Colour Theory

Graphic communication

Name: .... Class:................ Teacher:..
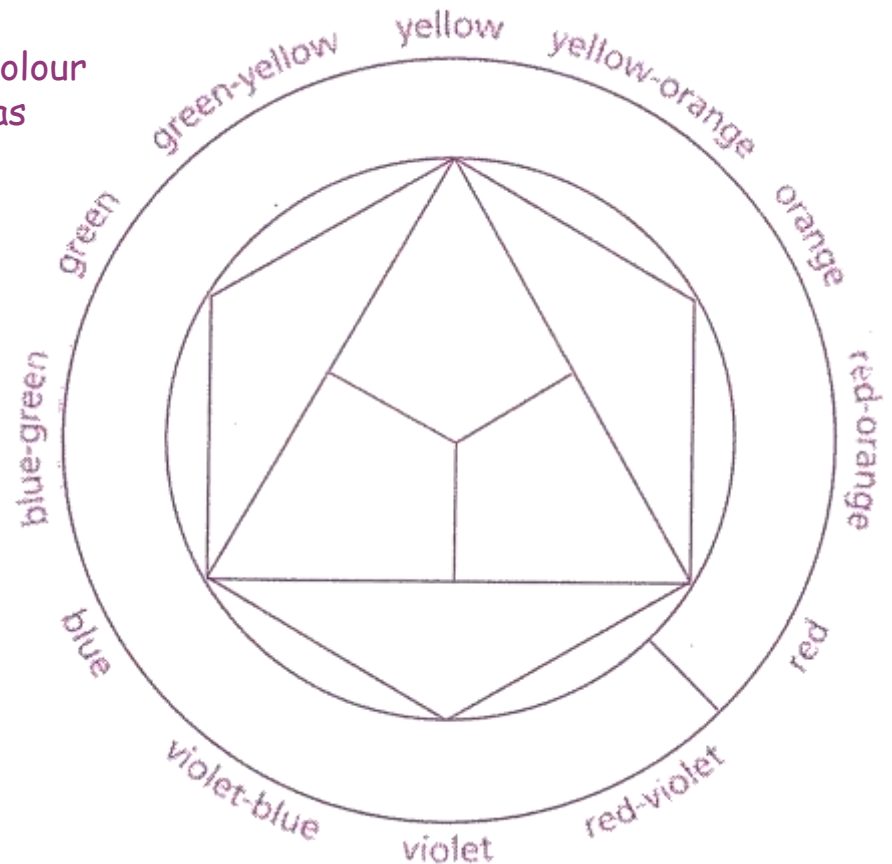
Colour Wheel

The use of colour is an important part in illustration and graphic design. Colour is used to create certain moods or feelings as well as helping to make an image look more realistic.

In S1, you would have completed a copy of the colour wheel. Here is a small refresher of what else was covered:

Primary colours (Red, Blue and Yellow) are the three main colours which when mixed together can produce any other colour.

Secondary colours (Violet, Orange and Green) are created when two primary colours are mixed together in equal quantities. (eg, yellow and blue make green)

Tertiary colours are made when a primary colour is mixed with a secondary colour in equal quantities, eg, red-orange or blue-violet.

Colour Effects

There are many different effects and moods that can be achieved by using carefully selected colour combinations.

Harmony is created when colours close to each other on the outside of the colour wheel are used together. Harmony is easy on the eye and can be used to create a relaxed and elegant ambiance (eg blue and blue-green).

Contrast is created when colours far apart on the colour wheel are used together. Contrast is vibrant, eye catching, bold and exciting (eg blue and orange)

Warm colours such as reds, orange and yellows all give a sense of heat and warmth. They are also known as **advancing colours** as they appear closer to the viewer than other colours.

Cool colours such as blues, greens and violets do the exact opposite. They give a feeling of being cold and are also known as **receding colours** as they appear more distant and further away.

When **WHITE** is added to a colour, it is called a **TINT** of that colour.
When **BLACK** is added to a colour, it is called a **SHADE** of that colour.

eg ● + ○ = ●
    ● + ● = ●
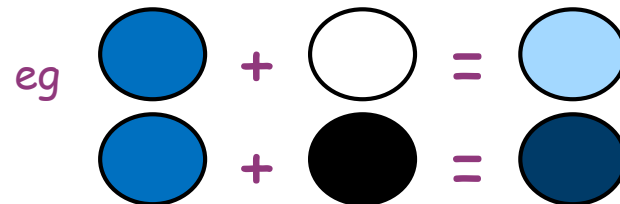
Colour and its meaning

Colour selection for a product is guided by the function of the product, the environment in which the product will be used and the market for which the product is intended.

