If you are already a die-hard curling fan, talking about last stone advantage at cocktail parties or describing a critical eighth end takeout with your colleagues already comes naturally to you.

For most people, however, the sport of curling is still new and possibly a little confusing. If you are a casual fan, or a potential fan, you may have questions - about the physics behind curling, the strategies used by different teams, the equipment, the statistics and more. The more you understand and appreciate what is happening on the ice, the more likely you will be to watch, and enjoy watching, and the more engaged you will become as a fan.

This guide is designed to provide casual (and would-be) fans of curling with the information they need to become more engaged with the sport of curling. It doesn’t cover everything there is to know about curling and we aren’t trying to turn everyone into a die-hard fan, though it could happen. Our goal is to make watching curling, and talking about curling, something that is easy and fun to do.

Are you ready for some curling? Let’s go!

Hit The Broom, a website dedicated to enhancing the curling fan experience, is a production of Thinking About Sports, a media company that gives casual fans access to the knowledge and information they need and want to fully appreciate and enjoy sports. For more information, visit www.HitTheBroom.com.
Curling is played on a long, narrow sheet of ice with a marked target area, called the house, at each end. Two teams, each with four players, take turns sliding 42-pound granite stones to the far side of the ice sheet. The objective for each team is to get its stones closest to the center button of the house.

Players vigorously sweep the ice in front of the stone to keep it moving. The friction caused by the sweeping polishes the ice briefly, which makes the stones travel farther and straighter.

Each curling match is divided into ten ends. Each end includes both teams delivering all of its stones (eight stones per team). After all the stones have been delivered, the team whose stone is closest to the button gets a point. Additional points are scored by other stones in the house that belong to the same team, at one point per stone.

The team with the most points after the tenth end is the winner.

It's not just a rock. It's forty-two pounds of polished granite, with a beveled underbelly and a handle a human being can hold. Okay, so in and of itself it looks like it has no practical purpose, but it's a repository of possibility.

- From *Men With Brooms*
Before the shot: As the person delivering the shot steps up to the hack, the foothold located behind the house that is used to push off, she looks to the far end of the sheet for instructions. Another player, usually the skip (captain), is stationed behind the button on the far end of the sheet to determine the weight (the speed the stone moves down the ice), turn (which direction the stone will spin) and line (where the stone will curl) for the shot. The skip communicates the type of shot that should be used and the distance it should travel with a series of hand and arm movements, and uses a broom to mark the shot where the shooter should aim.

Delivery: From a kneeling position, with a foot flat on the ice, the player with the stone begins a shot by sliding forward and releasing the stone before crossing the hog line, painted under the ice. The player delivering the stone gives it a slight spin upon release, depending on which direction they want it to travel. For a right-hander, an in-turn will curl clockwise, while an out-turn will curl counterclockwise. For a left-hander, the opposite is true. Once the stone is released, the shooter’s job is finished. The stone is now in play and the team begins working to get it as close to the target as possible.

The spin allows the stone to travel in a curved path, or curl, as it approaches the house. The ideal amount of spin will cause the stone to make no more than three complete rotations as it travels the length of the ice. How much a stone curls depends on the amount of spin, the speed of the stone and the ice conditions. The faster the stone is traveling, the less it will curl.

Communication: Immediately after release, the skip yells to the other two teammates, telling them whether or not the line is good and whether adjustments are needed. Running up the ice with the stone are two sweepers who tell the skip whether the shot is heavy (hard) or light (too soft). The skip might yell, “sweep!” directing the brooms to polish the ice. The skip and sweepers yell back and forth, communicating what they see and doing their best to guide the stone to the intended spot.

Sweeping: The primary method to assist a stone’s movement down the curling sheet is sweeping in front of its path. Players may not make contact with the stone, but with guidance from the skip, they can clear the ice in front of the stone to enable smooth movement. The sweeping motion briefly polishes the ice (pebble) just before the stone travels over it, melting a molecular layer of ice for a very brief moment, and generating a thin layer of water. This creates a lower friction environment, allowing the stone to travel further. Sweeping cannot make a stone move faster, only farther.

PLAYING BY THE RULES
The sweeping motion must be from side to side across the stone. The brush must cover the 5 inch running surface at all times and finish to the side so no debris is left in the path of the stone. There must also be clear and visible brush head movement.
There are three primary types of shots in curling: a guard, a draw and a takeout. Each type of shot serves a different function.

