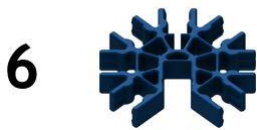




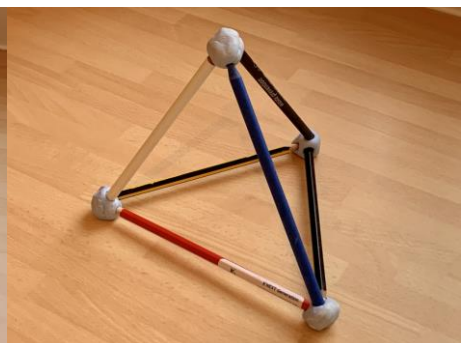
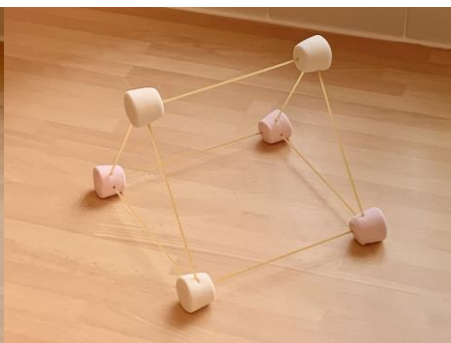
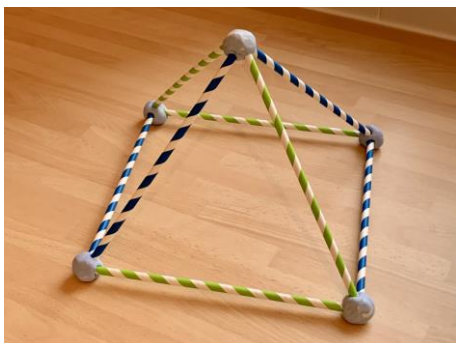
# K'NEXT Generation

## P4-7 K'NEX 3D Shapes

You will need these K'NEX pieces  
(you may have different colours)



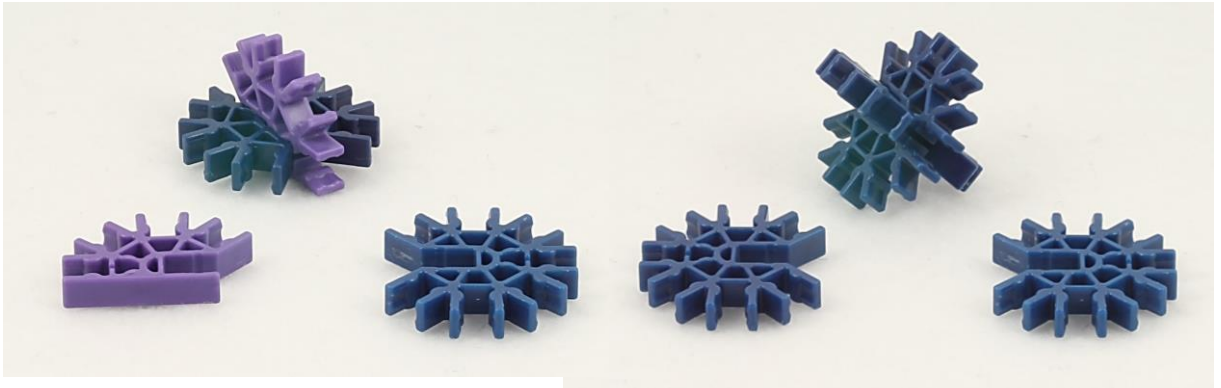
or you can use  
drinking straws, spaghetti or pencils instead of K'NEX rods  
and  
plasticine, marshmallows or Blu Tac instead of K'NEX connectors