Red: *Great power of attraction. Hot, bold, exciting, festive, passionate and positive. Can be associated with rage, aggression, danger, courage and speed.*

Yellow: *Most easily seen, luminous, bright, pleasant, happy, sunny, lively and cheerful.*

Blue: *Formal, cool, sophisticated, aristocratic, serene, passive, elegant and reliable.*

Orange: *Sunny, cheerful, warm and happy.*

Green: *Restful, fresh, cool, soothing, natural and informal.*

Violet: *Rich, pompous, impressive and regal. Cool, negative, retiring subdued and solemn.*

Grey: *Neutral, sedate, dignified and inconspicuous.*

White: *Luminous, positive, light delicate and clean.*

Black: *Subdued, solemn and profound,*
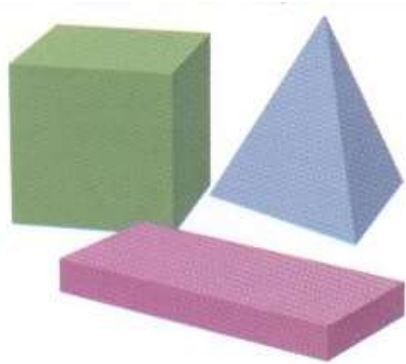
Brown: *Safe, reliable and earthy natural.*

Tone

Tone is the term used to describe how weak or strong a colour is.
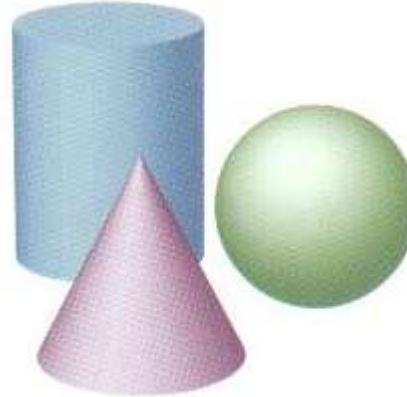
Five Flat Tones

Graded Tone

Surface Tones

Surface tones on 3D objects change depending on the way light falls on the surface

On flat sided objects the surface facing the light source in pale, while the opposite surface is dark or strong.

Objects with curved surfaces reflect light differently. The tone changes from dark to light as the surface curves towards the light source.

Each surface has a **flat tone**.

This is called **graded tone**.

Question 1

Listed below are some colours you would find in a colour wheel.

Blue   Orange   Yellow-Orange   Green   Blue-Green   Red

State, from the list of colours;

(a)   A primary colour.

.... (1)

(b)   A secondary colour.

.... (1)

(c)   A tertiary colour.

.... (1)

(d)   An advancing colour.

.... (1)

Question 2

(a)   State what must be added to a secondary colour in order to make a tertiary colour.

.... (1)

(b)   State two secondary colours

.... and .... (2)

(c)   State an appropriate colour to use in the following situations.

(i)   To represent something that is warm... (1)

(ii)   To harmonise with orange... (1)

(iii)   To contrast with orange... (1)

Question 3

A toy company has decided to introduce a new colour scheme for its packaging. A tint of Green was suggested.

(a)   State what is added to green to make it a tint.

.... (1)

(b)   State a tertiary colour that contrasts with green.

.... (1)

(c)   State how a tertiary colour is created.

.... (1)

Question 4

Colour can be used for many different reasons.

(a)   State what is added to red to make it a shade.

.... (1)

(b)   State two tertiary colours that contain blue.

