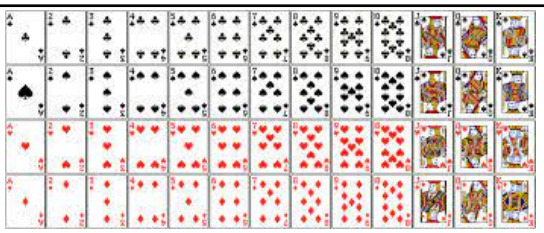
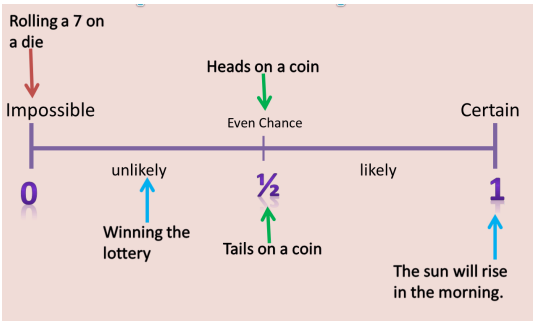
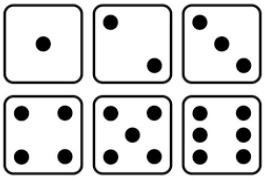
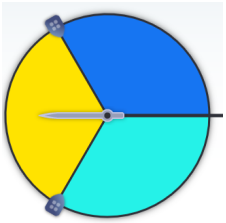
Prior Knowledge			
1	Standard pack of playing cards		A standard pack of cards has 52 cards, grouped in 4 suits (clubs, spades, hearts and diamonds) of 13 cards each. Clubs and spades are black, hearts and diamonds are red. The picture cards are Jack, Queen and King.
Core Knowledge			
1	Probability		Probability is the chance that something will happen.
2	Even chance		Even chance means that something is as likely to happen as not - equally likely
3	Event		An event is something that might happen.
4	Impossible	e.g. getting a 7 when rolling an ordinary 6 sided dice	An event is impossible if it cannot happen
5	Probability scale		You can show probability on a scale using words or numbers. Probabilities have a value between 0 and 1. They can be written as fractions, decimals or percentages.
6	Outcomes		Outcomes are all the possible results of an event.
7	Successful outcomes		These are the outcomes that you want
8	Calculating probability	$Probability\ of\ an\ event\ happening = \frac{number\ of\ successful\ outcomes}{total\ number\ of\ possible\ outcomes}$	
9	Random		Picking an item at random means that each item has exactly the same chance of being picked
10	P(x)	P(heads) = ½	We use P(x) as the notation for " the probability that x happens"
11	Events not happening	P(event not happening) = 1 - P(event)	The probability of an event not happening is 1 subtract the probability of the event happening. If probability is given as a percentage, then use 100% rather than 1

<table>
<tr><td>12</td><td>Experimental probability</td><td>$Experimental\ probability = \frac{frequency\ of\ event}{total\ frequency}$</td><td>The results of an experiment can be used to estimate probabilities.</td></tr>
<tr><td>13</td><td>Trial</td><td> 
Number of spins so far: 10
<table><tr><th>Color</th><th>Count</th><th>Experimental %</th></tr><tr><td>Blue</td><td>4</td><td>40.0%</td></tr><tr><td>Yellow</td><td>4</td><td>40.0%</td></tr><tr><td>Cyan</td><td>2</td><td>20.0%</td></tr></table>vs
Number of spins so far: 5000
<table><tr><th>Color</th><th>Count</th><th>Experimental %</th></tr><tr><td>Blue</td><td>1653</td><td>33.1%</td></tr><tr><td>Yellow</td><td>1698</td><td>34.0%</td></tr><tr><td>Cyan</td><td>1649</td><td>33.0%</td></tr></table></td><td>One repetition of an experiment is called a trial. The more times you repeat the experiment, the more accurate the experimental probability.</td></tr>
<tr><td>14</td><td>Expected outcomes</td><td>Expected outcomes = probability x number of trials</td><td>You can use probability to estimate the expected number of times an outcome will occur.</td></tr>
</table>