

## Stage 8 – Statistics: Understanding risk I



### Know it!

Knowledge	
I know...	How to use the vocabulary of probability
I know...	How to the use of the 0 - 1 scale to measure probability
I know...	How to list all the outcomes for an experiment, including the use of tables
I know...	How to work out theoretical probabilities for events with equally likely outcomes
I know...	Why the sum of probabilities for all outcomes is 1 and how to apply this to solve problems



### Link it!

Backward	Forward
Fractions, decimals and percentages. Simplifying fractions.	Product Rule. Combined Events Relative frequency



### Prove it!

Show me an example of an event and outcome with a probability of 0. And another. And another...

Always / Sometimes / Never: if I pick a card from a pack of playing cards then the probability of picking a club is  $\frac{1}{4}$

Label an eight sided spinner so that the probability of scoring a 2 is  $\frac{1}{4}$ . How many different ways can you label it?

### Say it!



Vocabulary	Definition
<b>Probability</b>	The chance that something will happen. How likely it is that an event will occur.
<b>Theoretical Probability</b>	Probability based upon what is expected to happen based upon reasoning rather than an experiment.
<b>Outcome</b>	A possible result of an experiment e.g. rolling a 4 on an ordinary die.
<b>Event</b>	One or more outcome from an experiment e.g. rolling a 6; or, rolling an even number on an ordinary die.
<b>Mutually Exclusive Events</b>	Events that cannot happen at the same time.
<b>Exhaustive Events</b>	Where all possible events have been included. The sum of probabilities of exhaustive events is always 1.
<b>Possibility Space (Sample Space)</b>	All possible outcomes from an experiment, usually shown as a table.

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