

# 11-14 YEAR OLDS CATEGORIES & DATA HANDLING

Here are some notes on the data handling skills we practised in today's lesson. You will also find an extension activity which you can complete in your own time.

## CORRELATION

### Positive Correlation:

- As one value increases, so does the other.
- e.g. outside temperature vs ice cream sales.

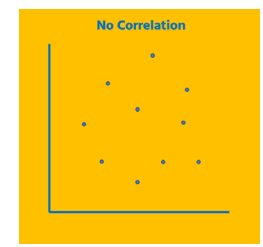
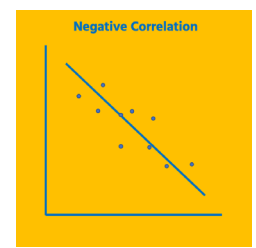
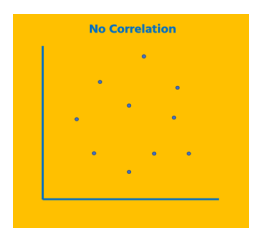
### Negative Correlation:

- As one value increases, the other decreases.
- e.g. time doing homework vs free time.

### No Correlation:

- There is no distinguishable relationship or pattern.
- e.g. books read vs green t-shirts owned.

**Remember - Correlation** does not always mean that there is **causation!** There could be a third factor which affects both measures.



## FREQUENCY TABLES

We can calculate the mean as follows:

Total number of people =  $5 + 7 + 7 + 5 = 24$

Total hours reading =  $(0 \times 5) + (1 \times 7) + (2 \times 7) + (3 \times 5) = 0 + 7 + 14 + 15 = 36$

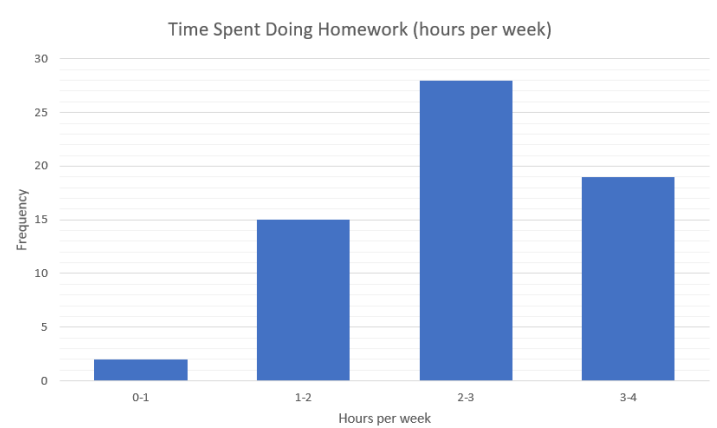
Mean hours spent reading =  $36 \div 24 = 1.5$

Time Spent Reading (hours per day)	Frequency (number of people)
0	5
1	7
2	7
3	5

## TAKEAWAY CHALLENGE

### Frequency Charts

Using the skills developed in today's lesson, estimate the mean number of hours spent doing homework per week from the frequency chart opposite. You will need to use mid-values for each class.



Parents - We would love it if you could share your child's work with us on Twitter, Facebook and Instagram using #exploreathome

