

# Instructional League Handbook

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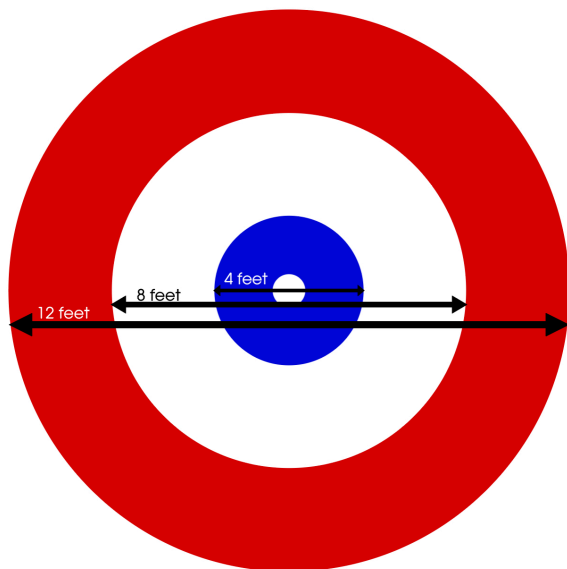
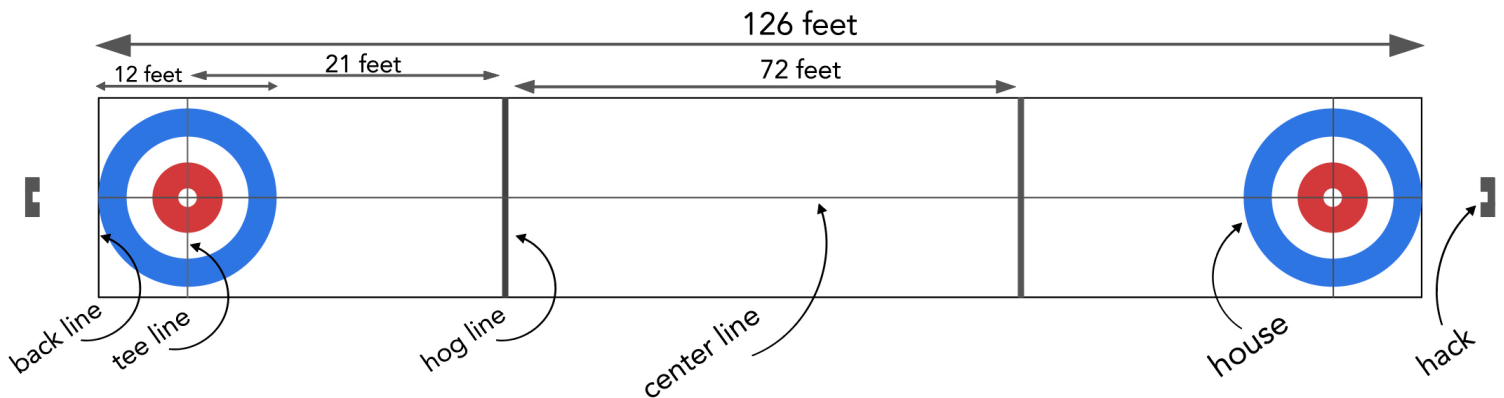
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## Sheet Setup

Curling is played on a long sheet of ice, which is about 15 feet wide. The ice for curling is not smooth, like it is for skating. To prepare it, a fine spray of water is applied across the sheet so that it has a bumpy texture (this is called *pebbling*). This reduces the surface area that a curling stone comes into contact with, allowing it to travel more freely.

At each end of the sheet is a 12-foot circular target, known as the *house*. Behind the house, starting blocks called *hacks* are frozen into the ice, and give the curlers a footing from which to begin their delivery. Twenty-one feet in front of the house on each side are lines that cross the sheet called the *hog lines*. The delivering player must release their rock before the hog line nearest to them, and it must cross the hog line on the opposite end to be considered in play.



## Basic Gameplay

A curling game consists of a series of *ends* (usually 8 or 10, but sometimes just 6). An *end* is completed when all 16 rocks have been delivered and have come to rest.

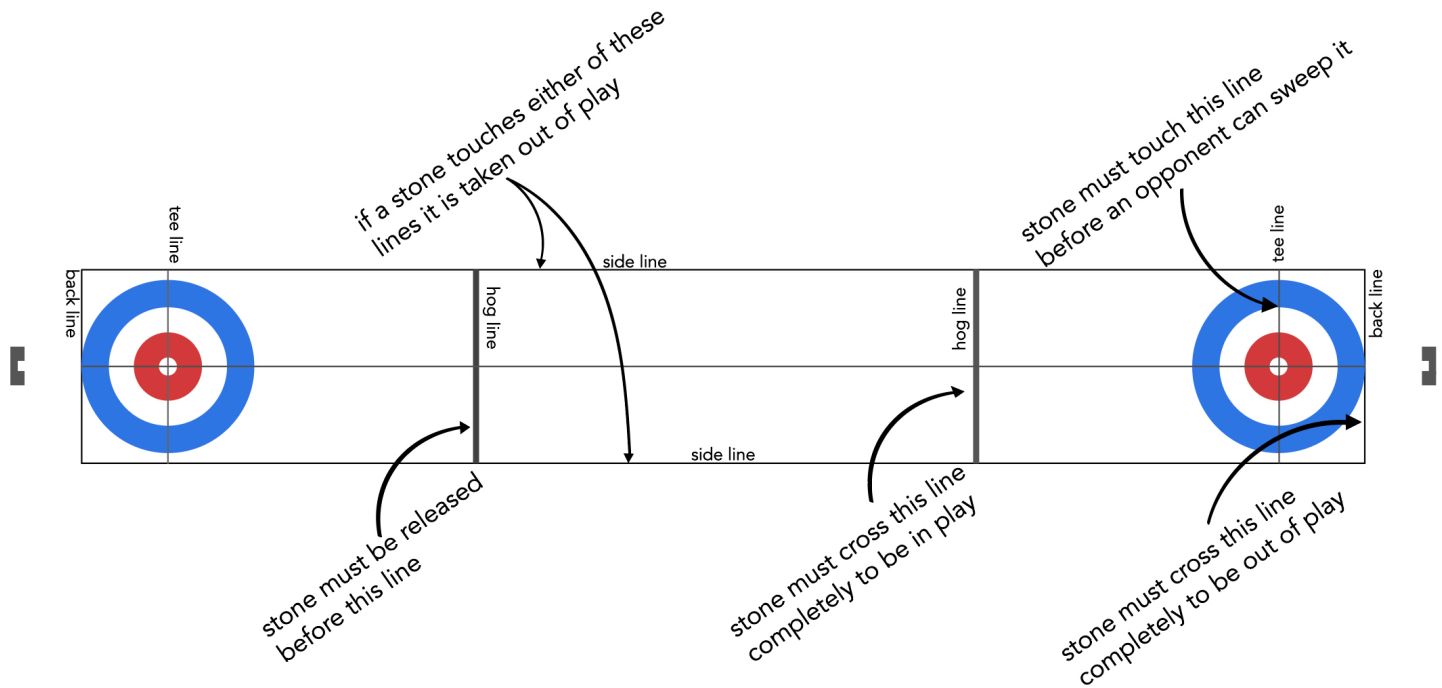
If there is a tie when the designated number of ends is completed, it will either be broken by playing an extra end, or if there is limited time, by a "skips' draw" wherein each team designates a player to draw into the house, and the closest rock to the center (called the *button*) wins.

## Safety on the Ice

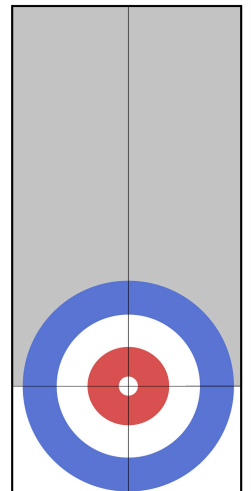
1. **Proper footwear:** Please wear flat, rubber-soled sneakers or tennis shoes. Some tread is okay. Please do not wear sandals, dress shoes, boots, or any shoes with a leather sole. We also recommend wearing grippers when on the ice. These can be purchased for a small amount or we have a number of grippers available to borrow.
2. **Do not run:** Under no circumstance should anyone run on the ice. If a rock is moving too quickly to walk next to, it doesn't need to be swept. Let it go.
3. **Maintain control of sliders:** The sliders are extremely slick. When you finish your delivery, **step off the slider** before standing up. Then, **pick up the slider**. Do not kick it to the side, throw it, or leave it on the ice for someone to step on. Most of our injuries occur when someone accidentally steps on a slider that was kicked aside or left on the ice. Pick it up and either hand it to the next delivering player or leave it on the ledge.
4. **Do not touch other players:** Curling is a non-contact sport. There is no reason to ever touch another player or their equipment, beyond a handshake or high five. Do not grab, push, block, or get in the way of someone who is walking, sweeping, or delivering a stone, **even if you think they are breaking a rule**. It doesn't take much for someone to lose their balance and fall.
5. **Move rocks carefully:** After each end, players move the rocks out of the house so that the next end can begin. Always maintain control of the rocks you are moving, and never kick them towards someone who has their back turned to you! Rocks are easy to trip over and cause an injury.

## Basic Rules of Curling

1. **Rocks in play:** Rocks must be released by the near hog line, and cross the far hog line completely to be in play. (The one exception to this, is that a rock that comes into contact with a rock in play, even if it does not cross the hog line entirely, is allowed to stay in play.) Stones must cross the back line completely to be out of play; however, if a stone just touches one of the side lines, it is removed from play.



2. **Free Guard Zone (FGZ, aka "Five Rock Rule"):** Any of the first five rocks, should they come to rest in the guard zone (anywhere between the far hog line and the front of the house), are protected by the Free Guard Zone rule. These stones cannot be hit out of play until the *sixth thrown rock* (or hammer team's second's first stone). If one of these stones is removed from play (either on purpose or accidentally), both skips agree on where the stone was prior to the infraction and it is replaced, and the stone that hit it is removed from play. If a stone is touching the house even a little bit (called "biting"), it is not protected by this rule, and may be hit out of play at any time.



3. **Sweeping:** Two (or more) sweepers may sweep their teammates' stones between the near tee line and the far tee line (that bisects the house). Once the far tee line is reached, *only one sweeper from each team may sweep any rocks, even if more than one rock is in motion*. Skips and Vices may sweep their opponent's rock if it moves behind the tee line, but again, only one sweeper from each team may be sweeping any rocks behind the tee line. Also note that the delivering team has first priority to their own rocks, e.g. if you are the opposing skip, you may sweep their stone if it goes behind the tee line but you may not get in the other skip's way to do so.
  
4. **Touched Rocks:** If you accidentally touch a moving stone with your body or equipment (commonly happens with brooms), the offending player should immediately announce it. What happens depends on the circumstances of the infraction:
  1. If the rock was touched while in motion between the hog lines, it is removed from play by the offending team immediately.
  2. If the rock was touched past the far hog line, the infraction is announced, **but all rocks are allowed to come to rest** before anything else happens. Then, the skip of the non-offending team has several options:
    1. They can allow the rocks to stay as they are.
    2. They can move stones to where they think they would have gone, should the infraction not have occurred.
    3. They can remove the offending stone from play and return any rocks displaced by said stone *after the infraction* to their prior positions.

If a stone was not in motion, and it was caused to be moved by a player or their equipment (i.e., someone trips over a stationary rock), the skips must agree together where the stone was prior to the infraction and it is replaced.

5. **If you throw the wrong color rock**, the shot is allowed to be played out as normal. Once it comes to rest, it is replaced with a rock of the appropriate color, and the thrown rock is returned to the other team.
  
6. **Measuring stones:** Stones may *only* be measured at the conclusion of an end. Stones may not be measured with personal equipment before all stones of the end have come to rest. The one exception to this is to see whether a stone that may be protected by the FGZ is actually touching the house if it is too close to tell.

## Team Positions

There are four positions on a curling team. The teams take turns delivering their eight stones (so two stones of the same color are never delivered in a row) until all sixteen have been delivered. With the exception of the *skip*, all players both deliver stones and sweep. All four\*\* positions are equally important, and each have their own challenges:

**Lead** - The lead delivers their team's first two stones, and sweeps for each of the remaining six shots. Leads are frequently tasked with setting perfect guards and draws, so they must have a lot of accuracy and finesse, as well as having the strength and stamina to sweep the rest of the time.

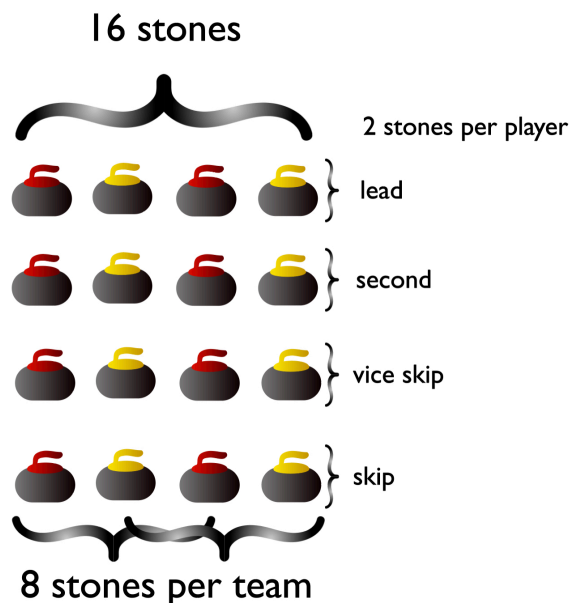
**Second** - The second delivers their team's third and fourth stones, and sweeps for lead's stones, as well as the remaining four shots after they deliver. Seconds are frequently required to throw accurate hits to remove opponent's stones from play. They are also required to have strength and stamina to sweep for most of the game.

**Third/Vice-Skip** - The third, or vice-skip, delivers the fifth and sixth rocks, after sweeping for the first four. After delivering their stones, the vice heads down to the far house to assist the skip with strategy, and to hold the broom while their skip delivers. The vices of both teams are also required to agree on the score after each end, and either vice may call for a measurement if they feel it is necessary. They also will act as skip for their team in the absence of the usual skip.

**Skip** - The skip is a bit like a team captain. During the first six shots, the skip stands in the house opposite the delivery end, and "calls the shots." They decide where they want each rock to end up, and indicate that to the delivering player with their broom. They watch the ice and estimate how much they think each rock will curl, and then hold their broom to show the delivering player where to aim. Then they deliver the last two of their team's rocks of each end.\*

*\*Typically. Some skips opt not to go last, and have another player (usually vice) deliver the last stones. For example, for Switzerland's Team Tirinzoni, skip Silvana Tirinzoni delivers her team's fifth and sixth stones (third), and vice Alina Pätz delivers the seventh and eighth. In this case, Pätz's position is called "fourth."*

*\*\*Sometimes a team might have just three players. If that is the case, the lead and second will each deliver three stones, and second will act as vice for all intents and purposes. The skip plays as normal, delivering the last two stones.*



## Pace of Play and Where to Stand

All curling games must be completed on a schedule. A normal amount of time for league games is about 15 minutes per end. That means that 16 rocks must be delivered and come to rest in that time. That comes out to about 50 seconds per rock, including any strategy discussion and preparation!

It is considered poor sportsmanship in curling to "play slow"—taking a long time to be ready for, or to call shots, or staying on the sheet once your rock is stationary. If a game gets behind, not all of the ends can be played, so there are fewer opportunities to either team to score. Please be courteous and try to make sure an end is completed every 15 minutes.

The most important thing is to give your opposing team space to make their shots, and to be ready and paying attention when it's your team's turn to make yours!

### Tips for Moving Play Along

#### If you are delivering

- As soon as the delivering player before you releases their stone (or crosses the hog line), you may get into the hack and prepare your stone.
- As soon as the other team's rock stops, be ready in the hack to accept the call for your shot from your skip.
- If you need a slider or a stabilizer, make sure they are nearby or collect them from the previous player as soon as they have finished their delivery. Once you finish your delivery, collect your slider and stabilizer and return them near the hack.
- While you are waiting for the other team to deliver, stand still at the sidelines either between the hog lines or behind the hack (if there is room). Avoid standing directly to the side of the hack in the deliverer's view.
- Don't "creep up" on the person in the hack with your stone, or clean it right to the side of the hack. Wait until they have finished their delivery to move to the hack and prepare.

#### If you are sweeping

- The second your team's rock stops, evacuate to the sides immediately. Sweepers should stand at the sides of the sheet between the hoglines when it's the other team's shot. (Some clubs have additional small lines called "courtesy lines" especially for this purpose).
- Don't yell up and down the sheet after your shot is complete. If you need to discuss something, do so quietly to the side of the sheet.
- When it is not your team's shot, don't go into the house to look things over—you can do that when it's your team's turn.
- While you skip is deciding on the shot they will throw, move their rock over in front of the hack for them so that they don't have to go get it on their way down the sheet.
- When it is not your team's turn, do not cross the sheet. Go to the side (if you're sweeping) or behind the house (skip), and only move up and down the sheet at the edges. Avoid moving while their player is delivering.

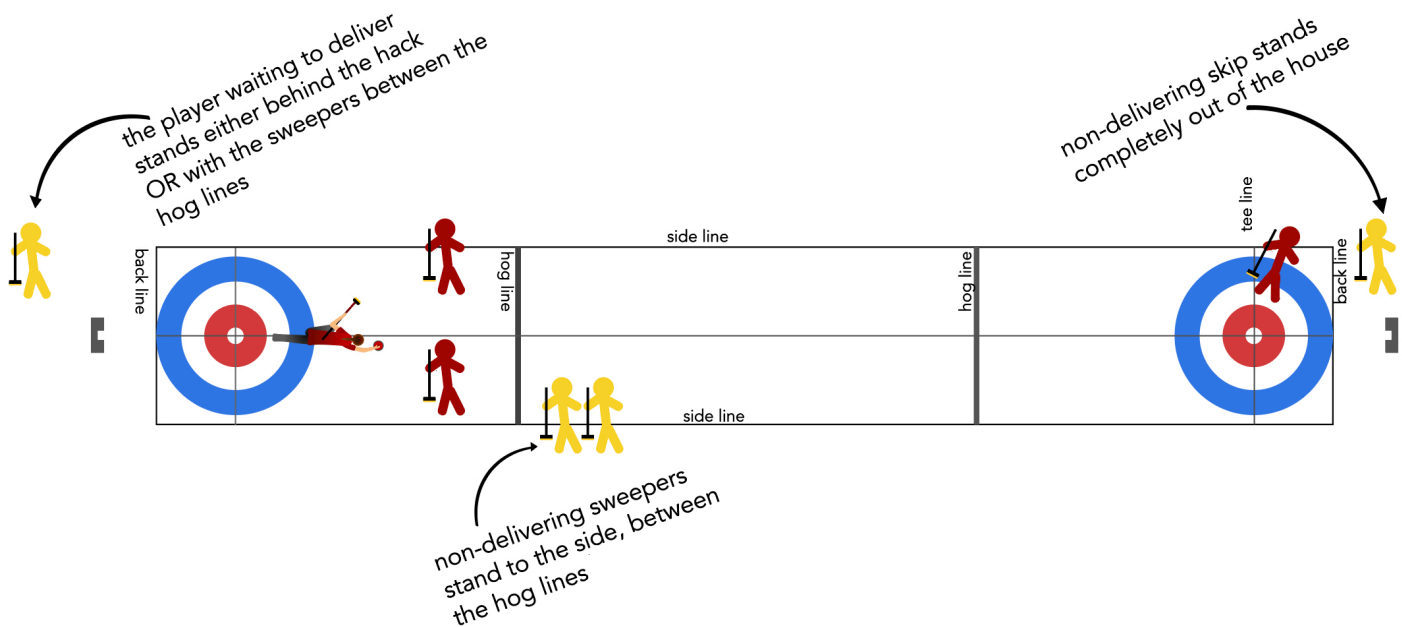
## If you are a skip

- Don't overthink your calls. While the other team is playing their shot, start thinking of a plan (i.e. "if their rock gets to the house, we will hit it out; if it doesn't, we will draw"), so you can be ready once their rock stops.
- Likewise, the second your rock stops, the house and sheet belong to the other team. Move behind or to the side of the house. If you want to quickly check two rocks that are close, you can look, but be quick and courteous and don't yell during the other team's turn.
- Playing quickly will allow both teams to play all of the ends allotted in the amount of time you have. It will also allow you to have some time left to discuss some more complicated situations as the game progresses.
- It's a good idea to check your watch to make sure an end is being completed every 15 minutes.

*In high level competition, each team has a shot clock for the entire game. The second one team's rock stops, the other's clock begins to count down, so if the delivering team is wasting time after a shot, they are wasting their opponent's time (it's rude, and in other sports would elicit a penalty!) Sometimes, high level teams will even leave the house before their rock stops if they know exactly where it will land.*

## Where to Stand:

In the diagram below, the Red team is playing their shot, so the Yellow team is out of the way:



**Note:** at the Outpost Ice Arenas, there isn't usually room behind the hack for the player waiting to deliver to stand. We recommend you stand between the hog lines with the sweepers, but the most important thing is that you are standing still so as not to distract the person in the hack. Wait until the deliverer crosses the hog line to start preparing.

## Etiquette

**Etiquette** is a central part of curling. It is very closely related to pace of play. It is considered poor sportsmanship to play slow, as in league play it can result in fewer ends played, and therefore fewer opportunities for either team to score. Please pay attention and be ready when it is your turn.

### Composure

Curlers begin and end each game with a handshake (or broom-tap) and wish their opponents "good curling" or "good game." Additionally, a shot well-made by either team is a delight to see, and should be complimented as such. Curlers do not celebrate an opponent's lucky shot and do not show frustration at a teammate's miss. Please don't cuss, slam your broom down, or kick a rock or any other equipment. Curlers are expected to maintain composure regardless of the outcomes of the shot or the game.

Do not purposefully distract your opponents during their shots. Be courteous and keep your voices and movement to a minimum—your team can discuss things when it is your turn.

### Concession

Near the end of a game, it is customary in curling to concede if one team is losing by a lot of points (usually 4 or more). This is typically at the discretion of the losing team, but once it is mathematically impossible to catch up (down by 8 or more in the last ends of a game), the losing team should wish the winning team "good game" and concede. There is some nuance to this, as we do not have much time on the ice at our club, so most players would just like to play for the time allotted. If you're the losing skip and you are down by a bundle, it's a good idea to check with the winning skip to be sure everyone is happy to continue to play. If you are down in the last end and it becomes mathematically impossible to tie (this is called getting "run out of rocks") we typically do not play the remainder of the end and the score of that end is not counted.

