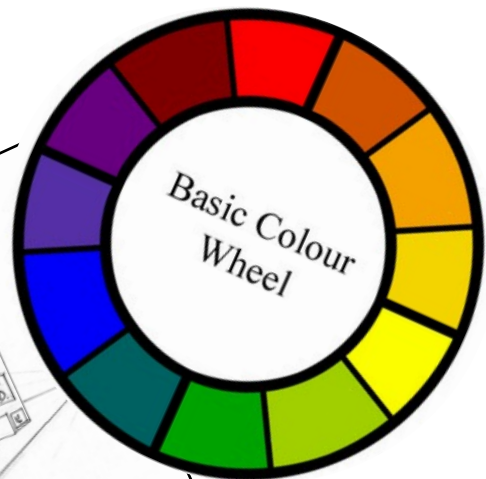


# S1

## Manual

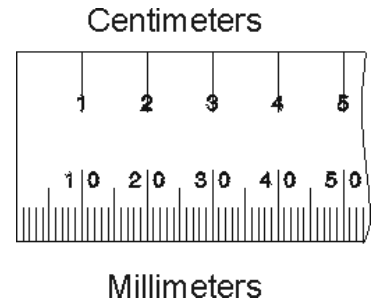
### Graphics Course



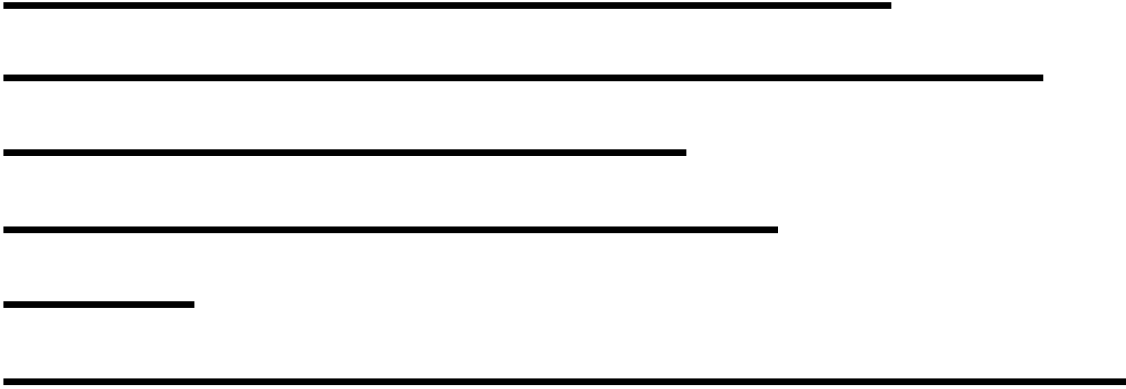
Design and Technology Department  
Knightswood Secondary School

# Measuring Task 1

In Graphic Communication we measure using the unit of **millimetres** (mm). You may be used to measuring already in units of centimetres (cm). There are **10 mm in 1 cm**.



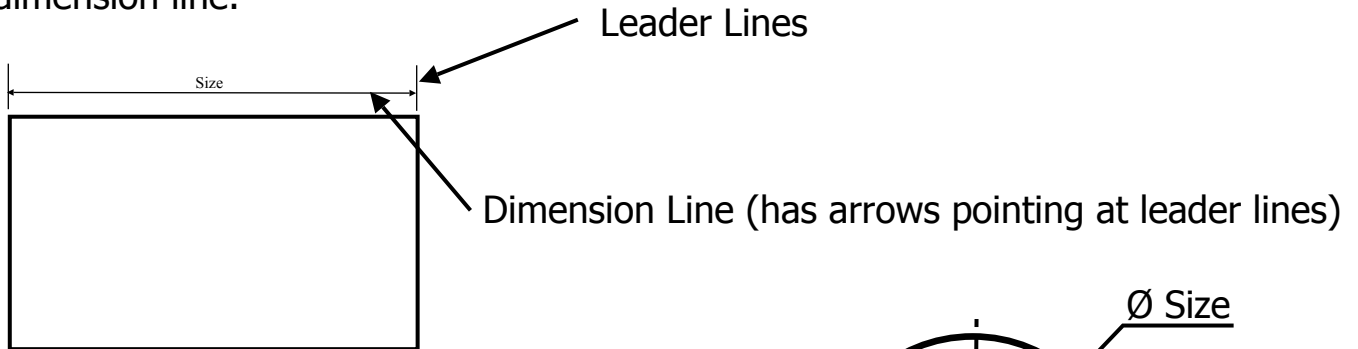
Here are some lines for you to measure their **length**.



