

Building Jelly Bean Structures

Materials

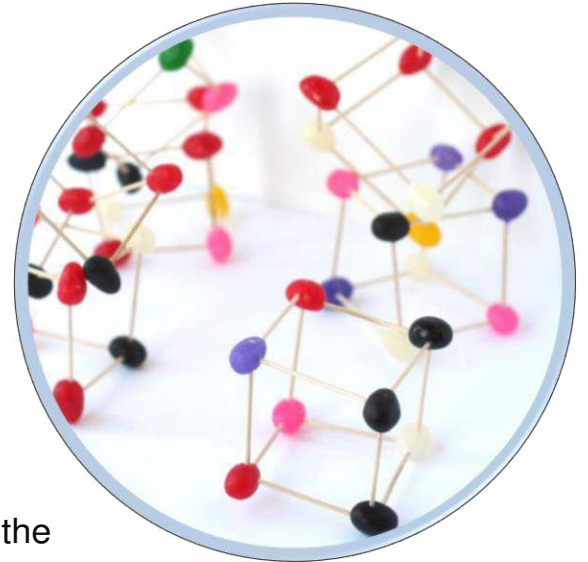
- › Jelly beans/marshmallows or playdough
- › Toothpicks
- › Structure worksheet

Activity Overview

- › Build a variety of 3D and complex structures

Activity Plan

- › Use the worksheet to build simple 3D shapes with the toothpicks and jelly beans, marshmallows or playdough
- › Complete the worksheet for each structure
- › Experiment with various complex structures with different heights and shapes



Learning Objective

- › Understand the difference between 2D and 3D shapes
- › Understand the structure of different 3D shapes
- › Understand the importance of stability within structures



Reflection Questions

- › What 2D shapes make up the 3D shape?
- › How many faces, vertices and edges does the structure have?
- › Which type of structure is more stable/stronger? What makes it stronger?

Challenge: Build a complex tower structure with as many 2D shapes within it as you can. Test the strength and stability of the structure by placing books on top.

Now try to build a stronger structure to hold more books, using the same number of toothpicks and jelly beans as before.

3D Structure	Number of...		
	Faces	Vertices	Edges
<div>CUBE</div> <div>Draw the 2D shapes used to make the structure:</div>			
<div>CUBOID</div> <div>Draw the 2D shapes used to make the structure:</div>			
<div>TRIANGLE BASED PYRAMID</div> <div>Draw the 2D shapes used to make the structure:</div>			

3D Structure	Number of...		
	Faces	Vertices	Edges
<div>SQUARE BASED PYRAMID</div> <div>Draw the 2D shapes used to make the structure:</div>			
<div>TRIANGULAR PRISM</div> <div>Draw the 2D shapes used to make the structure:</div>			
<div>HEXAGONAL PRISM</div> <div>Draw the 2D shapes used to make the structure:</div>			