Technology and Design

CCEA TASK

CCEA Task

It is necessary to produce a project to show that you have used the computer in the subject area of Technology and Design.
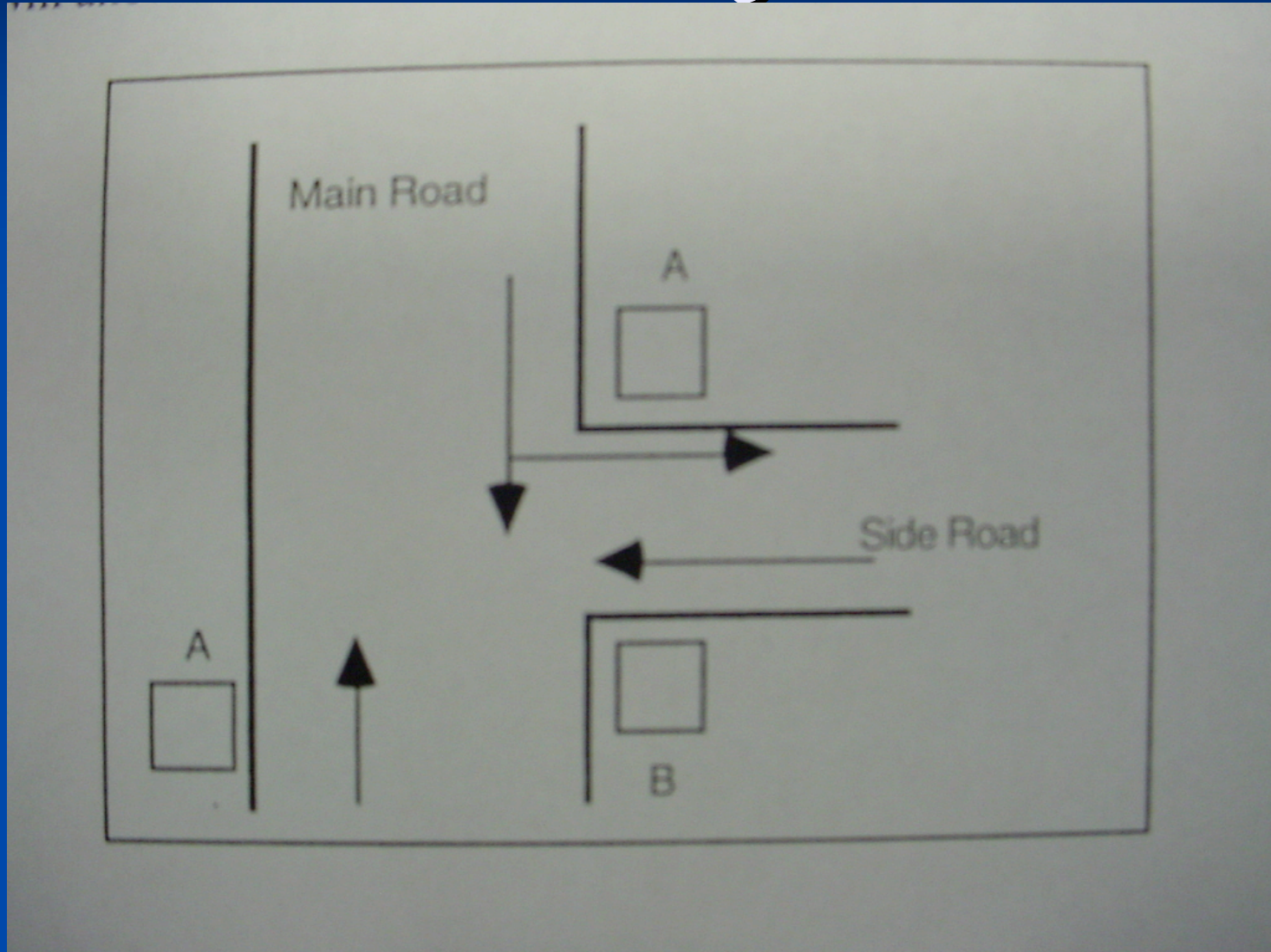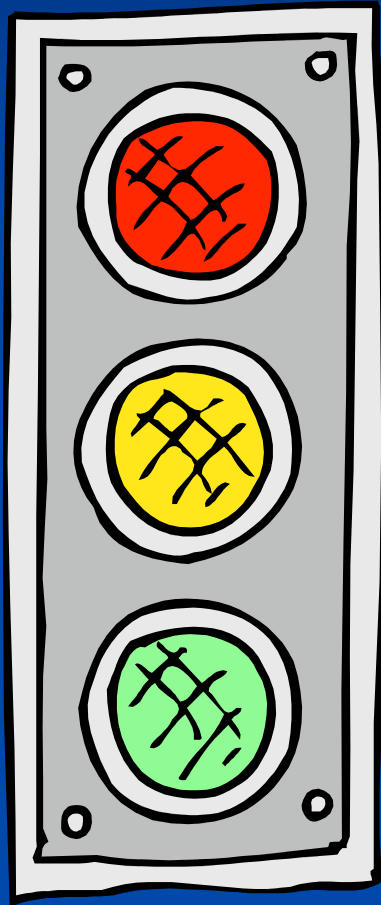
CCEA Road Junction