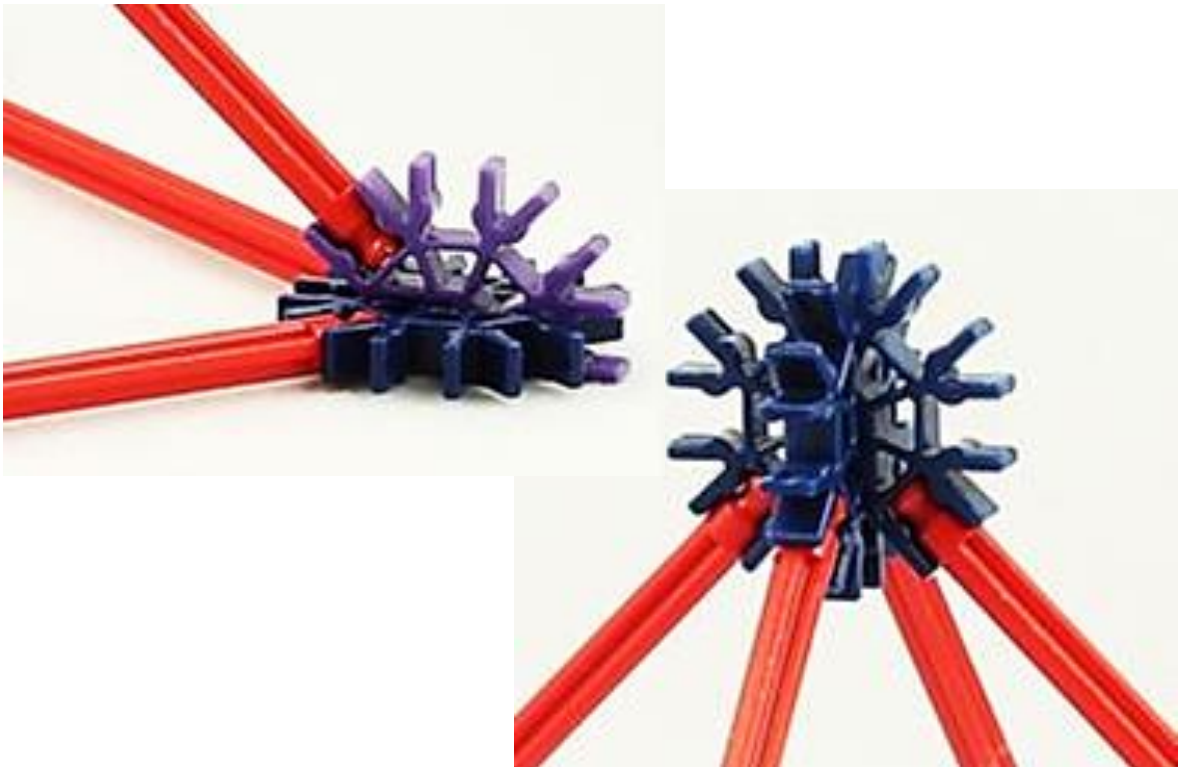
## Before you start, it will help you to look at this hint

3D connectors have slots so that you can connect them to each other.

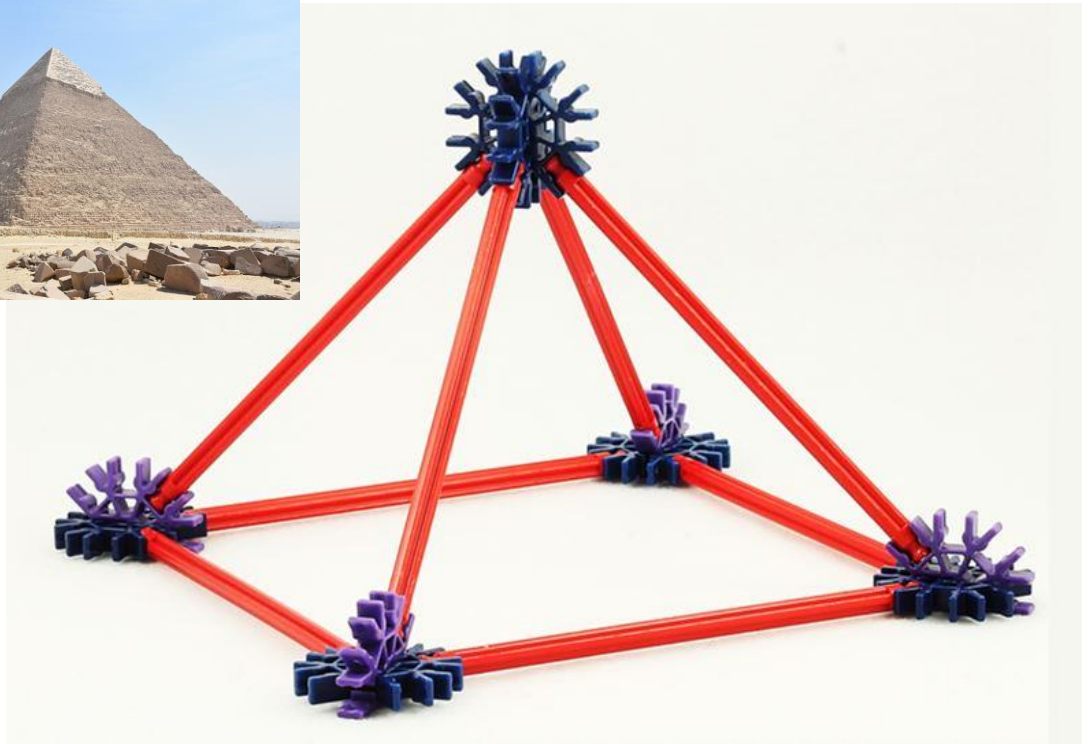
To do this, put one slot inside the other slot, and push until you hear a click.



