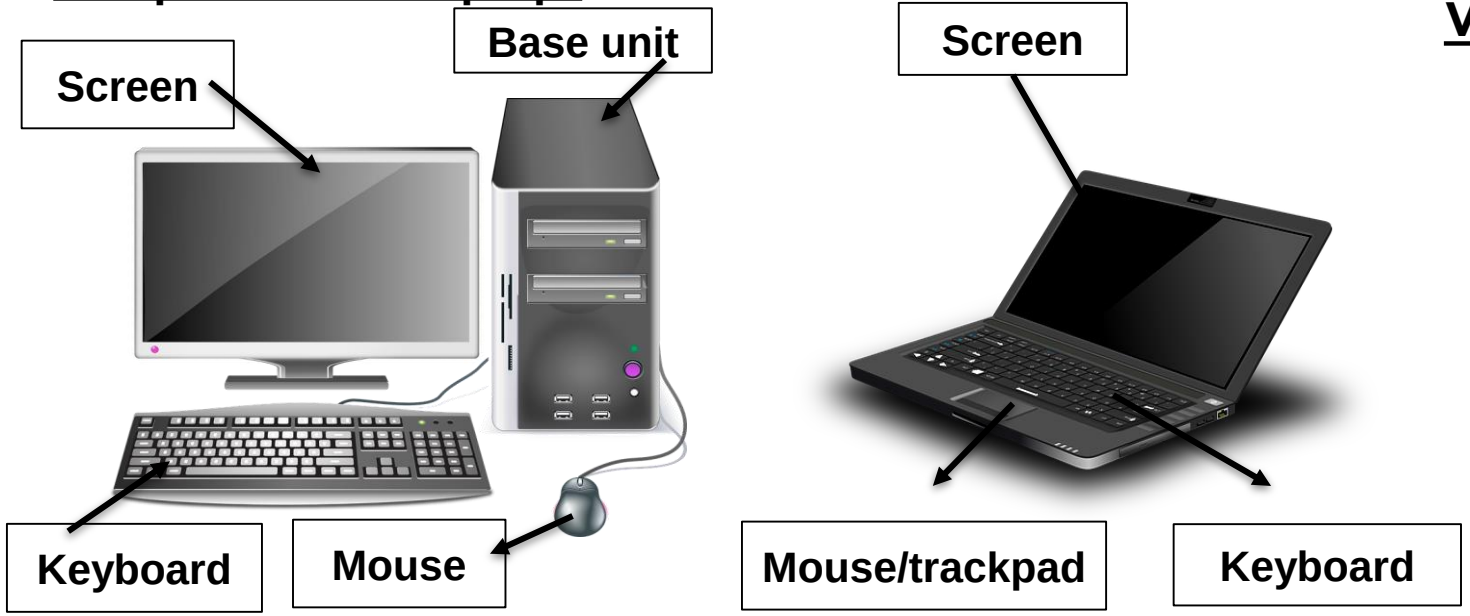
# Computing Systems and Networks – Technology around us

**YEAR 1**
**Term 1**

## Knowledge Building Blocks:

- To explain that technology is something that can help us.
- To identify examples of technology.
- To explain how examples of technology help us.
- To recognise that a computer is an example of technology.
- To choose a piece of technology to do a job.
- To recognise that some technology can be used in different ways.
- To identify the main parts of a computer.
- To recognise that choices are made when using technology.
- To explain why rules are needed when using technology.
- To use a mouse in different ways.
- To use a keyboard to type
- To use the keyboard to edit text.
- To show how to use technology safely.

## Computers and Laptops




## Examples of Technology:

## Key Vocabulary:

technology
desktop
laptop
logging on
mouse
function
programme
picture
keyboard
typing
save
icon
open
file
edit
text
delete
arrow keys
cursor
Computer safety

