Year 7 Knowledge Organiser: Computer control - Programming Devices

De La Salle School

Logo Commands

fd = Forward

bk = Backwards

rt = Right Turn

lt = Left Turn

cs = Clear Screen

rt 90 = 90 degrees

penup = no line

pendown = line

Procedures:

repeat 4 [fd 100 rt 90]

Creating a square

repeat 6 [fd 100 rt 360/6]

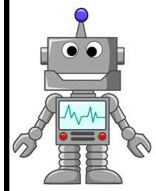
Creating a hexagon

360/6 will calculate the degree of turn. This can be changed to any number of sides.

What is computer control?

Computers are used to control many everyday activities, through the use of commands and sequenced instructions.

Key instructions/ words are needed to aid with understanding. E.g.

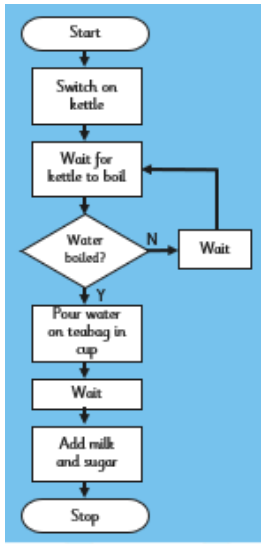


Start - Turn - Walk - Stop.

A sequence of instructions using these key words will then be able to instruct a person or thing through an activity.

What is a FLOWCHART?

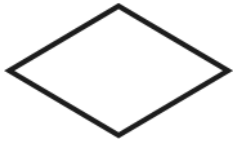
A flowchart is a way of visually displaying a set of instructions (or an algorithm) for any particular task. It will display how the data flows and any decisions which are made to control an event. This could be anything from a set of traffic lights, a central heating system on a timer or an electric kettle!



This flow chart is used in the process of making a cup of tea

THE SYMBOLS:

Terminator

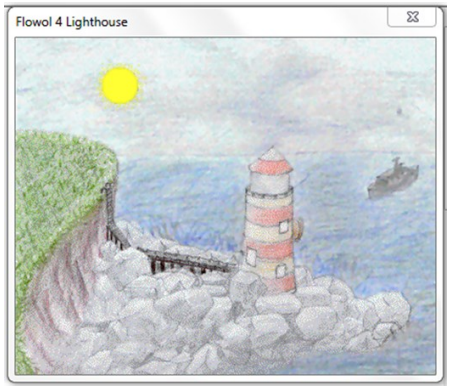


Decision

Data Symbol (Input/ Output)

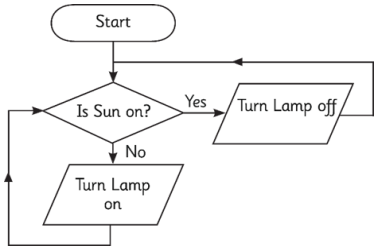
Process

Using Flowol



Flowol is an example of software that can be used to create flowcharts as algorithms to control devices.

Adding a Decision



The decision symbol is based on the '**input**' of the Sun.

- If the Sun is 'on' (or shining), then the lamp is turned off.
- If the Sun is 'off' (not shining) then the lamp is turned on.

Adding a Loop will allow the program to continually check the input (the sun)