The **guard** is a stone intended to stop in front of the house, not too far past the hog line. The goal of a guard shot is to protect or “guard” another stone and to make shots more difficult for the opposing team. A guard set up along the centerline is called a center guard. Guards set up to the left or right of the centerline are called corner guards. Once a guard stone is set up, a second stone might be sent into the house behind it by curling the second stone around the guard stone. Ideally, the guard stone would stand in a nearly straight line in front of the potentially scoring stone, protecting it from a takeout.

The **draw** is a stone intended to stop in the house. Where in the house depends on how many stones have already been thrown, as well as if and where guard stones are in place. If a guard is in place, a draw shot would need to curl around it, requiring proper weight and delivery. Draw shots are among the most technically difficult shots in curling.

The **takeout** is a stone delivered in order to remove another stone from play. It may be delivered heavy and at an angle, so that both the takeout stone and the target stone are removed from play. This is known as peeling. The target stone may also be hit square-on, which will leave the takeout stone in the place of the target stone. If the target stone is a guard stone belonging to the opposite side and it is hit head-on, the takeout must be heavy enough to send the guard stone and itself completely through the house. If it is not, the takeout stone could become an unintended guard for the opposing team’s stones.

### GUARD SHOTS

- **Corner guard**: a stone short of the house and off to the side
- **Come around**: any draw shot that curls around another stone
- **Raise**: when a front guard is tapped into the house by another stone
- **Tap back**: a heavier weight draw designed to push another stone back but not out of the house
- **Freeze**: a draw that comes to rest touching another stone
- **Corner-freeze**: a draw that comes to rest on the edge of another stone

*These shots are considered guard shots because they are intended to protect stones and/or block the other team’s stones but described as “draws” because they are in the house.*

### TAKEOUT SHOTS

- **Normal**: a takeout thrown with enough weight to firmly remove another stone (a normal takeout should hit the back wall and bounce back about a foot)
- **Hack Weight Hit**: a takeout thrown with enough weight to gently remove another stone (a hack weight takeout undisturbed should come to rest at the back wall)
- **Peeled**: a takeout thrown with very hard weight to remove stones from play (peel shots should hit the back wall and bounce back several feet)
- **Hit & Roll**: a takeout that, after making contact with another stone, rolls to a designated place
- **Chip**: a takeout thrown to strike another stone at an angle and remove it sideways (to avoid hitting other stones in play)

Generally, a **draw** is used with the hope of scoring points, a **guard** is thrown to protect the house or a stone that's already been thrown, and a **takeout** is used defensively. All of these shots may be thrown light (slow) or heavy (fast), with a greater or lesser curl depending on the situation. The goal of the maneuvering is to place stones in position to secure points, or to prevent the opposing team from being in position to score points.
Each curling team consists of four players and an alternate. Each player has a unique role.

**The First.** The first, sometimes called the lead, is the player to deliver the first two stones of each of the game’s ten ends. Since the first two stones often determine the course of the end, the lead is responsible for setting the team’s strategy in motion. The lead is also one of the two players who sweeps for each of the three other team members, clearing the path of the stone as it travels down the ice.

Because the ice is empty at the beginning of each end, the lead typically throw guard shots, which are designed to provide cover and protection to shots in scoring position and to block an opponent’s shots. These shots are often perceived as being the easiest ones to throw, but the placement of the throw will determine the course of the rest of the end, so accuracy is important. Leads are less likely to place a stone in the house or take out an opponent’s stone.

**The Second.** The second throws the team’s third and fourth stones of each end. Depending on the team’s strategy, or the position of the game’s first four stones, the second may be asked to make the game’s first offensive move, such as curling a stone around the guard(s) and into scoring position. The second may also take out an opponent’s guards or clear the ice (if, for example, the lead missed their shot and left a stone out of position). The second is also one of the two players to sweep for each of the three other team members, clearing the path of the stone as it travels down the ice.

**The Vice Skip.** The vice skip throws the fifth and sixth stones for her team in each end – and must be able to make virtually any type of shot. The vice skip is often tasked with setting up the sheet for the skip to finish. The vice also advises the skip on strategy and shot choice and is responsible for calling the shot and directing sweeping when the skip is delivering the final two stones of an end. The vice skip also sweeps for the lead and the second, and must confer with the opposing team’s vice skip in order to confirm who scored how many points in each end.