Technology and Design CCEA TASK

What is the next colour?

Basic Traffic Light Sequence

The traffic lights operate in the following sequence

RED

RED & AMBER = get ready to go.

GREEN

AMBER = Get ready to stop.

Tasks

- Produce a title page which shows information on the topic – Road use at a Junction.

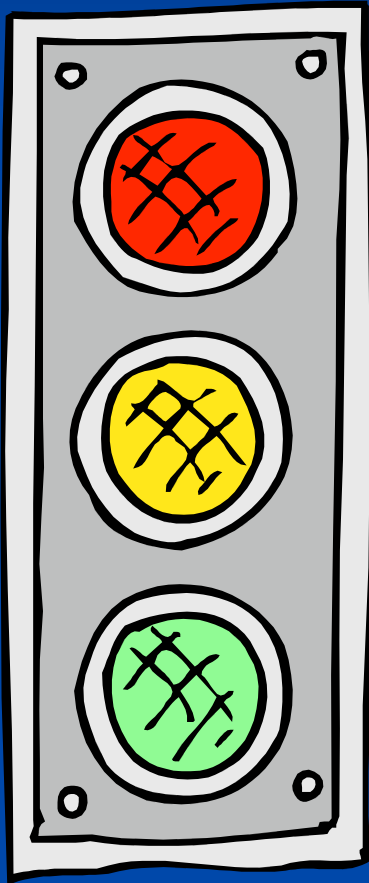- Produce an information sheet on how the traffic lights work.

Sheet One

Log onto your computer

- Open up a Program called Logicator.

- Write a program to control the traffic lights in the correct sequence.

- Save your programe

- Print out a copy of the FLOWSHEET and the SUMMARY

Basic Traffic Light Sequence

This is a programme to operate traffic lights in the controlled sequence. The traffic light operate in the following sequence
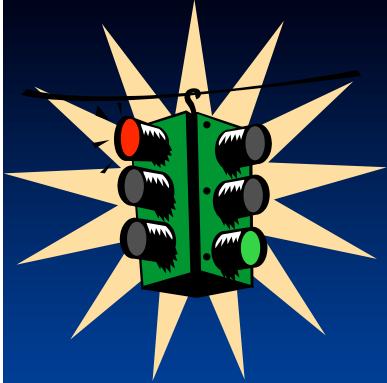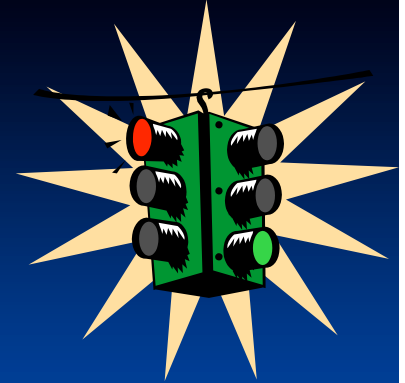
RED

