

MOVEMENTS FOR THE CLUB DIRECTOR - PAIRS & TEAMS

by Jan Peach, QBA Accreditation 2011

Club Directors needs to be familiar with a small number of simple movements. Unnecessarily complex movements are best avoided. Making last minute decisions under pressure can be difficult so it is a good idea to prepare beforehand a list of suitable movements for anticipated numbers. Some clubs have a chart for the guidance of directors.

The things to consider when choosing the movement for a duplicate pairs session are:

- Number of boards to be played
- Number of boxes of boards available
- 1 or 2 winners required
- Any half table
- Length of any sit out
- Pairs with special needs
- Availability of movement cards
- Balance / Fairness
- Scoring programme options
- Masterpoint requirements

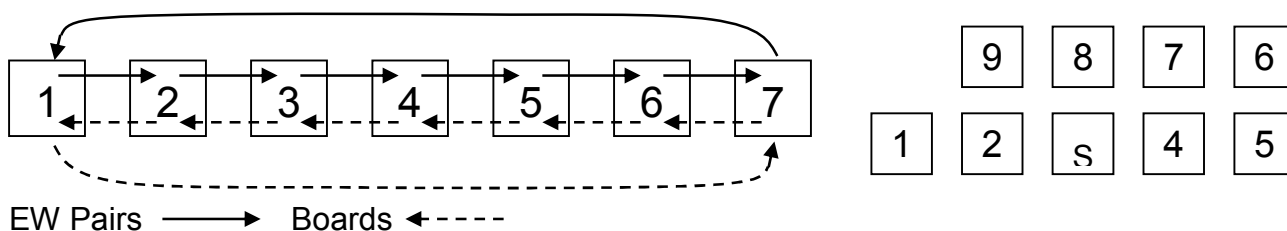
MITCHELL

There are three main components to a Mitchell movement: NS Pairs, EW Pairs and Boards.

A Mitchell works providing one component remains stationary, one moves up one table and one moves down one table at each move.

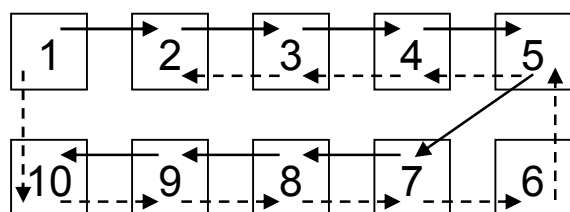
The usual form is for NS Pairs to remain stationary while the EW Pairs move up one table with the boards being moved down one table.

Usually NS moves the boards because any cards accidentally seen at the next table will usually be cards already played (apart from the first move).



- A half table may be a NS or an EW sit out.
- Any table may start as the half table but commonly an EW sit out will be at the highest numbered table.
- It is good PR to not always have the EW Pairs sitting out.
- Curtailing with full tables is OK.
- Curtailing with a half table is not recommended. Some boards will have been played fewer times (different tops) and at least one pair has played more boards than other pairs seated in the same direction.

SKIP MITCHELL



- Even number of tables.
- Best not used with a half table.
- Curtailing with full tables is OK as all boards will have been played the same number of times.

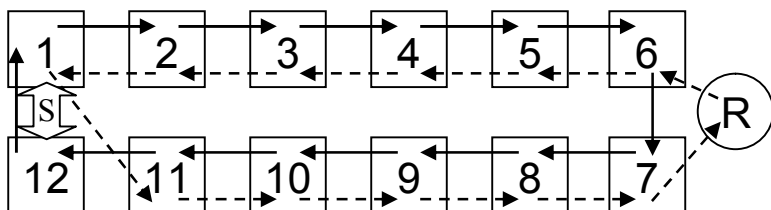
The diagram shows moves for EW 1 and Set 1. A further round could be played in which EW Pairs return to the table at which they started to play the boards they skipped over.

- Curtailing with a half table is not recommended. Some boards will have been played fewer times (different tops) and at least one pair will have played more boards than other pairs seated in the same direction.

If a Skip Mitchell is to be completed then the skip is usually after the round that equates to half the number of tables though it may be earlier (see equation below). If EW Pairs do not skip they will meet boards they have already played.