**The Skip.** The skip is the team captain and is responsible for strategy. The skip delivers the team’s final two stones to close each end, and, as a result, is usually expected to execute difficult shots in high-pressure situations. In addition, the skip calls the shots for the rest of the team by standing at the far end of the ice behind the house, signaling the desired type and weight of the shot, and using the end of a broom as an aiming point for her teammates’ shots. Once the shot is released, the skip calls out to her teammates, informing them of whether the shot was accurate and telling the sweepers when and how to sweep. The skip does not usually sweep for teammates.

**The Coach.** Curling coaches are not allowed to communicate with players during games. They are allowed to participate in discussions during a timeout. Generally, coaches analyze the strengths and weaknesses of opposing teams, suggest and review strategy, and provide technical expertise to help players improve. Between matches, they help to review performance and make plans for future games.

**PLAYING BY THE RULES**

If there is a disagreement over scoring, the vice skips call for an official and oversee the measuring of the stones in order to determine how many points were scored.

TIME & SCORING

Time clocks are used to control the speed of the games, and prevent a team from taking enormous amounts of time to execute its shots. Each team has 73 minutes (146 minutes total) to complete a ten end game. Each team may call one 60-second timeout during a game and one 60-second time-out in each extra end, if needed. If a team runs out of time, it loses the game.

The pace at the beginning of an end is usually faster than the pace at the end of an end because the vice skips and skips spend more time discussing shots as more stones are thrown. The faster the leads and second are, the more time the team has to discuss the strategy for the skip and vice-skip’s shots.

Scoring

A team receives one point for each stone that is within the house and is closer to the button (center of the target area at the end of the sheet) than any of the opposition’s stones. Only one team can score points in an end. Each stone that meets these criteria is worth one point. A full game consists of ten ends and the team with the most points at the end of the game is the winner.

Teams take turns throwing stones one at a time, which means the team that goes second also gets to throw the last stone, or control the hammer. **Controlling the hammer** is the most common way to score points because of the ability to knock out other stones. This is why the team with the hammer is often described as having “last stone advantage.”

If a team scores points with last stone advantage, the hammer goes to the other team for the following end. At the conclusion of an end, if no stones remain in the house, no points are awarded. Teams often choose to keep an end scoreless – as opposed to scoring only one point – so they can keep the hammer and carry last stone advantage over to the next end.

In theory, it is possible to score up to eight points in an end, but that is extremely rare, and nearly impossible. Only one team can score in an end and a team will typically score between zero and two points in an end. Occasionally, a team will score three or more points.

---

**FUN FACT**

The USA Men’s team scored five points in the 8th end during their match against the Czech Republic during the final qualifying event for the 2014 Winter Olympics on December 15, 2013 in Fussen, Germany.
If two or more stones are too close to measure by eye, vice skips are responsible for measuring. There are three types of measuring devices:

- The most often used device, simply called the measure, is used to determine which stone(s) are in the house and/or in scoring position.

- The six foot measure is used to determine whether or not a stone is in the house.

- The 90-degree measure is an L shaped piece of metal use to determine if a stone is in play around the perimeter of the playing area.

The Sheet
Each curling sheet is 146 feet long and between 14 feet 2 inches and 15 feet 7 inches wide. Each end of the sheet are a series of circles called the house. The circles are 4 feet, 8 feet, and 12 feet in diameter – forming a target. At the center of the target is a small circle called the button. The tee line cuts through the middle of circles separating the front and back of the house.

The distance from back line to tee line is 6 feet and from tee line to hog line (the line the stone must cross to be considered in play) is 21 feet. The hog lines are 72 feet apart. The tee lines are 114 feet apart. The back lines are 126 feet apart.

At each end is a "hack," a foothold for players to push off when delivering a curling stone. Both ends of the sheet are identical, to allow the game to be played back and forth.

Before the start of play, drops of water are sprayed onto the ice, causing tiny frozen droplets called pebble, to form. This increases the ability of the stone to curl as it moves across the ice. If the ice were perfectly smooth, it would be impossible to curl the stone.