RED & AMBER

GREEN

AMBER

CCEA Task

In order to show this a project in which you control the sequence of lights at a junction is needed.
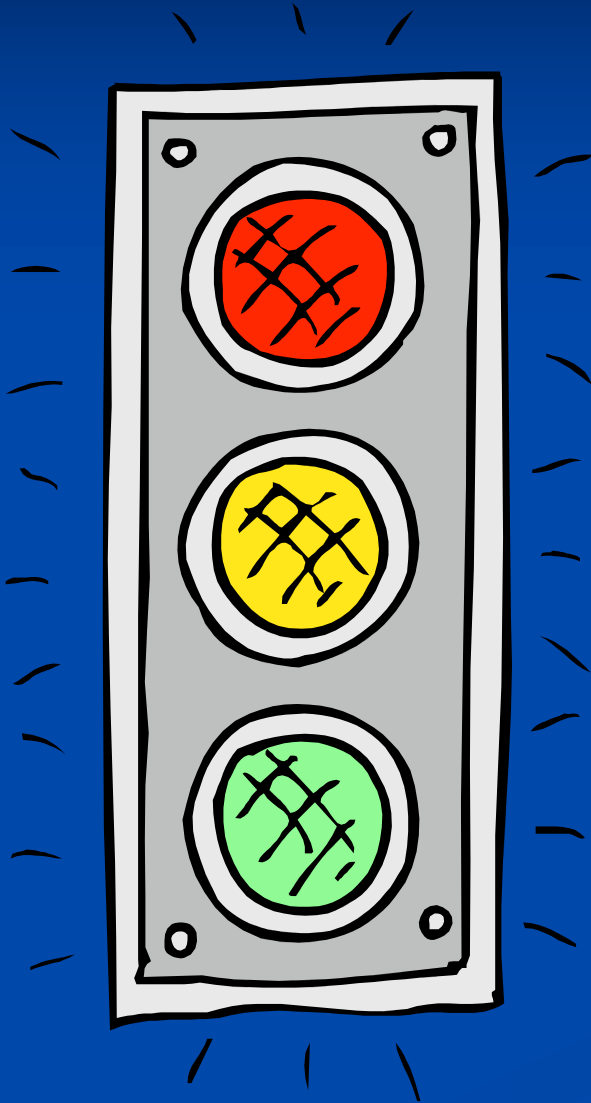
CCEA Task

The sequence of lights should be a pedestrian crossing and the traffic must all stop.

Basic Traffic Light Sequence

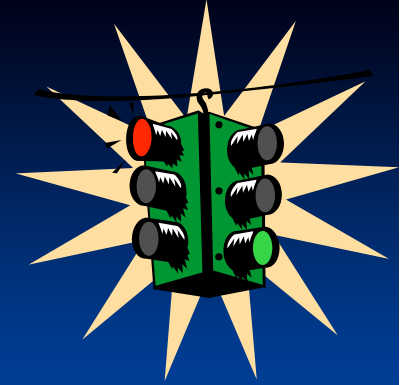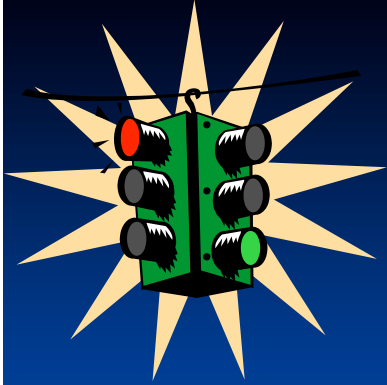This is a programme to operate traffic lights in the controlled sequence.