# Creating Media – Digital Printing

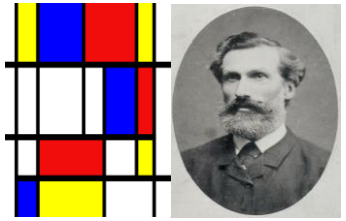
**YEAR 1**
**Term 2**

## Knowledge Building Blocks:

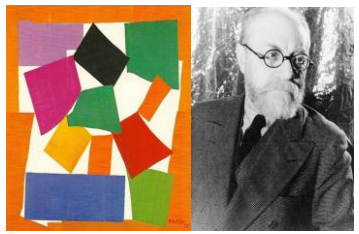
- To explain what different freehand tools do.
- To create a picture using freehand tools.
- To recognise computers can be used to create art.
- To use shape and line tools when precision is needed.
- To use a range of paint colours.
- To use the fill tool to colour an enclosed area.
- To use the undo button to correct a mistake.
- To recognise a tool can be adjusted to suit my need.
- To combine a range of tools to create a piece of artwork.
- To decide when it's appropriate to use each tool.
- To consider impact of choices made.
- To compare painting using a computer with painting using brushes.

## Artists:

Piet Mondrian
1872-1944
Abstract Art

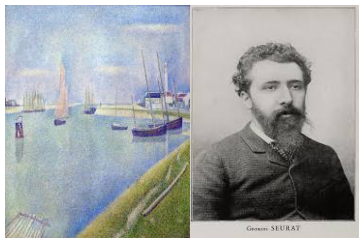


Henri Matisse
1869-1954
Collage

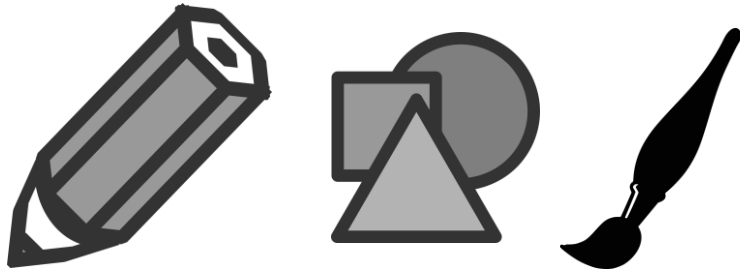


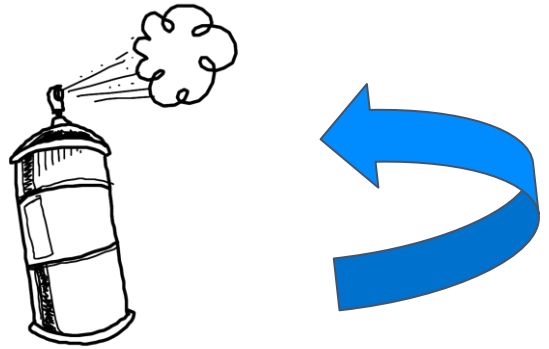
Wassily Kandinsky
1866-1944
Abstract Art

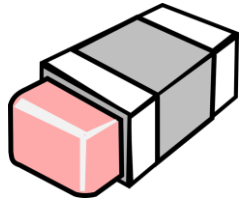
Georges Seurat
1859-1891
Pointillism



## Tools:







## Key Vocabulary:

freehand
digital
printing
tools
fill
undo
colour
brush
compare
shapes
lines
paint
artist

