

Appendix: Standard & Curriculum Details

Below is the details from the standard and the curriculum documents relating to the content of this standard.

Standard Details

Methods are selected from those related to

- true probability versus model estimates versus experimental estimates
- randomness
- independence
- mutually exclusive events
- conditional probabilities
- probability distribution tables and graphs
- two-way tables
- probability trees
- Venn diagrams.

Curriculum Elaborations

A. Calculating probabilities of independent, combined, and conditional events:

Students learn that some situations involving chance produce discrete numerical variables, that situations involving real data from statistical investigations can be investigated from a probabilistic perspective. These have <u>probability distributions</u>. They can be investigated by making assumptions about the situation and applying probability rules and/or by doing repeated trials of the situation and collecting frequencies.

- Selects and uses appropriate methods to investigate probability situations including experiments, simulations, and theoretical probability, distinguishing between deterministic and probabilistic models.
- Interprets results of probability investigations, demonstrating understanding of the relationship between <u>true probability</u> (unknown and unique to the situation), model estimates (theoretical probability), and experimental estimates.
- Selects and uses appropriate tools to solve problems in probability, including <u>two-way tables</u>, Venn diagrams, and <u>tree diagrams</u>, including <u>combined events</u>.
- Solves probability problems involving <u>conditional probabilities</u>, <u>randomness</u>, <u>independence</u>, and <u>mutually exclusive events</u>.

More details on the Senior Secondary Guide on TKI