Computing

Lesson 4: Input

Programming Part 1: Sequence

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¹ Materials from the Teach Computing Curriculum created by the National Centre for Computing Education



Task: Make a prediction

Take a look at the program below and make a prediction about what will be output on the screen when this program is executed. Write your prediction down.

1	<pre>print("What is your first initial?")</pre>
2	<pre>initial = input()</pre>
3	<pre>print("What is your surname")</pre>
4	<pre>surname = input()</pre>
5	<pre>print("What is your age?")</pre>
6	<pre>age = int(input())</pre>
7	<pre>print("True or False - you like marmite")</pre>
8	likes_marmite = input()
9	marmite = "True"
10	<pre>decades = float((age / 10))</pre>
11	<pre>print(f"Well hello {initial} {surname}.")</pre>
12	<pre>print(f"It is {likes_marmite==marmite} that y</pre>
13	<pre>print(f"This is probably because you are {ded</pre>

you like marmite.") cades} decades old")



Task: Run the program

 Open the program using the following shortlink:

oaknat.uk/comp-ks4-minidatacollect

- 2. Run the program
- 3. Was your prediction correct? Did anything surprise you?



Follow the steps to investigate the program. Record your answers.

Step 1	Step 2
What data type is being collected at line 2?	Run the program and type more than 1 character when asked for your first initial.
	What happens?





Why do you think this is?



Follow the steps to investigate the program. Record your answers.

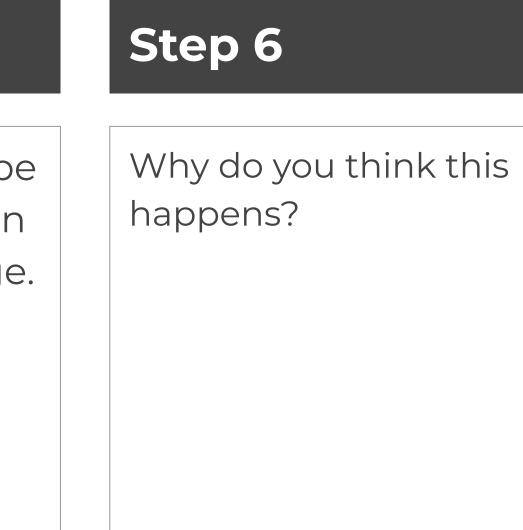
Step 4

Step 5

Does Python have a function for char? Take a look at this link and read the documentation carefully:

oaknat.uk/comp-pythonfunctions

Run the program and type in some string (text) when you are asked for your age. What happens?





Follow the steps to investigate the program. Record your answers.

Step 7

Run the program and type in all lower case true when asked if you like marmite. What happens to the marmite message?

Step 8

Run the program and type in **True** when asked if you like marmite. What happens to the marmite message?

Step 9

Run the program and type in **hello** when asked if you like marmite. What happens to the marmite message?



Follow the steps to investigate the program. Record your answers.

Step 10 Step 11

Line 12 contains the following piece of code likes_marmite == marmite.

What do you think might be happening here?

Run the program and type 9 when you are asked for your age. What happens?

Step 12

On line 10, the forward slash / is being used between the variable age and the number 10.

What arithmetic operation is the forward slash performing?



Follow the steps to investigate the program. Record your answers.

Step 13

On line 10, change the word float to int. Run the code and type in 9 as your age. What happens?

Step 14

Keeping line 10 as int. Run the code and type in 28 as your age. What happens?

Step 15

What do you think is happening when the number is held as an **integer** compared to a **float**?



Task: Modify

The age must be entered as a number on line 6. Use try and except to remind the user that they must enter a number.

Sample code:

```
print("Enter a number")
try:
    number = float(input())
except ValueError:
    print("You must enter a number")
    number = float(input())
```

