Lesson 3

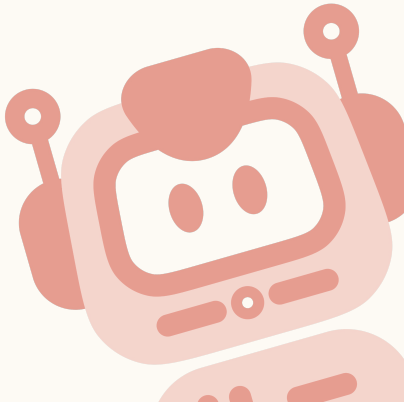
Colour Your World!

code for schools

Previously, on Code for Schools...

True or False?

- Extra blank lines between Python code lines will change how the program runs.

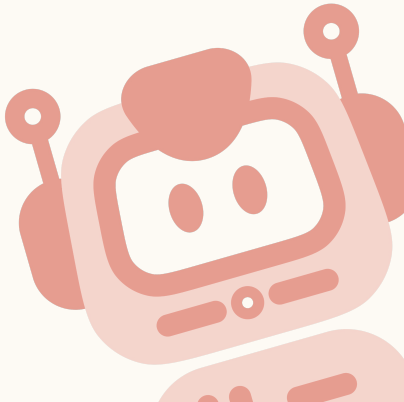


Previously, on Code for Schools...

True or False?

- These two lines of code do **exactly** the same thing.

```
print("Hello, world!")
print("       Hello, world!")
```

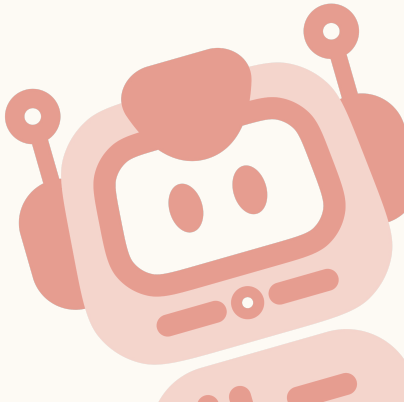


Previously, on Code for Schools...

True or False?

- These two lines of code do **exactly** the same thing.

```
print("Press [ENTER] to continue.")
input("Press [ENTER] to continue.")
```

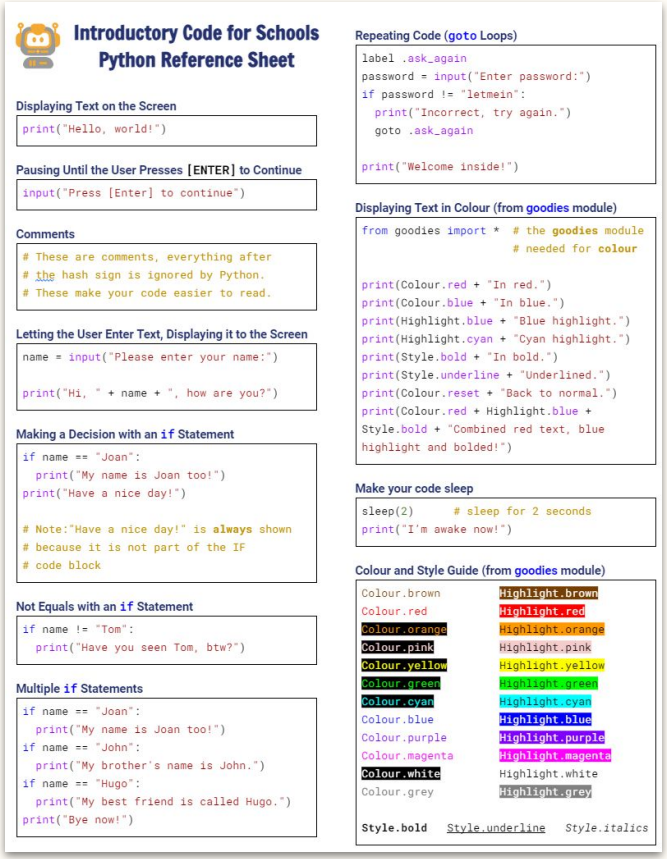


Learning objectives

By the end of this lesson:

- I can reuse other people’s code in Python
- I can change the text colour, highlighting, and styles!

