**MATHEMATICS STAGE 1**

**TEACHING AND LEARNING OVERVIEW**

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| TERM:  | WEEK: 2 | STRAND: Statistics & Probability | **SUB-STRAND:** **Chance 1** | **WORKING MATHEMATICALLY:** **MA1-1WM, MA1-3WM** |
| OUTCOMES:**MA1-18SP** | **Recognises and describes the element of chance in everyday events**  |
| **CONTENT: Explicit Teaching**Students should be encouraged to recognise that, because of the element of chance, their predictions will not always be proven true.  | **Identify outcomes of familiar [events](http://syllabus.bos.nsw.edu.au/glossary/mat/event/?ajax" \t "_blank" \o "Click for more information about 'events') involving [chance](http://syllabus.bos.nsw.edu.au/glossary/mat/probability/?ajax" \t "_blank" \o "Click for more information about 'chance') and describe them using everyday language, such as 'will happen', 'won't happen' or 'might happen' (ACMSP024)*** identify possible outcomes of familiar activities/events, eg activities that might happen if the class is asked to sit on the floor in a [circle](http://syllabus.bos.nsw.edu.au/glossary/mat/circle/?ajax" \t "_blank" \o "Click for more information about 'circle')
* use everyday language to describe the possible outcomes of familiar activities and events, eg 'will happen', 'might happen', 'won't happen', 'probably'
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| ASSESSMENT FOR LEARNING(PRE-ASSESSMENT) | * What does ‘chance’ mean? Do you remember hearing this word before? How have you heard this word used?
* Draw yourself taking a chance. Students should be able to communicate using the following language: **chance**, **certain**, **uncertain**, **possible**, **impossible**, **likely**, **unlikely**.
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| WARM UP / DRILL | * **What might happen?**

The teacher reads a picture book to the class and stops before the end of the book. Students are asked to predict what might happen next in the story. Students discuss how likely or unlikely their predictions are eg ‘Do you think she will fall onto a haystack?’  |
| TENS ACTIVITYNEWMAN’S PROBLEMINVESTIGATION  |  |
| QUALITY TEACHING ELEMENTS | **INTELLECTUAL QUALITY** | **QUALITY LEARNING ENVIRONMENT** | **SIGNIFICANCE** |
| * Deep knowledge
* Deep understanding
* Problematic knowledge
* Higher-order thinking
* Metalanguage
* Substantive communication
 | * Explicit quality criteria
* Engagement
* High expectations
* Social support
* Students’ self-regulation
* Student direction
 | * Background knowledge
* Cultural knowledge
* Knowledge integration
* Inclusivity
* Connectedness
* Narrative
 |
| RESOURCES | Language- might, certain, probably, likely, unlikely, possible, impossible, predict, maybe, might not, will happen, will not happen, canhappen, cannot happen, good chance, poor chance, fair, not fair, could happen, never[http://www.amsi.org.au/teacher\_modules/Chance\_years\_1-3. html#Year\_1\_Will\_wont\_might\_happen](http://www.amsi.org.au/teacher_modules/Chance_years_1-3.html#Year_1_Will_wont_might_happen) |

**TEACHING AND LEARNING EXPERIENCES**

|  |  |
| --- | --- |
| WHOLE CLASS INSTRUCTION MODELLED ACTIVITIES | GUIDED & INDEPENDENT ACTIVITIES |
| * **What might happen?**

The teacher reads a picture book to the class and stops before the end of the book. Students are asked to predict what might happen next in the story. Students discuss how likely or unlikely their predictions are eg ‘Do you think he will arrive on time?’*Extension:* Each student draws and writes a statement about their prediction.* **Never-ever Book**

Students are asked to contribute a page to a book about the things that never ever happen eg ‘It never ever rains cats and dogs.’ Students share their page with a friend. | LEARNING SEQUENCERemediationES1  | * **Questioning**

Students are encouraged to ask questions about the likelihood of events happening eg ‘Is Mr Benton coming up to visit our class?’, ‘Is Stan’s mum going to have a baby boy or girl?’ *Extension:* Students write questions using the terms ‘likely’ and ‘unlikely’.* **Class Display**

Make a class display to illustrate events that: won’t happen, might happen, will happen. |
| LEARNING SEQUENCES1 | **Group and Independent Activities*** **What might you see?**

Students are divided into four groups. Each group is given a picture depicting a particular environment eg snow, forest, outback, coastline. The groups are asked to imagine they are in a house in their ‘environment’ and to list the things they would see in their yard. In turn, each group states an item on their list. Other students discuss the chance of finding the same item in ‘environment’.* **Will it happen tomorrow?**

Students are shown pictures of children doing a variety of activities eg eating lunch, playing in the rain, using a calculator, and visiting the zoo. Students discuss whether the activity ‘might happen’, ‘will probably happen’, or ‘is unlikely to happen’ tomorrow. Students are encouraged to discuss any differences in opinion.Investigation: * **Likely or not?**

The teacher prepares cards with ‘always’, ‘likely’, ‘unlikely’ and ‘never’ on them and orders them on the floor. They pose the question: ‘How likely is it that someone in another class has a vegemite sandwich today?’ Students stand behind the chance card that they think is the best answer to the question and explain their reasons. Students survey one or more classes and find out whether their prediction was accurate.* **Likely or not? Assessment Task**

The teacher issues a worksheet with the headings: ‘likely’ or ‘unlikely’. Students draw one event or match selection of event picture cards to the headings. |
| LEARNING SEQUENCEExtension Early S2 | * **Sample Bags**

Students place four counters or blocks (eg three blue and one white) into a bag. The teacher discusses with the students the chance of drawing out a blue block. Possible questions include:* would you have a good chance or a poor chance of drawing out a blue block? Why?
* what colour block is most likely to be drawn out? Why?
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| **EVALUATION & REFLECTION** | Student Engagement: Resources:Achievement of Outcomes: Follow-up: |

* All assessment tasks should be written in **red** and planning should be based around developing the skills to complete that task.
* Assessment rubrics or marking scale should be considered.