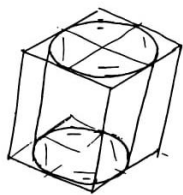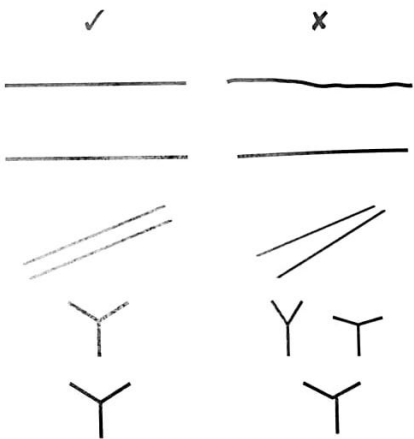
Use crating to draw these blocks:

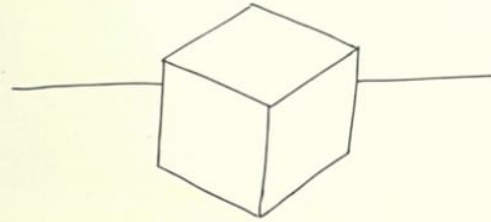# Enhancing the form of an object:

Conveying depth:

As we are presenting a 3D shape on a 2D paper, we need to use techniques that creates the illusion of depth.
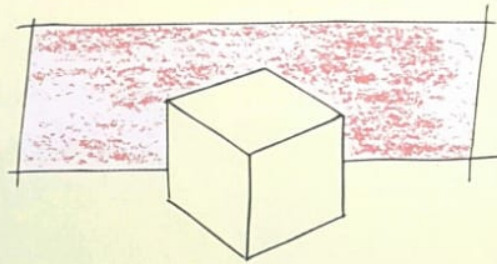
Choose a Fröbel block (Basic, Advanced, Complex) to practise the following techniques.
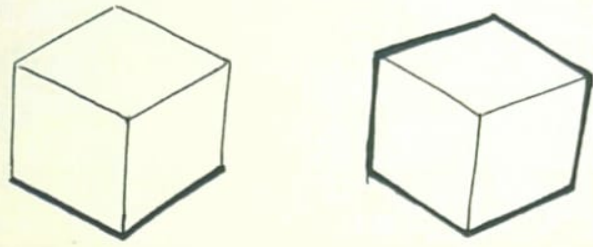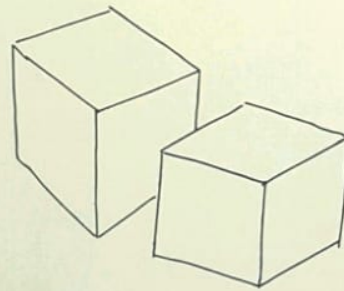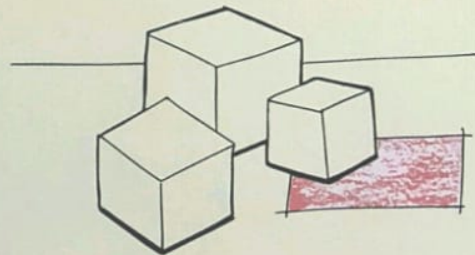
Thick and thin lines to create hierarchy

Horizon line

Block of colour

Overlapping drawings to create depth

A combination of the techniques

Conveying Light & Solid rendering

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

Watch this video:

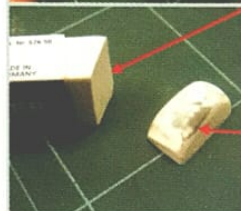https://www.youtube.com/watch?v=vMr6eimcolc

Tips and Techniques

Hold your pencil on a low angle using the side of the lead, not the point. Make your strokes **parallel to the side of the object**.

Sharpening your eraser with a craft knife. Note that the eraser is **resting on its side**. Hold it firmly!

A new sharp edge for accurate erasing to lines. *(Photo shows the eraser on its side.)*
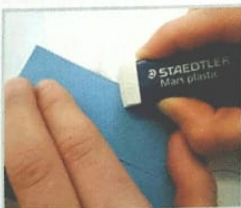
Use the cut off piece for creating highlights on edges and surfaces.

Wrap some tissue around your finger for smudging.

Use a paper erasing shield. Stretch it firmly between you index finger and thumb as you work the eraser against it.

Tone

When light falls on an object, the side facing the light will appear much lighter than the side which is facing away from the light. These lighter and darker versions of the same colour are called **tone**.

Using a soft leaded pencil (4B) is the easiest way to show tone on a drawing. By varying the pressure on the pencil many different tones can be made, from the lightest (almost white) to the darkest (black). Between these will be a range of *mid tones* of different greys.

The tonal scale rectangle on **Worksheet 8**, for you to complete, is shown below. Use your 4B pencil, a tissue for smudging, an eraser and an erasing shield for sharpening the outside edges. Continue the exercises on page 29 on the same sheet.
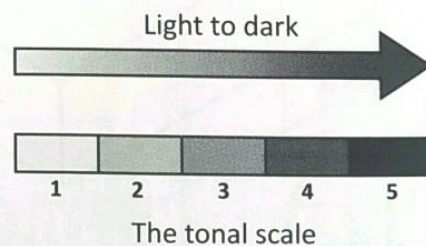
Step 1
Render boxes 1, 3 & 5.