Python Reference Sheet



Introductory Code for Schools
Python Reference Sheet

Displaying Text on the Screen

```
print("Hello, world!")
```

Pausing Until the User Presses [ENTER] to Continue

```
input("Press [Enter] to continue")
```

Comments

```
# These are comments, everything after
# the hash sign is ignored by Python.
# These make your code easier to read.
```

Letting the User Enter Text, Displaying it to the Screen

```
name = input("Please enter your name:")

print("Hi, " + name + ", how are you?")
```

Making a Decision with an `if` Statement

```
if name == "Joan":
  print("My name is Joan too!")
print("Have a nice day!")

# Note:"Have a nice day!" is always shown
# because it is not part of the IF
# code block
```

Not Equals with an `if` Statement

```
if name != "Tom":
  print("Have you seen Tom, btw?")
```

Multiple `if` Statements

```
if name == "Joan":
  print("My name is Joan too!")
if name == "John":
  print("My brother's name is John.")
if name == "Hugo":
  print("My best friend is called Hugo.")
print("Bye now!")
```

Repeating Code (`goto` Loops)

```
label .ask_again
password = input("Enter password:")
if password != "letmein":
  print("Incorrect, try again.")
  goto .ask_again

print("Welcome inside!")
```

Displaying Text in Colour (from goodies module)

```
from goodies import *  # the goodies module
                       # needed for colour

print(Colour.red + "In red.")
print(Colour.blue + "In blue.")
print(Highlight.blue + "Blue highlight.")
print(Highlight.cyan + "Cyan highlight.")
print(Style.bold + "In bold.")
print(Style.underline + "Underlined.")
print(Colour.reset + "Back to normal.")
print(Colour.red + Highlight.blue +
Style.bold + "Combined red text, blue
highlight and bolded!")
```

Make your code sleep

```
sleep(2)      # sleep for 2 seconds
print("I'm awake now!")
```

Colour and Style Guide (from goodies module)

Colour.brown	Highlight.brown
Colour.red	Highlight.red
Colour.orange	Highlight.orange
Colour.pink	Highlight.pink
Colour.yellow	Highlight.yellow
Colour.green	Highlight.green
Colour.cyan	Highlight.cyan
Colour.blue	Highlight.blue
Colour.purple	Highlight.purple
Colour.magenta	Highlight.magenta
Colour.white	Highlight.white
Colour.grey	Highlight.grey

Style.bold Style.underline *Style.italics*

Python Reference Sheet

- Print it out, keep it handy and use it!
- Get it here

Demo 03.01: Look Who's Talking



Can you identify the mystery cartoon character?

Look Who’s Talking

- What is the new feature that you haven’t seen before in this program?



Look Who’s Talking

- What is the new feature that you haven’t seen before in this program?

Colours!