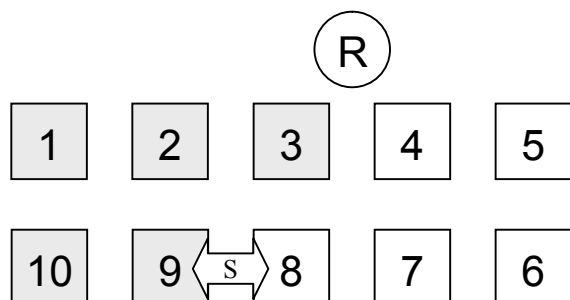
If a Skip Mitchell is to be curtailed then an earlier skip is possible. The earliest skip is after the round that equates to $(\text{Number of Rounds} - \frac{1}{2} \text{ No. of Tables}; n - \frac{1}{2}T)$.

SHARE & RELAY MITCHELL



- Even number of tables
- Tables in a neat horseshoe reduces problems
- Sharing tables must be “equidistant” from relay table.

- A half table may be NS or EW and may be anywhere
- Usually T1 shares boards with the highest numbered table and any EW sit out is at the highest numbered table
- Curtailing is Not Recommended.
- Useful when too few boards would be played in a Skip Mitchell or when every NS Pair needs to meet every EW Pair.

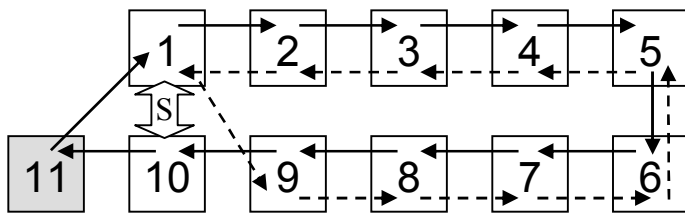


If for any reason T1 and the highest numbered table are not sharing, consider drawing a mud map to make sure the relay table is in the correct place.

It is easy to see in this 10 table example that there are 5 tables on each side of the relay table.

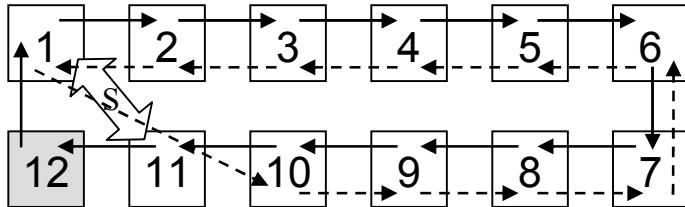
1½ APPENDIX MITCHELL

- The number of tables includes a half table.
- Useful when Mitchells, Skip Mitchells and Share & Relay Mitchells are not suitable for use with a half table.
- Take 1½ from the number of tables.
- Set up a Mitchell or Skip Mitchell with the remaining full tables. Only these tables, known as the base tables, receive a set of boards.
- The full table from the 1½ appendix takes the next higher numbered table and shares boards with Table 1.
- The ½ table from the 1½ appendix becomes the EW Pair at the next higher numbered table and sits out before progressing to Table 1 at the first move.
- Two EW Pairs do not sit out in the completed movement.
- When the number of tables in the base is even, the skip is after the round that equates to half the number tables in the base movement.
- Curtailing Not Recommended



- $10\frac{1}{2} - 1\frac{1}{2} = 9$ Tables
- Set up a 9 Table Mitchell
- 9 sets of boards.
- T1 & T10 share boards.
- Pair EW 11 has first sit out at Table 11.

