

### Capacity Matrix - Mathematics - Chance Events (Probability)

Name: \_\_\_\_\_

| AIM  | Capacity                 | Capacity Breakdown   | LEARNING                              |   |                                       | GOING FURTHER                            |                                |   |
|--|--------------------------|--|---------------------------------------|---|---------------------------------------|--|--------------------------------|---|
|  |                          |  | Information<br>(I have heard of this) | Knowledge<br>( I understand and can explain this)<br>Possible Student Tutorial<br>(I.e. Using Doceri) | Know-how<br>(I can do this on my own) | EVIDENCE<br><br>(Maths book page number) | Wisdom<br>(I can teach others) | Evidence of Wisdom<br>(I have taught others)<br><br>Student Name or<br>Hyperlink to Student Tutorial<br>(I.e. Using Doceri) |
| To understand and use the language of chance   | Language of Chance       | Identify outcomes of familiar events involving chance and describe them using everyday language such as 'will happen', 'won't happen' or 'might happen'<br><br>(ACMSP024)  |                                       |   |                                       |  |                                |   |
|  |                          | Students classify outcomes of simple familiar events.  |                                       |   |                                       |  |                                |   |
|  |                          | Identify practical activities and everyday events that involve chance.<br><br>Describe outcomes as 'likely' or 'unlikely' and identify some events as 'certain' or 'impossible'<br><br>(ACMSP047)  |                                       |   |                                       |  |                                |   |
|  |                          | They describe outcomes for everyday events.  |                                       |   |                                       |  |                                |   |
|  |                          | Describe possible everyday events and order their chances of occurring<br><br>(ACMSP092)   |                                       |   |                                       |  |                                |   |
|  |                          | Identify everyday events where one cannot happen if the other happens<br><br>(ACMSP093)  |                                       |   |                                       |  |                                |   |
|  |                          | Identify events where the chance of one will not be affected by the occurrence of the other<br><br>(ACMSP094)  |                                       |   |                                       |  |                                |   |
|  |                          | Students identify dependent and independent events.  |                                       |   |                                       |  |                                |   |
|  |                          | Students conduct chance experiments and list possible outcomes and recognise variations in results.  |                                       |   |                                       |  |                                |   |
|  |                          | List outcomes of chance experiments involving equally likely outcomes and represent probabilities of those outcomes using fractions<br><br>(ACMSP116)  |                                       |   |                                       |  |                                |   |
|  |                          | Recognise that probabilities range from 0 to 1<br><br>(ACMSP117)   |                                       |   |                                       |  |                                |   |
|  |                          | Describe probabilities using fractions, decimals and percentages<br><br>(ACMSP144)   |                                       |   |                                       |  |                                |   |
|  |                          | They specify, list and communicate probabilities of events using simple ratios, fractions, decimals and percentages.<br>Assign probabilities to the outcomes of events and determine probabilities for events<br><br>(ACMSP168)                                |                                       |   |                                       |  |                                |   |
|  |                          | Students determine the sample space for simple experiments with equally likely outcomes and assign probabilities to those outcomes.  |                                       |   |                                       |  |                                |   |
| To conduct chance events and identify outcomes | Conducting Chance Events | Conduct chance experiments, identify and describe possible outcomes and recognise variation in results<br><br>(ACMSP067)   |                                       |   |                                       |  |                                |   |
|  |                          | Students conduct chance experiments and list possible outcomes.  |                                       |   |                                       |  |                                |   |
|  |                          | Conduct chance experiments with both small and large numbers of trials using appropriate digital technologies<br><br>(ACMSP145)  |                                       |   |                                       |  |                                |   |
|  |                          | Compare observed frequencies across experiments with expected frequencies<br><br>(ACMSP146)  |                                       |   |                                       |  |                                |   |
|  |                          | Students compare observed and expected frequencies of events, including those where outcomes of trials are generated with the use of digital technology.<br>Construct sample spaces for single-step experiments with equally likely outcomes<br><br>(ACMSP167) |                                       |   |                                       |  |                                |   |