Look Who's Talking

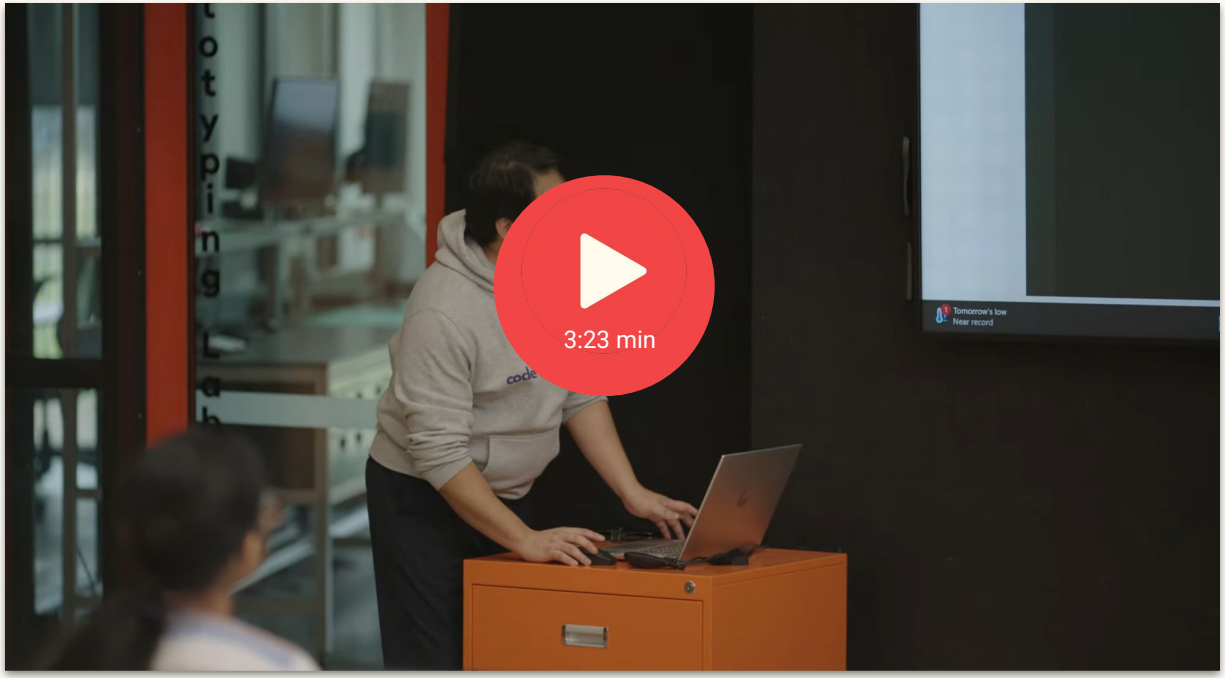
- What is the new feature that you haven't seen before in this program?

Colours!



- We will learn how to use code that other people have written to help us colour our text

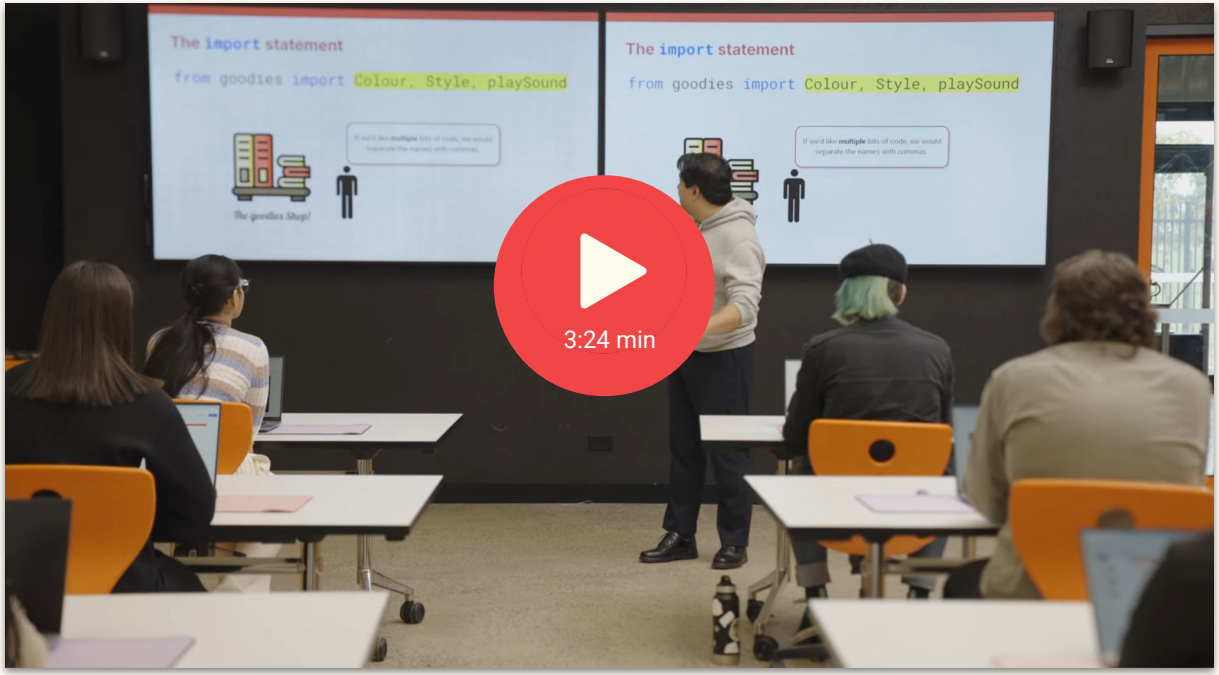
Using Colours (Part 1)