# Dimensioning

When adding sizes to a drawing this is called **dimensioning** (adding dimensions). There are 3 parts to this; adding Leader lines, adding a dimension line, and putting the dimension in the correct place.

- Leader lines and the dimension line show what is being measured.
- The dimension (size) is written on top of the line, above the centre of the dimension line.



Circles are dimensioned with a **diameter**. The symbol for diameter is  $\emptyset$ .

The diameter is the distance across the circle, through the center.

Green



Amber

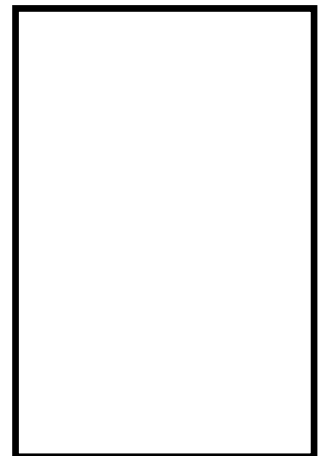
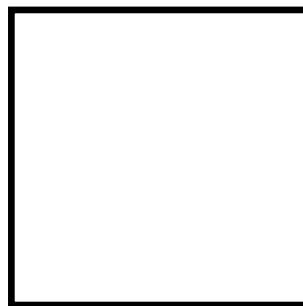
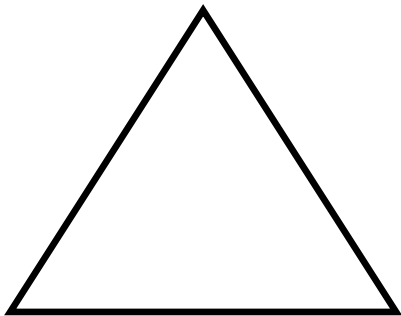
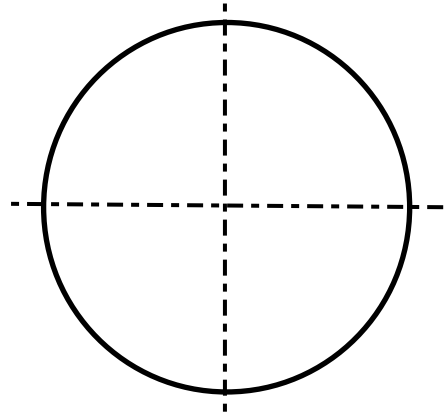
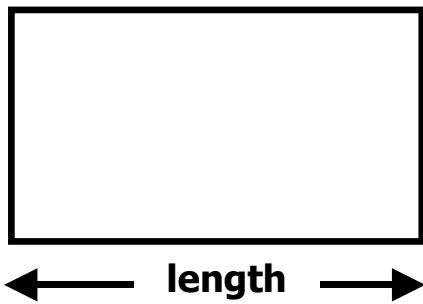


Red



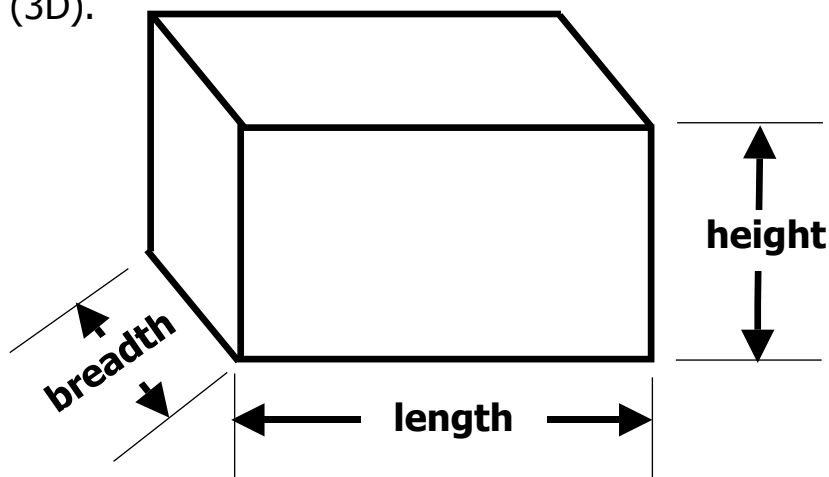
## Measuring Task 2 .....