Using 3D connectors together like this is very useful if you are making models with corners.

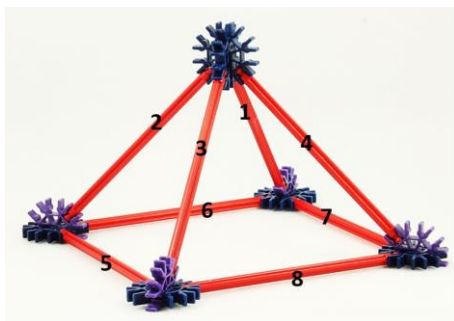


## Challenge 1: Build a pyramid (also called a square-based pyramid)

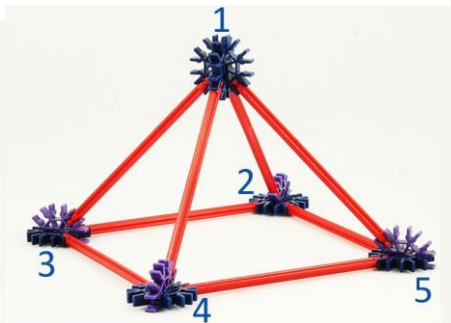


To describe the properties of a 3D shape we need to count the:

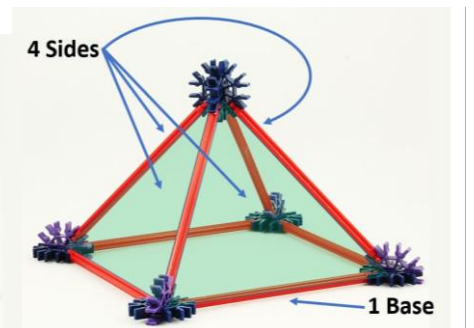
1. Edges (which join two corners)
2. Vertices (or corners)
3. Faces (or sides)



