

Maths most

Goal: to practise combinations and addition to maximise results

You need

- > a pack of cards – jokers removed
- > 2 playing grids 5 x 5 – one for each participant
- > 2 markers or pens
- > 2 participants



What to do

1. Shuffle the cards and place pile **face down** between you.
2. Take it in turns to turn up one card at a time from the top of the pile and place it on your playing grid. The aim is to score as many points as possible by placing cards next to each other — horizontally or vertically — to make pairs, 3 of a kind, 4 of a kind, full houses and straights. Once a card has been placed it cannot be moved or changed.
3. At the end of the game add up your scores **horizontally** and **vertically** using the scoring grid. Total these scores together. The winner is the one with the highest score.

How to score

Pair	10 points
Three of a kind	20 points
Four of a kind	30 points
Full house (3 of a kind and a pair)	40 points
Straight (5 cards in a row ie 9, 10, J, Q, K – do not have to be same suit)	50 points

Challenge yourself further

- > Once all the cards have been placed on the grid, rearrange them to maximise your score. How much did your score improve by?



Where the task came from

Card games can be an important social activity in many communities. Many different types of games can be played.

This task uses some of the rules and strategies of one of the games common to many Aboriginal communities, adapted for the classroom.

The numeracies include...

- > calculating outcomes depending on the cards you're given
- > predicting and developing strategies
- > using trial and error in placement of cards to maximise your score
- > having knowledge of cards and taking into account the other participant's cards.

The mathematics include...

- > using addition, probability, logic, square numbers; analysing data; making connections and comparisons.

Curriculum framework key ideas

- > identifying, describing, constructing, representing and predicting patterns and relationships when working with data, measuring and calculating. Learners relate these patterns and relationships to their everyday lives
- > employing everyday language and mathematical symbols to represent and communicate generalisations about mathematical situations and structures (for example, determining how best to arrange people in the house for more than one card game)
- > describing, creating and analysing spatial arrangements
- > developing number sense through exploring and analysing how numbers are used and represented in daily activities, communities and experiences in other learning areas
- > recognising relationships within different number concepts in order to make sense of, and represent numerically, a range of community activities and social processes encountered in daily life

Educator options

- > Monitor and assess to inform future practice:
 - what questions are the learners asking?
eg 'Where's the best place to put this card?'
'How many jacks are left?'
 - what do you hear the learners talking about?
eg their chances of picking up a particular card
 - what strategies are the learners using?
eg mental arithmetic; looking at all possibilities and determining the maximum score needed to win.
- > Observe whether a participant is taking into account the cards the other participant has put down?
- > Change the scoring system so learners can practise adding up other numbers.

Learner options

- > Add diagonal scoring to the game. That is, add up the line of 5 cards from the top left-hand corner down to the bottom right-hand corner, and the line of 5 cards from the top right-hand corner down to the bottom-left hand corner.
- > Leave the last card in the game and then add or subtract it from the participants' totals (eg Ace=1, J,Q and K=10).
- > Introduce a Flush (5 cards of the same suit) or a Royal Routine (A, K, Q, J, 10 of the same suit) into the game.
- > Consider whether it is better to play this game on your own or with a partner (ie in teams of 2). That is, are 2 people making decisions about where the cards go better than 1 person only? Why or why not?
- > When playing are you considering what cards the other participant has put down?
- > What's the maximum number of points you can get?
- > Play the game on your own and try to beat your own score.

This game can be found in a Len Vincent publication called 'Five Minute Maths Games' which is available through Len Vincent Publications: 57 Club Crescent, Ballarat North, Vic 3350.



Link to CD: social > cards
Digital tasks software:
Maths most