# GUIDE TO RANKED BALLOT ELECTIONS
## FOR ONTARIO MUNICIPALITIES

Ontario

# GUIDE TO RANKED BALLOT ELECTIONS FOR ONTARIO MUNICIPALITIES

This guide has been prepared by the Ministry of Municipal Affairs to provide information about ranked ballot elections.

Rules for ranked ballot elections are set out in the Municipal Elections Act, 1996 and Ontario Regulation 310/16. This guide is current as of February 2017. If the Government makes any amendments to the Municipal Elections Act, 1996 or the regulation, this guide will be updated as needed.

This guide provides general information in plain language about the rules contained in the Municipal Elections Act, 1996 and Regulation 310/16. It is not meant to replace provincial legislation. For more specific information, please refer to the relevant legislation and regulations which can be found online at www.ontario.ca/laws.

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# INTRODUCTION

Beginning in 2018, municipalities in Ontario have the option to use ranked ballots for council elections as an alternative to first-past-the-post. Ranked ballots allow voters to rank candidates in order of preference for a particular office. For example, when voting for mayor, a voter can rank one or more candidates for that office. Ranked ballots allow a voter to express additional preferences in the event that their first choice is eliminated in the first (or in a later) round of counting.

If a municipality wants to switch to ranked ballots, the council must consult with the public and pass a by-law. You play a role in helping determine whether ranked ballot elections meet the needs of your local community.

Once the by-law has been passed, ranked ballots must be used to elect all of the seats on council. A municipality cannot use ranked ballots to elect some council seats but not others (for example, just the mayor but not the councillors).

Ranked ballots can only be used to elect municipal councils. They cannot be used to elect school trustees.

This guide helps you understand the ranked ballot process – from your municipality considering ranked ballots to the process of counting votes in a ranked ballot election.

# CONSULTATION

Before passing a by-law to switch to using ranked ballots, council must hold a two-step consultation:

1. An open house to provide information to the public about ranked ballot elections.
2. A public meeting to hear feedback from residents.

During the consultation, at the open house and the public meeting, council must make all of the following available to the public:

- Information about how ranked ballot elections work, including how the votes are counted.
- An estimate of how much ranked ballot elections would cost.
- A description of any voting equipment and vote-counting equipment that is being considered for use in the election.
- A description of any alternative voting method being considered for use in the election.

A council could choose to use more ways to consult the public, such as putting a question on the ballot to let voters decide whether they want to switch to ranked ballots,

but these would not replace the required two-step consultation. Council would still have to hold the open house and public meeting to consider whether to pass the by-law.

The deadline for a council to pass a by-law to switch to ranked ballots is May 1 in the year before the year of the municipal election (e.g., May 1, 2017 for the 2018 election; May 1, 2021 for the 2022 election).

If ranked ballots are used in the general election, they must be used in any by-elections that are held during the term of council.

## UPPER-TIER MUNICIPALITIES

If an upper-tier council (regional council or county council) has directly elected offices, it can choose to use ranked ballots to elect those offices. An office is directly elected if the council member does not sit on a lower-tier council as well as the upper-tier council.

For example:

- A mayor who also sits on a regional or county council is not directly elected.
- A county councillor who does not sit on any other council is directly elected.

The council of an upper-tier municipality can only choose to use ranked ballots for directly elected offices if all of its lower-tier municipalities are using ranked ballots to elect their council members. Lower-tier municipalities run elections on behalf of upper-tier municipalities, and it's the lower-tier municipalities that decide what kind of voting and vote counting equipment will be used. An upper-tier municipality cannot make the lower-tier municipalities conduct a ranked ballot election on the upper-tier's behalf unless the lower tiers are already using ranked ballots for their own elections.

An upper-tier council must hold a public meeting before passing a by-law for a ranked ballot election, but does not have to hold an open house.

The deadline for an upper-tier council to pass the by-law is July 1 in the year before the year of the municipal election. (e.g., July 1, 2017 for the 2018 election; July 1, 2021 for the 2022 election).

## VOTING

In a ranked ballot election, you rank candidates according to your preference (first choice, second choice, etc.).

Council can set out the maximum number of rankings for each office in the by-law. If council doesn't choose a number, the maximum number of rankings is three.

You do not have to rank the maximum number of candidates. For example, if the maximum number of rankings is three, you can rank just one, just two or three candidates.

## UNDERSTANDING RANKINGS

Ranking a second and third choice will not affect the chances of your first choice being elected. Your vote stays with your first choice unless that candidate is eliminated. In a multi-member election (in which more than one candidate is elected, for example, four councillors elected at large), your vote stays with your first choice unless that candidate is eliminated or elected. Your vote does not help another candidate until your first choice doesn't need it or can't use it anymore.

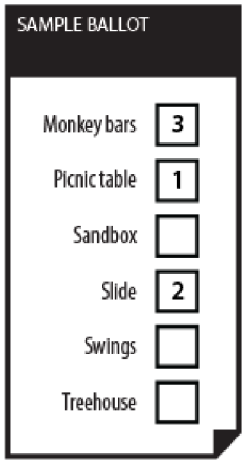
Ranking the same candidate as your first, second and third choice will not help the chances of that candidate being elected. It is the same as ranking the candidate as your first choice and not making any other rankings.

If you give two candidates the same ranking, it won't count toward either candidate, because there isn't any way to tell which of the tied candidates your vote should go to. It is the same as not making a ranking.