8 edges



5 vertices

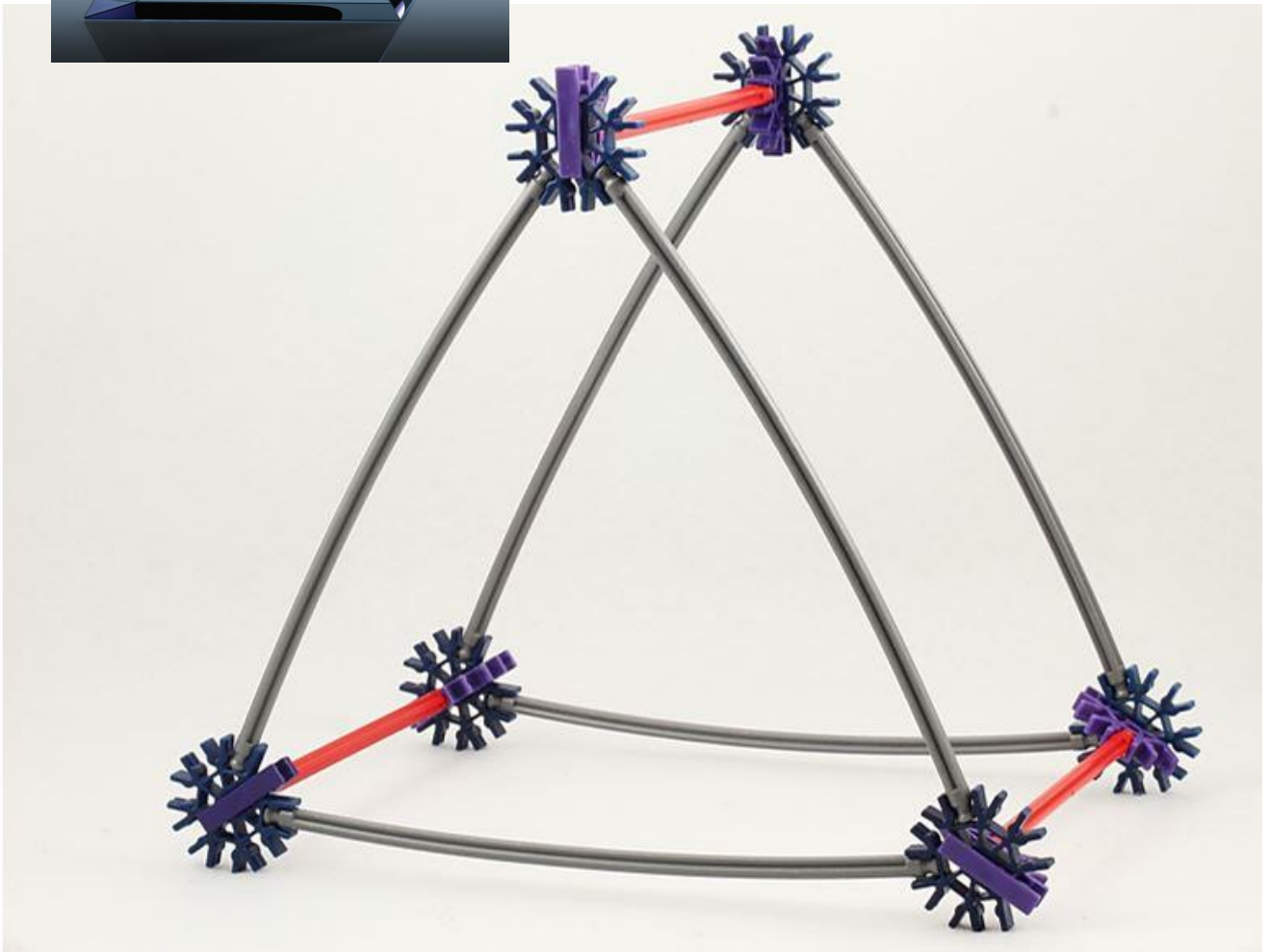
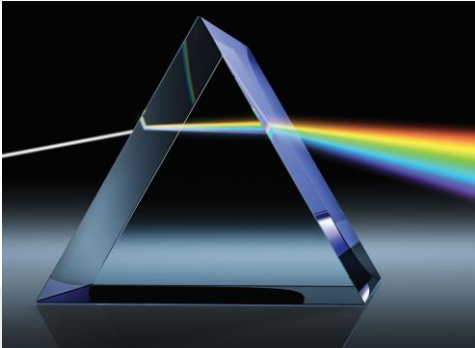


5 faces

Write these numbers on your record sheet  
if you downloaded one

## Challenge 2: Build a prism

Hint: you will have to bend the grey rods slightly to make them fit into the connectors



Count the number of edges, vertices and faces and write them on your record sheet



**Challenge 3: Build a tetrahedron  
(also called a triangle-based pyramid)**



**Count the number of edges, vertices and faces  
and write them on your record sheet**

## Challenge 4: Can you build a cube?

You may need more K'NEX  
or straws/spaghetti/pencils/plasticine/  
Blu Tac/marshmallows



Count the number of edges, vertices and faces  
and write them on your record sheet

Ask an adult to share a photo of your 3D shapes on  
Twitter and include: #LockdownLessons  
@knextgen

# Great work!

## Answers

	Pyramid	Prism	Tetrahedron	Cube
Edges	8	9	6	12
Vertices	5	6	4	8
Faces	5	5	4	6