FUN FACT
Players use their practice sessions and warm-up time to scout the ice, often recording notes about ice conditions and how much weight or force to put into a throw for reference during play.
Stones
Also known as rocks, curling stones are made of rare, dense granite that is quarried on Scotland's Ailsa Craig. Each stone weighs 19.1 kilograms (42 pounds), including the handle, and is polished. Each side of a curling stone has a concave area commonly referred to as the cup. The edge of the cup, often called the running surface, is the thin edge that actually contacts the ice. The dull grey band around the greatest circumference of the stone is the striking surface of the stone, designed to absorb the shock when one stone strikes another.

Footwear
Players wear two different types of shoes during play. The slider shoe is worn on one foot by the thrower during delivery from the hack and on both feet of sweepers and the skip to glide down the ice when sweeping or otherwise traveling down the sheet quickly. The non-sliding shoe, or hack foot shoe, is worn by the thrower during delivery and is designed to grip the ice.

Various types of slider shoe materials are available. Some are made of hard, durable synthetic materials that are very “fast” while others are made of softer synthetic material that tends to be slightly “slower.” The sliding shoe should only be worn on curling ice. Players put protectors over the slider when walking on other surfaces to prevent it from being damaged.

The non-sliding shoe may have a normal athletic shoe sole or a special layer of rubbery material applied to the sole to match the thickness of the sliding shoe. The toe of the hack foot shoe may have a rubberized coating on the top surface or a flap that hangs over the toe to reduce wear as the shoe drags on the ice behind the thrower.

Brooms
Curling brooms are used to sweep the ice surface in the path of the stone, and are often used by the player delivering a shot to help keep balance. Curling brush handles are usually hollow tubes made of fiberglass or carbon fiber. The lightweight handle allows for fast sweeping and more downward force to be applied to the broom head.

Most curling brooms are made with either hog hair or horse hair. Hog hair brushes are slightly more durable and cost more. Hair brushes can sometimes break and a curling stone running over a hair on the ice can have a significant impact on a shot.

For this reason, synthetic brooms, made with nylon fabric covering the brush head, are also available and are gaining in popularity.

Some players use a corn/straw (often referred to as a Canadian broom) with long bristles that give it the appearance of a normal household broom.

PLAYING BY THE RULES
According to international rules, a player may change the type of brush or synthetic broom at any time during a game, provided there is no delay. But, a player choosing to sweep with a corn broom must use only that style of broom during the entire game.
**Uniforms**

Curling rules require that all team members wear identical uniforms and appropriate footwear when accessing the ice sheet for games or practice sessions. The team that wears light-colored shirts and playing jackets/sweaters are assigned stones with light-colored handles, and the team that wears dark-colored shirts and playing jackets/sweaters is assigned stones with dark-colored handles. (*NOTE: Red is considered a dark color*). Shirts can be tucked in or left out.

Pants made specifically for curling are made of a stretch material that allows for easy movement during stone delivery.

**Gloves**

Gloves provide warmth and protection for curlers’ hands during sweeping or brushing. For curlers who throw with a glove it is necessary for the glove to fit snugly in order to retain the “feel” of the stone during delivery. The most popular type of curling glove is made of deer or calf skin.

**Stopwatch**

Players use a stopwatch to measure the speed of the ice and evaluate the draw weight and the takeout weights. The longer a stone stays in motion, the faster the ice. If the ice is fast, the stone can be released gently and will stay in motion for a longer time. If the ice is slow, a player has to throw the stone harder to reach the same distance.

Players time how long it takes a stone to travel between two fixed points on the sheet. The two primary intervals are between the backline and hogline or from hogline to hogline. Some teams use the time it takes the stone to travel from tee line to the near hog line. Others use the time it takes from the near hog line to final resting place.

---

**PLAYING BY THE RULES**

Following are a sample of some important curling rules. The complete World Curling Federation rules are available at www.worldcurling.org.

For the purpose of identification to the media and to the public, teams are referred to by the name under which their Association/Federation competes, and by the name of the skip. E.g Team USA will be referred to as Team Shuster and Team Brown.

If a stone is touched while it's in motion, it is called a burned stone. It is to be removed from play immediately.

The person who burned the stone is the ONLY person that can call that shot burned (honor system). If the foul was committed inside the hog line, the opposing skip may put the fouled stone back in play if she thinks it would be beneficial to her team.

If a player accidentally throws the wrong color stone, the stone is replaced with the correct color.

Any number of sweepers can sweep their team’s stone at one time as long as the stone is between the tee lines. But only one person (any person) can sweep their stone behind the tee line. The skip or an acting skip can sweep an opponent’s stone once it has touched the tee line.

