

<p>Answer ONE question only.</p> <p>1 Built Environment and Construction</p> <p>A housing association wishes to offer customers an optional first floor balcony to maximise outdoor space.</p> <p>A balcony which can be attached to the elevation of a domestic dwelling is required.</p> <p>The balcony must:</p> <ul style="list-style-type: none"> • provide space for two people to sit; • suit a variety of house styles. <p>Follow the instructions given on the four A3 answer sheets to complete the question.</p>	<p>3 Food focus</p> <p>A television company is planning a food programme entitled 'Re-use'. They aim to encourage viewers to reduce their food waste by providing innovative ideas for re-using leftover foods.</p> <p>A sweet or savoury product made from leftover food items is required</p> <p>The product must:</p> <ul style="list-style-type: none"> • be nutritionally sound; • be able to be made at home with a range of additional ingredients. <p>Follow the instructions given on the four A3 answer sheets to complete the question.</p>
<p>2 Engineering focus</p> <p>Cycling is a very popular pastime. Cyclists need to keep their bicycles well maintained at all times.</p> <p>A service stand for bicycles is required.</p> <p>The product must:</p> <ul style="list-style-type: none"> • hold the bicycle securely whilst being worked on; • occupy minimum space when not in use. <p>Follow the instructions given on the four A3 answer sheets to complete the question.</p>	<p>4 Graphic Products</p> <p>A Local Authority wishes to provide printed leaflets about career options for school leavers. The leaflets will be displayed in a school's reception area</p> <p>A product to display and make available the leaflets is required.</p> <p>The product must:</p> <ul style="list-style-type: none"> • be interchangeable to hold a range of different sized printed materials; • be supplied to schools in flat pack form. <p>Follow the instructions given on the four A3 answer sheets to complete the question.</p>
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<p>5 Manufacturing focus</p> <p>PC and video games are very popular with all age groups. When games and related equipment are left lying around, it is easy for them to become lost or damaged.</p> <p>A storage unit for video games and equipment is required.</p> <p>The product must:</p> <ul style="list-style-type: none"> • be able to be produced as a batch of 10000; • be available as a 'flat pack'. <p>Follow the instructions given on the four A3 answer sheets to complete the question.</p>	<p>7 Systems and Control focus</p> <p>Regular brushing of teeth using a toothbrush and toothpaste is essential for healthy teeth and gums.</p> <p>A family bathroom product is required to dispense a measured amount of toothpaste onto a toothbrush.</p> <p>The product must:</p> <ul style="list-style-type: none"> • be able to dispense different amounts of toothpaste for adults and for children; • be able to be produced as a batch of 10 000. <p>Follow the instructions given on the four A3 answer sheets to complete the question.</p>
<p>6 Resistant materials focus</p> <p>A Primary School has a large after school club for children. The children enjoy playing outside.</p> <p>A toy vehicle that children can sit on is required.</p> <p>The product must:</p> <ul style="list-style-type: none"> • be pushed or pedalled by the child; • be easily steered. <p>Follow the instructions given on the four A3 answer sheets to complete the question.</p>	<p>8 Textiles focus</p> <p>A Nursery School for children aged 2 – 4 years is trying to encourage imaginative play.</p> <p>A 'play tent' that can be used outside or inside is required.</p> <p>The product must:</p> <ul style="list-style-type: none"> • be suitable for boys and girls; • be easy to erect and pack away. <p>Follow the instructions given on the four A3 answer sheets to complete the question.</p>
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(b) Ideas with development

- A range of ideas [15]
- Consider manufacturing/construction detail [12]
- Evaluate ideas with reference to specification and volume production [6]

[Total: 33]

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(b) Ideas with development (continued)

A3 SHEET 3 OF 4

FOR EXAMINER'S USE	
R	
D	
E	

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CANDIDATE NUMBER

CENTRE NUMBER

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(c) Final Developed Outcome

Sketch a final developed outcome. Justify key design features. [9]

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C	

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