The traffic lights operate in the following sequence
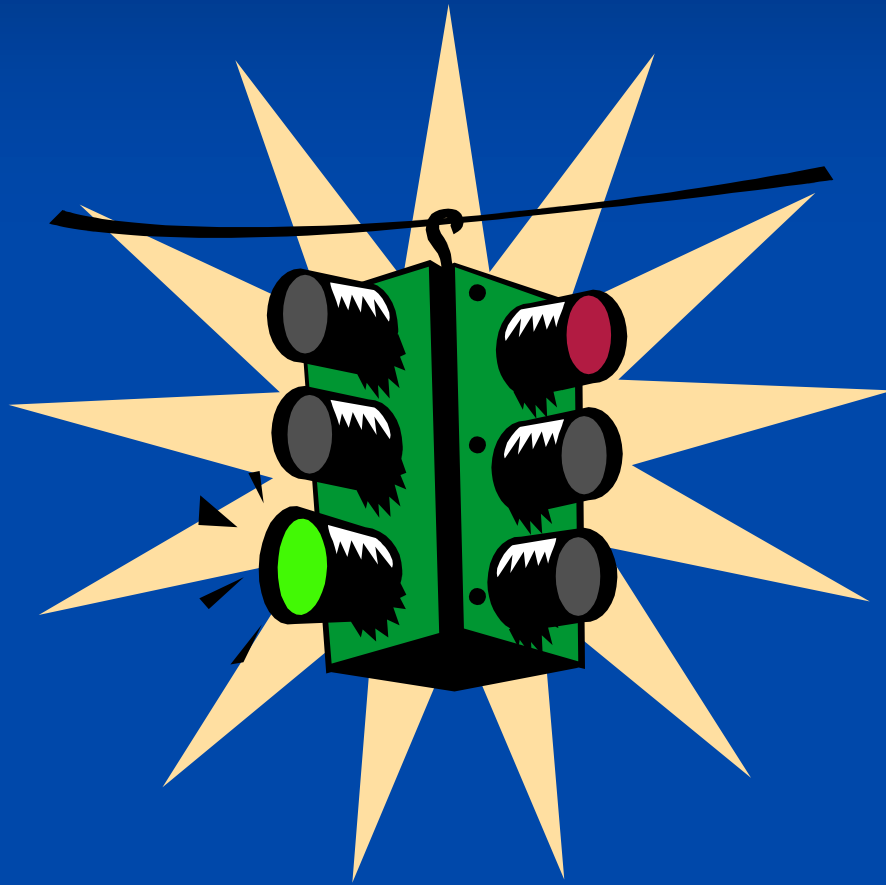
RED

RED & AMBER

GREEN

AMBER

Sheet Two

Two sets of traffic lights working together
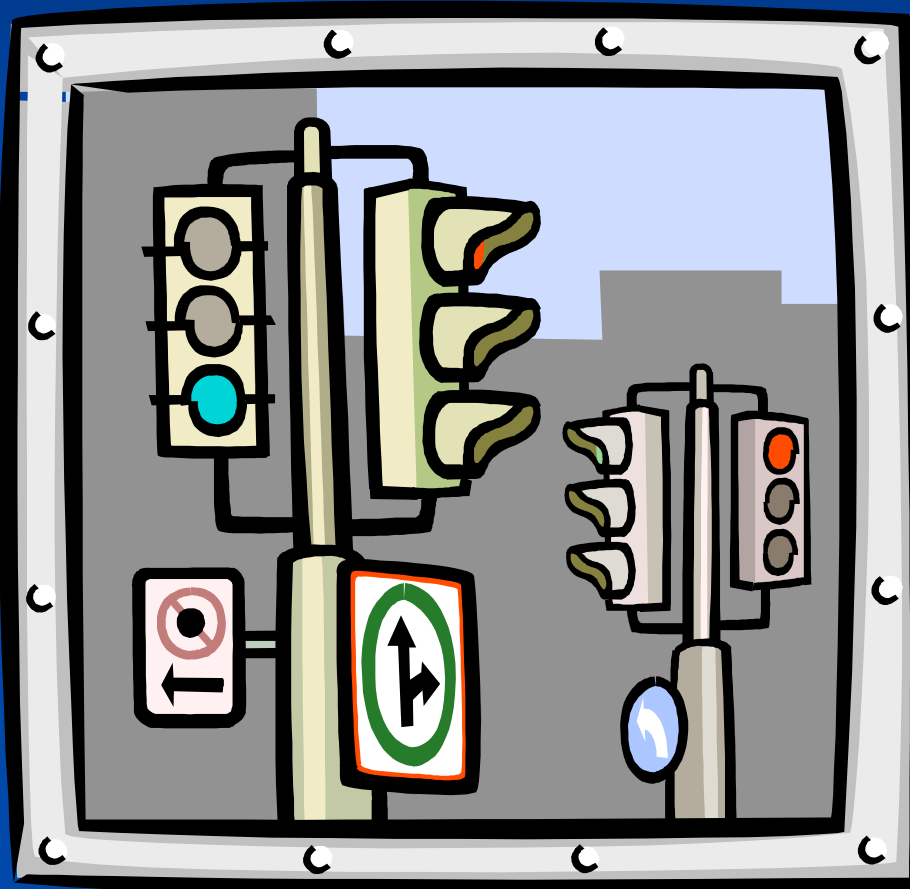
CCEA Road Junction