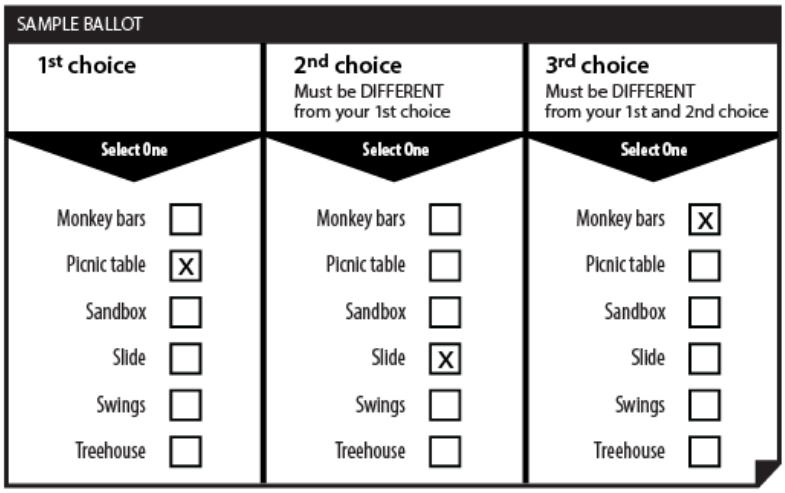
## BALLOTS

There are different ways to design a ballot for a ranked ballot election. The design of the ballot is up to the municipal clerk. The design may depend on things like the kind of equipment (if any) being used for voting and vote counting, how many candidates are running, and the maximum number of rankings allowed for each office. Some examples of what ballots could look like are:

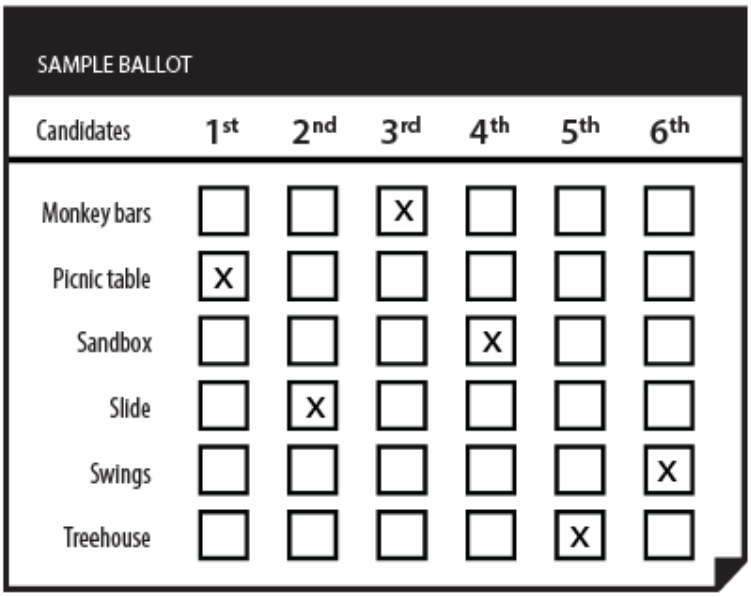
**List** – you write the rankings next to the names of the candidates



**Columns** – you fill in the space next to your first choice candidate in the first column, your second choice candidate in the second column, etc.




**Grid** – candidates are listed once, down the left side of a grid. You make a mark in the first column in the row of your first choice candidate, in the second column in the row of your second choice candidate, etc.



## HOW VOTES ARE COUNTED

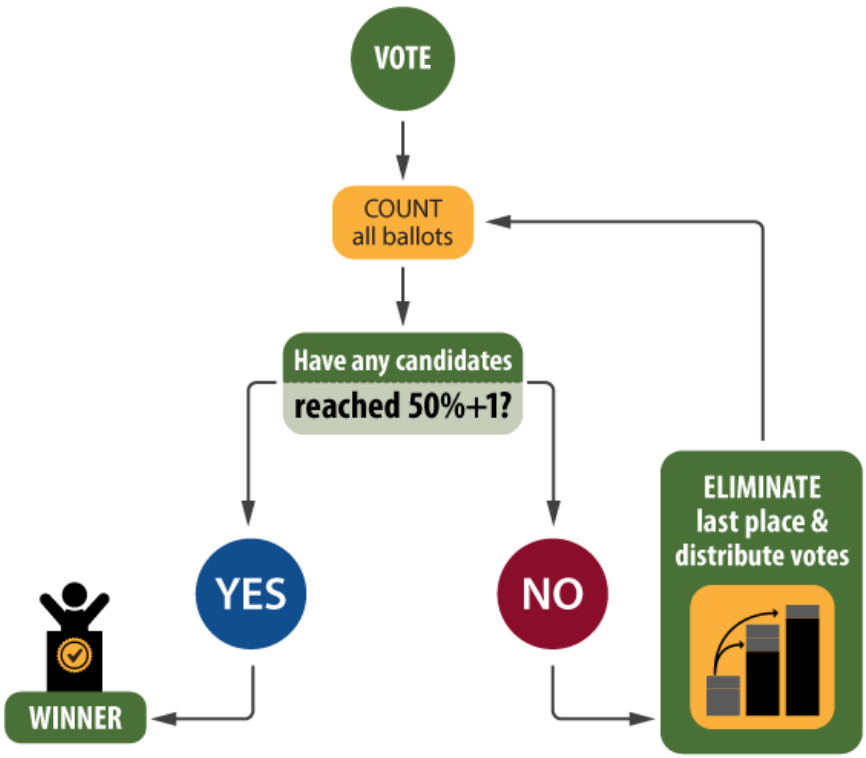
Traditional elections can be summed up as “the candidate who gets the most votes, wins.” (In the case of two (or more) candidates being elected, it can be said that “the two (or more) candidates who get the most votes, win.”