.... and .... (2)

(c)   Colours can be used to create different moods and feelings. State what colour would represent the following;

(i)   Happiness .... (1)

(ii)   Something cool .... (1)

(iii)   Something that safe for the environment .... (1)

(iv)   Something dangerous .... (1)

(v)   Something Hygienic .... (1)

Selection of Media – Coloured Pencils

Selection of Media – Grey Scale Pencil
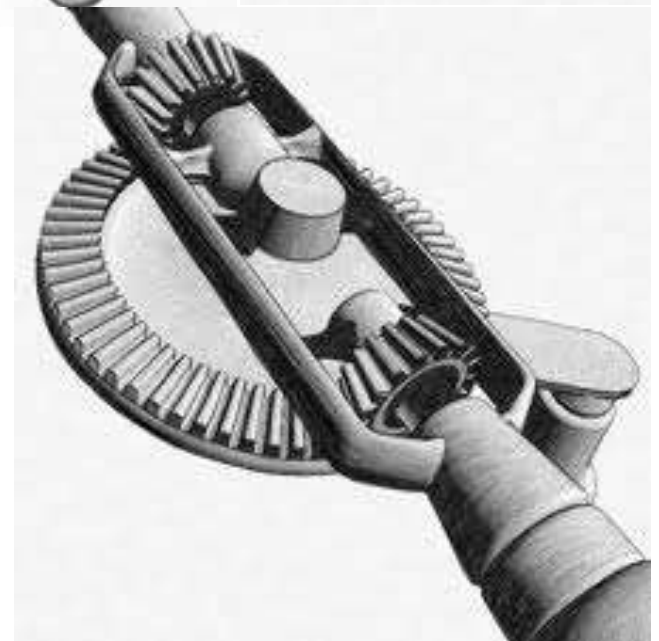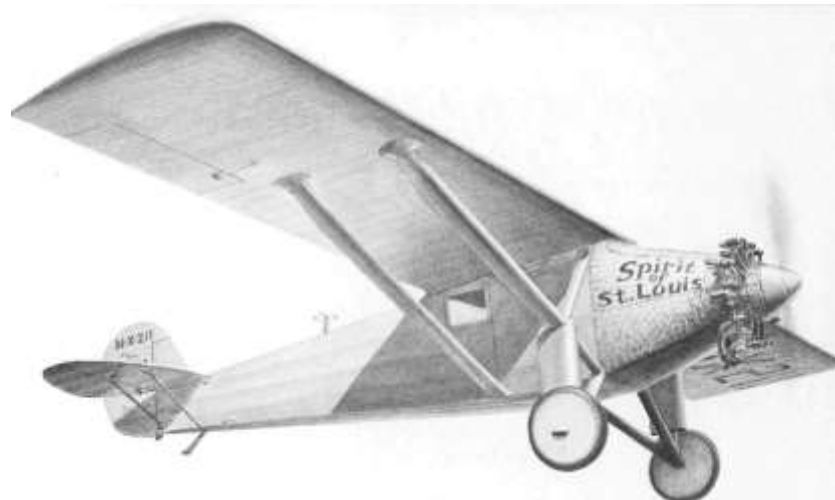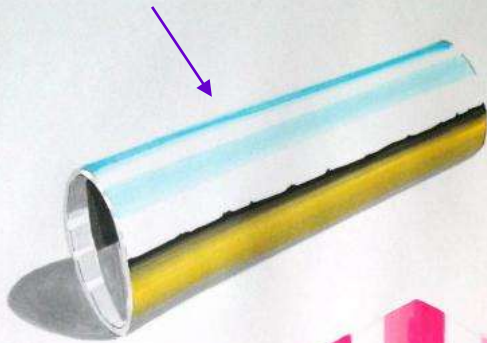
Selection of Media – Markers