Link to Accompanying Slides
(PDF, powerpoint)

Vimeo video link

Using Colours (Part 2)



Link to Accompanying Slides
(PDF, powerpoint)

Vimeo video link

Worksheet Activity



Complete Questions 1 & 2

(PDF, MS Word)

Changing colours

You can combine different *colours*, *highlights*, and *styles* to achieve many effects.

Colour names

Colour.brown
Colour.red
Colour.orange
Colour.yellow
Colour.green
Colour.cyan
Colour.blue
Colour.purple
Colour.magenta
Colour.pink
Colour.white
Colour.grey
Colour.reset

Highlight names

Highlight.brown
Highlight.red
Highlight.orange
Highlight.yellow
Highlight.green
Highlight.cyan
Highlight.blue
Highlight.purple
Highlight.magenta
Highlight.pink
Highlight.white
Highlight.grey

Style names

Style.bold
Style.underline
Style.italics

Activity: Colour a Rainbow!



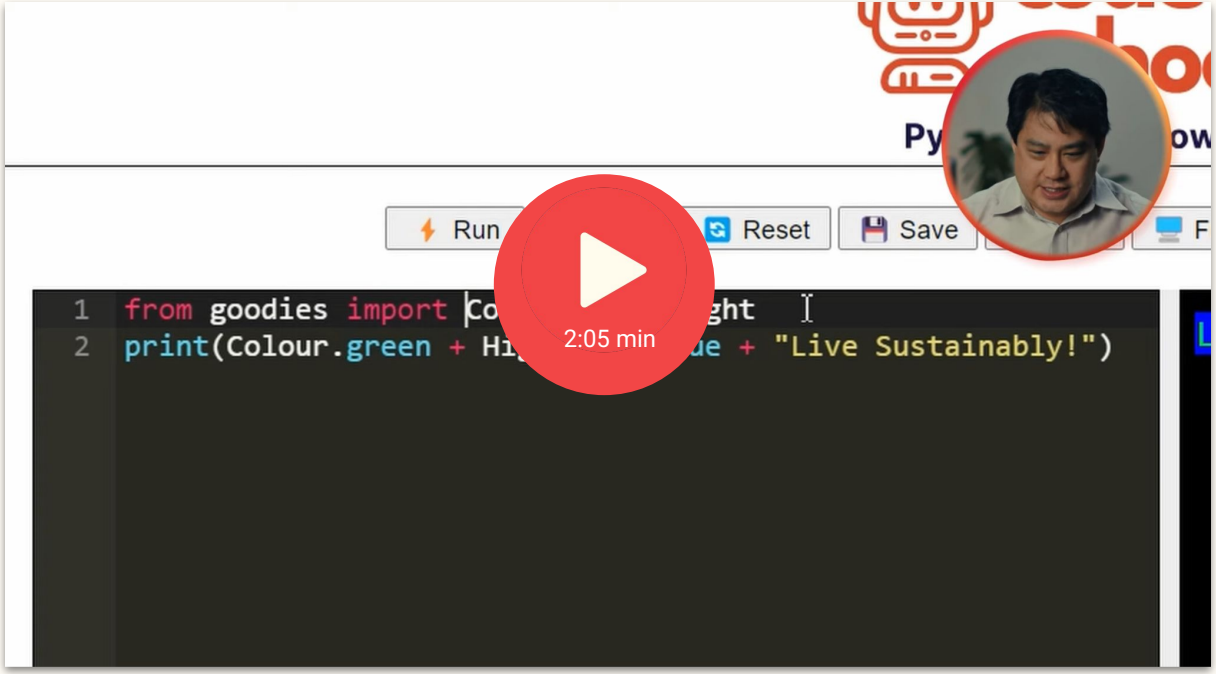
Activity 03.01

Colour a Rainbow

Helpful Hints

- Remember, Colour needs a capital ‘C’
- Check the cheat sheet for the colours you can use!

