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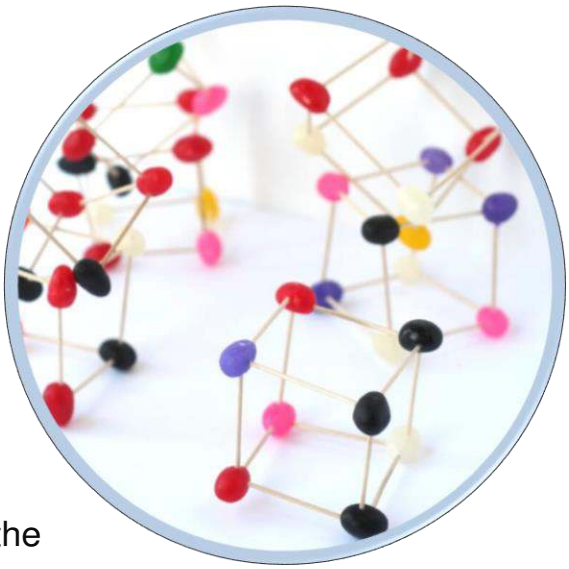
Building Jelly Bean Structures

1 HOUR

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.

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3D Structure	Number of…		
	Faces	Vertices	Edges
CUBE Draw the 2D shapes used to make the structure:			
CUBOID Draw the 2D shapes used to make the structure:			
TRIANGLE BASED PYRAMID Draw the 2D shapes used to make the structure:			

3D Structure	Number of…		
	Faces	Vertices	Edges
SQUARE BASED PYRAMID Draw the 2D shapes used to make the structure:			
TRIANGULAR PRISM Draw the 2D shapes used to make the structure:			
HEXAGONAL PRISM Draw the 2D shapes used to make the structure:			