

Bear Box



Approach: Station

Level: Year 4 and year 8

Focus: Designing and drawing a box for a teddy bear.

Resources: Teddy bear, pencil, rubber, 30cm ruler, instruction card.

Questions/instructions:

In this activity you are going to draw a plan of a box that would be suitable for this teddy bear.

Show a teddy bear.

The box needs to be suitable for sending the teddy bear in the post to someone.

The teddy bear would be lying flat in the box.

I'll give you an instruction card which tells you what to do. This is what the instructions say ...

Read instruction card to students before handing out the supplies.

Bear Box

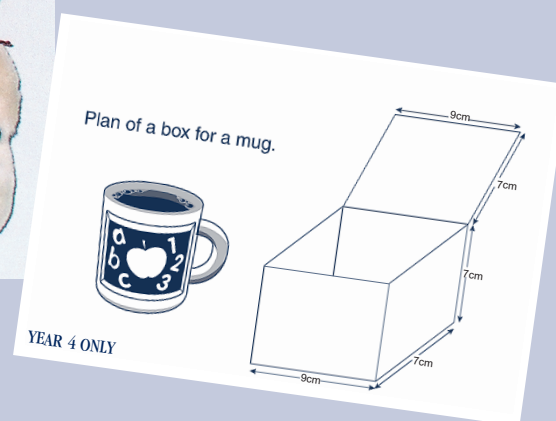
The card shows a 3D plan of a box for a mug.
You are going to draw a box for the teddy bear.

YEAR 4 ONLY

Have a good look at the teddy bear. It is going to be posted to someone in a box. Teddy bear would be lying flat in the box.

1. Draw a 3D plan of a rectangular box for the teddy bear.
2. Make the box about the right size for the teddy bear — not too big, and not too small.
3. Write in measurements on your plan to show how long, wide and high it will be.
4. Show how and where the box opens.
5. Show what the box is made from.

Someone else should be able to make this box by using your plan.

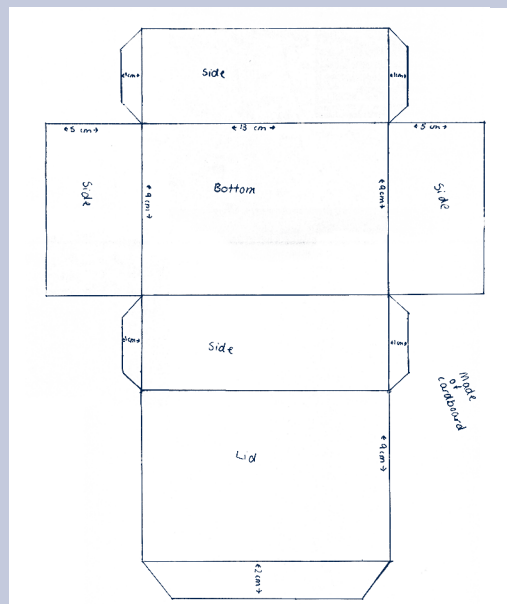
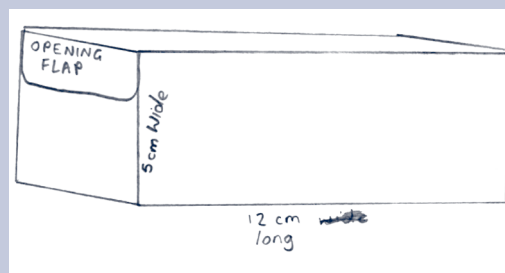
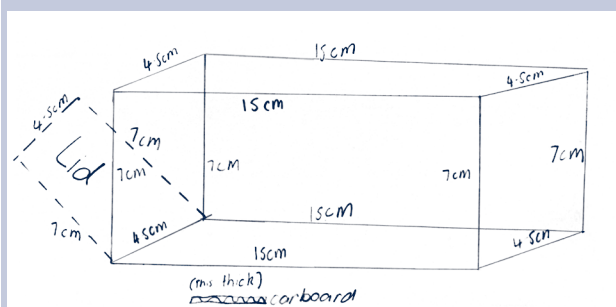


drawing looks like 3-D box	% responses	
	y4	y8
drawing shows three faces meeting in one corner of the box	63	87
it looks like an object where all faces are rectangular and meet at right angles	70	86
dotted lines for hidden edges	6	35
non-parallel (<i>converging</i>) lines used to create 3D perspective	5	19
measurements		
length, width and height	46	74
2 of 3	32	22
1 of 3	6	1
no relevant measurements	16	3
used recognisable units for all measurements	75	91

measurements appropriate for size of teddy bear:	% responses	
	y4	y8
all 3	14	31
2	34	49
1	26	13
0	26	7
clear where box opens	66	84
label showing what box is made from	68	81
diagram shows material has thickness	4	6
plan provided as well as 3D diagram	1	7
plan provided instead of requested 3D diagram	11	5

Commentary:

On average, about 20 percent more year 8 than year 4 students succeeded with the main elements of this task.

YEAR 8 — MID

YEAR 4—MID