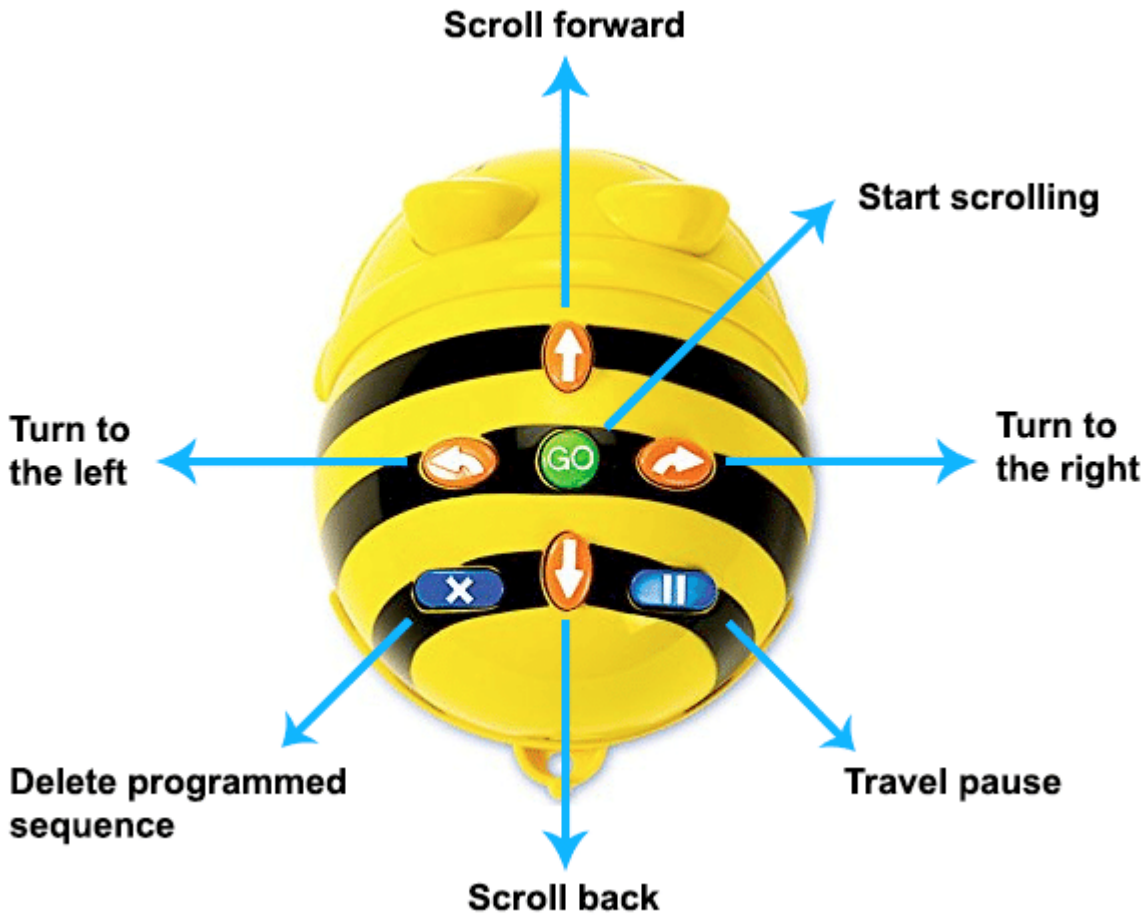
# Programming A – Moving a Robot

**YEAR 1**
**Term 5**

## Knowledge Building Blocks:

- To enact a given word.
- To recall words that can be enacted.
- To predict the outcome of a command on a device.
- To list which commands can be used one a given device.
- To explain what a given command does.
- To match a command to an outcome.
- To run a command on a floor robot.
- To choose a command for a given purpose.
- To understand that a programme is a set of commands that a computer can run.
- To choose a series of words that can be enacted as a programme.
- To recall that a series of instructions can be issued before they are enacted.
- To choose a series of commands that can be run as a programme.
- To build a sequence of commands in steps.
- To combine commands in a programme.
- To run a programme on a device.

## Bee-Bot




## Key Vocabulary:

enact
predict
outcome
command
device
floor robot
programme
instructions
series
sequence
combine
buttons
forwards
backwards
position
left turn
right turn
movement
debug
routes

