Will it **recycle**?

1.What ?

- What is it? E.g. a mobile phone
- What is it used for? E.g. communication, gaming, social media etc.
- How long does it generally last? E.g. 1 - 3 years
- What happens to it when it reaches the end of its life? E.g. thrown in the bin, or electrical waste

E.g.

2.Why?

- Why would you recycle it? E.g. It contains components that could be reused rather than contaminating the environment
- What is it made of? E.g. Plastics, lithium batteries etc.
- What impact does wasting this have on the environment? E.g. Non-biodegradability, metal mining etc.

3.How?

E.g.

1. Disassemble the component
2. Characterise the materials
   - using techniques such as Scanning Electron Microscopy (SEM), Energy Dispersive X-ray spectroscopy (EDX) and Differential Scanning Calorimetry (DSC).
3. Assess their recyclability
   - consider energy intensity, scalability, value and cost

4. Things to consider

Considerations when assessing recyclability:

- How easy is it to take apart? Could a machine do it?
- What are the different components made of?
- What is the value of the individual components?
- Can components be re-used or recycled?
- How much energy is required to recycle the components?
- Is it economically worthwhile to recycle?