Half Table

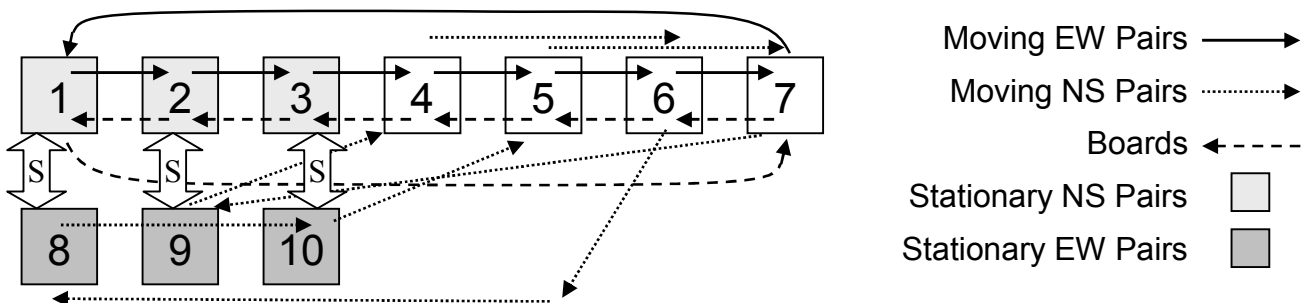


- $11\frac{1}{2} - 1\frac{1}{2} = 10$ Tables
- Set up a 10 Table Skip Mitchell
- 10 sets of boards - skip after 5 rounds.
- T1 & T11 share boards.
- Pair EW 12 has first sit out at Table 12.

APPENDIX MITCHELL

The Appendix Mitchell takes a little care because most NS Pairs move, most EW Pairs move and all the boards move. Guide cards on the tables are a good idea.

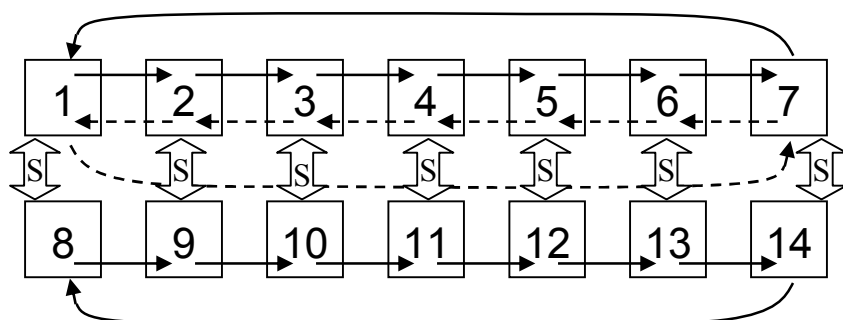
- Useful when a particular number of boards must be played.
- Fewer boards are needed for larger numbers of tables than, say, for a Mitchell
- The base must be a prime number commonly 7 or 11.
- Any fewer number of tables may be appended. The same number of appendix tables as in the base would be played as a Twin Mitchell.
- Usually there are more than one appended table as there are easier movements for just one extra table.
- Tables are best appended in order from Table 1 and given the next available number.
- There may be a half table. The EW seats at the highest appendix table are usually the ones vacant. NS Pairs coming to that table have a sit out.
- The NS Pairs at the base tables that have an appended table remain stationary.
- The other NS Pairs move up 2 tables at each move excluding the tables that have appended tables. In the diagram, 8, 9, 10, 4, 5, 6, 7
- The EW Pairs at appended tables remain stationary.
- The other EW Pairs (the ones at the base tables) move up 1 table at each move through the base tables only. In the diagram, 1, 2, 3, 4, 5, 6, 7.
- The boards move down one table at a time and remain within the base.



The diagram above has NS Pairs moving up 2 tables and the EW Pairs moving up one table. Players are accustomed to moving up. Pairs may move a number of other ways for a valid Appendix Mitchell.

- NS Pairs down 2 tables, EW up one table.
- NS Pairs up one table, EW Pairs up two tables.
- NS Pairs up one table, EW Pairs down two tables. One small advantage here is that the EW Pairs can drop the boards off as they move past the next table.

TWIN MITCHELL



- Even number of tables
- Two rows side by side
- There may be a half table
- Each row moves as a Mitchell with EW Pairs remaining in their own row.

- Boards are moved back one table and are shared between adjacent tables.
- A Skip Mitchell is used when the number of tables in each row is even.

In the pure form, the movement is first played in two stanzas using half the boards at a time. After the movement is completed the first time, the EW Pairs exchange positions with the adjacent EW Pair from the other row and the movement is played again using the second half of the boards. The event is then scored as a single section to produce two winners with all NS Pairs having played all EW Pairs.