Now here are some 2-dimensional-shapes for you to measure. You can measure their **length**, **height** and, **diameter**.



## 3D .....

By adding the **breadth** (thickness) we make the shape change from 2-dimensions (2D) to 3-dimensions (3D).



Green

Amber

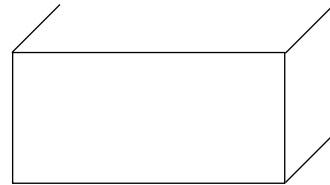
Red

# Oblique Sketching .....

When drawing an object in **oblique** view we start by **constructing** a flat, **2-dimensional** view first.

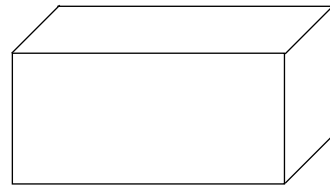


The next step is to draw a sloping line at an angle of **45°** (half of a right-angle) from the corners of the shape.

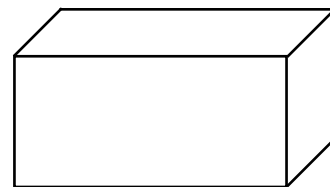


These lines will represent the depth of the object being drawn and are all the same length.

To complete the box add **parallel** lines to join the corners.



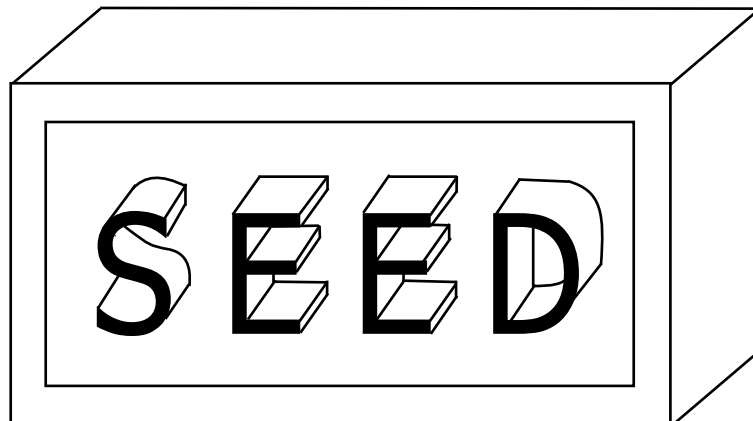
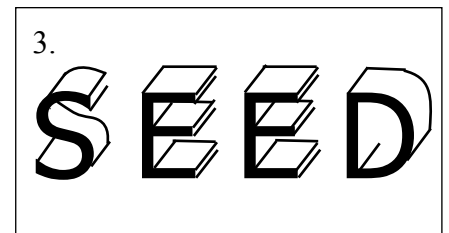
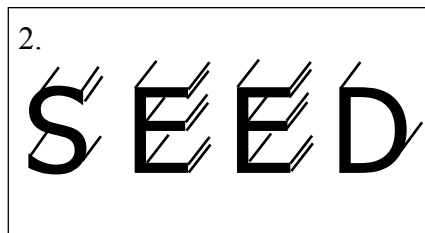
Remember to keep your lines **nice and light** at first (**construction lines**). When you are happy with your drawing you can **outline** your work to **define** it.



Practise sketching different shapes and letters using the oblique technique.

You could design a box of bird feed or design your own name plate.

Remember to keep all the depth lines going in the **same direction** and at an **angle** of 45°.