Textures

It is important when rendering your graphics that you try to include a visual texture. This will give your work a more realistic impression.
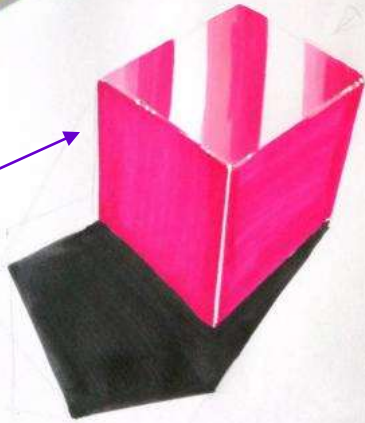
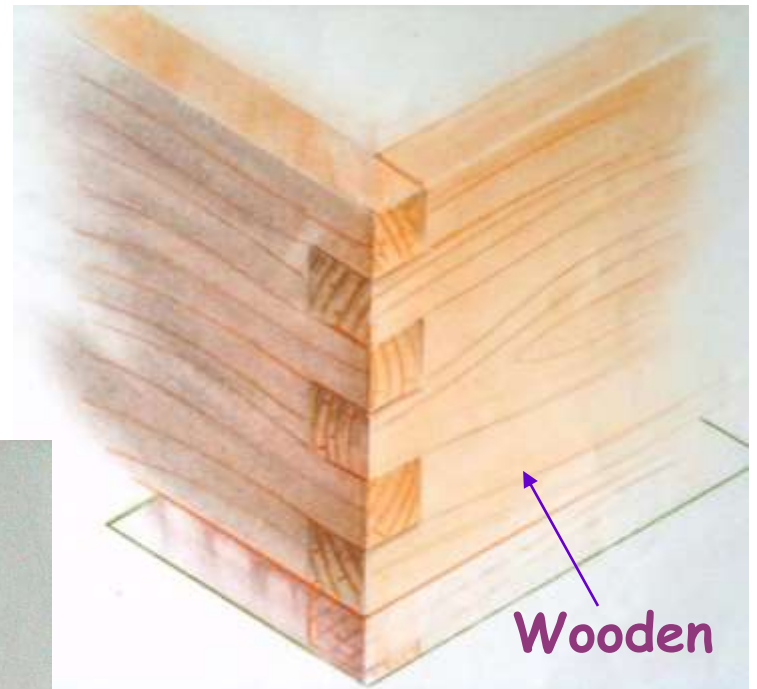Look at the examples below.

Chrome

Plastic

Wooden
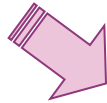
Metallic

High Gloss

Transparent

Worked Example – Wooden Texture

Our light source is coming from this direction

1. Top surface
Normally the lightest tone, shade the surface lightly using yellow first then orange
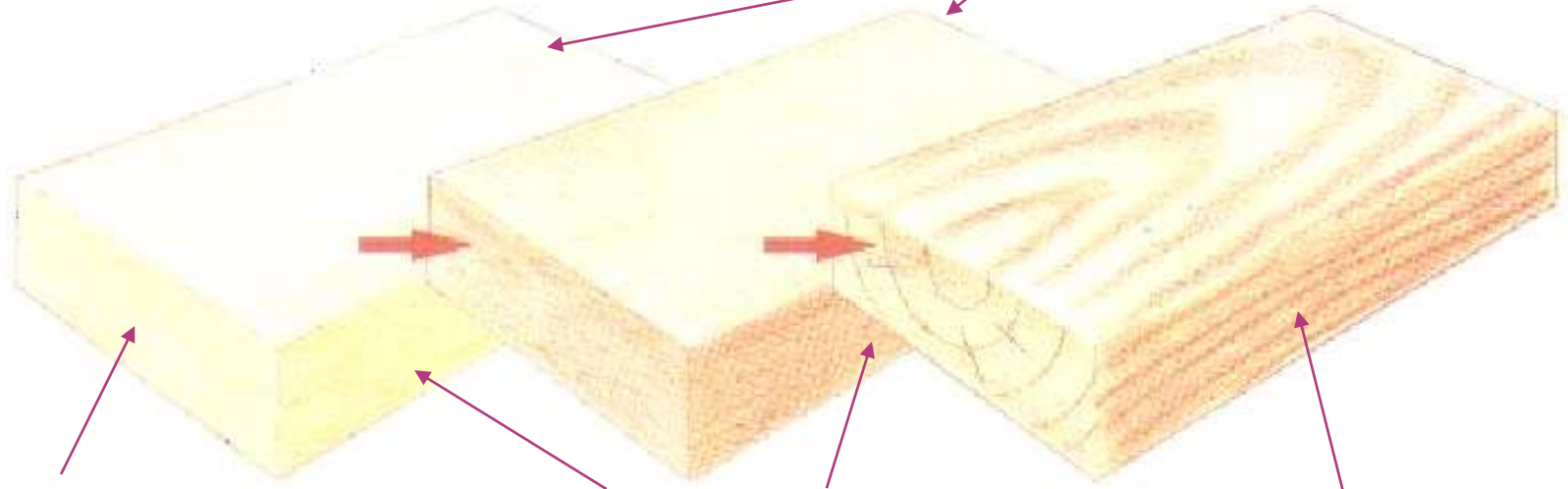
3. Side facing the light
Shade this side last, using yellow then orange, to create a medium tone

