

Name _____

Class _____

Date _____

By the end of this worksheet I can...

- ☐ describe how function influences the design of a product
- ☐ explain primary and secondary functions with examples
- ☐ describe how performance and fitness for purpose influence design
- ☐ describe maintenance issues associated with products
- ☐ explain the influence of planned obsolescence on manufacturers, consumers and the environment
- ☐ explain value for money

I DO

Worked example Read how a full-mark answer is built

A folding camping chair and a fixed garden recliner.

1 Describe how function and safety have influenced the design of these chairs. (5 marks)

Points that earn marks from the marking instructions: one ✓ per point

- ✓ Function: camping chair folds flat to fit in a car boot
- ✓ Function: cup holder in armrest keeps drinks within reach
- ✓ Function: recliner back adjusts to several positions
- ✓ Safety: wide leg spread keeps the chair stable on uneven ground
- ✓ Safety: locking catch stops the frame folding while in use

Why marks are not awarded

- ✗ Naming a function with no description
- ✗ Only one factor covered: max 4

WE DO

Guided practice Use the starters and word bank to help you

2 Describe planned obsolescence and give an example of its influence on the design of products. (2 marks)

Sentence starters

Description: ...

Example: ...

Word bank

cannot · replaced · batteries · outdated ·
become · designed · description · limited

Tip: 2 marks = 2 separate, developed points.

YOU DO

On your own No notes. Check your answers afterwards.

3 Quick check: tick one box for each.

- a) A razor with replaceable heads compared with a disposable razor has...
☐ Longer life expectancy ☐ Shorter life expectancy ☐ No maintenance ☐ No secondary function
- b) Making a phone battery hard to replace mainly affects which factor?
☐ Aesthetics ☐ Maintenance ☐ Target market ☐ Anthropometrics
- c) A torch that also works as a bottle opener. The bottle opener is...
☐ Secondary function ☐ Primary function ☐ Performance ☐ Aesthetics
- d) Which is a benefit of planned obsolescence for a manufacturer?
☐ Fewer sales ☐ Better reputation guaranteed ☐ No need for R&D ☐ Predictable repeat sales

4 Key terms: write the letter of the matching description next to each term.

- | | | |
|-------------------------------------|-------|---|
| 1. Primary function | _____ | A Who maintains it, what tasks are needed, and how easily parts can be accessed or replaced. |
| 2. Secondary function | _____ | B Designing products with a limited life so they will be replaced. |
| 3. Fitness for purpose | _____ | C Additional jobs that add value to the product. |
| 4. Maintenance consideration | _____ | D How well a product meets its intended use, user, environment and life expectancy. |
| 5. Planned obsolescence | _____ | E The main job a product is designed to do. |

5 Explain what is meant by 'Style obsolescence'. (2 marks)

6 Explain what is meant by 'Value for money'. (2 marks)

Check and reflect

Mark your answers with the answer sheet. Go back to the checklist on the site and re-rate each “I can” statement above. Which one still needs work?