Green



Amber



Red



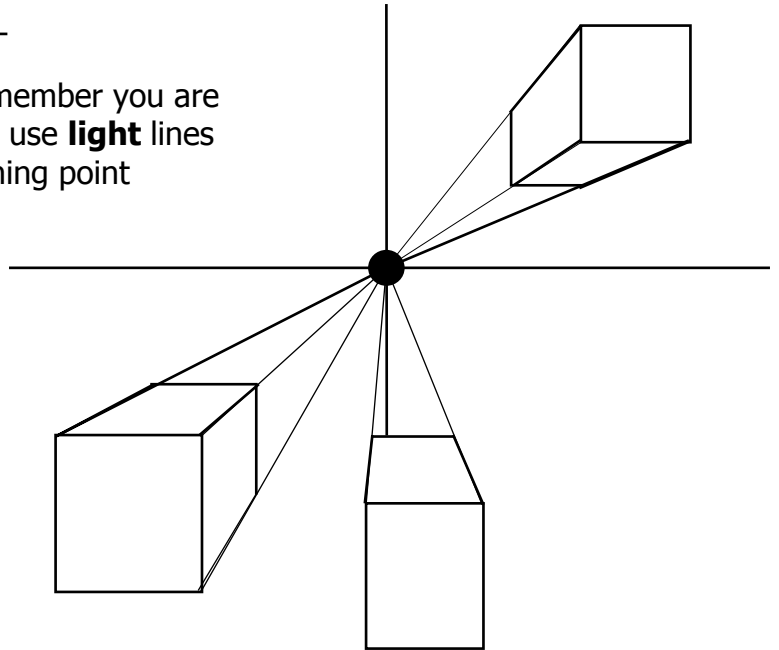
# One Point Perspective



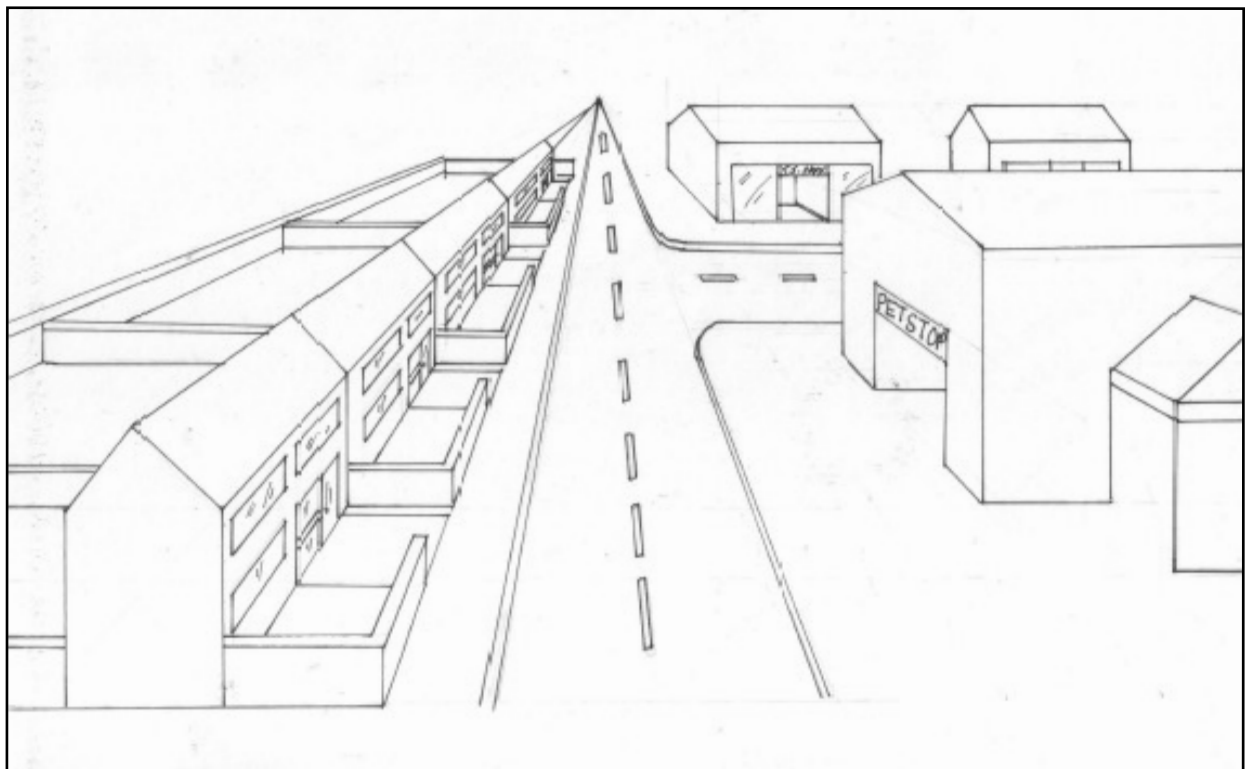
Drawing in **perspective** gives the illusion of objects that are near to you looking bigger and those that are further away looking smaller.