2. Shadow side
Facing away from the light, this surface should be the darkest. Again use yellow then orange to create a strong tone

4. Texture
The wood grain is just a darker tone of the base colour, yellow / orange.

Worked Example – Metallic Texture

Shiny metallic surfaces can be rendered using a **desertscape**.
Imagine the shine object in the desert. It would reflect the simple environment: blue sky, a sandy ground colour and a black horizon line.
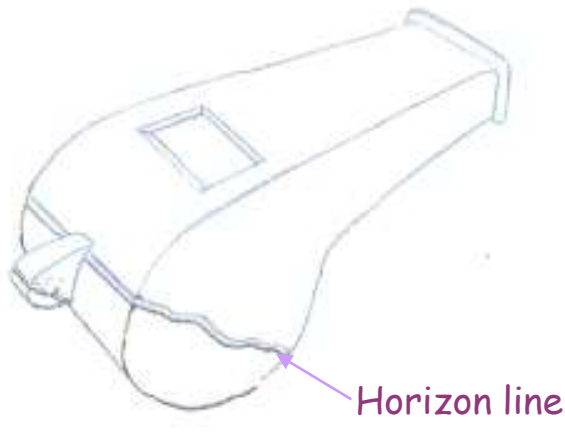
Horizon line

1. Outline
Draw the outline in three colours, adding in a blue and black horizon line.

2. Add in the sky
Add in the blue sky tones above the horizon line. Keep the top surface lighter as this would reflect the sunlight.
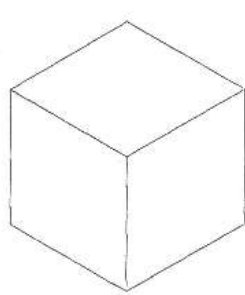
3. Add in the ground
Finish with sandy ground tones and add in detail, eg shadows, additional highlights etc

Pencil Rendering Exercise 1

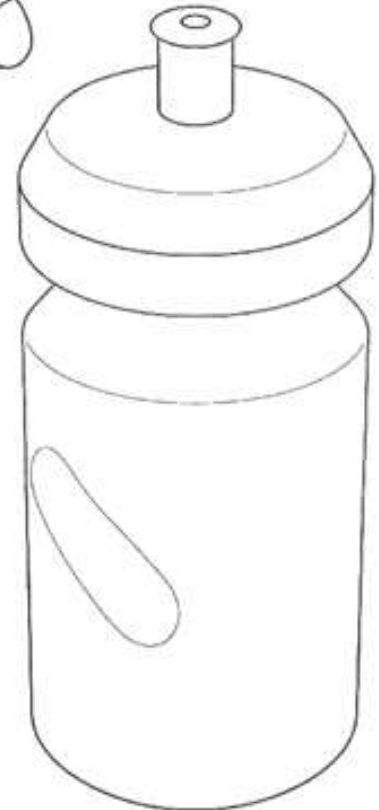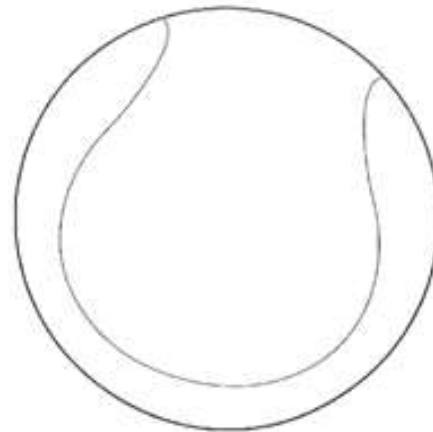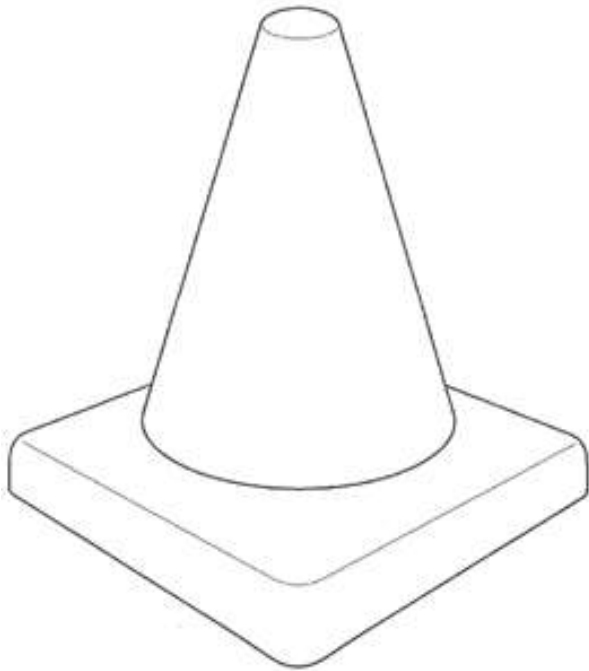Render each of the objects on this page.

