Discussion Problems
Step 3: Tables

National Curriculum Objectives:

Mathematics Year 3: (3S1) Interpret and present data using bar charts, pictograms and tables

Mathematics Year 3: (3S2) Solve one-step and two-step questions [for example, 'How many more?' and 'How many fewer?'] using information presented in scaled bar charts and pictograms and tables

About this resource:

This resource has been designed for pupils who understand the concepts within this step. It provides pupils with more opportunities to enhance their reasoning and problem solving skills through more challenging problems. Pupils can work in pairs or small groups to discuss with each other about how best to tackle the problem, as there is often more than one answer or more than one way to work through the problem.

There may be various answers for each problem. Where this is the case, we have provided one example answer to guide discussion.

We recommend self or peer marking using the answer page provided to promote discussion and self-correction.

More Year 3 Statistics resources.

Did you like this resource? Don't forget to review it on our website.

Tables

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1. Ebony asked some people at her school about their favourite weather type as part of her geography project. She needs your help to fill in the results on the table below.

	☁️🌧️	☀️	🌪️	❄️	⚡	☁️	Total
Pupils		(splat)	4			(splat)	
Teaching staff	(splat)	19			2	(splat)	(splat)
Kitchen staff	5	(splat)		1	0	(splat)	14
Cleaning staff		(splat)	1			4	

Ebony says,

- All the splats are hiding odd numbers.
- In total, I collected an odd number of votes which reads the same backwards and forwards.
- Overall, the most popular weather type was snow with more than 45 votes but less than 55 votes.
- The total amount of pupils and cleaning staff that voted are both multiples of 10.

Use Ebony's clues to complete the table above.

DP

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2. Sanjay has created the table below to show people's favourite smoothie flavours but he can't remember the order of the flavours.

								Total
5 – 12 year olds	13	2	10	9	(splat)	16	15	(splat)
13 – 17 year olds	(splat)	7	29	0	16	4	3	61
Adults	20	13	5	(splat)	2	15	0	(splat)

Choose seven flavours from above and place them in columns of your choice. Then, create 3 questions for your partner to solve. An example of a question is shown below.

> Overall, how much more popular was the apple smoothie than the peach and carrot smoothies combined?

DP

Tables

1. Ebony asked some people at her school about their favourite weather type as part of her geography project. She needs your help to fill in the results on the table below.

	☁️🌧️	☀️	🌪️	☁️❄️	☁️⚡	☁️	Total
Pupils	10	(21)	4	46	8	(1)	90
Teaching staff	(1)	19	0	6	2	(9)	(37)
Kitchen staff	5	(5)	0	1	0	(3)	14
Cleaning staff	2	(3)	1	0	0	4	10
	18	48	5	53	10	17	151

Ebony says,

- All the splats are hiding odd numbers.
- In total, I collected an odd number of votes which reads the same backwards and forwards.
- Overall, the most popular weather type was snow with more than 45 votes but less than 55 votes.
- The total amount of pupils and cleaning staff that voted are both multiples of 10.

Use Ebony's clues to complete the table above.
Various answers: One example of the completed table is shown above.

DP

2. Sanjay has created the table below to show people's favourite smoothie flavours but he can't remember the order of the flavours.

	🍒	🫐	🍌	🍌	🥝	🍑	🍉	Total
5 – 12 year olds	13	2	10	9	7	16	15	72
13 – 17 year olds	2	7	29	0	16	4	3	61
Adults	21	13	5	12	2	15	0	68

Choose seven flavours from above and place them in columns of your choice. Then, create 3 questions for your partner to solve.
Various answers, for example: Which two flavours as voted by adults, when doubled equals the total number of 5 – 12 year old children that voted? (cherry and peach) Which flavours were voted for by more than 20 but less than 28 people altogether? (pear, blueberry and apple) How many fewer adults took part in this survey than people under 18 years of age? (65)

DP