### Broomstacking

Another great curling tradition is broomstacking! At many clubs, the two teams from each sheet are expected to socialize together after their game. Traditionally the winning team buys the first round for the losing team, and if there is a second round, the losing team reciprocates. Socializing with the teams you play with and against is one of the cornerstones of fostering goodwill amongst curlers.

### From the World Curling Federation:

*Curling is a game of skill and of traditions. A shot well executed is a delight to see and so, too, it is a fine thing to observe the time-honoured traditions of curling being applied in the true spirit of the game. Curlers play to win but never to humble their opponents. A true curler would prefer to lose rather than win unfairly.*

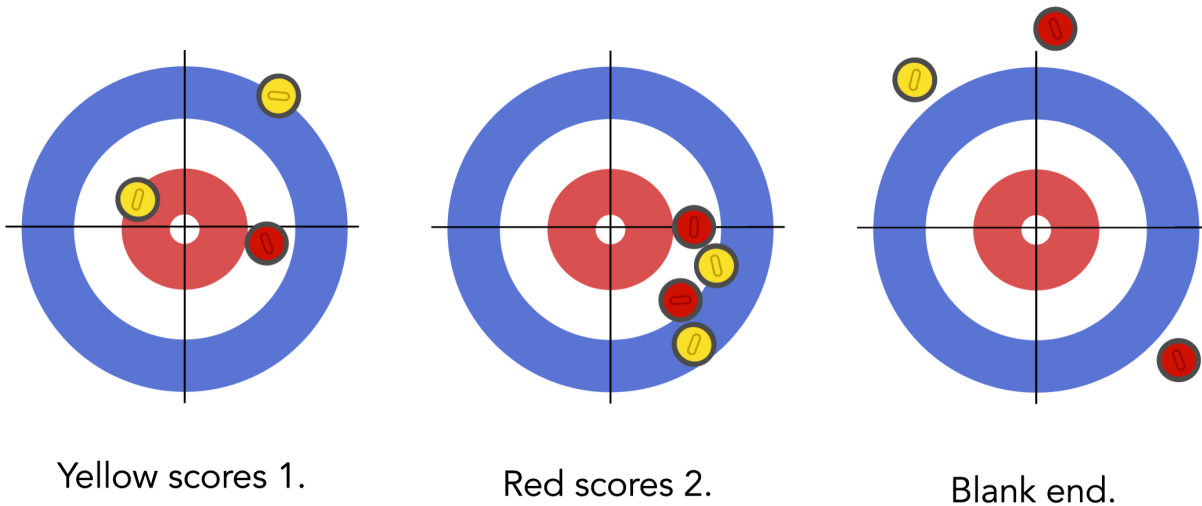
*A good curler never attempts to distract an opponent or otherwise prevent him from playing his best. No curler ever deliberately breaks a rule of the game or any of its traditions. But, if he should do so inadvertently and be aware of it, he is the first to divulge the breach.*

*While the main object of the game of curling is to determine the relative skill of the players, the spirit of the game demands good sportsmanship, kindly feeling and honourable conduct. This spirit should influence both the interpretation and application of the rules of the game and also the conduct of all participants on and off the ice.*

## Hammer & How to Score

*Hammer* is the all-important last delivered rock of each end; at the recreational level, which team begins with hammer is determined by a coin flip. In each end after the first, hammer goes to the team that did *not* score in the previous end. In the event of a blank end (score of zero), hammer is retained by the team that had it that end.

The score for each end is determined once all sixteen rocks have come to rest. The vice-skips must agree on the score together, before the rocks can be moved out of the house. To determine the score, they identify which team's rock is closest to the center of the house (or "button"), and then they count up how many of that team's rocks are closer than *any* rocks of the opposing team. All other rocks do not count towards the score. Only one team scores per end. Note that the colors of the rings of the house do not mean anything by themselves, and are only a visual aid for determining which stones are closest. If two stones appear to be the same distance from the button, either vice may call for a measurement. If they are a tie, neither stone is counted.



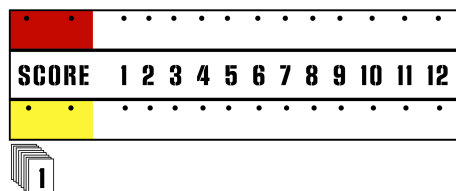
In the first example, even though Yellow Team has two rocks in the house and the Red Team only has one, Yellow scores only 1 point since the Red stone is closer than the second Yellow stone. Red Team would have hammer in the next end.

In the second example, both teams have two rocks in the house, but Red's are both closer, so they score 2. Yellow Team would have hammer in the next end.

In the third example, even though there are 3 rocks in play, none of them are touching the house. The score is 0, or a "blank end." In this case, whichever team had hammer would also have it in the next end.

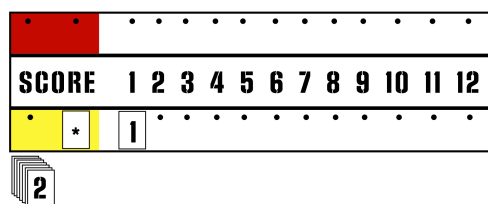
## Reading the Scoreboard

Reading the scoreboard in curling can be counterintuitive at first. The scoreboard is usually a line of numbers preceded by the word "score" and rows of fasteners (hooks, velcro, or magnets) above and below the numbers, delineated by the color of the stones for each team. Then, there are cards or magnets with the numbers 1–8 (or 10), each one representing an end. Some clubs also have a card with an asterisk or a hammer on it, which is hung before the score on the team's color that *begins* with hammer. It should not be moved each time hammer changes teams.



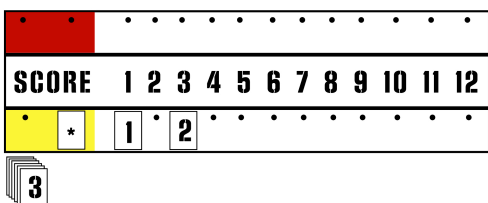
*Note: One of the reasons for using this type of scoreboard is that a curling game could potentially have the same score each end. If the center of the board represented ends and not points, each club would have to have at least 8 cards of each possible end score (0-8, so 72 cards!) and anyone watching would have to do the addition in their heads to know who is ahead. This way, there only needs to be one card for each end (8 or 10).*

When your team scores, your vice should go to the scoreboard, find the card with the end number that was just completed, and hang it over or under the number that equals *the total of your team's score at that point*.



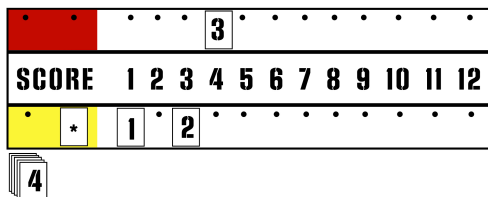
### Yellow scores 1

For example, say Yellow Team begins with hammer, and scores 1 in the first end. Yellow Vice places the number 1 card under the number 1 on the Yellow side of the board.



### Yellow scores 2

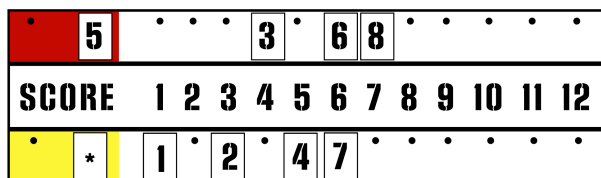
Now, let's say in the second end, Red misses their last shot so Yellow steals 2. Yellow Vice will take the number 2 card and place it under the number 3 on the board, since the total of Yellow's points now equals 3.



### Red scores 4

Now, let's say Red scores 4 in the third end. Red Vice places the number 3 above the 4 on the scoreboard, indicating that Red is now ahead.

Now, the final score of a game might look like this:



**The final score is 7-6 Red.** Yellow scored 2 in the fourth end, the fifth was blanked by Red, Red scored 2 in the sixth, Yellow scored 1 in the seventh, and Red scored 1 to win in the eighth.

## Delivery Mechanics

Below is the CurlTech Delivery, which is a well-thought-out modern-day curling delivery. If you watch older curlers and games from years past, you may see all kinds of other styles of delivery, but the CurlTech delivery is one of the most efficient. It is an easy way to learn to adjust your weight control, and it is the easiest on the body.

**Note: We do not teach any lifting of the rocks, known as a "backswing." If not executed perfectly each time, this can damage the ice, the rocks, and your shoulder. If not executed perfectly, it will also pull your balance to the side and take your body off the line of delivery. You will see plenty of older curlers on TV do this. Please do not try it. A flat-footed, no-lift delivery will serve you well for any shot you will need to make.**

The CurlTech delivery relies on your body's kinetic sense of rhythm to make your delivery consistent, and to allow you to effectively adjust your weight as necessary. There are 7 steps:

### 1. The Setup

Step into the hack with your dominant (non-sliding) foot from behind it. Place the ball of your foot on the tilted part of the hack, so that your heel is sticking up off the back a little bit. Your toe should be pointing straight toward your skip's broom.

Place your sliding foot so that the heel is next to the toe of the hack foot. This keeps your hips square as you prepare to squat. (Seriously, try putting your feet right next to each other when one is in the hack and squatting. Your hips will twist and your delivery will not be straight.)

Squat down. You should notice that your, toe, hips, and shoulders are square towards your skip's broom.

Grasp the handle of the rock. The handle, if pointing forwards, should be either directly under your armpit or right in front of your hack foot's toe. Tilt the handle 45°, pointing it (where the handle meets the rock) towards your skip's outstretched hand.

In your other hand, prepare your sliding device (broom or stabilizer). It should be slightly in front of your sliding foot, out from your body a comfortable distance.

Now you are ready to begin your delivery.



## 2. Forward press

Move the rock forward about 2-5 inches. This ensures that it is not stuck on the ice. This motion is the first of your body's kinetic sense of rhythm—do not skip this!

## 3. Drawback/Step

Draw the rock back so that it is almost under your shoulder.

A split second after you begin moving the rock back, move your slider foot from its heel-toe position, to toe-heel (slide it straight back so that its toe is next to the hack foot's heel).

While you do this, move your hips up. Your hips and shoulders will be approximately level at this point.

At this point, your weight should be on your sliding foot, not your hack foot. This allows your power to come from a transfer of weight, like a golf or baseball swing. This whole "Drawback/Step" will start to feel like one motion the more you practice it.



## 4. Move Forward and Delay the Foot (Beginning of Slide)

When you begin your slide, the rock should move first, just as in "Drawback/Step." Push the rock forward, straight toward your skip's broom.

Once the rock is traveling on the line of delivery, allow the heel sliding foot to slide under your body to support you. It should feel like it is "catching" your weight as you drop your hips into the slide. Your sliding heel should be directly under your sternum, and should also be on the line of delivery.



The longer you wait and the farther the rock gets from the hack before you drop your sliding foot underneath you, the heavier your shot will be. This is a kinetic sense of weight that is much easier to remember and adjust than an abstract, "how hard you push out of the hack." For a guard you might drop your foot under almost immediately, but for a hit you might wait until the rock is 4 or 5 feet away from the hack.

## 5. Slide

Once your sliding foot is under you, you can push from the hack if you need extra weight. For a lot of shots, the weight transfer from your hips should be enough. You should not really feel like you are "kicking" out of the hack except at very high weights.

Once you are in your slide, relax the elbow of the rock arm a little bit, so it is slightly bent. The handle of the rock should still be pointed at 45°, as in this picture of Kaitlyn Lawes. Note also that she keeps her sliding device (broom) out in front of her sliding foot, and doesn't let it drift out to the side (which can un-square your shoulders).

*Note: you do not have to be as flexible as Kaitlyn Lawes to curl successfully! The only important things are being well-balanced and sliding out right on the line of delivery.*



## 6. Release

When you release the rock, extend your slightly bent elbow so that it is straight, while at the same time turning the rock handle from your 45° position to pointing straight forward (if you prefer to think of a clock, either turn it from 10 o'clock to noon or 2 o'clock to noon). When you let go, your hand should be in a handshake position. This motion should occur over about the last 2 yards or meters of your slide. Be careful not to impart any lateral motion onto the rock as you turn the handle. The release should add a *very slight* push to the delivery, which is called a "positive release" and helps the stone maintain its rotation. This should not be how your rock gets its speed or how you adjust for weight. Remember that you only want the rock make 3–5 rotations down the entire sheet!



## 7. Follow Through

Once you have let go of the rock, hold your hand in the handshake position and continue to slide for a few more seconds.

This ensures that you are not making any extraneous motions as you try to get up too quickly. It will also help you to practice your balance, and ensures that you are not relying on the rock to stay upright. You should feel no effect on your balance, line, or speed when you release the rock. If you do not have a follow-through, it will be very difficult to remember what this shot felt like, and you will have a harder time adjusting weight for your next shot.

## Release and Rotation

The release and rotation of the stone is the most important factor in considering how much each stone will curl. The rotation should be applied cleanly during the release, taking care not to over-rotate the stone. An over-rotated stone (a "spinner") will not curl nearly as much as expected, or sometimes even at all. An under-rotated stone ("lazy handle") will curl much farther than expected, and a stone with no rotation ("dead handle") will be subject to the whims of the ice, and won't be predictable.

**The stone should make about 3 to 5 revolutions down the entire sheet.**

An easy way to apply the proper amount of rotation is to begin to turn the stone from its 45° position to pointing straight forward over the last two yards or so of your slide. Ideally, this would be about a yard from the hog line as well. If you aren't yet able to slide that far, just try to apply the rotation consistently.

### In-Turn and Out-Turn

The two directions to rotate the stone are called the *in-turn* and the *out-turn*. The in-turn is clockwise for righties, and the out-turn is counterclockwise. I remember which is which by thinking that I start with my palm turned *in* for the in-turn and *out* for the out-turn. Since these terms describe the rotation in relation to the deliverer's body, they are opposite for lefties (in-turn is counterclockwise, etc.).



In-Turn



Out-Turn

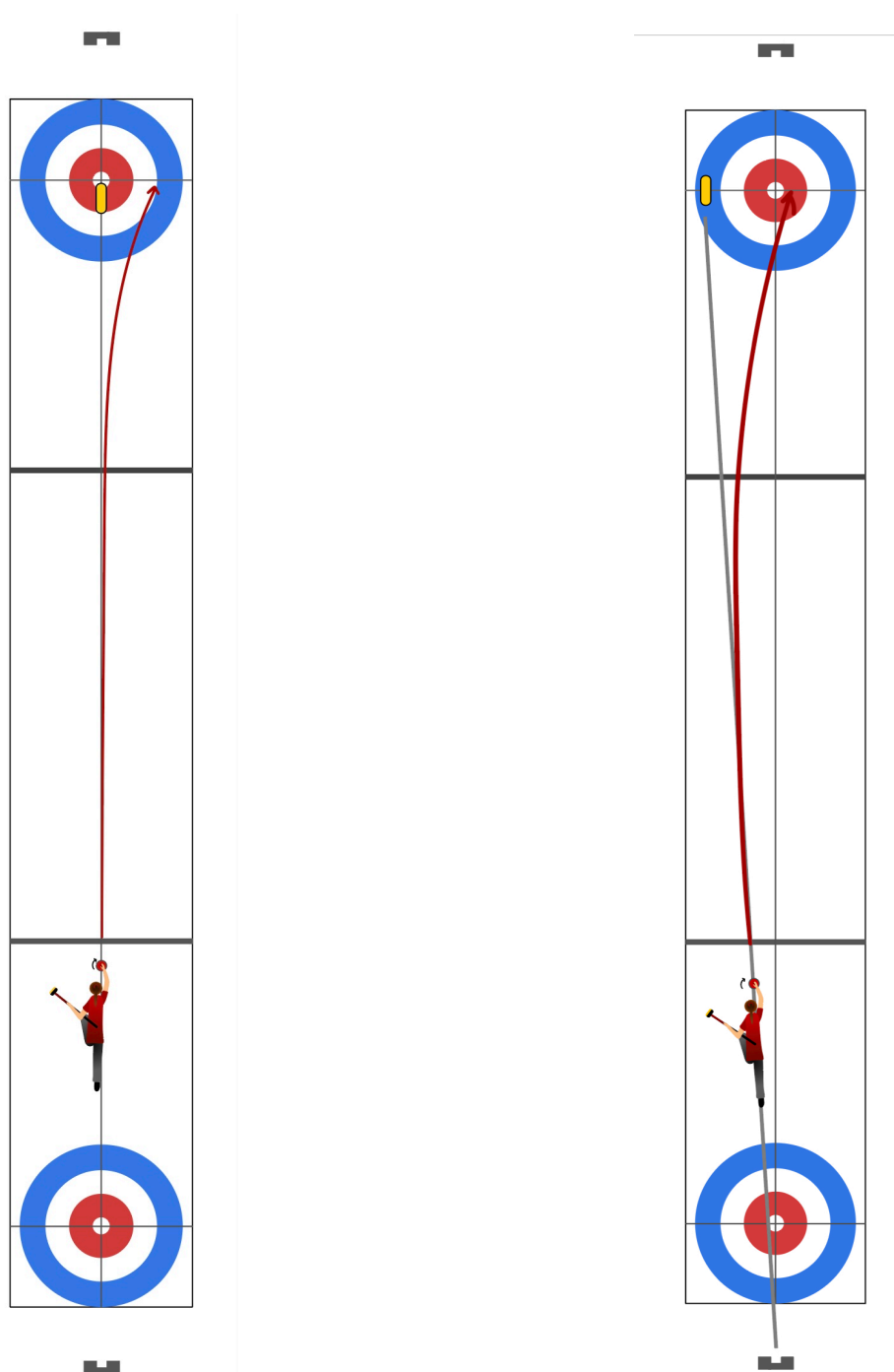
Source: *Curl Up With Jamie on YouTube: "Tip #8: Grip and Release"*

To grip the handle for the in-turn, place the space on your fingers between the first and second knuckles along the top of the handle and set your thumb gently underneath. For the out-turn, place the same space on your fingers underneath the handle and set your thumb over the top. For both, avoid resting your palm on the handle, leaving it gently elevated with your wrist (if you play the piano, it is similar to proper piano hand position). This allows you to release the rock by rotating around the center, instead of having to spend a lot of energy un-gripping your hand.

## Line of Delivery

See below for two examples of the line of delivery. Notice how when the skip's broom (represented by the yellow oval) is farther from the center line, the delivering player is not actually that far to the side when they release; the broom represents a line of travel if one were to slide all the way down the ice.

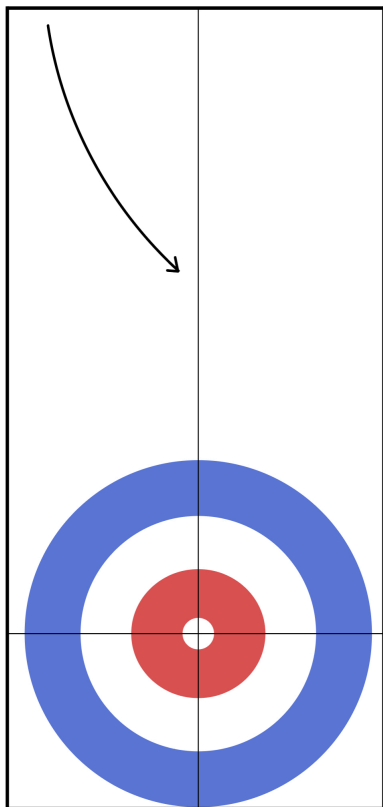
Gray represents the "line of delivery" while the red line represents the actual path of the rock at a draw weight (though this can vary greatly with release and ice conditions).



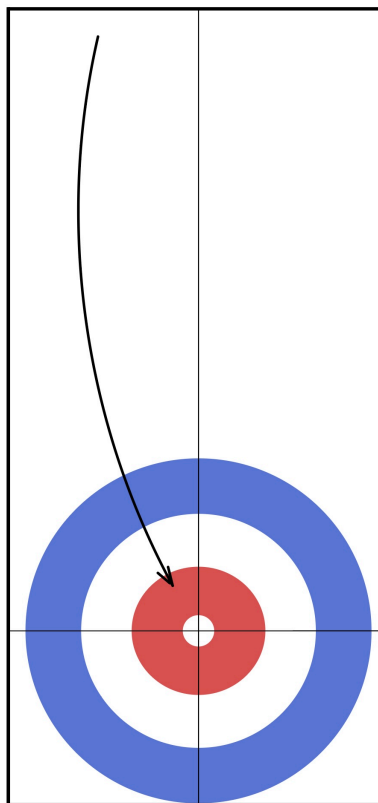
## Types of Shots

There are three basic types of shots: guards, draws, and hits.

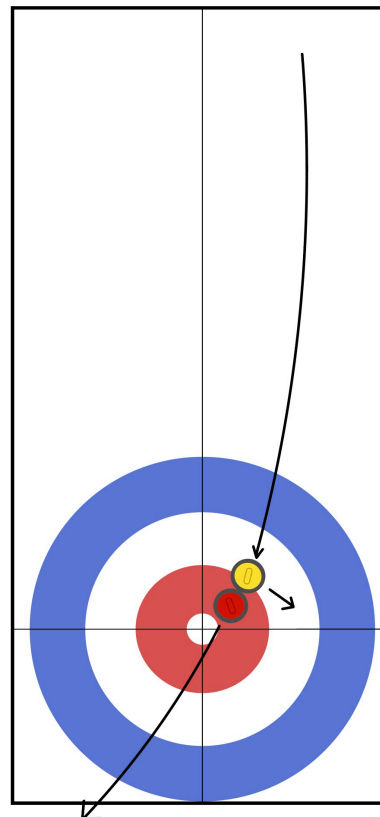
**Guards** travel the slowest, and come to rest in front of the house:



**Draws** come to rest in the house:



**Hits** travel quickly enough to remove another stone from play:



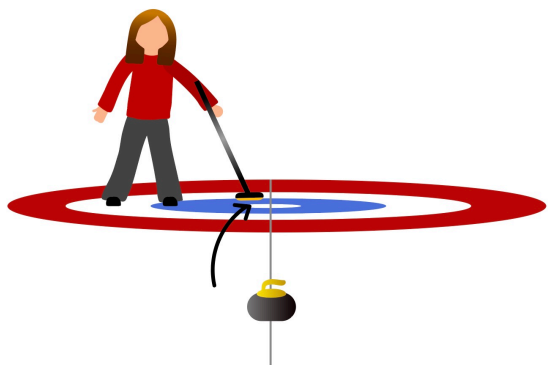
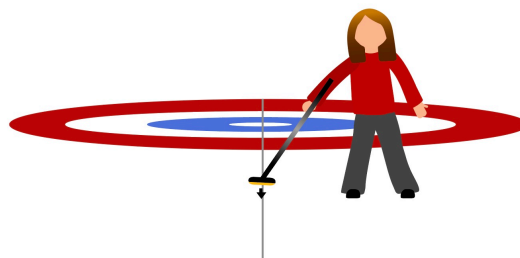
(Guards are also considered to be a type of draw).

