In this unit, children will learn a few commands of a text-based programming language (Python), to create a simple, **text based** adventure game.

Computer Science

Prior Knowledge
Children will already know how design, program and debugs games using Scratch. For this project, they will use more advance programming software.

Python syntax

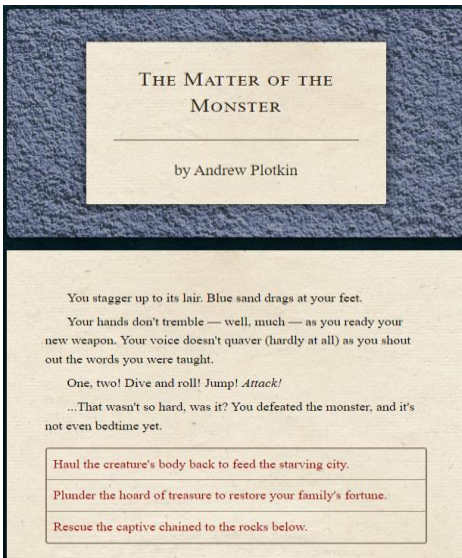| Computing Key Vocabulary	
Binary	Binary is the language computers use. It is a series of 1s and 0s and is also used in mathematics.
Descriptors	Contains information that describes data.
Pathways	Defines the location of a file or folder in a computer's file system
Print *(Not linked to printing)*	Sends text, variables, or another object to the screen.
Procedure	A small section of a program that performs a specific task.
Python	A computer programming language often used to build websites and software
Repetition	Lines of code will be run multiple times.
Selection	Where a section of code will run if a certain condition or instruction is met.
Sequencing	The specific order in which instructions are performed in an algorithm.
Syntax	Specific language (characters or symbol) that a computer can read.
Variables	A variable is a piece of information in a program that we want to store but is able to change.

SWITCHED**ON**
Computing

Binary letters

A	01000001	N	01001110
B	01000010	O	01001111
C	01000011	P	01010000
D	01000100	Q	01010001
E	01000101	R	01010010
F	01000110	S	01010011
G	01000111	T	01010100
H	01001000	U	01010101
I	01001001	V	01010110
J	01001010	W	01010111
K	01001011	X	01011000
L	01001100	Y	01011001
M	01001101	Z	01011010

This half term we will be using…	
Hardware	**Software/Apps**
WinBooks	Python

THE MATTER OF THE MONSTER

by Andrew Plotkin

You stagger up to its lair. Blue sand drags at your feet.

Your hands don't tremble — well, much — as you ready your new weapon. Your voice doesn't quaver (hardly at all) as you shout out the words you were taught.

One, two! Dive and roll! Jump! *Attack!*

...That wasn't so hard, was it? You defeated the monster, and it's not even bedtime yet.

Haul the creature's body back to feed the starving city.

Plunder the hoard of treasure to restore your family's fortune.

Rescue the captive chained to the rocks below.

E-safety:
To understand why there is a PEGI age rating on games and how to stay safe when gaming online.

```
def meadow():
    print ("You are in a beautiful, sunlit meadow. \n\
The birds are tweeting and there are a few high clouds. \n\
In the distance you notice a forest and what appears to \n\
be the entrance to a cave...")
    choice = input ("Choose forest or cave: ")
    if choice == "forest" :
        forest()
    elif choice == "cave":
        cave()
    else:
        print("That's not one of the choices!")
        meadow()

def forest():
    print ("You are in a gloomy forest...\n\
You see a clearing in one direction, everywhere else is more forest.")
    choice = input ("Choose clearing or 'go deeper': ")
    if choice == "clearing" :
        clearing()
    elif choice == "go deeper":
        godeeper()
    else:
        print("That's not one of the choices!")
        forest()

def cave():
    print ("You are in a dark and damp cave...\n\
There's a wide passage or some narrow stairs")
    choice = input ("Choose passage or stairs: ")
    if choice == "passage" :
        passage()
    elif choice == "stairs":
        stairs()
    else:
        print("That's not one of the choices!")
        cave()

def clearing():
    print ("You are in a clearing in the forest... \n\
```

```
import turtle

def draw_circle(turtle, color, size, x, y):
    turtle.penup()
    turtle.color(color)
    turtle.fillcolor(color)
    turtle.goto(x,y)
    turtle.begin_fill()
    turtle.pendown()
    turtle.circle(size)
    turtle.penup()
    turtle.end_fill()
    turtle.pendown()

tommy = turtle.Turtle()
tommy.shape("turtle")
tommy.speed(500)

draw_circle(tommy, "green", 50, 25, 0)
draw_circle(tommy, "blue", 50, 0, 0)
draw_circle(tommy, "yellow", 50, -25, 0)

tommy.penup()
tommy.goto(0,-50)
tommy.color('black')
tommy.write("Let's Learn Python!", align="center", font=(None, 16, "bold"))
tommy.goto(0,-80)
```

Let's Learn Python!

SWITCHEDON Computing