All players shake hands with their own team and with their opponents before and after each game.

Teams are not allowed to use electronic communication equipment, or any device to modify the voice, during a game.
When watching curling on screen, fans are treated to many angles - a top-down view of the house to show stone placement, and a view down the sheet while the players deliver their shots and sweep their stones, etc. There is a lot to see. So, what should you be watching for?

**Aggressive vs. Defensive Play**

A team may play an end aggressively or defensively. A team playing aggressively will put a lot of stones in play by throwing mostly draws. This makes for an exciting game and a high risk, high reward situation for a team because the number of stones that could potentially result in points is high. A team playing defensively tries to prevent the opponent’s stones from staying in play. This tends to be less exciting and less risky because by hitting all of the opponent's stones out of play, it removes opportunities for an opponent to score multiple points.

A good drawing team will usually opt to play aggressively, while a good hitting team will opt to play defensively. A team that holds a large lead is more likely to play defensively.

**Last Stone Advantage**

If a team has the hammer, it will try to keep the house clear of stones so as to have access to the button area at all times and finish an end in position to score points. A team with the hammer may throw a corner guard as their first stone of an end placed in front of the house (but outside the four-foot zone to utilize the free guard zone). Corner guards can help a team score two points in an end: they can draw around the guard later or hit and roll behind it, making it difficult for an opposing team to remove the stone.

If a team does not have the hammer in an end, it may try to clog up the four-foot zone in the house to deny the opposing team access to the button. This can be done by throwing center guards in front of the house, which can be tapped into the house later or drawn around.

**The Skip’s Signals**

The skip uses a combination of hand signals and broom placements to communicate what shot is needed.

**BROOM PLACEMENT/TAPPING**

A **draw**, the skip first taps the ice where the rock is expected to stop and holds the broom vertically over the thrower’s target spot on the ice.

A **takeout**, the skip taps the rock that he wants the thrower to remove from play and then holds the broom on the desired path for the stone being delivered.

A **raise** (gently moving a rock to a more advantageous spot), the skip taps the stone and then holds the broom across his chest with both hands.

A **split**, the skip taps the stationary stone and the ice on either side of it. This indicates that he wants both the shot and stationary rock to stay in the house.

A **freeze** (shot comes to rest exactly in front of another stone), the skip taps the ice immediately in front of the stone he wants frozen.

**HAND SIGNALS**

If the skip holds out her **right arm**, she wants an in-turn (stone rotates clockwise).

If the skip holds out her **left arm**, she wants an outturn (stone rotates counter clockwise).

If the skip places her **hand across her shoulder**, she wants the shooter to throw the stone very hard.

If the skip holds her **hand across her chest**, she wants normal takeout weight.

If the skip holds her **hand across her stomach**, she wants the stone thrown lighter than normal.
Yelling
As the stone moves down the ice, the skip often yells to communicate how the sweepers should help to influence the shot. Some common calls made by the skip include:

**Hurry** - sweep as fast as you can

**Hurry Hard** - sweep as fast as you can, with downward pressure

**Clean** - keep a broom down on the ice, without applying much pressure, to clear away anything that could disrupt the movement of the stone

The Confidence Factor
Beyond looking at what shots are being called and how they are executed, fans can listen to the conversation between teammates and watch for body language to assess mood and confidence. If a team believes it has an advantage, it will take risks early. If a team believes a match will be close, it will play conservatively – trying to get a feel for the game, and the opposition, before deciding how to play certain shots.

Good Shot
The best way to know whether a player delivered the shot she wanted is to watch her reaction – and the reaction of her teammates. A fan will know if someone is not very pleased with her shot by the look on her face, or her body language. Fans may also hear a teammate say “good shot” when the delivery is perfect.

Sportsmanship
Sportsmanship is a big part of the culture of curling. There is no trash talking. Players always shake hands, and curlers say “good shot” (or similar) to their opponents when appropriate. It is genuine, not gamesmanship.

Ice Management
At elite levels of competition the ice conditions should not play a factor in the outcome of a match, but that doesn’t mean that shots turn out as planned. Every member of the team needs to know each shot and understand how the stone will move across the ice in order to end up in the desired position. Every part of the ice is different, so everyone needs to have deep knowledge of what is going on, and adjust their approach as the match proceeds.