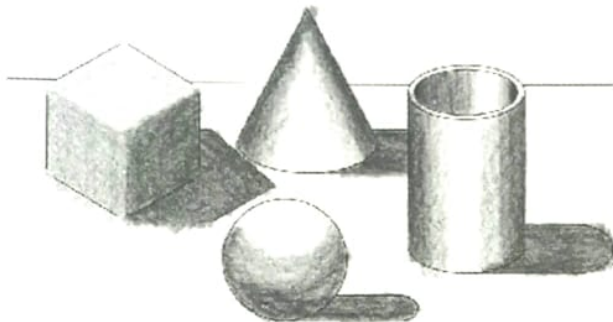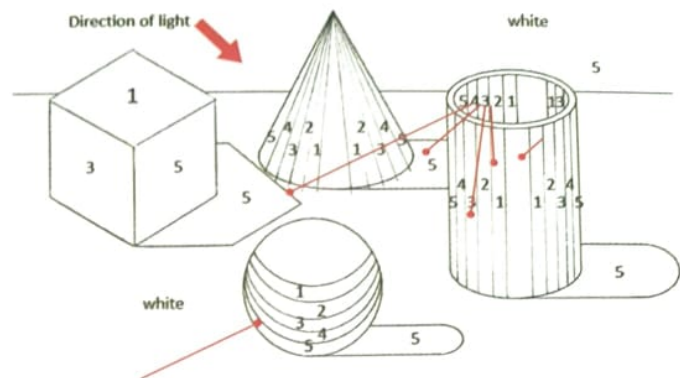**Step 2**
Render the mid tones 2 & 4.

Step 3
Blend together by smudging with a tissue. Clean up the edges with an erasing shield.

Light to dark

1	2	3	4	5

The tonal scale

Before rendering the solids, determine the direction of light ie; from the top left corner.
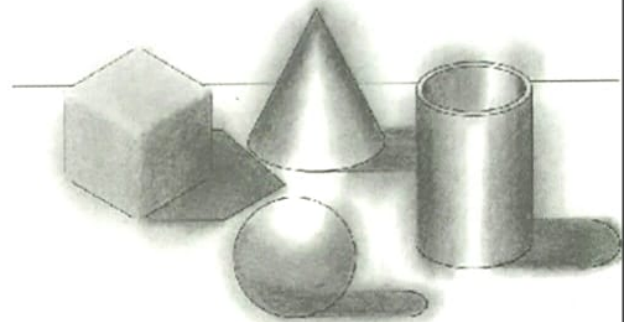
Divide the solids into imaginary parts as shown in the diagram.

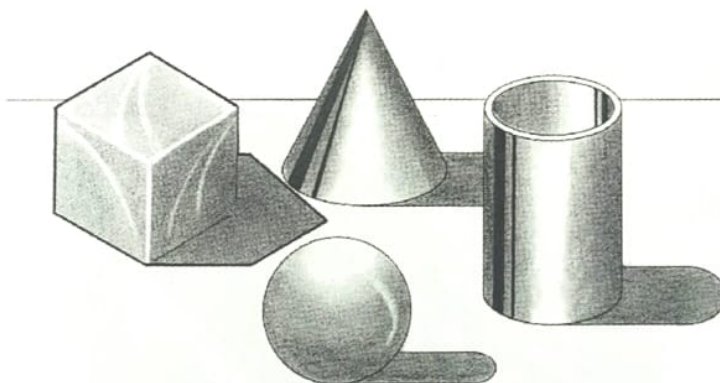The numbers on each part relate to the tonal scale. This will determine how dark each part will be.

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).

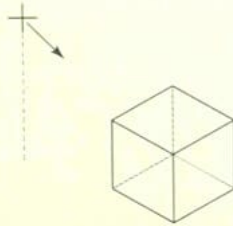Make an erasing shield with a thin slot to make the sharp, white edges of the cube.
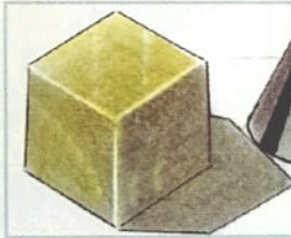
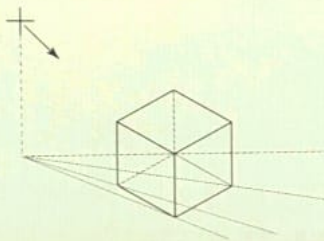Coloured pencil can be used to apply a colour on the top of the 4B tone.

Drawing method to show constructing a cube's shadow
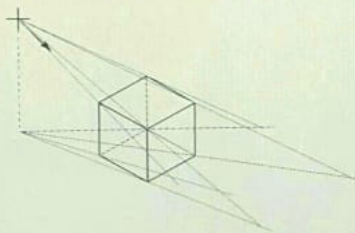
To construct a cube's shadow:

1. Choose a light source and project a vertical line to the surface that the object is placed on.
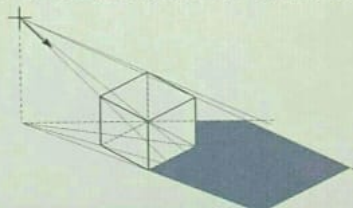
2. Draw lines from the base of the light source through each corner of the object's base.

3. Draw lines from the light source through each corner of the top surface.

4. Join the intersections and shade the area. Use a soft line at the edge.

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

Now you can **freehand draw and render** the 3D shapes below: