



F12.1 Impacts of technology

Technology and society · GCSE · OCR J277 1.6.1, AQA 8525 3.8, Edexcel
1CP2 5.1.1 · about 15 min

Name _____

Class _____

Date _____

What this lesson is about

Ethical, legal, cultural, environmental and privacy impacts, stakeholders, and weighing them up.

- The five kinds of impact
- Stakeholders
- Weighing it up

Questions

5 marks in all

1. A shop uses face recognition on every customer. Which impact is that mainly? [1 mark]
☐ A Privacy
☐ B Environmental
☐ C Copyright
☐ D Performance
2. What is a stakeholder? [1 mark]
☐ A Anyone affected by a system
☐ B Only the person who pays for it
☐ C The programmer
☐ D The government
3. Which is an environmental impact? [1 mark]
☐ A The rare metals needed to make the device
☐ B The password being weak
☐ C The software licence
☐ D The user interface
4. An exam question says "discuss". What does a good answer include? [1 mark]
☐ A Both benefits and drawbacks, then a conclusion
☐ B Only the benefits
☐ C A list of definitions
☐ D Only your opinion
5. An effect scores +3 and two effects score -1 each. What is the total? [1 mark]

The task: weigh up the robots

Each effect in `effects` has a score from -3 to 3. Print each as `<name>: <score>` with a `+` in front of positive scores (an f-string with `{score:+d}` does this). Then print `total: <n>`, and on the next line `verdict:` `worth it` if the total is above 0, `verdict: not worth it` if below 0, and `verdict: too close to call` if it is exactly 0.

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

effects = [
    ("students learn to code", 3),
    ("plastic and metal to make", -2),
    ("electricity to run", -1),
    ("fewer jobs in assembly", -1),
    ("reaches remote schools", 2),
    ("e-waste at end of life", -1),
]
```

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



Do it on the robot

www.bugbotlab.com/learn/f12-1-impacts-of-technology/

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

Challenges

1. Add an effect of your own and see whether the verdict changes.
2. Group the effects by the five kinds of impact. Which kind has the most entries?
3. Why can a total like this be misleading? Give one example.