Numbers Don’t Lie
Understanding how well an individual, or team, is able to execute a certain type of shot (draw shots vs. takeout shots, out-turns vs. in-turns) can help fans make sense of what is happening during a match. Increasingly, skips use data to identify which shots to play and which approach to take against a particular opponent. Similarly, a fan might see a skip change tactics to force a player on the opposing team to deliver a certain shot where the data shows, either historically, or during the game being played, that player has struggled.

PLAYING BY THE RULES
There is no prohibition against carrying a card, or similar, featuring statistics onto the sheet to help inform strategy during the course of a match.
Like most sports, advanced statistics are increasingly used in curling to measure and analyze performance. In curling, players are graded on shots on a scale of zero to four.

4 points = shot executed correctly
1-3 points = partially successful shot
0 points = completely missed shot

This scoring is done purely for statistical, training and/or scouting purposes and has no impact on the outcome of a game. In a completed ten end game, the maximum score for a player is 80 points (4 points per shot x 2 shots per end x 10 ends). When a game is conceded before all stones have been thrown, a player's possible maximum may be less. When an extra end is played, a player's possible maximum may be greater.

There are two exceptions to the above basic description of the scoring method:

1) A stone deliberately thrown through the house is not counted as a delivered stone.

2) A player may be awarded bonus points for successful execution of a particularly superb shot under pressure that dramatically affects the outcome of the game. The maximum bonus is two points and the player's possible maximum is not increased when bonus points are awarded (e.g. an end score for a player could be 82 out of 80).

### COMMON STATISTICS

**Points For per End (PF/E)** = total points scored divided by total ends taken. This stat shows how offensive a team is.

**Points Against per End (PA/E)** = total points against divided by total ends against. This stat shows how defensive a team is.

**Hammer Efficiency (HE)** = Percentage of ends earning two or more points with hammer. A team with high hammer efficiency executes well with the hammer.

**Force Efficiency (FE)** = Percentage of ends forcing one point when the other team has the hammer. A team with high force efficiency plays well defensively.

**Steal Efficiency (SE)** = percentage of ends stolen. A team with high steal efficiency is very good at stealing ends. Determined by dividing the number of stolen ends, by the total number of ends played without the hammer.
Curling History
The exact origins of curling are unknown, but the sport is believed to date back as far as the 1500s. The first rules of curling were drawn up in Scotland, and were formally adopted as the “Rules in Curling” by the Grand Caledonian Curling Club (later renamed by Queen Victoria as the Royal Caledonian Curling Club) in 1838. Curling events were staged in the 19th century in Europe and North America, but it was not until the first Olympic Winter Games at Chamonix in 1924 that any form of official international competition took place – and then only for men’s teams.

Today, there are roughly 1.3 million curlers around the globe – two thirds of whom are in Canada.

Curling in the Olympics
Curling was part of the first Olympics Winter Games in 1924 (Great Britain took the inaugural gold medal) but appeared only once between 1928 and 1984 - and only as a demonstration sport, so no medals were awarded. Curling appeared in the 1988 and 1992 Winter Games, again as a demonstration sport, and finally returned to the Games as a medal sport in 1998.

Historically, Canadian and Scandinavian teams have dominated Olympic curling. The bronze medal won by the USA men's team in 2006, the country's only Olympic curling medal to-date, marked the first time a team other than Canada or a European country medaled in the event.

The United States Curling Association, which combined the United States Men’s Curling Association and the United States Women’s Curling Association (formed in 1947), became the national governing body for curling in 1976.

Today, USA Curling has more than 17,000 members (compared to just over 14,000 in 2010) and membership is up 53% since 2001, the year before the sport was heavily shown during broadcasts of the Salt Lake City Olympic broadcasts. There are currently 165 curling clubs in 42 states.

FUN FACT
During the 2010 Olympics in Vancouver, crowd noise became a factor for the curlers. The sold-out crowd of 6,000 people in Vancouver were chanting and doing the wave.
**KEY TERMS**

**Back end:** The vice-skip and skip on a curling team.

**Back line:** The line across the ice at the back of the house. Stones that go over this line are removed from play.

**Biter:** Stone that just touches the outer edge of the circles.

**Blank End:** An end in which no points have been scored.

**Bonspiel:** Curling competition or tournament.

**Brush:** Device used to sweep the ice in the path of a moving stone.

**Burned Stone:** A stone in motion touched by a member of either team, or any part of their equipment. Burned stones are removed from play.