Remember to think about where your light source is coming from (that will have an effect on the surface tones)
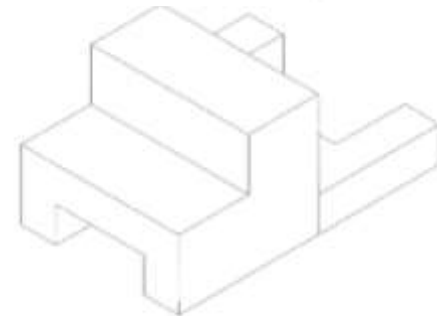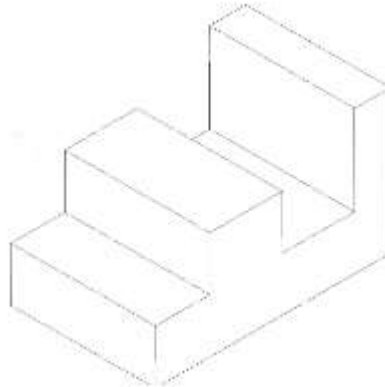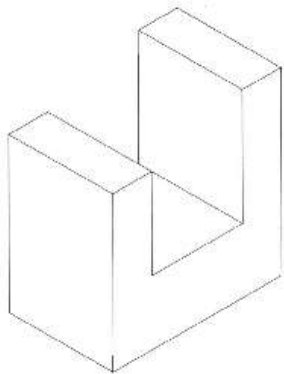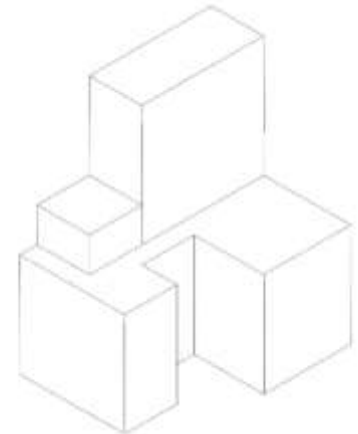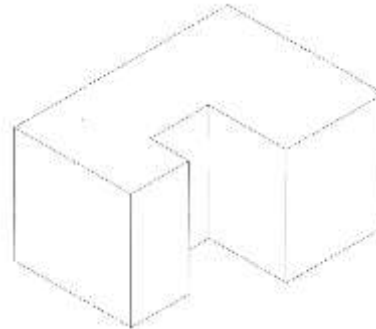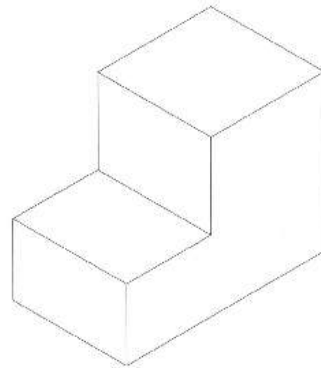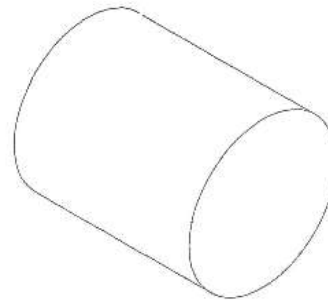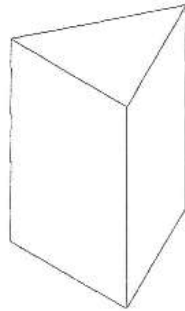
Pencil Rendering Exercise 2

Using colour pencils, render these
everyday objects to show
• Texture
• Tonal Changes
• Highlights
• Shadows

Pencil Rendering Exercise 3

Using colour pencils, render these everyday objects to show
•Texture
•Tonal Changes
•Highlights
•Shadows