Curriculum Links
TI-15 Explorer™: What is the Chance?

C

Year 7 Working Mathematically, Measurement/Chance and Data

Statement of Learning Opportunities

- Compare experimental data from simple trials involving coins, various sided dice, spinners and other devices with theoretical probability
- Choose and use sets of things, lists, tables, diagrams and graphs to represent, interpret and analyse data, relations and functions

Key Ideas

- Use appropriate everyday language of chance
- Investigate and discuss actions and events that are affected by chance processes
- Know that repetition of chance experiments is likely to produce different results
- Data can be summarised using diagrams, tables to show frequencies for different categories
- Use numbers to describe how likely something is to happen
- Calculator allows students to use numbers to show how likely it is that something will happen
- Compare the variability in a small number of trials with the predictability of a large number of trials
- Make probability devices like spinners to produce different orders of probability

Key Vocabulary

chance, probability, trials, possible, impossible, likely, unlikely, certain, uncertain, maybe, possibly, perhaps, average, mean, experiment, data, frequency, table, predict, least, most, fraction, percent, spinner, equal, unequal, fairness

Lesson Overview

i)   Task 1 – The language of chance – Worksheet 1 included
ii) Task 2 – Collect all the swap cards – Worksheet 2 included pg 1-2
iii) Task 3 – What are the chances of winning lotto? What are the lucky numbers?
iv) Task 4 – Spin away – Worksheet 3 included pg 1-2
v)   Assessment task – Refer to teacher notes for further details

Equipment

TI-15 Explorer™ calculators, chance cards – words and phrases, blank spinners, counters, drawstring bags, dice, spinners-colours, numbers, playing cards

Curriculum Links
TI-15 Explorer™: What is the Chance?

Sequencing

- Compare different data collection methods and select one suited to a given context
- Analyse data and make statements and predictions that respond to questions or issues, and use tabular and graphical displays to support those views

- Compare experimental data from simple trials involving coins, various sided dice, spinners and other devices with theoretical probability
- Choose and use sets of things, lists, tables, diagrams and graphs to represent, interpret and analyse data, relations and functions

- Estimate probabilities for a range of events using materials and technology
- Analyse situations involving random events and chance
- Present and describe data collected from tables and data-bases using stem-and-leaf plots and histograms, as suits the nature of the data

Indicators of Success

Students can:
- Collect, organise and record data to look at probability of events occurring
- Use numbers to describe how likely something is to happen
- Summarise data in diagrams, tables and graphs to show frequencies for different categories
- Use the memory function on the calculator to add products to find the mean
- Make appropriate use of the calculator for general calculations, simplifying fractions and working out percent
- Use appropriate language of chance to share their ideas, estimates, observations and findings in relation to trials conducted