

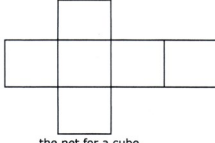
## Designing

<b>Design</b>	a plan or drawing produced to show the look and function or workings of an object before it is made. To imagine and create a product to be made.
<b>Constraint</b>	a set size or <b>dimension</b> that can not be exceeded which acts as a limit.
<b>Tolerance</b>	the allowable difference between the intended size of a design and the final part or product.

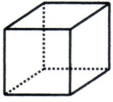
## Explore – STEM links

**Net Developments**

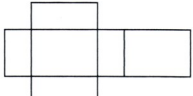
A 2D net can be folded together to make a 3D shape.



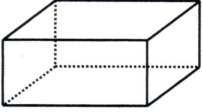
the net for a cube



cube

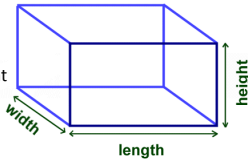


the net for a cuboid







cuboid

Volume of a cuboid = Length x Width x Height



## Materials

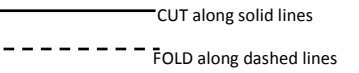
<b>Cartridge Paper</b>	Used for general drawing. It is often good quality and generally 100 to 135gsm in thickness. This paper is used for design and technology projects and will take colour from pencils and felt pens without too much leaking to the opposite side of the paper.	
<b>Pine</b>	an evergreen coniferous tree which has clusters of long needle-shaped leaves. Many kinds are grown for the soft timber, which is widely used for furniture and pulp, or for tar and turpentine.	
<b>Hand vice</b>	a small clamp or <b>vice</b> on a handle designed for holding small objects.	
<b>dowel</b>	Dowel is a wooden rod used in supporting wood joints.	

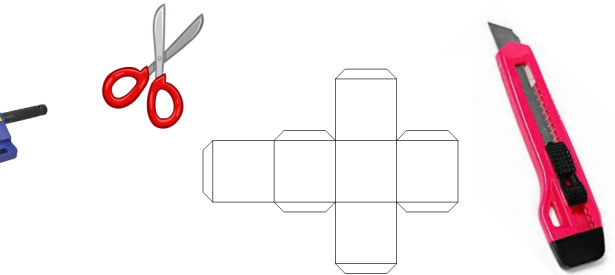
## Functionality

<b>Blok Bot</b>	Once you have applied the design, you need to drill and assemble your Blok Bot with rope. You need to consider accuracy in the drilling and assembly.
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## Manufacture

<b>Cutting and Folding</b>	Using scissors and/or a craft knife to carefully cut out your template. Accuracy is key here - if you don't cut it properly, it won't fit!
	
<b>Gluing/taping</b>	Applying glue or double-sided tape carefully to the tabs of your net development



## Critique

<b>Design Criteria</b>	A list that you create or use when making a product, which outlines what the product must do, look like or be made from
<b>Specification</b>	A detailed list that clearly outlines the criteria for specific products
<b>Evaluation</b>	You should use your specification when evaluating products. This is to make sure you have made your product successfully. You should get other peoples' opinions about your product