In ranked ballot elections, a candidate must receive a certain number of votes to win. This number is called the threshold.

The vote counting rules set out what to do when the votes are counted according to the first choice marked on each ballot, and no candidate has enough votes to win (or, if two or more candidates are being elected, not enough candidates have enough votes).

## SINGLE-MEMBER ELECTION

A single-member election is an election where one candidate will be elected to office. For example, the election of the mayor is a single-member election because only one person can win.



## SETTING THE THRESHOLD

The first step is to calculate the number of votes that a candidate needs to get in order to be elected – the threshold.

In a single-member election, the threshold is a simple majority – a candidate needs to receive 50 per cent of the votes plus one vote.

Examples:

- If 100 people voted, the threshold would be 51 votes (i.e., (100/2) +1).
- If 1000 people voted, the threshold would be 501 votes (i.e., (1000/2) +1).

The threshold is set at 50 per cent plus one to make it impossible for two candidates to both get enough votes to be elected.

- If 1000 people vote, and one councillor is to be elected, the threshold is 501 votes. Once one candidate has received 501 votes, another candidate could never get enough votes to also be elected since only 499 votes remain.

## FIRST ROUND

Votes are counted for candidates based on the first choice marked on each ballot.

If a candidate has received enough votes to reach or cross the threshold, that candidate is the winner, and the vote count stops.

If none of the candidates has enough votes to reach or cross the threshold, the candidate with the fewest votes is eliminated. The votes for that candidate will go to the next choice marked on each ballot that was cast for the candidate.

## SECOND ROUND

Votes are counted for each candidate, including any votes the candidate received in the first round because they were the first choice on the ballot, as well as any votes that were transferred to the candidate because they were the next choice on the ballot from an eliminated candidate.

This process is repeated until a candidate has enough votes to win.

**For more information and an example of how ranked ballot voting works in a single-member election, see Follow Your Ballot on page 12.**

## EXHAUSTED BALLOTS

The choices marked on a ballot indicate which candidate the vote should go to next. If the first choice is eliminated, the vote is transferred to the second choice. If the second choice is eliminated the vote is transferred to the third choice. It is possible that the vote cannot be transferred, in which case the ballot is exhausted and does not count toward any candidate. A ballot could become exhausted for a number of reasons:

- The voter only ranked one candidate, and that candidate was eliminated
- All of the candidates that the voter ranked have been eliminated
- The voter gave two candidates the same ranking, so it's impossible to tell which candidate should be the next choice.

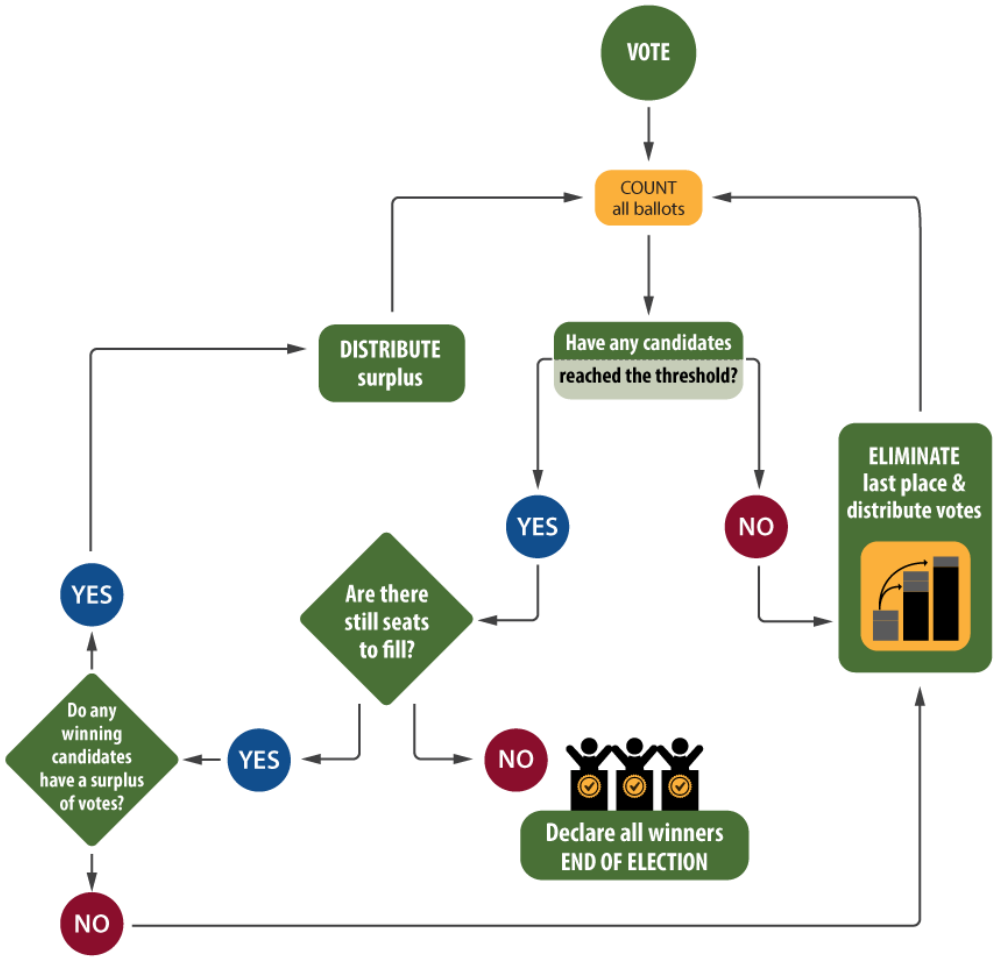
## WINNING WITHOUT REACHING THE THRESHOLD

If the rounds of vote counting have continued until there are only two candidates left, and neither of them have enough votes to reach or cross the threshold, the candidate with the highest number of votes wins.