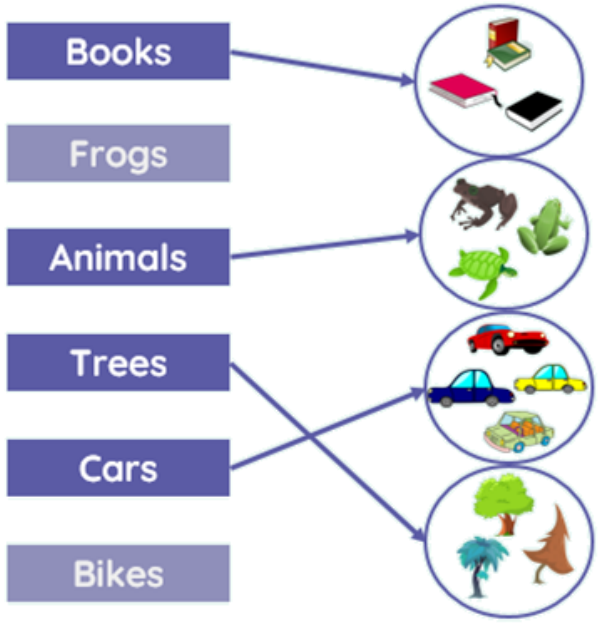
# Data and Information – Grouping Data

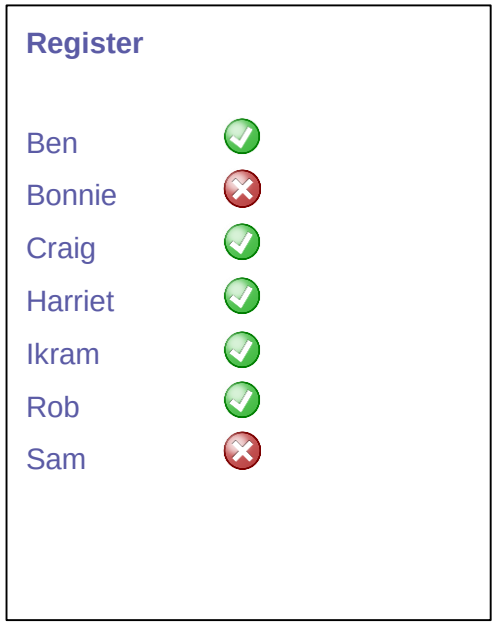
**YEAR 1**
**Term 4**

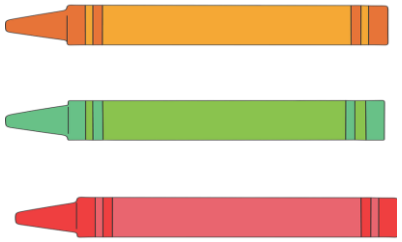
## Knowledge Building Blocks:

- To identify some attributes of an object.
- To collect simple data.
- To identify that objects can be counted.
- To show that collected data can be counted.
- To describe the properties of an object.
- To choose an attribute to group objects by.
- To group objects to answer questions.
- To explain that objects can be grouped by similarities (attribute).
- To recognise that information can be presented.
- To describe a group of objects based on commonality.
- To recognise that information can be presented in different ways.

## Examples of Counting and Grouping:



## Key Vocabulary:

attributes
object
data
properties
grouped
similarities
commonality
labels
input
describe
colour
size
classify
more than
less than
same as
most
least
shape

# Creating Media – Digital Writing

**YEAR 1**
**Term 3**

## Knowledge Building Blocks:

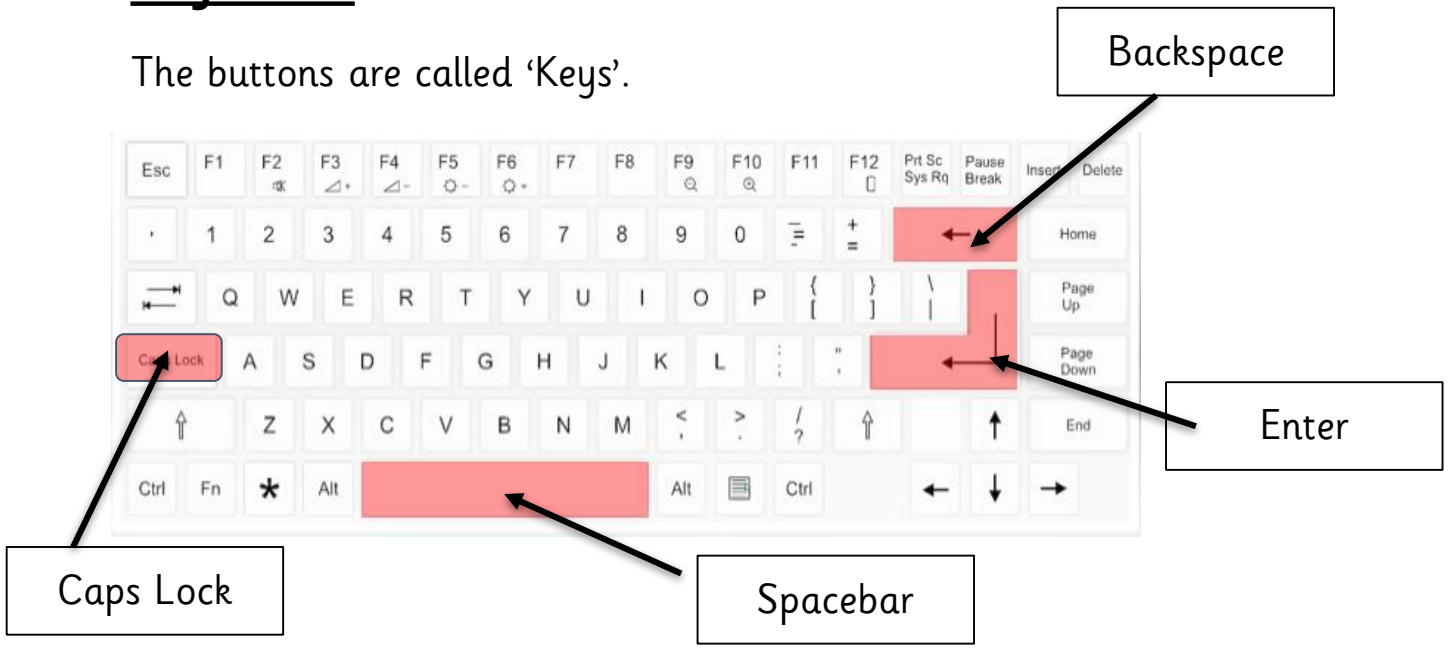
- To recognise that a keyboard is used to enter text into a computer.
- To use letter, number and space keys to enter text into a computer.
- To recognise that the Shift Key changes the output of a key.
- To use punctuation and special characters.
- To recognise that text can be changed.
- To recognise that the appearance of text can be changed.
- To recognise that text can be edited.
- To use the backspace key to remove text.
- To position the text cursor in a chosen location.
- To use undo.
- To select text.
- to change appearance of text on a computer.
- To choose options to achieve a desired effect.
- To consider the impact of choices made.