The same set up may be used when numbers are too large for a single section yet only one set of boards is available. The movement is run only once and is best scored as two distinct sections. Using travellers, the numbering ought to be as above as a single traveller is usually used in each board. Using radio scoring devices set up for two sections, the numbering above could be 1A to 7A and 1B to 7B as though having a set of boards available for each section.

ARROWSWITCH MITCHELL

If a single winner is to be found from a single session and a Howell movement is not suitable, one or more rounds of a Mitchell movement may be arrowswitched.

The comparison of pairs is adequate though if too many rounds are switched then the balance is actually lessened rather than improved.

- Turning the boards 90° is easier than changing the positions of players.
- Switch about one in eight rounds.
- NS and EW Pairs need individual numbers e.g. 1-16 rather than NS 1-8 and EW 1-8.
- Despite a director's best efforts there is often a table that forgets to switch boards. Any such board needs to be un-switched in the scoring computer.
- The switches may be at any time. Consider having the switch round(s) first so everyone may then relax.

NS ROVER MITCHELL

A half table may be accommodated by adding a roving NS Pair to a full table movement. The Club Director needs to be familiar with the way a NS Rover is added to Mitchells, Skip Mitchells and Share & Relay Mitchells.

- Set up the basic movement for the full tables.
- Assign the next higher table number to the NS Rover.
- Give the NS Rover an ordered list of the tables to be visited.
- Explain the process to the roving pair if necessary.
- The NS Rover sits out for the first round and then moves to the first table on the list.
- The displaced NS Pair moves away and returns to its place after the round.

- If travellers are being used check the order that scores are to be entered into the computer. Often, when pre-numbered lines are being used, scores for the table at which the rover is sitting are entered on the Rover's number line. It is recommended that "Sit Out" be written on the score line for the table where the Rover is seated to prevent others using it.

Two problems may occur with a NS Rover movement:

- The wrong boards are moved from the table the Rover has left. Consider asking the Rover Pair to move the boards before they leave each table.
- If the Rover Pair is slow to move, play may have already started at the next table when the pair arrives. Consider an advance warning to the next pair to be displaced.

When the basic movement is a Mitchell and when the number of full tables is a prime number, the movement follows a pattern. After sitting out, the Rover Pair replaces one of the other NS Pairs and thereafter moves up two tables at each move. Usually Pair 2 is the first to be replaced. The table below may be extended for higher prime numbers 17, 19, 23 etc should it ever be necessary.

Mitchell - Prime Number

T	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13
5	2	4	1	3								
7	2	4	6	1	3	5						
11	2	4	6	8	10	1	3	5	7	9		
13	2	4	6	8	10	12	1	3	5	7	9	11

The 9 Table Mitchell plus NS Rover has special requirements. This is a useful movement and provides a better comparison than, say, a Skip Mitchell.

9 Table Mitchell

T	R2	R3	R4	R5	R6	R7	R8	R9
9	2	4*	6	9	3*	5	7	8*

* EW 6 and EW 9 exchange places for Rounds 3, 6 and 9. Consider giving these pairs their own movement card.

When the basic movement is a Skip Mitchell and the number of full tables is not exactly divisible by 3, the Rover Pair sits out for the first round and goes to Table 2 at the first move thereafter moving up two tables at each move until the skip is called. Rover goes to Table 3 at the skip and then resumes going up two tables each time.

Skip Mitchell – Not Divisible by 3

T	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14
8	2	4	6	3	5	7	(1)*						
10	2	4	6	8	3	5	7	9	(1)*				
14	2	4	6	8	10	12	3	5	7	9	11	13	(1)*

The (*) rounds would be revenge rounds and not usually played. The NS Rover Pair would meet their first EW opponents a second time.

The 12 table Skip Mitchell plus Rover has its own sequence of moves.

Skip Mitchell – 12 Table

T	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11
12	2	10	8	6	4	1	11	9	5	3

The movements of the NS Rover Pair when added to a Share and Relay Mitchell are tabulated below.