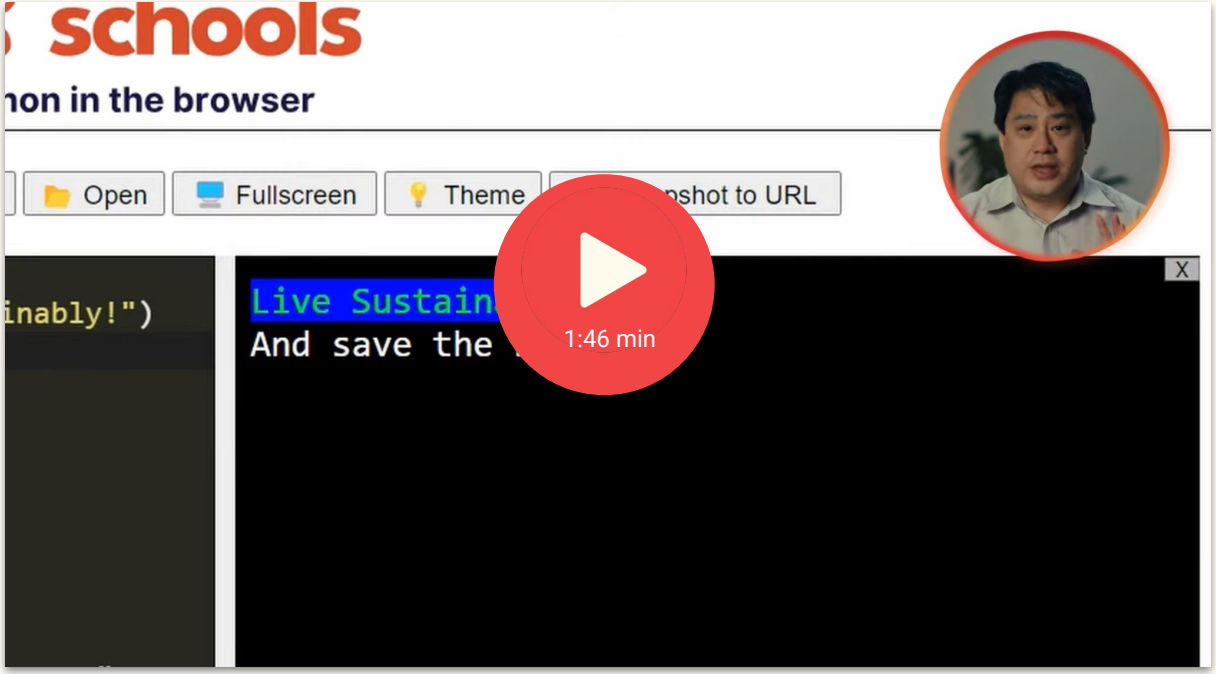
Using Highlights



Vimeo video link

Link to Accompanying Slides
(PDF, powerpoint)

Switching Colours in your Programs



Link to Accompanying Slides
(PDF, powerpoint)

Vimeo video link

Worksheet Activity



Complete Questions 4, 5 & 6

(PDF, MS Word)

Coding Activity: Flags of the World!



Activity 03.02

Flags of the World!

Helpful Hints

- You'll need to change colours multiple times in one `print` function
- Check the cheat sheet for the colours you can use!

Changing colours

You can combine different *colours*, *highlights*, and *styles* to achieve many effects.