When you are in the hack, you will see your skip on the opposite end indicate what kind of shot to throw, and then where to aim.

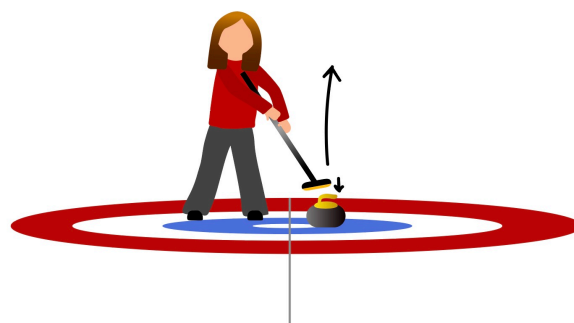
*As a general rule, the slower the rock is traveling, the more it will curl. So a guard might curl up to 6 feet, but a high-weight hit may run nearly straight.*

## Skip's Signals

For a **guard**, the skip will tap in the guard zone with their broom where the rock should end up.

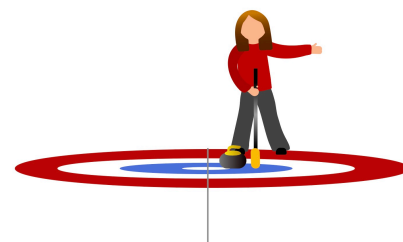
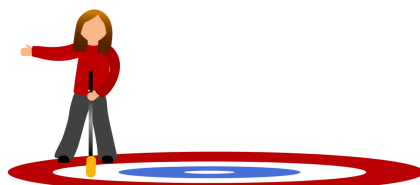
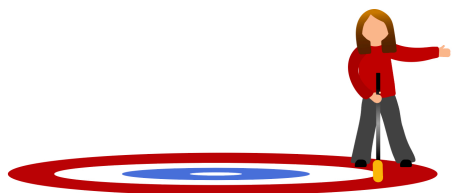


For a **draw**, the skip will draw their broom in a curved motion on the ice (or just tap, like a guard), ending where the rock should end.



For a **hit**, the skip will tap the rock they want you to hit with their broom, and then raise it in the air.

After each of these motions, the skip will then move to the side and hold the broom on the ice where you should aim. Keep in mind that the slower the rock travels, the farther it will curl. So for the guard, the skip is five or six feet to the side from where the rock should end up, and for the hit, only about one foot to the side. How far rocks curl will vary based on ice conditions, so pay attention to your skip!

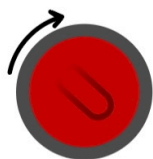
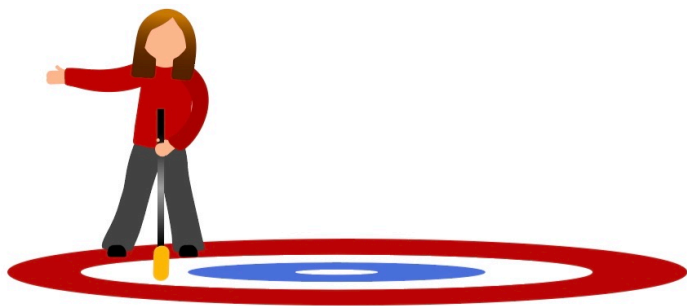


For the center guard

for the draw behind the yellow guard

for the hit

Notice that the skip's arm is held out in one direction or another in each example. That indicates the direction of the rotation of the rock. The skip's right arm indicates a clockwise rotation, and left indicates counterclockwise. A good way to remember this is to point the handle (where it connects to the rock) toward the skip's outstretched arm, and then release it pointing forwards.



Just before the hog line (about 2 yards or so) rotate the stone a quarter turn—so from 2 o'clock to 12 o'clock or from 10 o'clock to 12. Release at 12, with the rock pointing straight forward.

3



Slide out straight toward the skip's broom. If you were to slide all the way down the sheet, the rock in your hand would touch the pad of their broom.

2



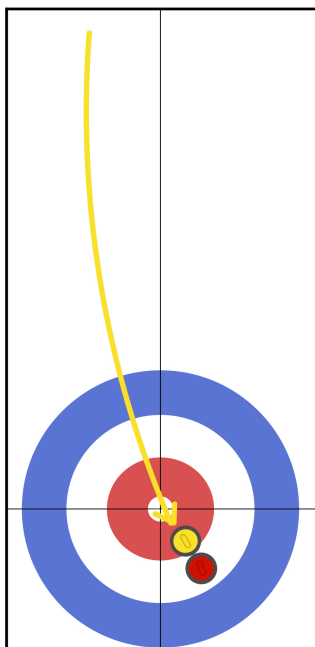
To prepare your shot, point the handle (where it connects to the rock) towards the skip's outstretched arm. It doesn't have to be sideways—2 o'clock or 10 o'clock is best.

1

## More Types of Shots

### Freeze

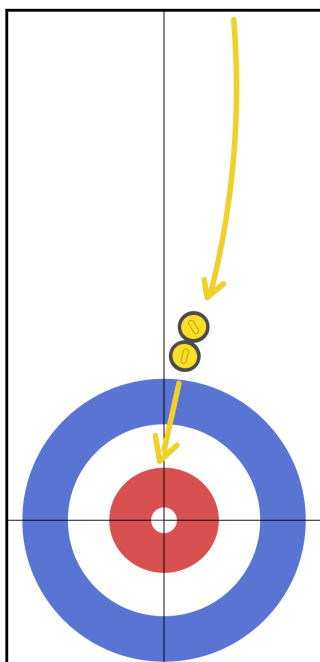
A draw that lands barely touching another stone in the house.



Freeze

### Raise

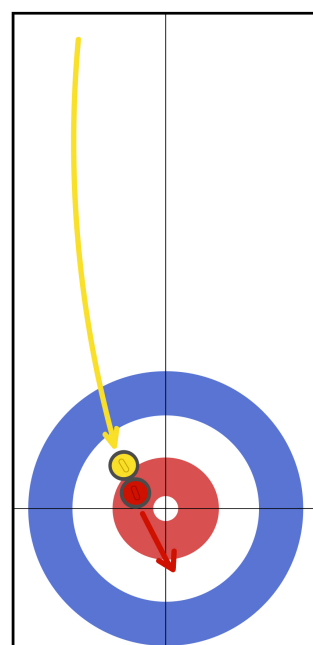
A light hit that raises one of your stones from the guard zone into the house.



Raise

### Tapback

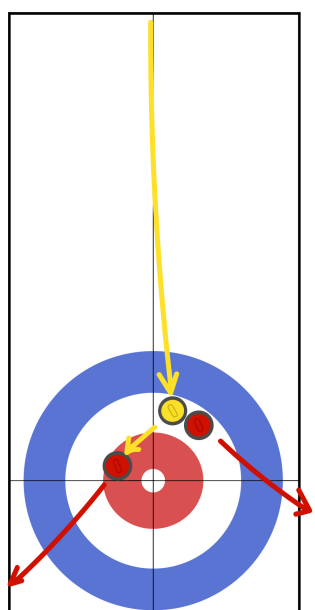
A very short raise that moves an opponent's stone farther back in the house.



Tapback

### Double Takeout

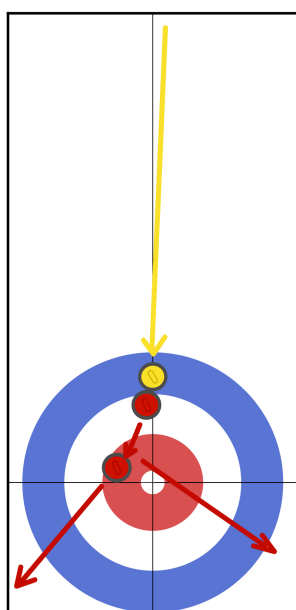
A hit that uses angles to remove two stones.



Double Takeout

### Slash Double Takeout

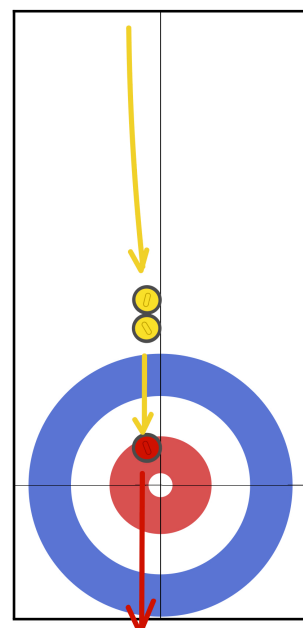
A hit that comes into contact with one stone, but that stone hits another and they both go out.



Slash Double Takeout

### Runback

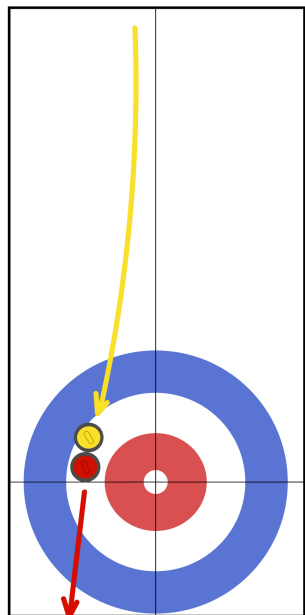
A hit that raises one of your stones into an opponent's stone and removes it.



Runback

**Hit and Stick**

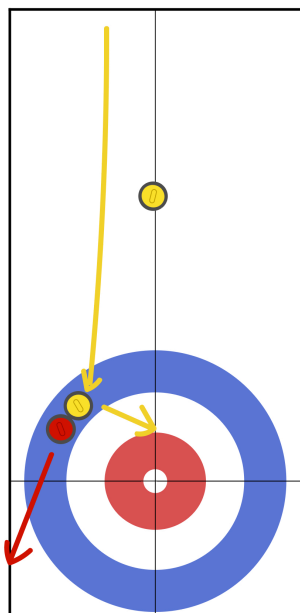
A takeout shot that leaves the delivered stone ("shooter") right where it hit the other stone.



Hit and Stick

**Hit and Roll**

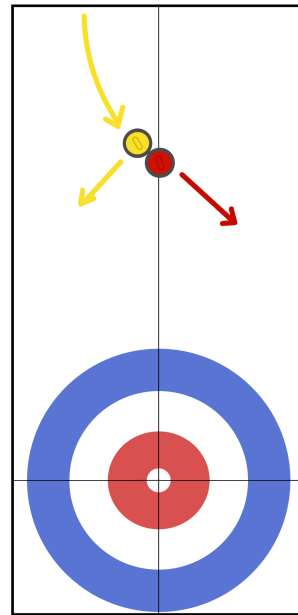
A takeout shot that is hit at a thick angle, so the shooter "rolls" several feet to one side.



Hit and Roll

**Tick Shot**

A very light hit on a Free Guard that moves it to one side. This is usually used to move a guard out of the way before it can be peeled.



Tick Shot

*N.B. Tick shots are no longer allowed on free guards that are touching the center line. A ticked rock must be replaced.*

## Basics of Sweeping

The friction that sweeping creates does two things: it helps to warm the ice and reduce the drag on the rock, which lets the rock maintain its momentum; a skilled sweeper can help the rock to travel around 5 feet farther than it would otherwise. The friction also reduces the grip of the rotation of the rock, and lets it travel straighter longer before it begins to curl. The skip and the delivering player are watching the rock for the line and curl, and the sweepers should be watching the rock for speed.