Share & Relay Mitchell

T	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14
6	5	3	6	4									
8	1	6	2	7	3	8	4						
10	1	7	2	8	3	9	4	10	5				
12	3	9	4	10	5	11	6	12	7	1	8		
14	1	9	2	10	3	11	4	12	5	13	6	14	7

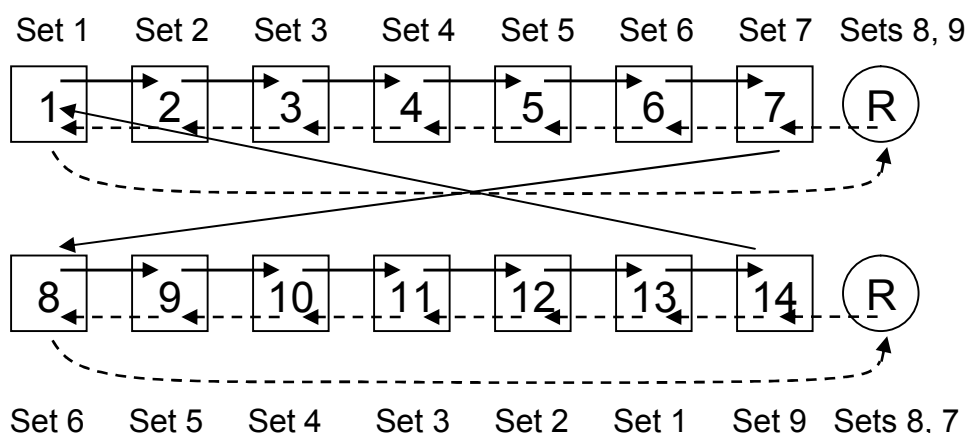
As all boards are in play, a Mitchell or Skip Mitchell plus NS Rover may be curtailed. A Share and Relay Mitchell is best not curtailed with or without a roving pair. A Rover may be added to an existing basic Mitchell movement to cater for a late arriving pair.

WEB MITCHELL

- Useful for larger numbers when a Mitchell style movement is required.
- The total number of tables must be even and tables are numbered in a single series e.g. 1-14.
- Tables are divided into two equal groups e.g. 1 - 7 and 8-14 for board movement.
- EW Pairs move up one table ignoring the group boundaries.
- EW Pairs never skip.
- Two boxes of duplicated boards are in play with each group having its own box.
- There must be an odd number of sets e.g. 9.
- Boards are moved back one table at each move and each box remains within its own group of tables.

The only area needing particular attention is the original placement of boards.

- In the first group the sets are placed in the usual manner Set 1/Table, 1 Set 2/Table 2 etc with surplus sets placed on a relay table after the highest table in the first group.
- In the second group, the highest set goes on the highest numbered table. Set 1 goes on the 2nd highest table and sets are placed in reverse order. Set 2 on the 3rd highest table etc. with surplus sets going on a relay table after the highest numbered table. The highest set goes on the highest numbered table.
- The tables in the second group play the board sets in descending order.

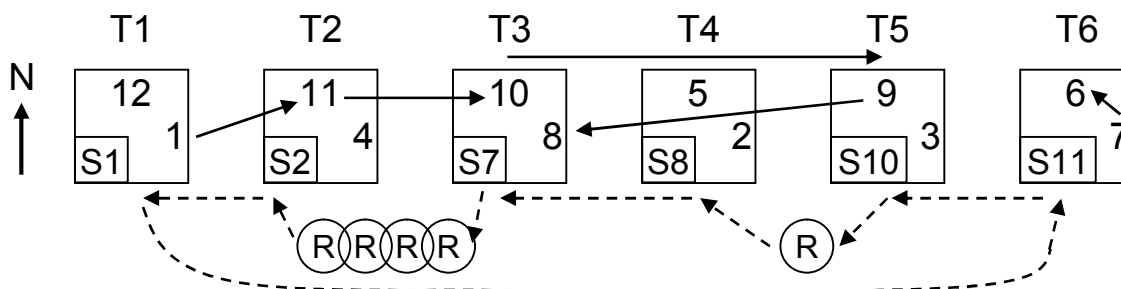


HOWELL

The Club Director would most likely use a Howell movement for smaller numbers and when a Mitchell type movement has a longer than acceptable sit out.

- A single winner is produced.
- Each pair plays every other pair.
- Each pair plays all boards.
- One stationary pair
- The number of sets and number of rounds equals the number of pairs minus one.
- There may be a sit out.
- All sets are not in play at any one time. Some sit on relay tables during each round.
- Boards move back one station at each move through tables and relay tables. The 3 table Howell is an exception wherein the board movement is irregular.
- Moving pairs follow the next lower numbered moving pair.