This situation could happen if there are a large number of exhausted ballots. For example, if 100 people voted, and 55 of those ballots became exhausted, there would only be 45 ballots left. It would not be possible for any remaining candidate to have 51 votes.

## MULTI-MEMBER ELECTION

A multi-member election is an election where more than one candidate will be elected to the office. For example, many municipalities have a mayor, and four councillors that are elected at large (i.e., everyone may vote for all four councillor positions). The election of the councillors would be a multi-member election with four winners. If a single ward is represented by two councillors, the ward election would be a multi-member election with two winners.




## SETTING THE THRESHOLD

The first step is to calculate the number of votes that a candidate needs to get in order to be elected – the threshold.

In a single member election, the threshold is set at 50 percent of votes plus one vote. Another way to describe this would be “number of votes divided by two, plus one vote”.

In a multi-member election, the “two” is replaced by “one more than the number of candidates to be elected.”

Examples:

If two councillors are to be elected, the formula is “votes divided by three, plus one.”

- If 100 people voted, the threshold would be 34 votes (i.e., [100/(2+1)] +1).
- If 1000 people voted, the threshold would be 334 votes (i.e., [1000/(2+1)] +1).

If four councillors are to be elected, the formula is “votes divided by five, plus one”.

- If 100 people voted, the threshold would be 21 votes (i.e., [100/(4+1)] +1).
- If 1000 people voted, the threshold would be 201 votes (i.e., [1000/(4+1)] +1).

The threshold is set this way to make it impossible for too many candidates to get enough votes to be elected:

- If 1000 people vote, and two councillors are to be elected, the threshold is 334 votes. If two candidates each receive 334 votes (a total of 668 votes), a third candidate could never get enough votes to also be elected since only 332 votes remain.

## FIRST ROUND

Votes are counted for candidates based on the first choice marked on each ballot.

If a candidate has received enough votes to reach or cross the threshold, that candidate is successful. If the successful candidate has received more votes than the number of votes needed to be elected, the candidate has a surplus. The surplus votes are redistributed according to the next choice marked on each ballot.

If two or more candidates receive enough votes to reach or cross the threshold, the candidate with the most votes is the successful candidate for that round. The other candidate(s) above the threshold will be successful eventually, and be declared elected, but only one candidate’s surplus can be distributed in each round.

If none of the candidates have enough votes to reach or cross the threshold, the candidate with the fewest votes is eliminated. The votes for that candidate will go to the next choice marked on each ballot.

## SECOND ROUND

Votes are counted for each candidate, including any votes the candidate received in the first round because they were the first choice on the ballot, as well as any votes that were transferred to the candidate because they were the next choice on the ballot from a successful or eliminated candidate.

This process is repeated until the number of successful candidates is the same as the number of candidates to be elected.

**For more information and an example of how ranked ballot voting works in a multi-member election, see Follow Your Ballot on page 14.**

## HOW THE SURPLUS IS REDISTRIBUTED

If a successful candidate in a multi-member election receives more votes than they need, those surplus (or extra) votes need to be put back into the system, as there are still more candidates to elect. If the first candidate to cross the threshold kept all of their votes, that may not leave enough votes for the next candidate to be able to reach the threshold.

In this example, a candidate needs 150 votes to win, and they received 200 votes. They have 50 votes more than they need to be elected.

One way to put 50 votes back would be to choose 50 ballots at random, and give each of those votes to the next choice marked on each ballot. This method doesn't treat all the ballots fairly, as only 50 would have their next choice considered, while the other 150 would not.

Instead of treating some ballots differently than others, a formula is used to divide each ballot so that a portion of every vote stays with the successful candidate, and the other portion of every vote goes to the next choice.

For the candidate who got 200 votes but only needed 150 votes, a calculation is made to figure out how much of each vote should be transferred.

The formula is:

$$\frac{\textit{surplus votes}}{\textit{total number of votes the candidate got}}$$

50/200 = 0.25

For each of the 200 ballots, 0.25 of a vote is transferred to the next choice on the ballot, and 0.75 of the vote stays with the successful candidate. Once the calculations are finished, the candidate will keep 150 votes (200 x 0.75 = 150), and a total of 50 votes (200 x 0.25 = 50) are transferred to other candidates.

If a candidate in a later round has a surplus that must be transferred, and has partial votes as well as whole votes, each partial vote must also be divided so that a portion of it stays with the candidate and a portion is transferred to the next choice on the ballot.

To continue the example, in a later round, a candidate has 170 votes but only needs 150 votes. The formula is used again:

$$\frac{surplus\ votes}{total\ number\ of\ votes\ the\ candidate\ got}$$

20/150 = 0.1333

For each ballot that is worth a whole vote, 0.1333 of a vote is transferred to the next choice on the ballot. For each ballot that is worth 0.25 of a vote, 0.0333 of a vote is transferred to the next choice (0.25 x 0.1333 = 0.0333).