**Button:** The smallest circle at the center of the house.

**Center Line:** Line drawn from one hack to the other, passing through the T at both ends of the ice.

**Circles:** The round scoring area, 12 feet in diameter, with concentric circles 1, 4, and 8 feet in diameter.

**Counter:** Any stone in the circles or touching the circles that represents a potential point.

**Curl:** The amount a stone bends while traveling down the sheet of ice.

**Double:** Removing two stones from play with one shot.

**Draw Weight:** The momentum required for a stone to reach the house or circles at the distant end.

**End:** Portion of a curling game that is completed when each team has thrown eight stones and the score has been decided.

**Extra End:** An additional end played to break a tie at the end of regulation play (also known as free curling).

**Free Guard Zone Rule:** Until four stones have been played (two from each side), stones in the free guard zone (those stones left in the area between the hog and tee lines, excluding the house) may not be removed by an opponent's stone.

**Freeze:** A draw that finishes touching or nearly touching another stone.

**Front End:** The lead and second player on a curling team.

**Gripper:** The sole of one curling shoe that helps a curler to keep their footing on the ice while sliding. See slider.

**Guard:** A stone between the hog line and the house that can be used to protect stones in the house.

**Hack:** The rubber starting block embedded in the ice from which the curler begins delivery of a stone.

**Hammer:** The last stone of an end.

**Heavy:** A stone delivered with a greater force than necessary.

**Hit:** A takeout, or removal of a stone from the playing area by hitting it with another stone.
**Hog Line:** A line located 21 feet from each tee line. A stone must be released before the near hog line, and travel beyond the far hog line.

**House:** The rings or circles toward which play is directed consisting of a 12-foot ring, 8-foot ring, 4-foot ring and a button.

**Hurry:** Directive given to sweepers to tell the sweepers to sweep quickly.

**Hurry Hard:** Directive given to sweepers to tell them to sweep quickly and with pressure.

**In-Turn:** The rotation applied to the handle of a stone that causes it to rotate in a clockwise direction and curl for a right-handed curler.

**Keen Ice:** When little effort is required to deliver the stone. Also known as fast ice.

**Lead:** The first player on a team to deliver a pair of stones for his/her team in each end.

**Lie Shot:** The stone closest to the tee.

**Light:** A stone that is delivered with less than the desired weight or force.

**Long Guard:** A guard near the hog line.

**Out-Turn:** The rotation applied to the handle of a stone that causes it to turn and curl in a counter-clockwise direction for a right-handed curler (and the opposite for a left-handed curler).

**Pebble:** A light spray of water that freezes on contact with the ice creating small bumps that cut down the amount of the ice surface with which the stones make contact.

**Port:** An opening between two or more stones that is wide enough to allow a stone to pass through.

**Raise:** When one stone is bumped ahead by another.

**Roll:** The movement of a curling stone after it has struck a stationary stone in play.

**Second:** The curler who delivers the second pair of stones for her team in each end.

**Second Shot:** The stone that is second-nearest to the tee line.

**Sheet:** The 146-foot-long area of the ice on which the game is played.

**Shot Stone:** At any time during an end, the stone closest to the button.

**Skip:** The player who determines the strategy, and directs play for the team. The skip delivers the last pair of stones for her team in each end.

**Slide:** The part of the delivery after the curler leaves the hack and moves down the ice completing the throwing of the stone.

**Slider:** Slippery material placed on the sole of the shoe, to make it easier to slide on the ice.

**Steeal:** When the team that does not have last stone (or hammer) scores a point or points.

**Sweeping:** The action of moving a broom or brush back and forth in the path of a moving stone.

**Takeout:** Removal of a stone from the playing area by hitting it with another stone.

**Tee Line:** The line that passes through the center of the house parallel to the hog line and backline.

**Third (or Vice Skip):** The third player on a team to throw two stones in each end. Generally this player acts as the skip when the skip is delivering her stones and assists with shot selection decisions.

**Weight:** The amount of force necessary to propel a stone forward.

---

**FUN FACT**

Good sweepers can add an additional eight to twelve feet to a stone's distance. This provides a fairly comfortable margin of error for a thrower with effective sweepers.
For more information, visit www.HitTheBroom.com