

# SCHOOL EDUCATION PROGRAM



## VCAL – Numeracy unit: WHAT ARE THE ODDS?

### Lesson 1: Chance has no memory

# Lesson 1: Chance has no memory

Lesson goal:

To 'debunk' the myths associated with gambling games.

Through activities, simulations and discussions, you will learn that:

- chance has no memory
- outcomes are impossible to predict
- previous outcomes do not affect future ones
- no strategy can reliably predict future results in games of chance.

## Through this lesson we are going to do the following:

Tune in – background information

Terminology activities:

- Activity 1 Be aware of gambling: Terminology
- Activity 2 Be aware of gambling: Terminology

Class simulation:

- Student worksheet 1 Card sharp
- Use packs of cards or card sharp spreadsheet

We will require the following worksheets:

- Student worksheet 2A Chance has no memory
- Student worksheet 2B Chance has no memory

# Be aware of gambling: Terminology

## Activity 1

### Be aware of gambling: Terminology

Match the word/term on the left with the meaning on the right. The first one has been done as an example.

1. <b>Bet</b>	A. The person that provides the product or opportunity to bet
2. <b>Bookie/Bookmaker</b>	B. Electronic gaming machine that uses random numbers to decide on wins and losses
3. <b>Chance</b>	C. The person placing the bet
4. <b>Gambler</b>	D. Low odds offered on a likely winner
5. <b>Each way</b>	E. Money lost from one or more bets
6. <b>Loss</b>	F. Money won from one or more bets
7. <b>Odds</b>	G. Likelihood
8. <b>Pokie/Poker Machine</b>	H. A ratio for the possibility of something happening
9. <b>Profit</b>	I. Bet for a win and a place
10. <b>Short-priced favourite</b>	J. Putting money at risk for the chance to win more

1. J	2.	3.	4.	5.
6.	7.	8.	9.	10.

## Be aware of gambling: Terminology

### Activity 2

#### Be aware of gambling: Terminology

Match the word/term on the left with the meaning on the right. The first one has been done as an example.

1. Betting agency	A. Calculating or describing how likely something is to happen
2. Expenditure	B. Deciding beforehand how much money or time spent in a gambling session
3. Gambling	C. All legal forms of betting on racing and sporting events
4. Payout	D. Any opportunity to bet provided by a betting agency
5. Pre-commitment	E. Putting money at risk for the chance to win more
6. Probability	F. Total money bet on a race or game
7. Gambling option	G. The amount paid on a winning bet
8. Turnover	H. The business that provides the opportunity to bet
9. Wagering	I. Monies won
10. Winnings	J. The amount a player loses from their gambling

1. H	2.	3.	4.	5.
6.	7.	8.	9.	10.

## Student worksheet 1 Card sharp (20 rounds)



# Card sharp class simulation

NAME: \_\_\_\_\_

Round number	Guess first (circle one)	Result: Did you win?	Your balance (start with \$50)	
1	♣ ♦ ♥ ♠			
2	♣ ♦ ♥ ♠			
3	♣ ♦ ♥ ♠			
4	♣ ♦ ♥ ♠			
5	♣ ♦ ♥ ♠			
6	♣ ♦ ♥ ♠			
7	♣ ♦ ♥ ♠			
8	♣ ♦ ♥ ♠			
9	♣ ♦ ♥ ♠			
10	♣ ♦ ♥ ♠			
11	♣ ♦ ♥ ♠			
12	♣ ♦ ♥ ♠			
13	♣ ♦ ♥ ♠			
14	♣ ♦ ♥ ♠			
15	♣ ♦ ♥ ♠			
16	♣ ♦ ♥ ♠			
17	♣ ♦ ♥ ♠			
18	♣ ♦ ♥ ♠			
19	♣ ♦ ♥ ♠			
20	♣ ♦ ♥ ♠			
		Total number of wins	Money won or lost	

# Screenshot of card sharp spreadsheet



# Record section of Student worksheet 2A

Number of times the suit comes up	45				
	44				
	43				
	42				
	41				
	40				
	39				
	38				
	37				
	36				
	35				
	34				
	33				
	32				
	31				
	30				
	29				
	28				
	27				
	26				
	25				
	24				
	23				
	22				
	21				
	20				
	19				
	18				
	17				
	16				
	15				
	14				
	13				
	12				
	11				
	10				
	9				
	8				
	7				
	6				
	5				
	4				
	3				
	2				
	1				
					



# Record section of Student worksheet 2B

4. As you play the rounds, keep a tally of which suit comes up in the chart below. Write 'C' for clubs, 'D' for diamonds, 'H' for hearts or 'S' for spades. Start in the top left and work to the right, then move to the beginning of the next row.

Rounds 1-10→										
Rounds 11-20→										
Rounds 21-30→										
Rounds 31-40→										
Rounds 41-50→										
Rounds 51-60→										
Rounds 61-70→										
Rounds 71-80→										
Rounds 81-90→										
Rounds 91-100→										

## Key messages

- Chance has no memory.
- Outcomes are impossible to predict.
- Previous outcomes do not affect future ones.
- No strategy can reliably predict future results in games of chance.

### **Review your understanding:**

1. Explain what the key messages above mean, in your own words.
2. Do you agree with the statement 'Chance has no memory'?
3. Did you know about this idea before the lesson, or did you learn it during the lesson?
4. Explain one other thing you have learnt in this lesson?
5. How would you convince someone else that 'Chance has no memory'?

[lovethethegame.vic.gov.au/schools](http://lovethethegame.vic.gov.au/schools)