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| Year: **8/9** KLA: **Mathematics** Assessment name: **Chance and Data Assignment Term 3 2011** | Student  |
| Purpose: *To make judgements based on theoretical or experimental probability. Data is analysed in various ways to make inferences and generalisations.* |
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| Knowledge & Understanding | Thinking and Reasoning | Reflection | Communicating |  |
| *Compares theoretical probability with experimental probability.**Understands difference between compound events and mutually exclusive events.**Acquires knowledge through the use of ICTS.**Operates ICTS, such as spreadsheets and word processing to develop knowledge.* | *Analyse situation to identify key features, strategies and procedures.**Operates ICT to report thinking and reasoning.* | *Reflect on learning, apply new understandings and justify applications**Operates ICTs to report on reflections..* | *Communicates thinking and justifies and evaluates reasoning, using appropriate mathematical language, representations and technologies.**Includes ICTs such as spreadsheeting, word processing and online communication.* |  |
|  |  | * Insightful and fully reasoned prediction of an alien day
* Reasoned explanation of theoretical probability
 | * Clear and consistent communication and justification of thinking and reasoning using mathematical language, representations and technologies.
 | A |
|  * Represents probability of compound events
* Determines the probability for a straightforward compound event.
 | * Independently plans experiment and clearly presents reasoned predictions
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|  |  |  |  | B |
| * Interprets theoretical probability of independent events
* Describes effect of environmental effects
 | * Explains bias on experimental probability
* Explains shift in relative frequencies
 |  |  |
|  |  | * Prediction of alien day is relevant and reasoning substantiated
* Relevant reflection on theoretical probability
 | * Communication and justification of thinking and reasoning using appropriate mathematical language, representations and technologies.
 | C |
|  | * Explains difference between experimental probability (what happened) and theoretical probability (what was expected).
 |  |   |
| * Describes probability in terms of impossible or certain.
* Identifies events as more or less likely or equally likely.
* Compares experimental data from simple trials with theoretical probability
* Can determine the sample space for an experimental event
 |  |  |  | D |
|  |  | * Elementary development of an alien day.
* Superficial reflection on theoretical probability
 |  |
|  | * Experimental data gathered
* Makes prediction based on results
 |  | * Everyday language used.
 | E |
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