There are vast possibilities for Howell movements. Some are more balanced than others. Special consideration may also be given to the starting position of seeded pairs so that, as far as possible, the NS and EW fields are close to equal strength for each round. The Club Director would usually use the movement cards available at the Club and allow walk in pairs to sit as they wish without any need for deeper consideration.



3/4 HOWELL or SHORTENED HOWELL

These are not curtailed Howells. They are special movements that cater for occasions when a full Howell is not suitable perhaps because it would take too long.

- A single winner is produced.
- Pairs do not play every other pair.
- Each pair plays all boards.
- More than one stationary pair
- The number of stationary pairs equates to the number of pairs (when all tables are full) less the number of rounds to be played.
- The number of sets is equal to the number of rounds to be played.
- There may be a sit out.
- All sets are not in play at any one time. Some sit on relay tables during each round.
- Boards move back one station at each move through tables and relay tables.
- Moving pairs follow the next lower numbered moving pair.
- Less balanced than a full Howell. Some stationary pairs may switch for some rounds to improve balance.

MASTERPOINT REQUIREMENTS

A session for green masterpoint purposes is at least 24 boards. For larger sessions players need to play at least 75% of the boards to be eligible for masterpoints. A sit out counts as boards played.

SWISS PAIRS

In a Swiss Pairs movement, a draw based on the most recent overall results available at the time is compiled after each round. A manual draw is made for round 1 and usually for round 2 if no results are available. Round 3 would be drawn on the results of round 1 with pairs playing a pair next to them in the standings, 1st v 2nd, 3rd v 4th, 17th v 18th. The compilation of the draw starts from the top with the proviso that pairs do not meet a second time. It could be that a draw is 1st v 3rd, 2nd v 4th, 17th v 19th.

Once the manual draws have been played, pairs that are doing well play other pairs that are doing well while poorly performing pairs meet other poorly performing pairs.

If too many rounds are played the draw could become unfair. 1st v 3rd with the first available pair for 2nd being the 11th pair. Such an event might be described as overswished. There is no precise point that overswishing occurs but a good rule of thumb is for the number of rounds not to exceed half the number of contestants.

Figures are provided for the minimum number of rounds that should be played. Note that these figures *are not* the point at which an event becomes overswished. They are the number of rounds that must be played before it is certain that two undefeated pairs will play against each other. The figures from Bridge Directing Complete are:

9-16 contestants	6 rounds	33-64 contestants	8 rounds
17-32 contestants	7 rounds	65-128 contestants	9 rounds

Mathematicians tell us that it doesn't matter a great deal how the first round is drawn. It could be drawn randomly however perceptions are important for player happiness even if not mathematically supported. A tried and tested method is to start by seeding the field with the number of pairs being N. Pairs 1 plays Pair N/2 +1, Pair 2 plays N/2+2 etc so 1 v 17, 2 v 18 ... 16 v 32. The comparative difficulty of each match is about the same.

Another method that is commonly seen as sound is for first seed to play last seed, second seed to play second last seed because separating the middle seeds is seen as more difficult so 1 v 32, 2 v 31 ... 16 v 17. Again, player perception has difficulty accepting 1 v 32 for the first round.

TEAMS

The American Whist and New England Relay movements are particularly useful to the club director for a small number of teams.

NEW ENGLAND RELAY

- Even number of teams
- Tables arranged in two rows numbered as for a Twin Mitchell Movement
- Boards are shared between the two rows as for a Twin Mitchell
- After each pair of sharing tables there is a relay table
- The number of sets of boards equals the number of teams which equals the number of stations
- Each team plays every other team
- Each team does not play one set of boards
- Scoring up is done for all matches when the movement is complete
- EW Pairs move up one table at each move
- Boards are moved up one station at each move

It is possible to shorten an American Whist movement by an even number of rounds. Note that the special move is made at the start. Instead of moving up two tables at the first move, the EW Pairs move up a further 2 tables for every two rounds to be curtailed. When EW pairs arrive back at their home tables it is time to score up. The table below shows a 7 table American Whist playing only 4 matches not the full 6 matches.