Hold the broom horizontally in front of you, with the hand closest to the head under, and the hand farther from the head over. The hand closest to the head should be about 1 foot up from it, and your hands should be about 2 feet apart. When you put the broom on the ice to sweep, let your hands rotate slightly to find a comfortable position.



When you walk along with the rock, hold the broom in front of you, with the head part of the broom on the side closest to the rock. When you sweep, your feet will point about 45° toward the rock while still traveling forwards. Try to make sure your back is flat, and not curved or bent to the side. Move the head of the broom on the ice about 1-2 feet in front of the rock in a diagonal motion. Only sweep directly in front of the rock, about a foot back and forth.

Observe gold medalist Kaitlyn Lawes in the photo below. The broom is held in front of her; her lower hand is on the bottom third of the broom and her upper hand is on the upper third. Her back is straight, bent only at the hips, and pointed 45° toward the rock. This allows her to put a lot of pressure on the broom while protecting her back from injuries.



As you get your "ice legs," concentrate mostly on moving with the rock safely. Keep your knees bent and your weight forward a little bit, to reduce the chances that you'll fall backwards (most concussions occur when a sweeper tries to run upright and falls). **Do not run.**

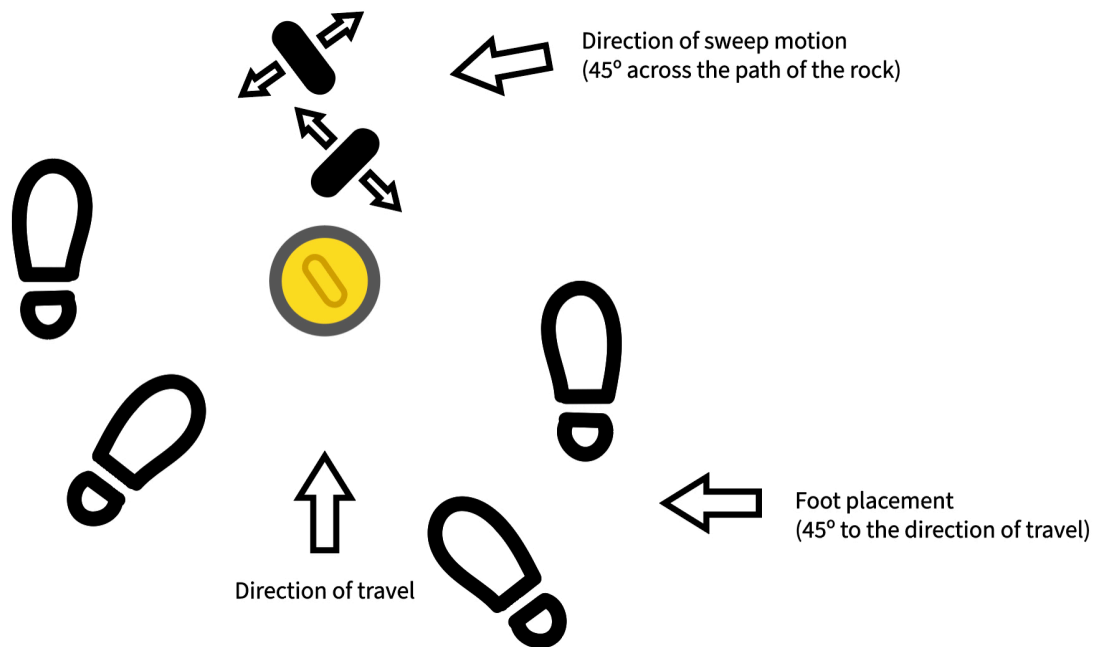
The more experienced you become, the more you will be able to shift your weight over the top of the broomhead, in order to maximize your sweeping's effectiveness. Notice how these sweepers' heads are almost directly above the broom, and the man is up on his toes to shift weight down on to the broomhead.



## Footwork and the "Open" Stance

There are two basic stances of sweeping: "Open" and "closed." Open is shown in the pictures above, with the broom in front of the curler, and the curler is facing the direction of travel. In closed sweeping, the broom is held closer to the rock, and the curler must travel sideways to the direction of travel (kind of like a crab). Closed sweeping should not be attempted until a curler is sweeping open like it is second nature—mostly for safety reasons (those not familiar with the footwork tend to walk backwards and trip, or twist their backs), but it is also much easier for a new curler to accidentally touch the rock.

Effective footwork for open sweeping resembles a cross-country ski pattern: the front foot leads facing in the direction of travel, and the back foot should come up to meet it facing in to the rock at about 45°. The sweeper should keep as much weight as possible on the balls of the feet and not the heels, for two reasons: 1) it keeps the curler out of danger of falling over backwards and 2) forces the curler's weight forward onto the broomhead, and is therefore more effective.



It is, of course, very difficult to understand footwork patterns by looking at a diagram. There are many informative videos on YouTube. A good video to check out is "Footwork in the Open Stance" by OntarioCurlingCouncil).

## Weight Judgement and Communication

Arguably the most important job of the sweeper is weight judgement. There will be stones that you won't have to sweep at all, but you will play an integral part of your team by communicating your judgement of the weight to your skip. This skill takes a long time to develop, but the most important thing is to communicate *something*, and then continually reassess as the stone moves down the sheet.

**Remember, every shot is a team shot! Communication is key.**

Once the delivering player has released their stone, the sweepers should call to the skip how heavy they think the rock is—if you are unsure, something general such as "it's a guard/in the house/through!" Is a good start. Once you get more and more used to judging weight, you can start to be more specific (such as "top 4/top 8!" Or "5/6!").

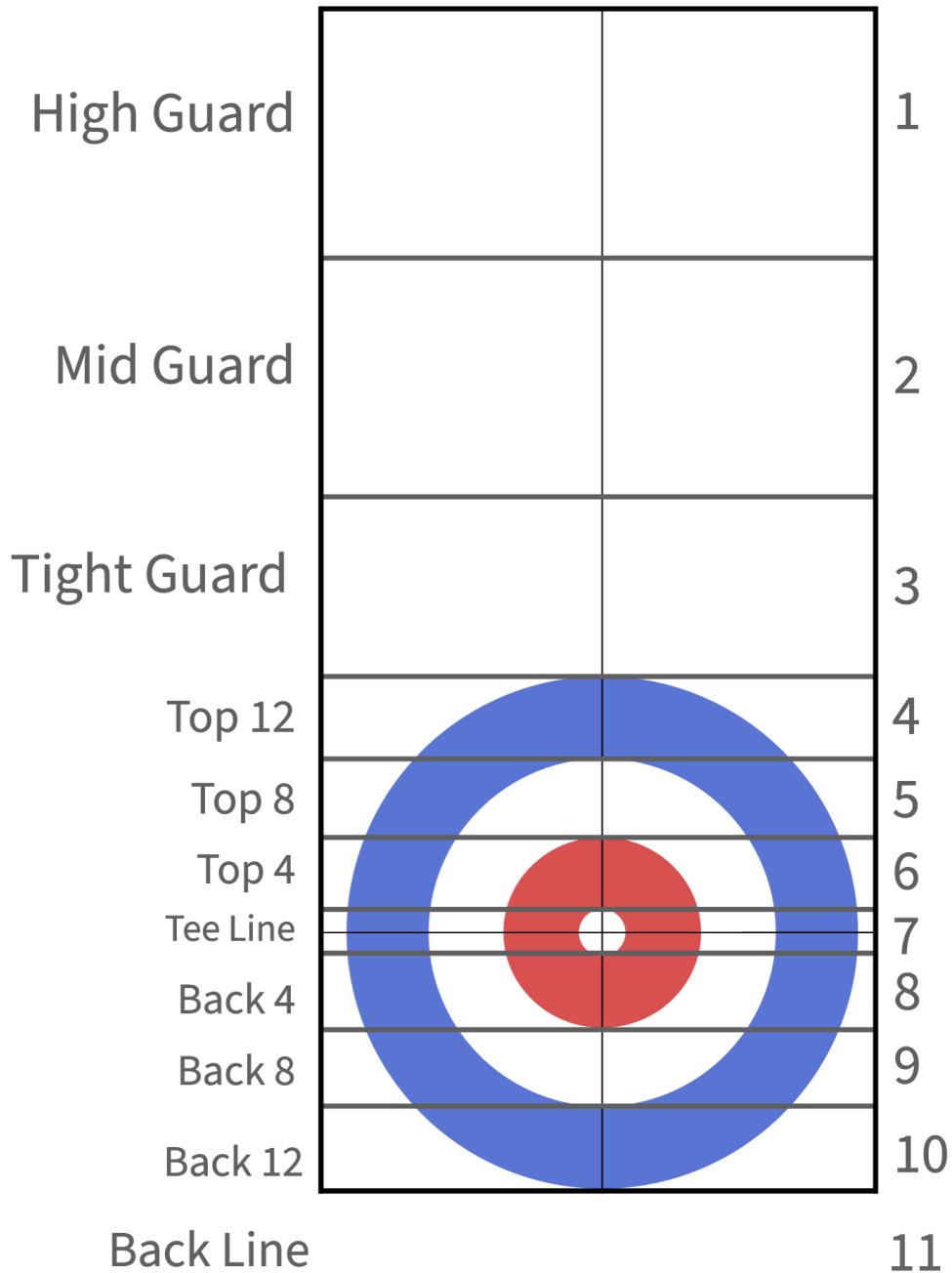
Communicating clearly with your skip is absolutely vital. A shot that is heavy will not curl as much as expected, and a shot that is light may over curl. The delivering player and the skip should be watching the shot for line, and may call to sweep or stay off. Sweepers are watching the shot for weight. You'll hear commands from your skip like "Hard for line!" If the shot appears to be over-curling, and "Let it curl!" Or "room!" For a shot that is under-curling.

However, you, as the sweeper, should be confident overriding these commands if you see that the weight isn't right. If the skip calls you off for line, you can respond "Gotta go for weight!" Or "it's light!" If the stone needs to be swept anyway. It's also okay to change your mind! Don't be afraid to guess right away, but halfway down the sheet you notice the stone slowing and to change your call.

Remember that at any time, the goal of the shot may have to change. If someone delivers a draw that may end up light in the guard zone, blocking a useful path, it may be better to let the stone slow down and "hog," rather than to have something in the way of the next shot, or accidentally raise an opponent's stone into the house.

If you watch high level curling, you'll notice that all four players are constantly yelling throughout almost every single shot.

## Guard and Draw Weights:

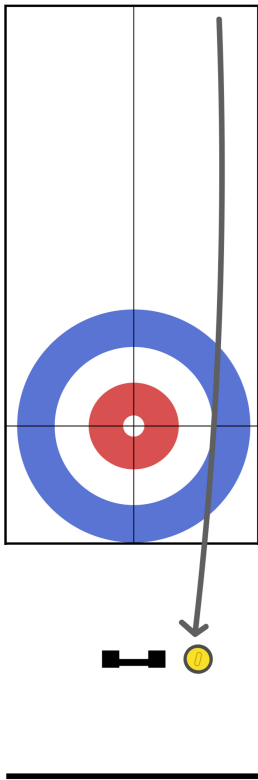


These are the two most common ways of quickly discussing weight—describing where it will come to rest on the sheet (left), or by using numbers (right). Both are fine; some skips will have a preference but it is useful to be familiar with both. You'll most commonly hear numbers to describe the guards, but top/back calls to describe stones coming to rest in the house. It is okay to be approximate.

