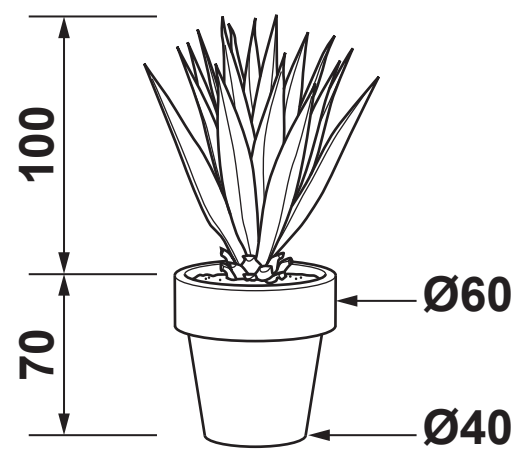


<p><b>Answer ONE question only.</b></p> <p><b>1 Built Environment and Construction</b></p> <p>The owner of a building used for student accommodation wishes to divide a large bedroom into two smaller bedrooms.</p> <p>A partition wall is required.</p> <p>The partition wall must:</p> <p>satisfy the requirements of the Building Regulations;</p> <p>be non-load bearing.</p> <p>Follow the instructions given on the four A3 answer sheets to complete the question.</p>	<p><b>3 Food</b></p> <p>A catering company has been asked to provide a food stall at a music festival aimed at young adults.</p> <p>The organisers are keen to promote healthy eating as per the Government guidelines.</p> <p>A hand held savoury product is required.</p> <p>The product must:</p> <p>provide a source of HBV (Higher Biological Value) protein;</p> <p>not require any packaging to reduce excess waste at the event.</p> <p>Follow the instructions given on the four A3 answer sheets to complete the question.</p>
<p><b>2 Engineering</b></p> <p>A secondary school wishes to encourage its students to make less litter and to take greater care when disposing of waste.</p> <p>A bin for the collection of disposable plastic water bottles is required.</p> <p>The bin must:</p> <p>include a mechanism to reduce the size of the plastic bottle for more efficient storage and transportation of bottles;</p> <p>be easy to remove the crushed bottles.</p> <p>Follow the instructions given on the four A3 answer sheets to complete the question.</p>	<p><b>4 Graphic Products</b></p> <p>A school is to sell pots of herbs from its Kitchen Garden shop.</p> <p>Packaging to allow customers to take home pots of herbs and promote the school's Kitchen Garden is required.</p> <p>The packaging must:</p> <p>hold batches of 3, 6 or 9 pots;</p> <p>include a logo for The Kitchen Garden.</p> <p>Follow the instructions given on the four A3 answer sheets to complete the question.</p> <div data-bbox="2374 1501 2864 1921"><p>The diagram shows a cross-section of a plant pot. It has a flared rim with a diameter of 60 units (Ø60) and a narrower base with a diameter of 40 units (Ø40). The total height of the pot is 100 units. A plant with long, thin leaves is growing out of the top of the pot.</p></div>
<p><b>F524/02 PRODUCT DESIGN</b></p>	

<div>5</div> <div>Manufacturing</div> <div>School caretaking staff carry out a wide range of maintenance tasks in and around the school. Some tasks, such as replacing lights can be hazardous.</div> <div>A product that would provide a platform for a member of the premises staff to work safely at a height of up to 1.25 metres above floor level is required.</div> <div>The product must:</div> <div>be easy to transport to different parts of the school;</div> <div>be able to be erected level on uneven ground.</div> <div>Follow the instructions given on the four A3 answer sheets to complete the question.</div>	<div>7</div> <div>Systems and Control</div> <div>For people who need to take regular daily medication, it can be difficult to remember to take the medication at the correct times.</div> <div>A product that can be used to store tablets and to remind the user when to take them would be helpful.</div> <div>The product must:</div> <div>be suitable for use by a wide range of users;</div> <div>store at least two weeks' medication.</div> <div>Follow the instructions given on the four A3 answer sheets to complete the question.</div>
<div>6</div> <div>Resistant Materials</div> <div>Many domestic kitchens have limited food storage space. Storing and easily locating food items can be a problem.</div> <div>A product that can be used to store standard size cans of food (110 × Ø76) for easy location would be helpful.</div> <div>The product must:</div> <div>be freestanding;</div> <div>store at least 12 cans.</div> <div>Follow the instructions given on the four A3 answer sheets to complete the question.</div>	<div>8</div> <div>Textiles</div> <div>Walking in the countryside is a popular pastime.</div> <div>A product that can be used to carry all the items needed for a day out walking is needed.</div> <div>The product must:</div> <div>be comfortable and easy to carry;</div> <div>hold all the items needed for a day out.</div> <div>Follow the instructions given on the four A3 answer sheets to complete the question.</div>
F524/02 PRODUCT DESIGN	

**Circle the question number you are answering.**

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

## 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.**

For Examiner's Use Only						
S	R	D	E	F	C	Total

**A3 SHEET 1 OF 4**

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

# 1

2 \_\_\_\_\_

### 3

[6]

F524/02 PRODUCT DESIGN	CANDIDATE NAME		CANDIDATE NUMBER		CENTRE NUMBER	
---------------------------	-------------------	--	---------------------	--	------------------	--

(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]

F524/02 PRODUCT DESIGN	CANDIDATE NAME		CANDIDATE NUMBER		CENTRE NUMBER	
---------------------------	-------------------	--	---------------------	--	------------------	--

FOR EXAMINER'S USE	
R	
D	
E	

F524/02 PRODUCT DESIGN	CANDIDATE NAME		CANDIDATE NUMBER		CENTRE NUMBER	
---------------------------	-------------------	--	---------------------	--	------------------	--

(c) Final developed outcome

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

FOR EXAMINER'S USE	
F	
C	

END OF QUESTION PAPER

F524/02 PRODUCT DESIGN	CANDIDATE NAME		CANDIDATE NUMBER		CENTRE NUMBER	
---------------------------	-------------------	--	---------------------	--	------------------	--