## EXHAUSTED BALLOTS

In a multi-member election, a vote (or part of a vote) cannot be transferred to a candidate who has already been eliminated, or to a candidate who was successful in an earlier round and has had their surplus distributed.

A ballot becomes exhausted when there are no further choices to distribute the vote (or part of a vote) to.

**A more detailed discussion of how votes are counted can be found in the guide for clerks.**

# REPORTING THE RESULTS

Counting the ballots in a ranked ballot election may take longer than counting the votes in a traditional election. Unofficial results of the election may not be available in the hours after voting closes. Voters and candidates may have to wait until the next day, or wait for several days, to find out the unofficial results.

The clerk is required to post the results of the election on a website, or make them available electronically, as soon as possible after voting day (once the clerk has completed the count and verified the results). The information that must be posted or made available for each office includes:

1. The number of ballots cast for the office
2. The number of ballots that were declined
3. The number of rejected ballots
4. The threshold calculated for the office
5. The number of votes cast for each candidate (counted in the first round)
6. The results of each round of vote counting, including the number of votes received by each continuing candidate and the number of exhausted ballots.

# FOLLOW YOUR BALLOT: AN EXAMPLE OF A RANKED BALLOT ELECTION

Follow a ballot and learn what happens in a single-member and multi-member ranked ballot election.

## SINGLE-MEMBER ELECTION: AN ELECTION WHERE ONE CANDIDATE IS ELECTED

In this election, you are being asked to vote on the kind of fruit that will be served as a snack.

**Ranking the Ballot**

With ranked ballots you can rank your choices from your most preferred to least preferred option, as follows:

| | |
|---|---|
| Cherry | 1 |
| Pear | 2 |
| Strawberry | 3 |
| Apple | 4 |

**Calculate the Threshold**

Thirty people voted, and only one fruit can be chosen. Sixteen votes are needed for a fruit to be elected (50 per cent of 30 votes is 15 votes, plus one makes it a majority).

## COUNT THE FIRST CHOICE VOTES

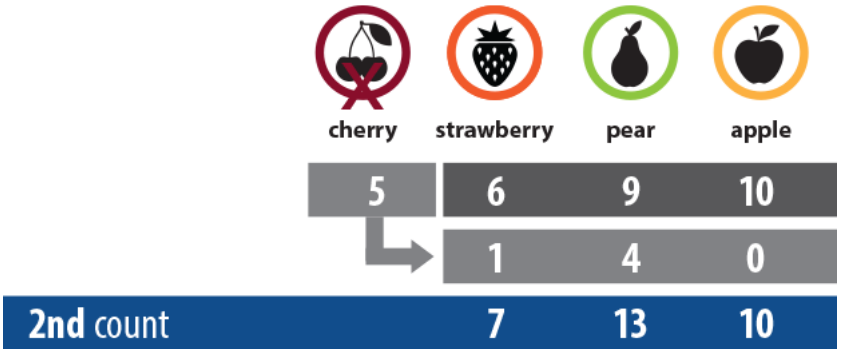
After the ballots are distributed according to first choices, the vote count looks like this:

None of the fruits has received enough votes to be elected.

## ELIMINATE THE OPTION IN LAST PLACE AND REDISTRIBUTE THOSE BALLOTS TO OTHER CANDIDATES

Your first choice, Cherry, got the fewest votes. Your ballot will now be given to your second choice, Pear. (The ballots of everyone else who voted for Cherry as their first choice will also be redistributed to their second choices).

After the five Cherry ballots are distributed, the new vote count is:




After the second round of counting, none of the fruits has received enough votes to be elected.

## DROP THE LAST PLACE AND REDISTRIBUTE THOSE BALLOTS

Strawberry now has the fewest votes. Your ballot stays with your second choice, Pear.

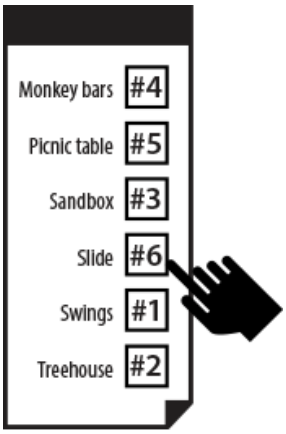
After the seven Strawberry ballots are redistributed, the new vote count is:

Pear is elected with 17 votes. Even though your first choice didn't get elected, your ballot helped your second choice to win.

## MULTI-MEMBER ELECTION: AN ELECTION WHERE MORE THAN ONE CANDIDATE IS ELECTED

In this election, you are being asked to vote on what new equipment should be installed in your neighbourhood park. Three pieces of equipment will be chosen out of a possible six.

### Ranking the Ballot




With ranked ballots you can rank your choices from your most preferred to least preferred option, as follows:

| | |
|---|---|
| Monkey bars | 4 |
| Picnic Table | 5 |
| Sandbox | 3 |
| Slide | 6 |
| Swings | 1 |
| Treehouse | 2 |

### Calculate the Threshold

In a multi-member ranked ballot election, the number of votes needed to be elected will depend on how many seats are being filled.