# Hit Weights

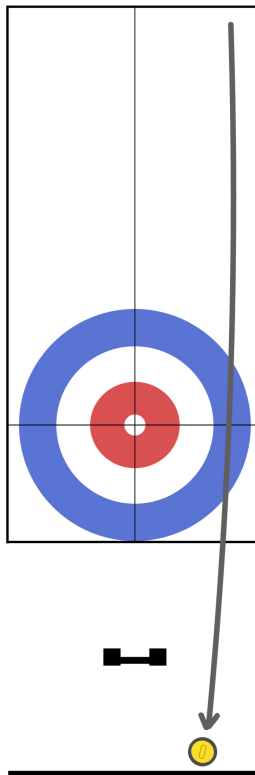
## Hack:

An unimpeded stone would come to rest at the hack. Used to lightly tap another stone out of the way.



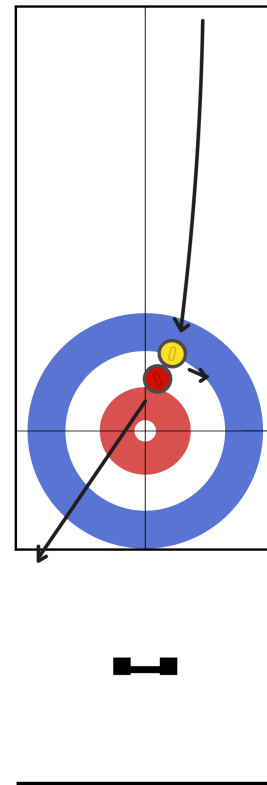
## Bumper/Board:

An unimpeded stone would come to rest or lightly bump the back wall.



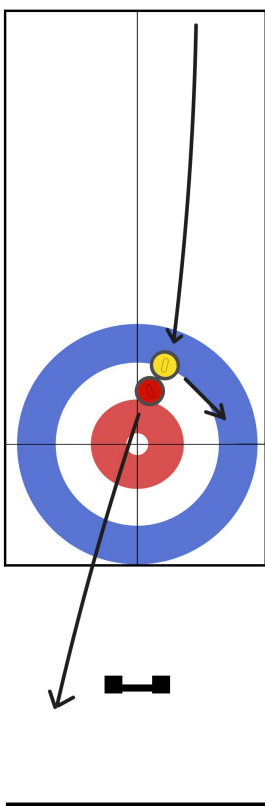
## Control:

The stone has enough weight to remove another stone from play completely, but not enough momentum to roll out. (It is a pretty heavy hit, but still light enough to be "controlled" by sweeping.)



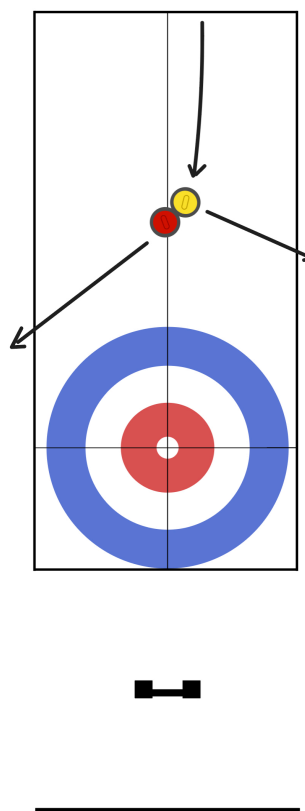
## Normal:

The stone has enough weight to remove another stone from play, and has enough momentum to roll several feet to one side or all the way out, depending on angle.



## Firm and Peel:

The stone removes another stone from play with enough momentum to also remove itself. "Firm" will curl a little more than "Peel."



While you may hear all of these weight calls, for a newer curler it can be helpful to think of them in three groups:

1. **Light hits:** Hack and Board
2. **Medium hits:** Control and Normal
3. **Heavy hits:** Firm and Peel

## Sweep Calls

Since **every shot is a team shot**, all the players must communicate throughout the entire shot. Since judging weight is difficult at first, you will mostly be listening for your skip to call you to sweep or stop sweeping. The skip can really only judge the rock's line to see if it needs to be swept to keep it straight or to encourage curl. However, since the skip cannot judge weight very well from the far house, it is vital for the sweepers to convey their opinion of the speed of the rock as well. Start with general calls such as "Guard/In the house!" Until you are more confident.

Here are some sweep calls you might hear from you skip:



"Yes!/Yeah!/Yep!"

"Hard!"

"Hard for line!"

"Gotta go for line!"

"Sweep!"

"All the way!"

"Finish it!"

"Hurry!"

"As far as you can!"



"Whoa!"

"Off!"

"Never!"

"Needs to curl!"

"Let it curl!"

"Room!"

"No!"

"Let it stop!"

"It's all there!"

If the line of the shot is pretty good, the skip may not need to make a call to sweep for the line. While you should always be using your own judgement for the weight of the shot, if you hear these calls, it's *all up to the sweepers* so watch the rock carefully and sweep if you need to (of course, **communicate** that the shot needs it)!



"Weight only!"

"Go if you need to!"

"Line's good!"

"Up to you!"

Another call you might hear is "Clean!" which is a call to sweep without pressure in front of an accurately made hit— "cleaning" the ice so it doesn't pick on debris and go off course.

## Beginning Strategy

The most important aspect of strategy is **setting a goal for each end**. Most beginning skips react shot-by-shot to their opponent's stones, which can result in a backfiring outcome for the end. While some reaction is necessary, you can set your team up for success by having a plan for each end. How well your plan goes is of course affected by your team's and your opponent's ability to make shots, but making shots with no plan is unlikely to have a good result, either.

### To set a goal, ask yourself these questions: (HI-SEA)

<b>Hammer: Who has hammer?</b>	This sets your expectation of whether or not to score.
<b>Ice: How's the ice?</b>	What shots are even possible? Is it falling or straight? Slow?
<b>Score: What's the score?</b>	Are you trying to make up points or hold on to a lead?
<b>End: What end is it?</b>	This affects how much time you have left to score.
<b>Ability: How good are we?</b>	What shots can we make?
<b>How good are they?</b>	What shots are the other team able to make?

Most beginning skips have the goal of "score a bunch of points" each end, regardless of whether or not they have hammer. Hammer and whether or not you are behind or ahead are probably the two most important aspects of calling a shot.

Since hammer always moves to the team that *didn't* score, a good beginning strategic plan for a game is to try to take 2 when you have hammer, and to force the other team to take only 1 when they have hammer. If this goes as planned, you will win the game. Sounds simple!

### Basic End Goals with Hammer

Score 2  
Blank (possibly)

### Basic End Goals without Hammer

Force Hammer Team to Take 1  
Steal 1

*"Stealing" is when the team without hammer scores, as it requires the team with hammer to miss a shot (though most teams will usually each miss a few!). This is a common end goal when a team without hammer is tied or behind in one of the last ends of a game.*

*A blank end is also sometimes an end goal for the team with hammer. While you don't score any points, hammer team gets to keep hammer in the next end.*

### Now that I have a goal, what should I do?

**If you have hammer, play to the sides of the house to keep the center free.** To do this, you will want to set corner guards (guards that are in front of the 8 foot), and draw to the 8 foot with your lead's and second's stones. Use your second and third players to keep the center open (hitting the other team's stones in the 4-foot or peeling their center guards). This allows you to have an open path to get another rock close to the button, and is more likely to result in a score of 2 or more.

**If you don't have hammer, play to the center to keep the team with hammer from having an easy shot to score 2.** To do this, have your first and second players set center guards and draw close to the button, and use your third player and yourself to replace those stones if your opponents are able to hit them.

Another way to think about playing with or without hammer is to think of having hammer as being on offense, and not having hammer as being on defense. The offensive team (hammer team) is trying to put rocks in play (guards and draws) in order to score at least 2. The defensive team (non-hammer team) is trying to hit their rocks out, draw to outcount them, or block paths they need to the house in order to make them score just 1 (or to steal).

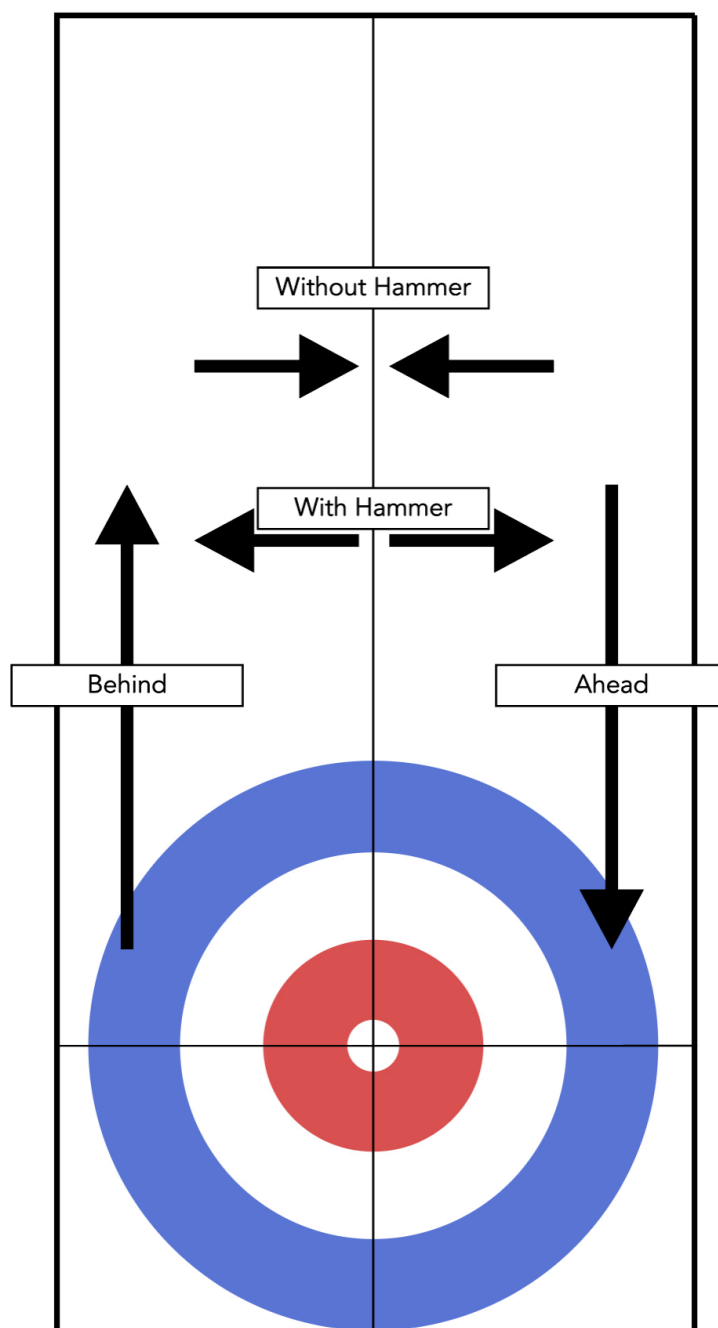
### Should I guard first or draw in the house first?

A good rule of thumb is that if you want to score (either score 2 with hammer or steal without hammer), **you need guards**. If you are just trying to prevent your opponent from scoring more than 1, or if you are ahead and don't need a lot of points, guards might hurt you. Therefore, if you are *behind*, start with guards while the FGZ is in effect. If you are ahead, put rocks in the house to tempt your opponent into hitting them instead of setting guards.

### Another way to think about this is aggressive vs. conservative:

Guards are considered aggressive, since you are more likely to score if you have them—BUT if the end doesn't go your way, you're more likely to give up multiple points. If you are behind you will need to be more aggressive to make up the points.

