WORKSHEET

F1.5 Comments and readable code

Programming basics · GCSE · OCR J277 2.3.1, AQA 8525 3.2.2, Edexcel 1CP2 6.1.4 · about 10 min

BugBotLab

Name _____ Class _____ Date _____

What this lesson is about

Comments, names, blank lines: code a person can read and change.

- Comments
- What a good comment says
- Names that explain themselves
- Blank lines and indentation
- Turning a line off

Questions

6 marks in all

1. What does Python do with a line that starts with `#`? [1 mark]

- ☐ **A** Skips it completely
- ☐ **B** Prints it
- ☐ **C** Runs it twice
- ☐ **D** Treats it as an error

2. What does this program print? [1 mark]

```
print("before")
# print("middle")
print("after")
```

3. Which comment is the most useful? [1 mark]

- ☐ **A** `led("red") # warn: battery is low`
- ☐ **B** `led("red") # set the LED to red`
- ☐ **C** `led("red") # led`
- ☐ **D** `led("red") # a line of code`

4. What do blank lines between parts of a program change about how it runs? [1 mark]

- ☐ **A** Nothing: they only make it easier to read
- ☐ **B** They make it run slower
- ☐ **C** They cause an error
- ☐ **D** They end the program

5. Why do programmers comment a line out instead of deleting it? [1 mark]

- ☐ **A** To switch it off while testing, and put it back easily
- ☐ **B** To make the program faster
- ☐ **C** Because deleting is not allowed
- ☐ **D** To make Python print it

6. Which of these make a program easier to maintain? [1 mark]

Tick every answer that is true.

- ☐ **A** Comments that say why
- ☐ **B** Meaningful variable names
- ☐ **C** Blank lines between steps
- ☐ **D** Putting the whole program on as few lines as possible

The task: a tidy drive

Write a program that turns the LED on, drives forward for a second, stops, turns the LED off and prints `done`. Put a comment above each part saying what it is for, and a blank line between the parts.

```
# the two lines every program starts with: the commands, then the robot
from bugbot import *
connect()

# ...
```

Plan your program here, then type it in and press Run.

Do it on the robot

www.bugbotlab.com/learn/f1-5-comments-and-readable-code/

The simulator checks it and tells you when it passes. Nothing to install, no account.

Challenges

1. Take any program from an earlier lesson and add comments that explain why, not what.
2. Comment out the `stop()` in a driving program. What stops the robot in the end?
3. Write a program that is only comments. Does it run?