- Work out the sequence required to control lights A and B

- If there were red and green pedestrian lights, how could their sequence be included in the program

Two sets of Lights

The traffic lights work together to control the traffic

Two sets of Lights
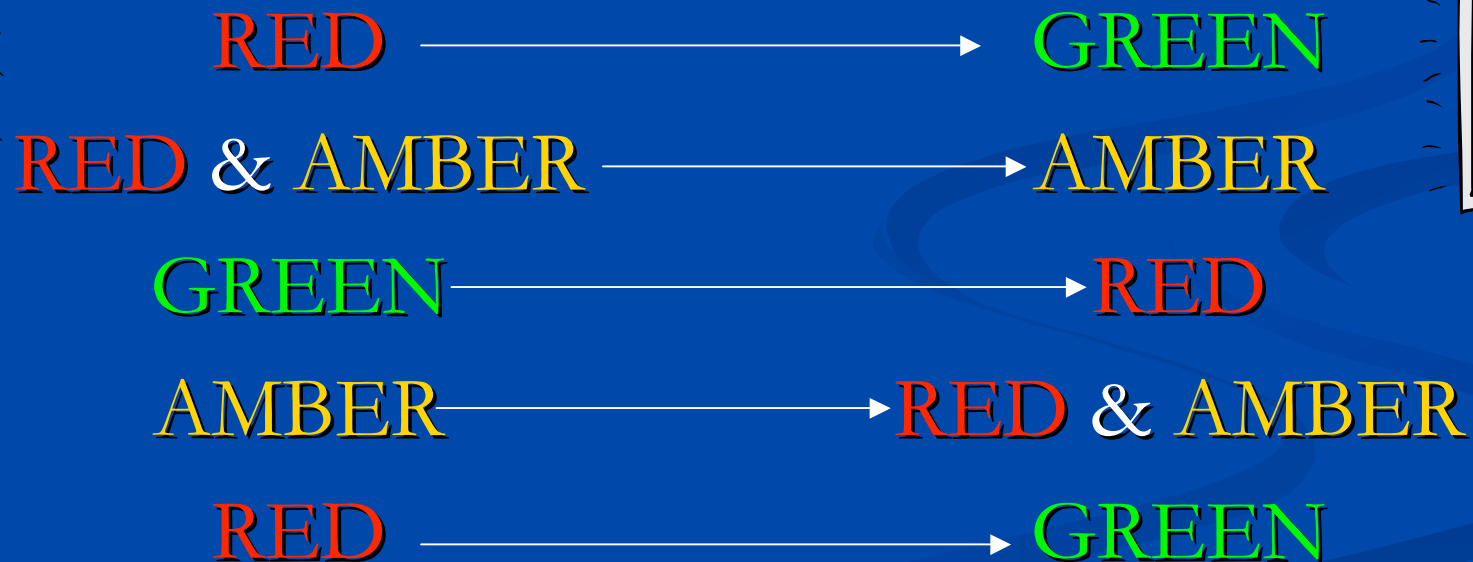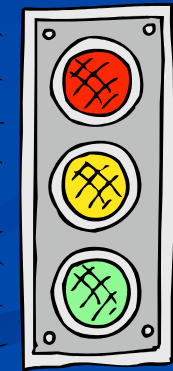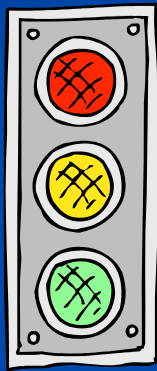

