

# Student worksheet: Do we favour fatty foods?

Watch our film which explains how we set up an experiment to test the hypothesis that people favour foods with a higher fat content over those with a lower fat content.

The only variable we changed during the experiment was the amount of fat in each curry. The tasters were not told our hypothesis, they were just asked to taste samples of the three curries and vote for the one that they liked the best. The total number of tasters (n) was 107, and each taster was allowed only one vote.

Below are our results. But what can they actually tell us? You'll need to use your skills in handling data to determine if the finding that most people liked the curry with the highest fat content is statistically significant.

Curry	A	B	C
Amount of fat in the curry	medium	high	low
Number of tasters who preferred the curry	15	65	27

## Suggestions to think about:

- Which statistical analysis will you use?
- What is the null hypothesis?
- Using your calculations decide if you should reject the null hypothesis?
- What can you conclude from the outcome? Explaining your reasoning.
- What further tests could you do to understand people's choices? If you increased the level of fat further would the result change?

## Additional reading

If you need a bit of help with the statistics, you'll find it on our Big Picture microsite in [www.stem.org.uk](http://www.stem.org.uk) (we've closed bigpictureeducation.com) in the number crunching section.

Take a look at [www.thecrunch.wellcome.ac.uk](http://www.thecrunch.wellcome.ac.uk) to find some superfood alternatives.

## Take it further

You have been asked to design your own 'blind' taste-test. How would you design the study? What food or drink might you use? Why?