Follow the instructions below in order to **sketch** one point perspective boxes.

1. Divide your page into four.
2. Mark the Vanishing Point
3. Draw the front of the square first, remember you are **constructing** the drawing, therefore use **light** lines
4. Project the corners back to the vanishing point
5. **Outline** your completed drawing.



After **constructing** the boxes successfully, you can now try something more complex such as a high street. Your teacher will demonstrate how to do this. When confident you can **personalise** your street with other objects such as lamp posts, paths and garden objects etc.



Green



Amber



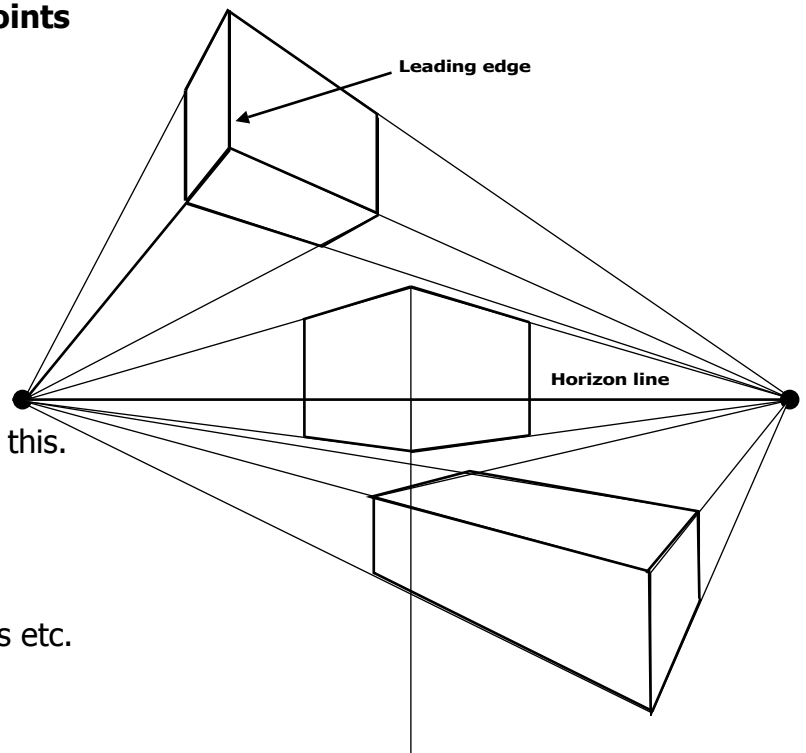
Red



# Two Point Perspective

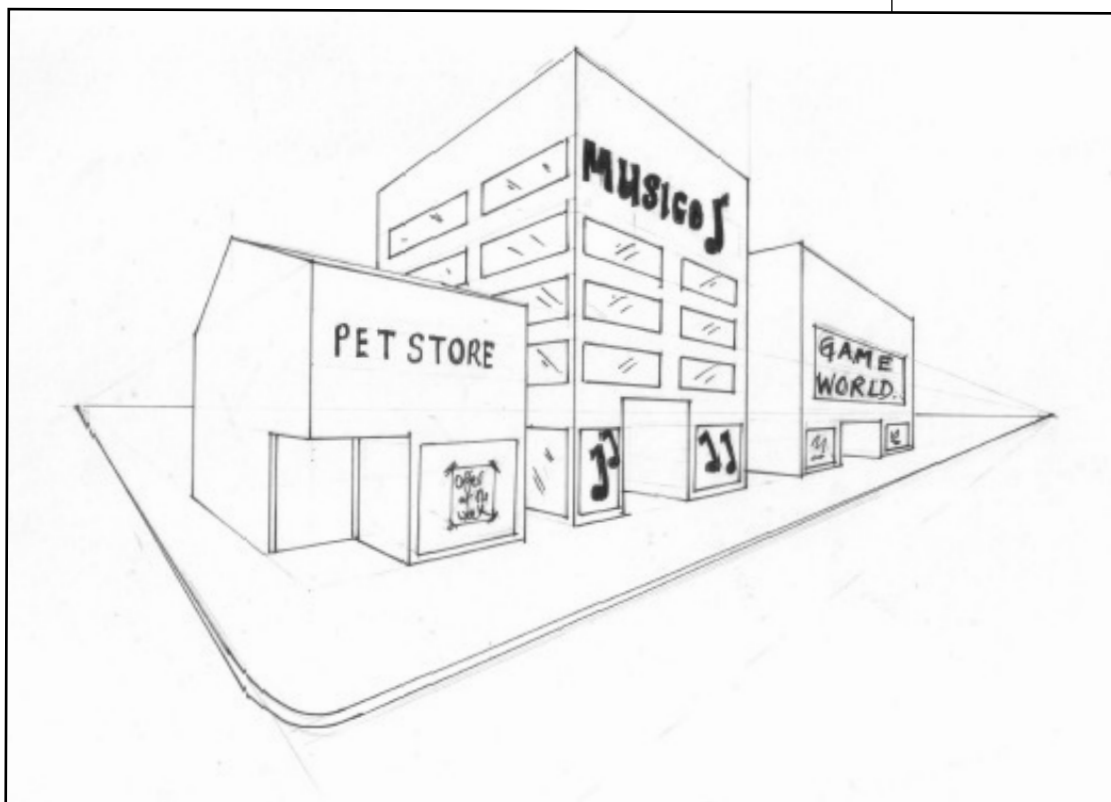
**Two point** perspective differs from **one point**, in that **2 vanishing points** are used. A **leading edge** is also drawn to give the exact **height** of your drawing. All other sizes are **estimated**.

1. Draw in a **horizon line** (eye level) in the centre of the page.
2. Mark on **vanishing points** (vp1 & vp2) ●
3. Sketch the **leading edge** of the box
4. Project the upper and lower ends of the **leading edge** to the **vanishing points**
5. Estimate the **length** and **breadths** of the two sides and place these on vertically
6. Project these to the **vanishing points**
7. **Outline** when complete



After **constructing** the boxes successfully, you can now try something more **complex** such as a high street where you could buy a bird feeder. Your teacher will demonstrate how to do this.

