

# Understanding Cubes and Nets

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**DO YOU FIND IT CONFUSING TO VISUALISE  
AND IDENTIFY WHICH NET SHAPES  
CAN BE FOLDED INTO CUBES ?**

**There are many varieties and you need to know all of them for PSLE. However, your school Maths books may not show you all these net shapes.**



1. First understand that a cube is a 3 dimensional solid with 6 square faces and all its sides are of the same length.

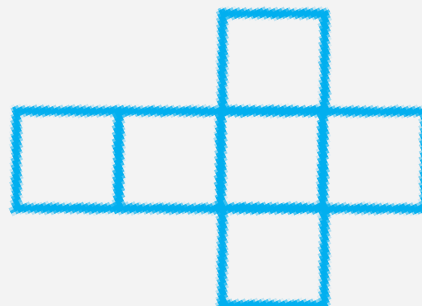
Breadth  
2 cm



Length  
2cm

Height -  
2 cm

2. For a cube to be formed, there must be a 2 dimensional net plan of 6 squares specially arranged forming a pattern shape. When the sides of the pattern shape are folded upwards, the cube is formed.



**So how to identify which net shape can be folded into a cube?**

**Just look out for the Upper case 'T' and Lower case 't' base net pattern arrangements consisting of 6 squares.**

**EASY!**

**Some 11 net pattern types can be derived from them and folded into cubes.**

They can be classified into 4 net groups namely:

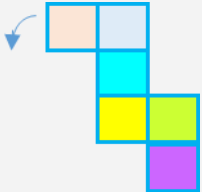
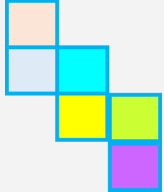
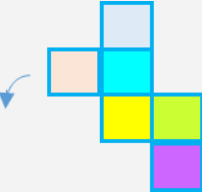

6 patterns of Type 1-4-1 net

1 pattern of Type 3-3 net

3 patterns of Type 1-3-2 net

1 pattern of Type 2-2 net

NETS OF CUBES			
TYPE	1-4-1 NET		3-3 NET
Description	1 square + 4 vertical squares + 1 square		2 sets of 3 vertical squares
	Uppercase T	Lowercase t	
Pattern 1			
Pattern 2			
Pattern 3		=	<p>When Pattern 3 is rotated 180°, Pattern 3 in the left column is formed.</p>
Pattern 4			

NETS OF CUBES		
TYPE	1-3-2 NET	2-2 NET
Description	1 square + 3 vertical squares + 2 vertical squares	3 sets of 2 vertical squares
Pattern 1	 <p><i>Move the first square in the first horizontal row downwards</i></p>	
Pattern 2		
Pattern 3		

# Cube Challenge!

Investigate by drawing these nets on plain paper, cut them out and see if they can be folded into cubes.



Label them according to their pattern type so that you can remember better; then try to spot them in your school work exercises.

**HAVE FUN IN YOUR INVESTIGATION**