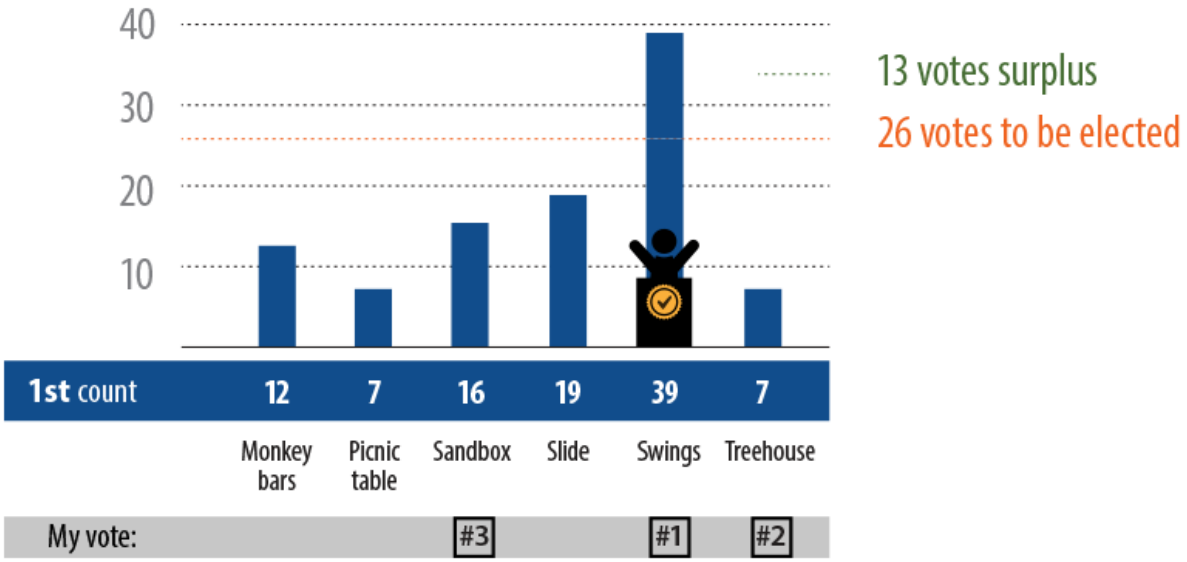
In this example, one hundred people voted, and three pieces of equipment will be chosen.

In order to be elected, a piece of playground equipment must earn twenty-six votes.

To do the math, one hundred votes divided by four (three pieces of equipment will be chosen, plus one is four) is 25 votes, plus one is 26.

## COUNT THE FIRST CHOICE VOTES

After the ballots are distributed according to first choices, the vote count looks like this:




Swings has received more than 26 votes, and is declared the winner.

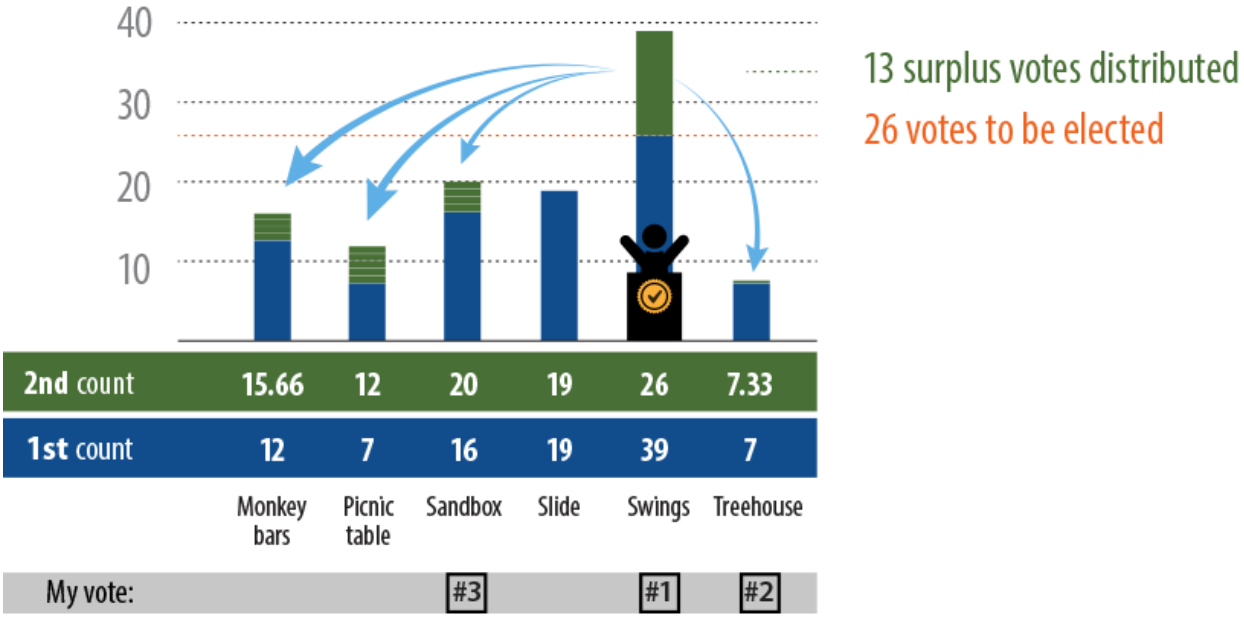
## DISTRIBUTE THE SURPLUS

Since the threshold is 26 votes, and Swings received 39 first choice votes, Swings received 13 more votes than is needed to be elected.

This is a surplus of 13 votes for Swings. Thirteen divided by 39 is one-third. This means that Swings only needed two-thirds of your vote (along with two-thirds of the vote of everyone else who had Swings as a first choice) to be elected.

The two-thirds of your vote that Swings needs to be elected will stay with Swings. The other one-third of your vote will be given to your second choice, Treehouse. Each ballot that had Swings as the first choice will give one-third of their vote to their second choice.

