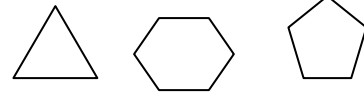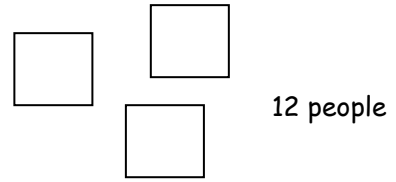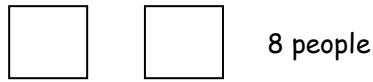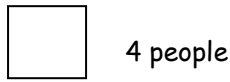# Day 5 Shape Investigation: Spaghetti and Meatballs for All

Choose a different shaped table e.g. triangle, hexagon or pentagon.
(There are shapes you can cut out in resources.)

Part 1

Using your shape investigate different numbers of people that could sit around one table, two tables, 3 tables etc. when they are apart. What pattern do you get?
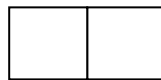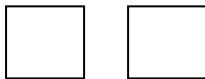
☐ 4 people   ☐ ☐ 8 people   ☐ ☐ ☐ 12 people

Part 2

Try joining them together in different ways – does the number of people stay the same?
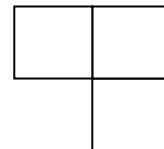
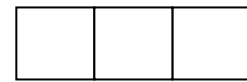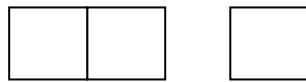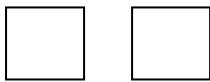1 table = 4 people

☐

2 tables = 8 people   or   2 tables joined = 6 people

☐ ☐   ☐☐

3 tables = 12 people   or   2 joined and 1 apart = 10 people   or   3 tables joined = 8 people

☐ ☐   ☐☐ ☐   ☐☐☐
☐

What happens to the number of people as you join more tables together? Fill in the chart below to help you to keep track of your patterns.

Can you make any predictions by looking at the pattern in the numbers?

Example Chart for Square Tables...

Number of Tables	Number of people when tables are separated	Number of people when 2 tables are joined	Number of people when 3 tables are joined		
1 table	4				
2 tables	8	6			
3 tables	12	10	8		

Chart

Number of Tables	Number of people when tables are separated	Number of people when 2 tables are joined	Number of people when 3 tables are joined	Number of people when 4 tables are joined	Number of people when 5 tables are joined
1 table					
2 tables					
3 tables					
4 tables					
5 tables					

What do you notice? Discuss.