

<p><b>Answer ONE question only.</b></p> <p><b>1 BUILT ENVIRONMENT AND CONSTRUCTION FOCUS</b></p> <p>The owner of a residential complex has identified a need for a cycle storage unit.</p> <p>A cycle storage unit is required.</p> <p>The unit must:</p> <p>be a permanent structure</p> <p>hold 20 cycles securely.</p> <p>Follow the instructions given on the four A3 answer sheets to complete the question.</p>	<p><b>3 FOOD FOCUS</b></p> <p>An increasing number of people choose not to eat meat or dairy foods.</p> <p>A product that would provide alternative sources of protein is required.</p> <p>The product must:</p> <p>provide a good source of protein to the daily diet without containing meat or dairy</p> <p>be suitable for college/university students.</p> <p>Follow the instructions given on the four A3 answer sheets to complete the question.</p>
<p><b>2 ENGINEERING FOCUS</b></p> <p>Digital projectors are widely used in schools and colleges.</p> <p>A product to hold a digital projector is required.</p> <p>The product must:</p> <p>be easily adjustable to suit different rooms</p> <p>be suitable for use with all types and sizes of projectors.</p> <p>Follow the instructions given on the four A3 answer sheets to complete the question.</p>	<p><b>4 GRAPHIC PRODUCTS FOCUS</b></p> <p>Learning through play is an integral part of primary school education.</p> <p>A cardboard product that would encourage creative play is required.</p> <p>The product must:</p> <p>be lightweight and able to be flat-packed</p> <p>be suitable for use by children aged 5 to 7 years old.</p> <p>Follow the instructions given on the four A3 answer sheets to complete the question.</p>
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<p><b>5 MANUFACTURING FOCUS</b></p> <p>It is often difficult for students to find space in their accommodation to dry wet items of clothing.</p> <p>A product that can be used to dry wet items of clothing is required.</p> <p>The product must:</p> <p>be able to be stored easily when not in use</p> <p>be suitable for production in a batch of 1000.</p> <p>Follow the instructions given on the four A3 answer sheets to complete the question.</p>	<p><b>7 SYSTEMS AND CONTROL FOCUS</b></p> <p>Walking a dog along unlit roads on a dark winter night can be dangerous for both the owner and the dog.</p> <p>A product to improve the safety of dogs and their owners is required.</p> <p>The product must:</p> <p>be fully adjustable</p> <p>be easily attached and removed.</p> <p>Follow the instructions given on the four A3 answer sheets to complete the question.</p>
<p><b>6 RESISTANT MATERIALS FOCUS</b></p> <p>There is increasing concern over the general health and fitness of children.</p> <p>A product that will enable children to exercise safely is required.</p> <p>The product must:</p> <p>be able to be used indoors and outdoors</p> <p>be suitable for use by children aged 7 to 11 years old.</p> <p>Follow the instructions given on the four A3 answer sheets to complete the question.</p>	<p><b>8 TEXTILES FOCUS</b></p> <p>Moving a child from a cot into a bed can sometimes be a difficult transition.</p> <p>A product that will encourage children to move into their own bed is required.</p> <p>The product must:</p> <p>be suitable for use with any bed</p> <p>be suitable for children aged 2 to 5 years old.</p> <p>Follow the instructions given on the four A3 answer sheets to complete the question.</p>
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**Circle the question number you are answering**

**A3 SHEET 1 OF 4**

**1 2 3 4 5 6 7 8**

**(a) Give THREE justified specification points.**

**1** \_\_\_\_\_

## Instructions to candidates

## ALLOCATION OF MARKS FOR PAPER F524/02

**(a) specification points** [6]

**(b) range of developed ideas** [33]

**(c) final developed outcome** [9]

**(d) communication** [6]

**[TOTAL: 54]**

**All dimensions are in millimetres**

**Where necessary, calculators may be used**

**2** \_\_\_\_\_

**3** \_\_\_\_\_

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[6]

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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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(c) Final developed outcome

Sketch a final developed outcome. Justify key design features.

[9]

END OF QUESTION PAPER

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