R	Table 1			Table 2			Table 3			Table 4			Table 5			Table 6			Table 7		
	NS	EW	Set	NS	EW	Set	NS	EW	Set	NS	EW	Set	NS	EW	Set	NS	EW	Set	NS	EW	Set
1	1 v 4		1	2 v 5		2	3 v 6		3	4 v 7		4	5 v 1		5	6 v 2		6	7 v 3		7
2	1 v 2		7	2 v 3		1	3 v 4		2	4 v 5		3	5 v 6		4	6 v 7		5	7 v 1		6
3	1 v 7		6	2 v 1		7	3 v 2		1	4 v 3		2	5 v 4		3	6 v 5		4	7 v 6		5
4	1 v 5		5	2 v 6		6	3 v 7		7	4 v 1		1	5 v 2		2	6 v 3		3	7 v 4		4

There are variations to American Whist to cater for even numbers.

ROUND ROBIN TEAMS

A draw for a full round robin for an even number of teams may be derived as follows. Start entering teams in descending order left to right:

Match				
1	8	7	6	5

Enter remaining teams right to left:

Match				
1	8 v 1	7 v 2	6 v 3	5 v 4

Enter teams in ascending teams down each column with one number remaining constant. If the first named team is to have seating rights then the published draw needs to have the order for approximately half that team's matches rotated. A common practice is to allow teams to toss a coin for seating rights if either team so wishes.

Match				
1	8 v 1	7 v 2	6 v 3	5 v 4
2	8 v 2	1 v 3	7 v 4	6 v 5
3	8 v 3	2 v 4	1 v 5	7 v 6
4	8 v 4	3 v 5	2 v 6	1 v 7
5	8 v 5	4 v 6	3 v 7	2 v 1
6	8 v 6	5 v 7	4 v 1	3 v 2
7	8 v 7	6 v 1	5 v 2	4 v 3

A Round Robin for an Odd Number of Teams

To cater for an odd number of teams a round robin may incorporate a triangle in which 3 teams play two matches in a mini-Mitchell movement.

- One team stays in the triangle throughout. Consider an experienced team who understand the process.
- All other teams require a home table
- 3 additional tables form the triangle but are usually set in a straight row for simplicity
- It is easier for a whole match to be played in the triangle at each sitting though two half matches may be necessary to accommodate a refreshment or session break.
- One different set of boards from those to be played by the main body is required.
- The triangle is played as a Mitchell eg EW up one table Boards down one table.
- Boards need not be moved at the start if they have been pre-dealt.
- Teams take their table number with them when going to the triangle

Round Robin – 7 Teams

Match	Main Group		Triangle
1	7 v 4	6 v 5	1 v 2 v 3
2	4 v 6	5 v 7	
3	2 v 6	3 v 7	1 v 4 v 5
4	7 v 2	6 v 3	
5	2 v 4	3 v 5	1 v 6 v 7
6	5 v 2	4 v 3	

Team 1 is in the triangle throughout. While the main body plays Match 1 with Set 1 (Boards 1-12) and Match 2 with Set 2 (Boards 13-24) the triangle could play as follows:

Table 1 Set 1 (1-12) NS 1 v EW 3	Table 2 Set 2 (13-24) NS 2 v EW 1	Table 3 Δ Set 3 (25-36) NS 3 v EW 2
Table 1 Set 2 (13-24) NS 1 v EW 2	Table 2 Δ Set 3 (25-36) NS 2 v EW 3	Table 3 Set 1 (1-12) NS 3 v EW 1

It is helpful not to have 2 sets with the same numbers in the triangle at the same time. Sets of different colours are also useful.