After the ballots are redistributed, the new vote count is:




| | Round 1 total | Votes added | New total |
|---|---|---|---|
| Monkey Bars | 12 | 11 ballots worth 1/3 each: 3.66 votes | 15.66 |
| Picnic Table | 7 | 15 ballots worth 1/3 each: 5 votes | 12 |
| Sandbox | 16 | 12 ballots worth 1/3 each: 4 votes | 20 |
| Slide | 19 | 0 votes | 19 |
| Swings | 39 | - 39 ballots worth 1/3 each: -13 votes | 26 elected |
| Treehouse | 7 | 1 ballots worth 1/3 each: 0.33 votes | 7.33 |

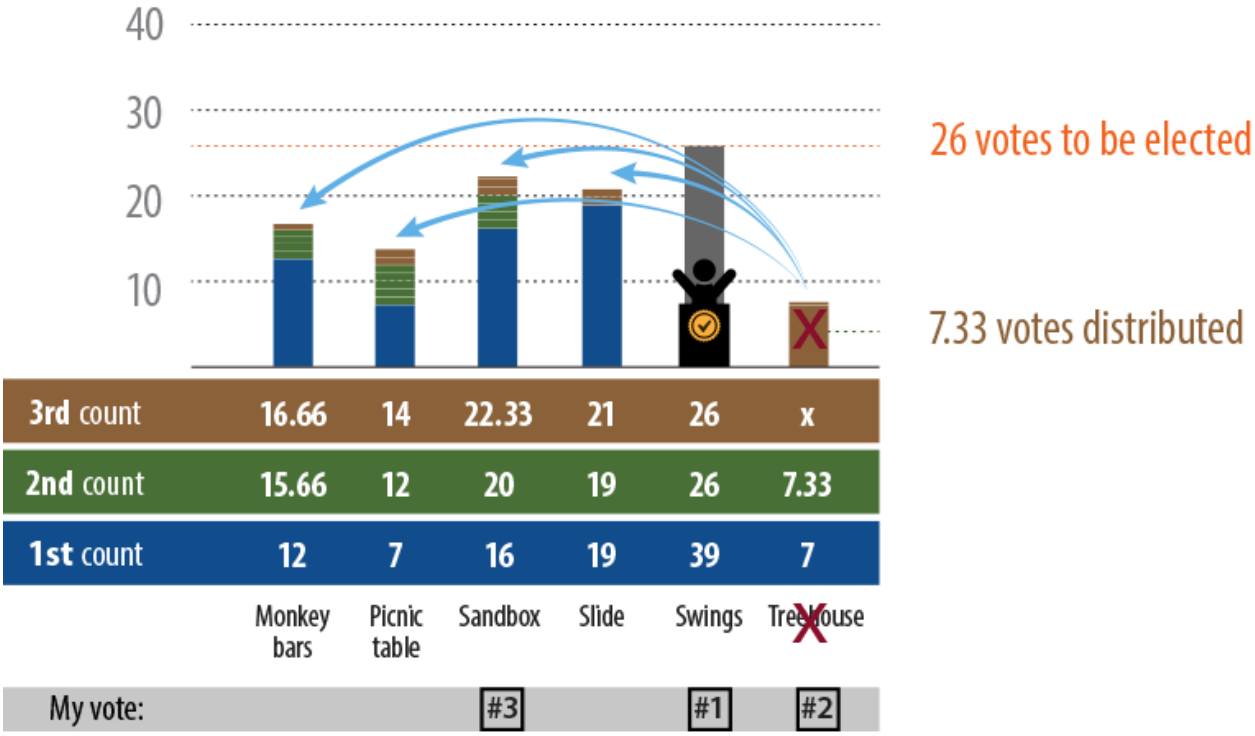
As it turns out, yours was the only ballot of the one hundred votes that chose Swings as the first choice and Treehouse as a second choice. Treehouse's vote total increased by one-third of a vote.

None of the candidates other than Swings has earned the 26 votes needed to be elected.

## DROP THE LAST PLACE AND REDISTRIBUTE THOSE BALLOTS

Treehouse received the fewest votes, so it is eliminated. Treehouse's votes are now redistributed. Your one-third of a vote will be transferred to your third choice, Sandbox.

After the Treehouse votes are redistributed, the new vote count is:

