Y5 Exploring our World 4 - Probability activities

<div style="background-color:green; color:white">**NEW** June 2024</div>

Year level: 5

Statistical focus: Probability

Approximate number of lessons: depends on activities chosen

Learning goals

- pose investigative questions for a chance-based situation with equally likely outcomes, listing all possible outcomes for the situation
- plan, conduct, and record data for a probability experiment
- create and describe data visualisations for the distribution of observed outcomes from a probability experiment, using them to answer the investigative question
- compare my findings with those of others when undertaking probability experiments
- agree or disagree with others' conclusions about chance-based investigations, with justification

Resources

Some suggested age appropriate activities for probability are listed below, choose those that suit your situation.

Existing probability activities to explore

Created by NZ Maths
- **What's in the bag** In this unit we experiment with cubes to make predictions about likelihood based on our observations. Students find out that with probabilistic situations there is no certain way to predict exactly what will happen.
- **A very improbable story** (Picture book) Ethan wakes up one morning to find the improbable has happened: there is a cat stuck on his head. The cat, named Odds, will not detach itself until Ethan wins a game of probability with it.
    - **A Very Improbable Story By Edward Einhorn** (video read by Miss Weber)

Figure it out Statistics Level 2-3
- **Which when** Investigating probability, exploring spinners about things to do after school

Digital Objects
- **Spinners** explore likelihood in the context of spinners constructed by the user.

Nrich

- **Probably** Students decide if they agree or disagree with statements that have a probability element.
- **Same or Different** Looks at fair game ideas for drawing cubes out of a bag

Youcubed
- **Ice cream scoop** How many kinds of 2-scoop cones are there with 10 flavours?

Vocab for probability

PROBABILITY INVESTIGATIONS	WORDS TO DESCRIBE PROBABILITY	CRITICAL THINKING IN PROBABILITY
investigative questions	impossible	reflect on anticipated outcomes
equally likely outcomes	possible	identify similarities and differences in findings with others
not-equally likely outcomes	likely	
anticipate outcomes	equally likely	compare experimental and theoretical probabilities
probability experiments	unlikely	
list all possible outcomes	chance	agree or disagree with other's conclusions
repeated trials	certain	justify reasoning
systematically record data	probably	
lists	improbable	
tables	almost certain	
fractions	very likely	
create data visualisations	very unlikely	
describe probability distributions	even chance	
theoretical probability		
experimental probability		