Suppose this event is to be played over two sessions. Half Match 3 and half Match 4 need to be played in the triangle while the main group plays Match 3. Perhaps starting as:

Table 1 ½ Set 3 (25-30) NS 1 v EW 5	Table 4 ½ Set 3 (31-36) NS 4 v EW 1	Table 5 ½ Δ Set 2 (13-18) NS 5 v EW 4
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When the second session starts, the triangle plays the second half of Matches 3 & 4 while the main group plays Match 4 (Boards 1-12). The second stage of this triangle:

Table 1 ½ Set 1 (1-6) NS 1 v EW 5	Table 4 ½ Set 1 (7-12) NS 4 v EW 1	Table 5 ½ Δ Set 2 (19-24) NS 5 v EW 4
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Which means the final triangle starts as:

Table 1 Set 2 (13-24) NS 1 v EW 7	Table 6 Set 3 (25-36) NS 6 v EW 1	Table 7 Δ Set 1 (1-12) NS 7 v EW 6	and continues EW up one table Boards down one table as usual.
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Round Robin – 9 Teams

Match	Main Group			Triangle`
1	6 v 5	4 v 8	7 v 9	1 v 2 v 3
2	5 v 8	7 v 4	9 v 6	
3	8 v 7	2 v 6	3 v 9	1 v 4 v 5
4	9 v 2	6 v 8	3 v 7	
5	4 v 3	2 v 8	5 v 9	1 v 6 v 7
6	5 v 2	9 v 4	8 v 3	
7	7 v 2	4 v 6	3 v 5	1 v 8 v 9
8	2 v 4	5 v 7	6 v 3	

Round Robin – 11 Teams

1	6 v 5	11 v 4	7 v 9	8 v 10	1 v 2 v 3
2	4 v 6	9 v 11	8 v 5	10 v 7	
3	8 v 7	11 v 2	10 v 3	9 v 6	1 v 4 v 5
4	2 v 8	3 v 9	6 v 10	7 v 11	
5	2 v 4	3 v 5	10 v 9	11 v 8	1 v 6 v 7
6	9 v 2	4 v 8	10 v 5	3 v 11	
7	4 v 3	5 v 7	2 v 10	11 v 6	1 v 8 v 9
8	7 v 2	6 v 3	4 v 10	5 v 11	
9	5 v 2	3 v 7	6 v 8	9 v 4	1 v 10 v 11
10	5 v 9	2 v 6	8 v 3	7 v 4	

Round Robin – 13 Teams

1	3 v 11	9 v 4	8 v 5	7 v 6	10 v 12	13 v 1 v 2
2	3 v 9	4 v 12	5 v 7	6 v 8	11 v 10	
3	1 v 7	9 v 2	6 v 12	5 v 11	8 v 10	13 v 3 v 4
4	10 v 1	7 v 2	11 v 6	12 v 5	9 v 8	
5	1 v 9	2 v 12	4 v 10	3 v 7	8 v 11	13 v 5 v 6
6	12 v 1	2 v 8	7 v 4	10 v 3	9 v 11	
7	1 v 11	2 v 10	5 v 4	6 v 3	12 v 9	13 v 7 v 8
8	4 v 1	11 v 2	10 v 5	12 v 3	9 v 6	
9	1 v 5	2 v 6	11 v 4	8 v 3	7 v 12	13 v 9 v 10
10	6 v 1	2 v 4	11 v 7	3 v 5	12 v 8	
11	1 v 3	5 v 2	6 v 10	4 v 8	7 v 9	13 v 11 v 12
12	8 v 1	3 v 2	5 v 9	4 v 6	10 v 7	

MITCHELL TEAMS

- An even number of teams required so teams can be arranged in 2 equal rows
- Tables and therefore teams are numbered as for a Mitchell Pairs
- Boards are shared between adjacent tables from each row
- Teams do not play every other team unless a second session is played
- May be curtailed if even fewer matches required
- To start, the EW pairs swap with the corresponding EW pair in the other row and a match is played
- At each move, EW pairs in one row and NS pairs in the other row move up one table always remaining in their own row
- Boards are moved down one table
- Some teams always move and some teams always remain stationary

If a second session is to be played to effectively complete a round robin then each of the original rows competes in its own mini-event. For odd numbers the movement could be American Whist. For even numbers perhaps a New England Relay or round robin.

SWISS TEAMS

A Swiss Teams might be run when there are too many teams and too little time to play a full round robin. The general principles are outlined under Swiss Pairs on Page 8.

A manual draw is used for the first match only in a Swiss Teams event. To avoid having a bye, a triangle as described on Page 11 may be used for an odd number of teams.