

CQ

Theme 2 Going to a festival

(a) How can products be used to market or promote a festival?

CQ

Theme 3 Going to the zoo

(b) How can products be used to educate young children about endangered animals during their visit to the zoo?

1.1 Investigation of needs and research (AO1 8 marks)

- 7–8
- Evidence of developed investigation and identification of relevant design possibilities, which are fully justified in relation to the contextual challenge.
- Developed assessment of user needs and wants and the requirements of the prototype in response to the contextual challenge, with fully appropriate reference to form and function.
- Fully developed evidence of links between the design requirements and the research undertaken in relation to the contextual challenge.
-

1.2 Specification (AO1 8 marks)

- 7–8
- Fully sound design brief that demonstrates a realistic response to the contextual challenge, addressing most of the investigated needs and wants of the user.
- Fully developed range of specification points that are realistic, technical and measurable, based on a fully relevant investigation of research in relation to the contextual challenge.
- Fully sound justification of the performance requirements for the product in relation to the contextual challenge.

2.1 Design ideas (AO2 8 marks)

- 7–8
- ● Fully appropriate selection and use of design strategies to inform decisions to generate a wide range of design ideas in response to the contextual challenge.
- ● Fully sound consideration for the user needs and specification parameters.
- Ideas demonstrate a fully sound understanding of relevant materials, processes and techniques.

2.2 Review of initial ideas (AO3 8 marks)

- Fully developed analysis of design ideas leading to effective refinement and development of designs, which considers comprehensive factors and makes fully relevant connections between elements of the design.
- Effective evaluation of design ideas leading to considered refinement and development of designs, demonstrating a fully sound understanding of design considerations.
-

2.3 Development of design ideas into a chosen design (AO1 4 marks AO2 8 marks)

- Fully appropriate use of research to inform ongoing developmental changes.
- Fully sound refinements of design ideas and a design solution that fully meets the requirements of the design specification, informed by the fully sound application of technical knowledge of materials and processes and the effective application of modelling/simulation techniques.
- Chosen design idea shows fully appropriate application of calculations to determine all material quantities and technical details of materials, processes and components that could be interpreted by a third party.
-

2.4 Communication of design ideas (AO2 8 marks)

- 7–8
- Considered selection and fully appropriate use of techniques to communicate design ideas.
- Considered selection and fully appropriate use of computer-aided design (CAD) techniques to communicate design ideas.
- Considered selection and fully appropriate use of written techniques to communicate design ideas.

2.5 Review of chosen design (AO3 6 marks)

- 5–6
- Fully developed analysis of the refinements made to the chosen design in response to the contextual challenge, which considers fully appropriate factors and makes fully appropriate connections between elements of the design.
- Effective evaluation of the refinements made to the chosen design, supported by fully sound reference to feedback made by others and the consideration of the materials, components and manufacturing techniques.

3.1a Manufacture – selection of materials (AO2 8 marks)

- 7–8
- Effective selection of materials that are fully appropriate for the chosen prototype.
- Show a fully sound understanding of material properties of the materials used in the prototype.
-

3.1b Manufacture – skills and processes (AO2 12 marks)

- 13–16
- Produce a prototype that demonstrates fully competent making skills.
- Fully considered selection of fixtures, components and fittings, which are entirely appropriate for the chosen prototype.
- Fully competent use of tools, equipment and techniques for the manufacture of the prototype.
- Demonstrate a sustained high degree of safe working practice for self and others.
-

3.2 Quality and Accuracy (AO2 12 marks)

- 10–12
- Produce a fully functioning prototype that fully meets the end user needs in relation to a demanding design problem.
- Produce a prototype that fully meets the design specification.
- Show a fully sound understanding of the need for accuracy.

4.1 Testing and Evolution (AO3 6 marks)

- 5–6
- Fully developed analysis of the prototype developed in response to the contextual challenge, taking into account the end user and product specification, and showing a fully considered approach to testing against measurable criteria.
- Effective evaluation of the prototype, taking into account the intended purpose of the prototype and drawing fully appropriate conclusions from testing against measurable criteria.

Totals for each section		Mark awarded	Pearson use only
1	Investigate	/16	/16
2	Design	/42	/42
3	Make	/36	/36
4	Evaluate	/6	/6
TOTAL		/100	/100