Year 12 Mathematics Sampling

Strand: Statistical Investigation.

Key Competencies

Participating and contributing.

Enterprising Attributes

Decision making.

Project management.

Problem solving.

Content

Understanding the importance and relevance of sampling.

Why do we need to sample?

Different types of sampling.

Making a deduction from the samples.

The Learning Context

- Students undertake some preliminary instruction on different sampling approaches and processes.
- Students to partner with a local vineyard/orchard to carry out samples to make a prediction for total volume of fruit/variety.
- Discuss with the partner the need for sampling, how it contributes to the vineyard/orchard planning and organisation.
- Student plan the sampling process with the partner using a plan of the vineyard/orchard. There will need to be decisions made about the size, type and process of sampling to be used.
- Students should work in groups and sample different parts of the vineyard/orchard.
- Each group analyse their samples (fruit weighed).
- Groups compare each of the sample analysis and make deductions.
- Prepare a functional report for presentation to the partner and ask for feedback on all aspects of the process and outcome.

Assessment Ideas

- Formative Group Task what problem might we run into when taking the sample?
- Summative NCEA Level 2 Assessment.