Colour names

Colour.brown
Colour.red
Colour.orange
Colour.yellow
Colour.green
Colour.cyan
Colour.blue
Colour.purple
Colour.magenta
Colour.pink
Colour.white
Colour.grey
Colour.reset

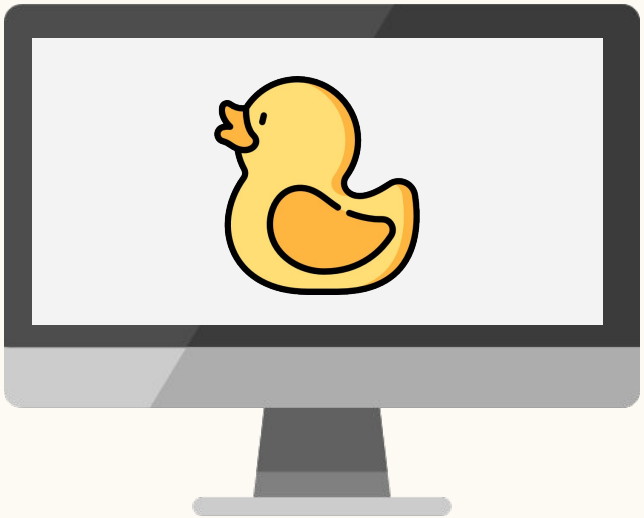
Highlight names

Highlight.brown
Highlight.red
Highlight.orange
Highlight.yellow
Highlight.green
Highlight.cyan
Highlight.blue
Highlight.purple
Highlight.magenta
Highlight.pink
Highlight.white
Highlight.grey

Style names

Style.bold
Style.underline
Style.italics

Activity: Rubber Ducky!

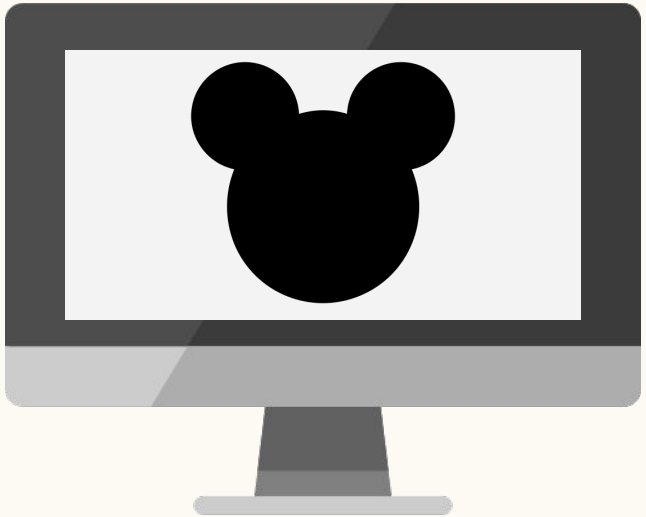


Activity 03.03
Rubber Ducky!

Helpful Hints

- You'll need to change colours multiple times in one `print` function
- Check the cheat sheet for the colours you can use!

Coding Activity: Hey Mickey! (Extension)

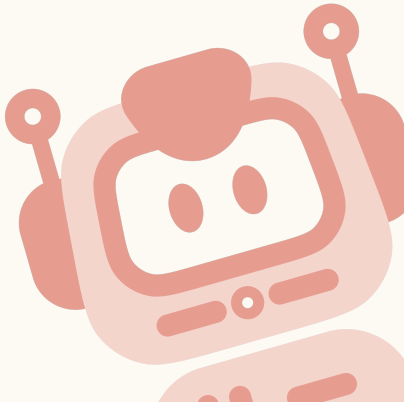


Activity 03.04

Hey Mickey!

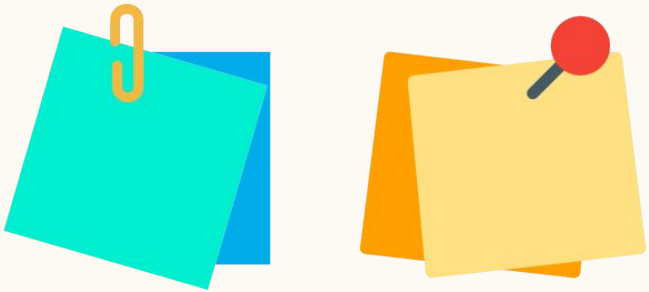
Review of Learning Objectives

- I can reuse other people’s code in Python
- I can change the text colour, highlighting, and styles!



Reflection: Exit pass

- What is one new thing you learnt today?
- Write it on a sticky note and stick it on the board before you leave the classroom



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