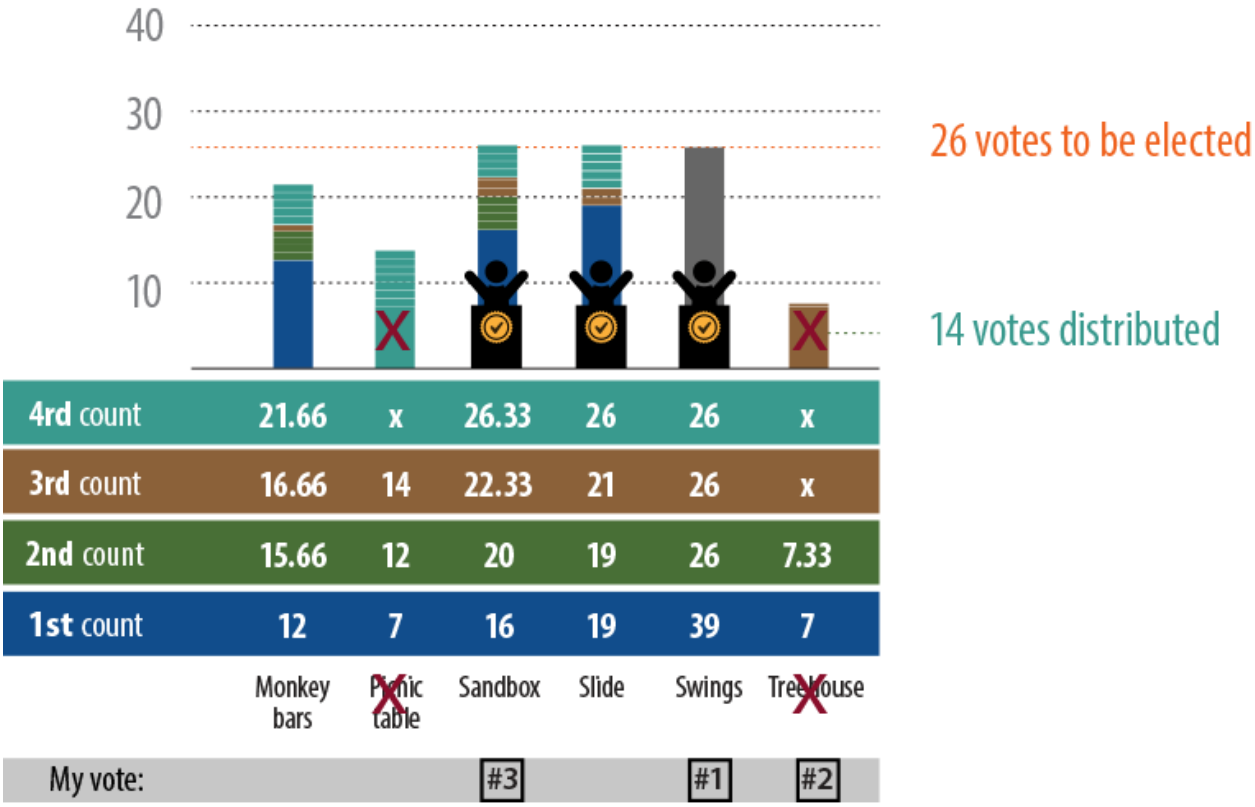



| | Round 2 total | Votes added | New total |
|---|---|---|---|
| Monkey Bars | 15.66 | 1 | 16.66 |
| Picnic Table | 12 | 2 | 14 |
| Sandbox | 20 | 2.33 | 22.33 |
| Slide | 19 | 2 | 21 |
| Swings | 26 elected | 0 | 26 elected |
| Treehouse | 7.33 | -7.33 votes redistributed | 0 |

None of the other candidates has earned the 26 votes needed to be elected.

## DROP THE LAST PLACE AND REDISTRIBUTE THOSE BALLOTS

Picnic Table has the fewest votes, so it is now eliminated. Picnic Table's votes are now redistributed according to their next choice.




| | Round 3 total | Votes added | New total |
|---|---|---|---|
| Monkey Bars | 16.66 | 5 | 21.66 |
| Picnic Table | 14 | -14 | 0 |
| Sandbox | 22.33 | 4 | 26.33 elected |
| Slide | 21 | 5 | 26 elected |
| Swings | 26 elected | 0 | 26 elected |
| Treehouse | 0 | 0 | 0 |

Sandbox and Slide have each earned 26 votes, so they have reached the threshold to be elected.

In this election, three pieces of equipment were to be elected out of a possible six. Since three candidates have reached the threshold, the counting stops.

The three winning candidates are Sandbox, Slide and Swings.

# CONTACT US

If you have questions or would like to give feedback on this guide, please contact us at mea.info@ontario.ca.

You can also contact your regional Municipal Services Office:

**Central Municipal Services Office**
13th Floor, 777 Bay St.
Toronto ON M5G 2E5
Telephone: 416-585-6226 or 1-800-668-0230

Lower Tier, Upper Tier and Single Tier Municipalities (Barrie, Dufferin, Durham, Halton, Hamilton, Muskoka, Niagara, Orillia, Peel, Simcoe, Toronto, York).

**Eastern Municipal Services Office**
Rockwood House
8 Estate Lane
Kingston ON K7M 9A8
Telephone: 613-545-2100 or 1-800-267-9438

Lower Tier, Upper Tier and Single Tier Municipalities (Belleville, Brockville, Cornwall, Dundas/ Glengarry, Frontenac, Gananoque, Haliburton, Hastings, Kawartha Lakes, Kingston, Lanark, Leeds and Grenville, Lennox & Addington, Northumberland, Ottawa, Pembroke, Peterborough, Prescott, Prescott-Russell, Prince Edward, Quinte West, Renfrew, Smith Falls and Stormont).

**Northern Municipal Services Office (Sudbury)**
Suite 40, 159 Cedar St.
Sudbury ON P3E 6A5
Telephone: 705-564-0120 or 1-800-461-1193

Districts (Algoma, Cochrane, Manitoulin, Nipissing, Parry Sound, Sudbury and Timiskaming).

**Northern Municipal Services Office (Thunder Bay)**
Suite 223, 435 James St. S
Thunder Bay ON P7E 6S7
Telephone: 807-475-1651 or 1-800-465-5027

Districts (Kenora, Rainy River and Thunder Bay).

**Western Municipal Services Office**
2nd Floor, 659 Exeter Rd
London ON N6E 1L3
Telephone: 519-873-4020 or 1-800-265-4736

Lower Tier, Upper Tier and Single Tier Municipalities (Brant, Brantford, Bruce, Chatham-Kent, Elgin, Essex, Grey, Guelph, Haldimand, Huron, Lambton, London, Middlesex, Norfolk, Oxford , Perth, St. Thomas, Stratford, Waterloo, Wellington and Windsor).

**MINISTRY OF MUNICIPAL AFFAIRS**

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