



F12.9 Project: an impact report

Technology and society · GCSE · OCR J277 1.6.1, AQA 8525 3.8, Edexcel
1CP2 5.1.1 · about 25 min

Name _____

Class _____

Date _____

What this lesson is about

Read the trial log, anonymise it, cost its energy and carbon, and publish a report.

- The log
- What the report needs
- Reading the file
- Plan it first

Questions

5 marks in all

- Why does the report use "student 1" instead of names? [1 mark]
☐ A So it holds no personal data and can be shared safely
☐ B To make it shorter
☐ C Because names are hard to print
☐ D To save electricity
- Which impacts does the report cover? [1 mark]
☐ A Privacy and the environment
☐ B Only cost
☐ C Only privacy
☐ D Only performance
- 170 minutes of a 60 W device. How many kWh? [1 mark]

- Anonymised data can sometimes still identify someone. How? [1 mark]
☐ A By joining it with other data
☐ B By reading it twice
☐ C By compressing it
☐ D By encrypting it
- What makes a good conclusion to an impact report? [1 mark]
☐ A A judgement supported by the impacts you found
☐ B A list of every fact
☐ C Only the good news
☐ D No conclusion at all

The task: write the report

Read `trial.csv` and print the report, in this order and these exact forms: - sessions: `<n>` - students: `<n>` - total minutes: `<n>` - one line per student, student `<n>`: `<minutes>` min, `<cm>` cm, numbered in the order they first appear - energy: `<kwh>` kWh rounded to 2 decimal places - cost: `£<n>` rounded to 2 decimal places - carbon: `<n>` g CO2 rounded to the nearest whole number - personal data in this report: none

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

WATTS = 60
PENCE_PER_KWH = 28
GRAMS_PER_KWH = 190
```

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



Do it on the robot

www.bugbotlab.com/learn/f12-9-project-an-impact-report/

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

Challenges

1. Add the average minutes per session, without naming anyone.
2. Add a line comparing the carbon with something familiar, such as a car journey.
3. Write three sentences of verdict for the school: two impacts and a recommendation.