When one set of lights are working from

RED – GREEN

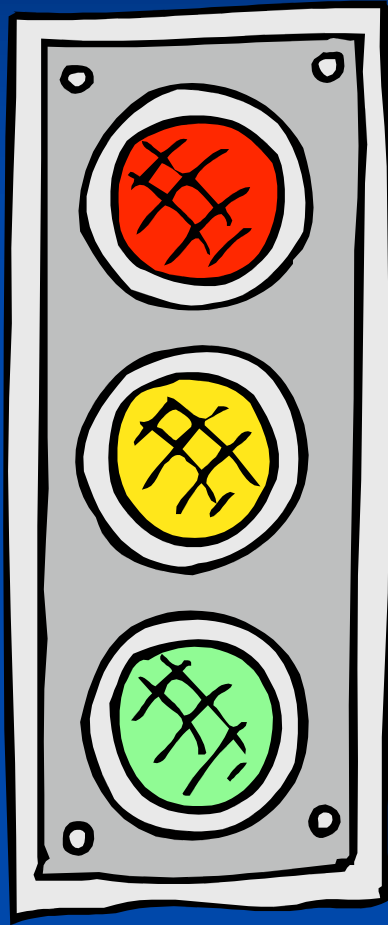The other set are working from

GREEN - RED

Two sets of Lights

Traffic light A   Traffic Light B

RED ⟶ GREEN

RED & AMBER ⟶ AMBER

GREEN ⟶ RED

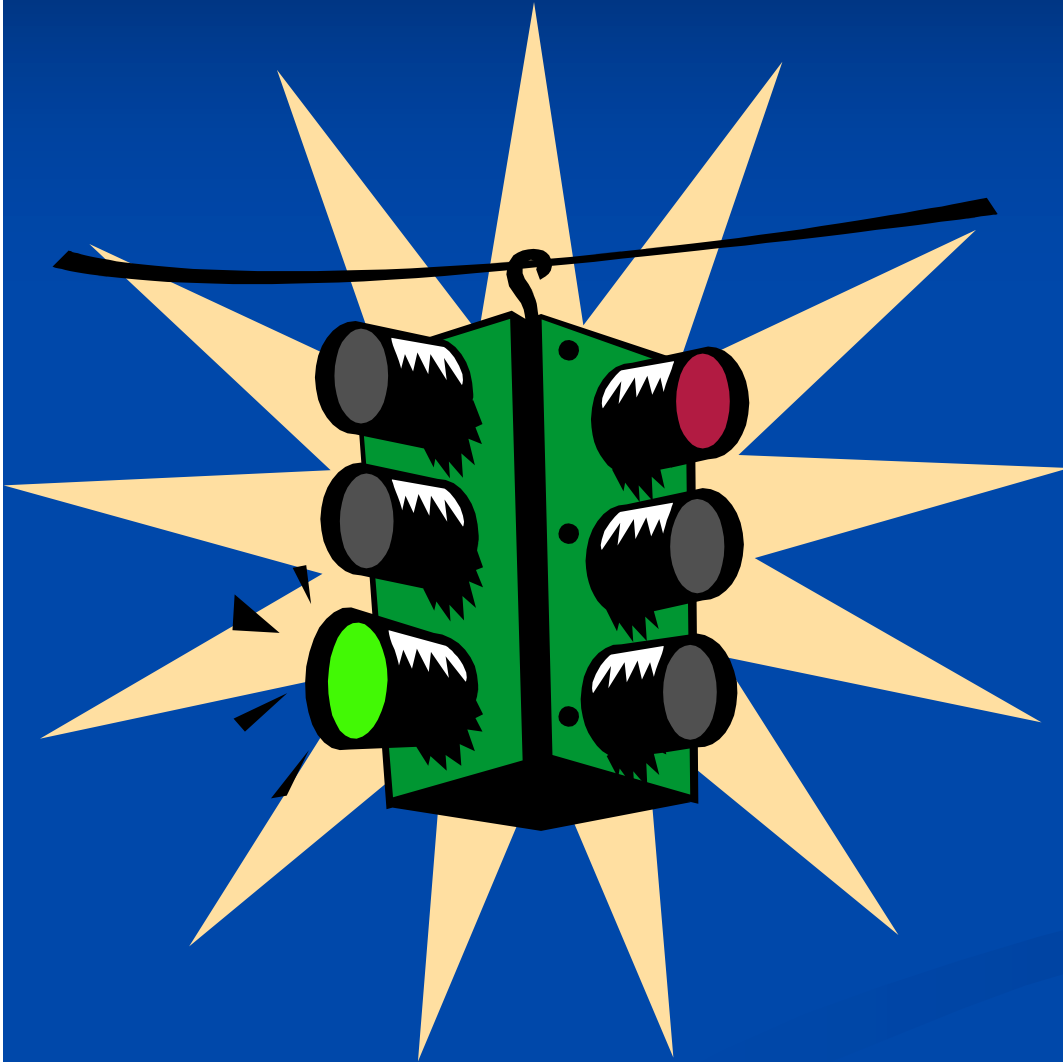AMBER ⟶ RED & AMBER

RED ⟶ GREEN
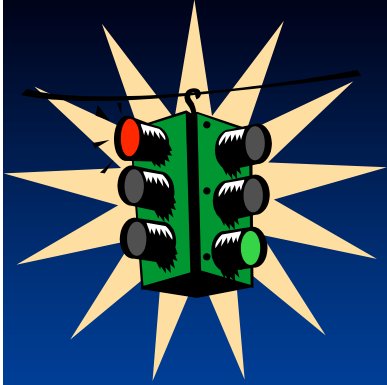
Sheet Three

Pelican Crossing

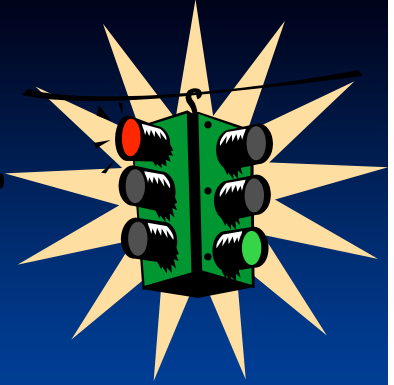In this sequence the two sets of lights are working together until a pedestrian pushes the button.

Pelican Crossing

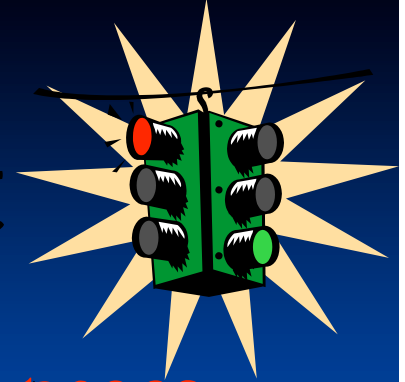When the button is pushed all the traffic lights need to turn to RED to allow pedestrians to cross the road.

Pelican Crossing

When the button is pushed the cars will stop as the two sets of lights will change to red and a buzzer will sound. This buzzer will allow a BLIND person to hear a sound and they can allow cross the road safely.

Project checklist

Please check that you have the following pages.

- Title Page
- A question page showing the road junction.
- page for a simple traffic light
- page for two traffic lights working together.
- 2 pages for a pelican crossing.
- All sheets MUST include notes.
- Any other pages.

Title Page - "Using IT in Technology and Design"

Ccea Task

For this project you will need the following sheets:

- Title Page – "Using IT in Technology and Design"

- The information sheet at the start of the project.

- All the print outs from the computer about the sequences of lights. Written information on the sheets is needed.

- Any other relevant information

Computer Control Part

Sheet 1 – Simple control of one traffic lights with notes to explain why the traffic light work in the way they do.

Sheet 2 – This sheet you need to control the traffic lights A and B to show them working together. Again a written explanations is needed.

Sheet 3 – Needs to show the two sets of traffic lights working as a pelican crossing.

CCEA - Tasks

Write a traffic light control program which will allow safe access from the side road onto the main road.

Ccea Task

- Title Page
- Information Page
- Mahon Road Page
- 2 set of lights page
- Pelican Crossing page
- Booklet