## Applications

## Tools:


## Keyboard:

The buttons are called 'Keys'.




## Key Vocabulary:

keyboard
text
letter
number
space
keys
shift
output
edited
backspace
cursor
undo
Word processor
tools
toolbar
Caps Lock
fonts
clicking
dragging

# Programming B – Introduction to Animation

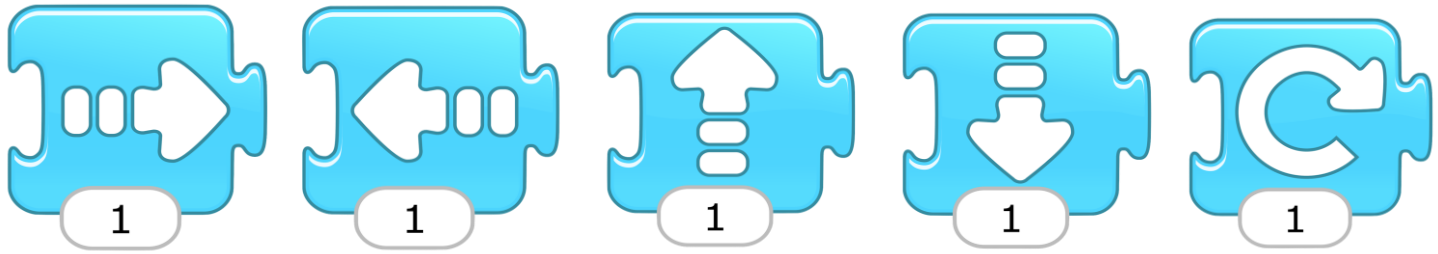
**YEAR 1**
**Term 6**

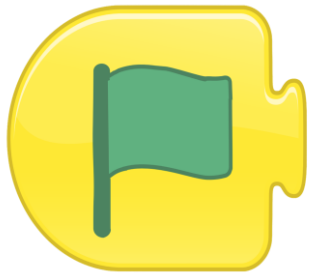
## Knowledge Building Blocks:

- To enact a given word.
- To recall words that can be enacted.
- To predict the outcome of a command on a device.
- To list commands that can be used on a given device.
- To explain what a given command does.
- To match a command to an outcome.
- To recognise how to run a command (press a button).
- To choose a command for a given purpose.
- To understand that a programme is a set of commands a computer can run.
- To choose a series of words that can be enacted as a programme.
- To recall that a series of instructions can be issued before they are enacted.
- To choose a series of commands that can be run as a programme.
- To build a sequence of commands in steps.
- To combine commands in a programme.
- To run a programme on a device.

## Application:


## Blocks:



## Key Vocabulary:

enact
predict
outcome
command
device
button
programme
series
instructions
sequence
steps
combine
Scratch Jr.
project
sprite
background
blocks
algorithms
characters
start
value/number
add/delete