When confident you can **personalise** your street with other objects such as lamp posts, shop graphics, road markings etc.



Green



Amber

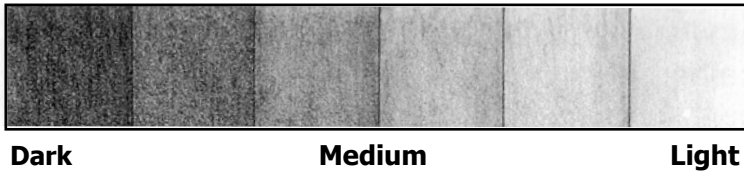


Red



# Rendering .....

In Graphic Communication we **add colour** to show the **effects of light, shade and texture**. We call this **rendering**. The **tonal scale** is a useful tool to give drawings a **realistic** appearance. The tonal scale represents different **degrees of light and shade** falling onto a solid object.



## The Colour Wheel

There are three types of colour on the colour wheel; Primary, Secondary, Tertiary.



## Task

Trace the words below and use the correct colours to **render** them.

Primary

Secondary

Tertiary

Green

Amber

Red

# *S1 Manual Graphics Course*

## **SELF ASSESSMENT SHEET**

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Name .....

Class .....

How successful were you in each of the following lessons?

		Green	Amber	Red	Comment
1.	Measuring	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	.....
2.	Dimensioning	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	.....
3.	Oblique Sketching	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	.....
4.	One point perspective	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	.....
5.	Two point perspective	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	.....
6.	Tonal scale	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	.....
7.	Colour Wheel	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	.....