|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 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.* | | | | | | | |
|  | |
| 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 | |  | |  |
|  | |  | |  | |  | 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 |
|  | |  | |  | |  |