Drawing to the house or hitting out rocks is considered conservative, since you are less likely to score a lot of points if nothing is protecting rocks in the house. However, since nothing is protecting your opponent's stones either, you're less likely to give up a big end. If you are ahead, you might take a more conservative approach to avoid losing your lead.



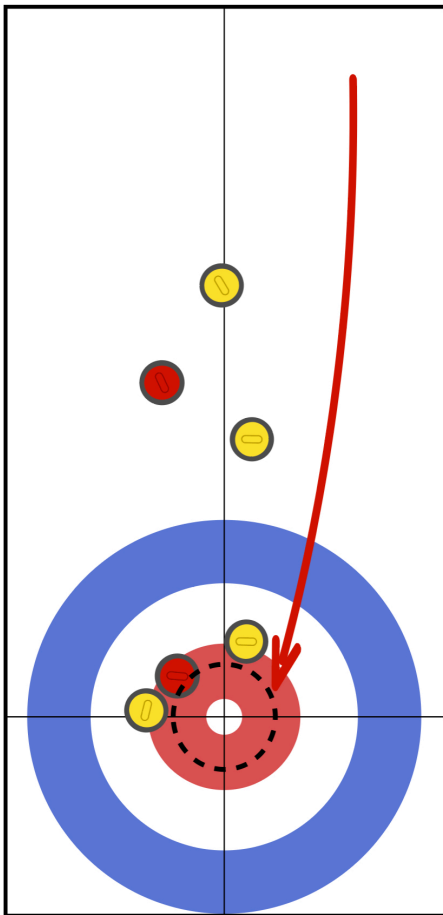
## Scoring Area

Towards the end of an end (around skips' stones), it's a good idea to pay attention to the "scoring area" that is left. The scoring area is the diameter of the house that is left in order to make a difference in the score. In other words, how close is your opponent's closest stone?

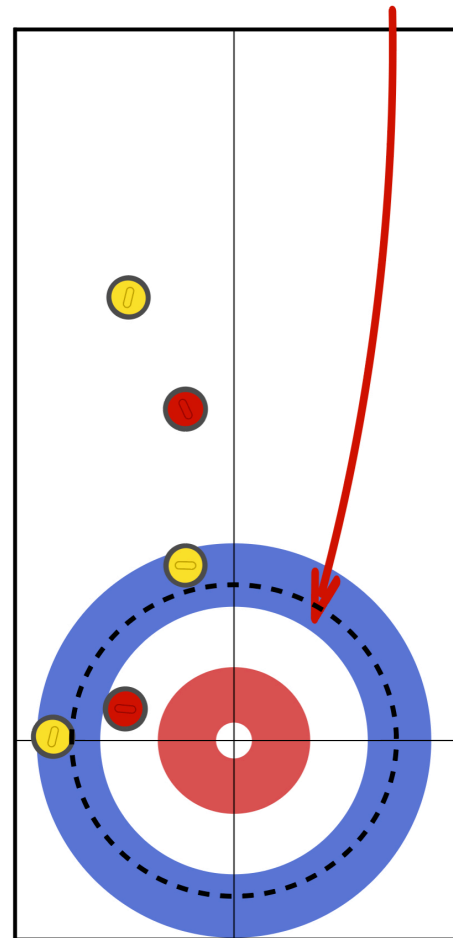
**If you do not have hammer**, a good rule of thumb is to try to keep the scoring area small, so that it makes your opponent's last shot have a smaller margin of error. A *freeze* is a classic shot used to reduce the scoring area.

**If you do have hammer**, it's good to try to keep the scoring area larger, so that when you have to throw your last stone, there's a larger area to put your stone, making your last shot easier. This is why hammer teams frequently begin an end by drawing to the *sides* of the house instead of to the button--you're trying to tempt your opponent away from the center, leaving you a wider area to use for your last rock.

In both of the examples below, red has the hammer. In the first example, yellow has placed their stones quite close to the button, making red's last shot for 2 very difficult. In the second example, yellow's stones are farther from the button, leaving a rather open shot for red to score 2.



Small "Scoring Area":  
Difficult shot to score 2



Large "Scoring Area":  
Easier shot to score 2

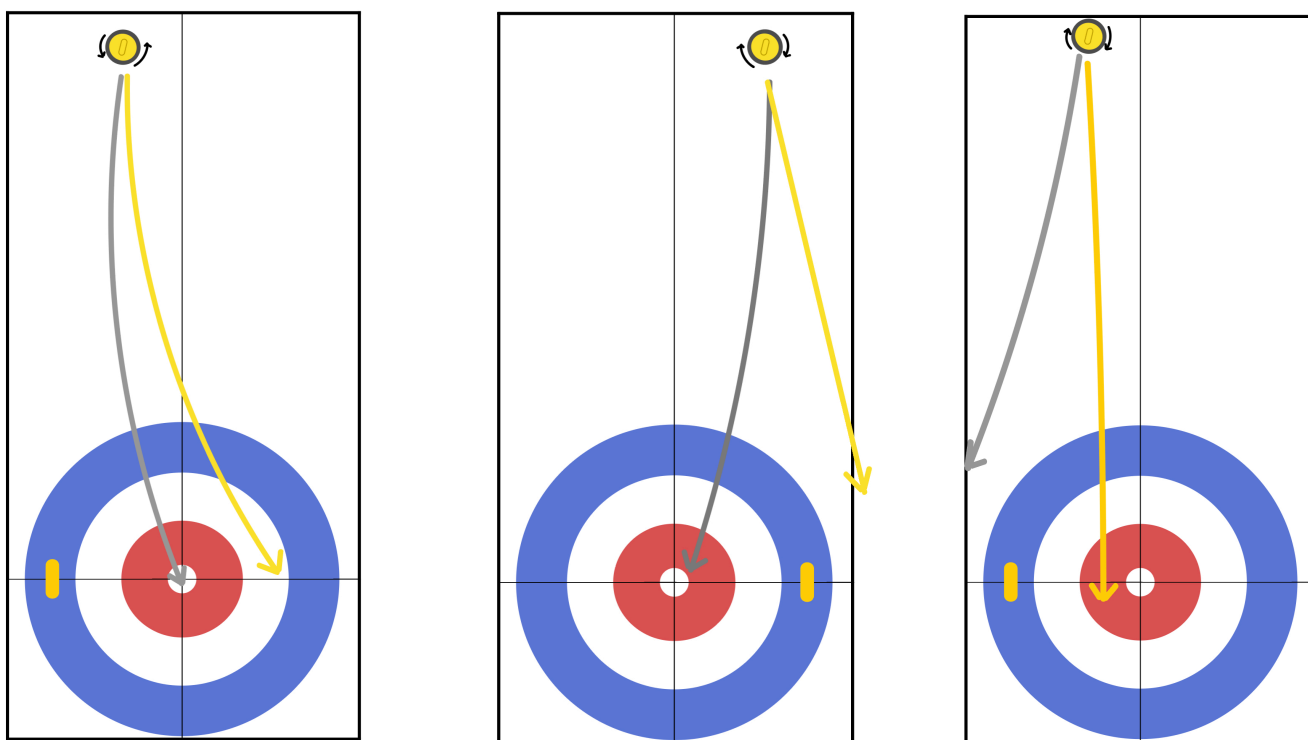
## Reading the Ice

Being able to read ice quickly can and does make or break your games.

To read ice, start with an expectation of what a shot will do. For example, on good ice, a tee-line weight draw should curl around 4-6 feet. You'll start out holding the broom then on the side of the 8 foot or 12 foot, and watch what the rock does.

Most "arena" ice (ice that is shared with hockey and other skating activities) is pretty inconsistent, so you can automatically expect each side of the sheet to be different from the other. Below is a common inconsistency, when the sheet isn't level:

*Gray is what you would expect to happen for a draw on perfect ice; yellow is what may actually happen)*



1. Out-turn draw

2. in-turn draw

3. in-turn on the out-turn side

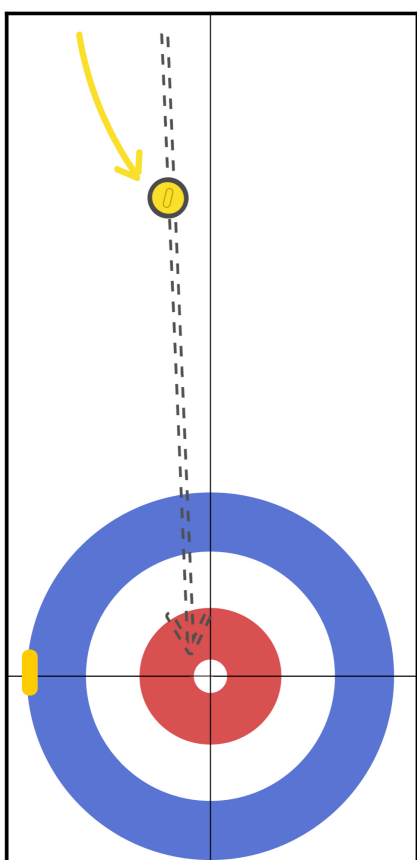
As you can see, the most realistic path to the button (3) is counterintuitive; sometimes ice is so slanted that you must use the curl of the rock not to *curl*, but to counteract the slant and allow the rock to run kind of straight. This is called a *fall* or *negative ice*.

In the case of the sloped (negative) ice above, this will affect every aspect of the shots you call: The paths to the button would be far left of center and slightly left of center, depending on the turn. A true center guard might not help much if you're trying to steal, since the other

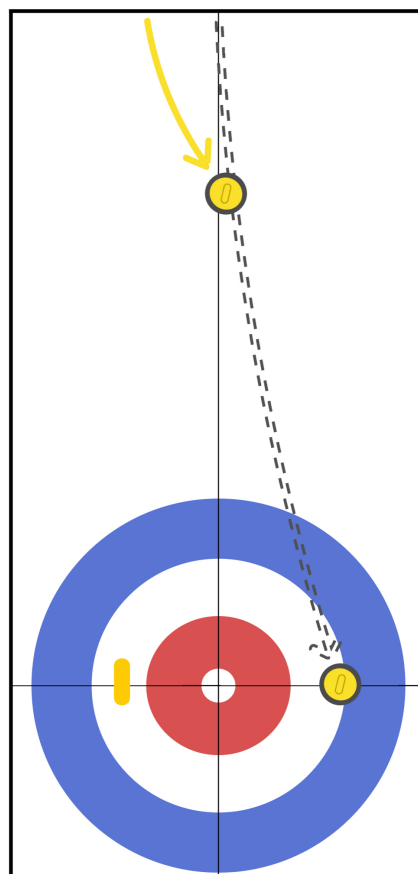
team could use the far left side of the sheet to "fall" around your guard and access the button. You might choose to place your center guard left of center. (A)

Likewise, for a corner guard protecting a rock to the side of the house, you wouldn't need to place it directly in front of the stone for maximum effect; since hits might careen off toward the right side, you would place a "corner" guard near the center, in the path your opponents would need to use for a hit. (B)

*The dotted line represents the potential path blocked by the guard. Yellow represents the path your guard took.*



A



B

Reading ice is something that takes years of practice. The best way to give yourself an advantage is to *believe the ice* as soon as you see something. That includes watching your opponent's shots, as well! Standing behind or near the opposite skip to watch their players' releases and lines is like gathering intel that you can use to give your team an edge.

*Note that the above are just possible examples! The ice is different day to day so you will have to observe carefully each game.*

## Beginning Tactical Plans

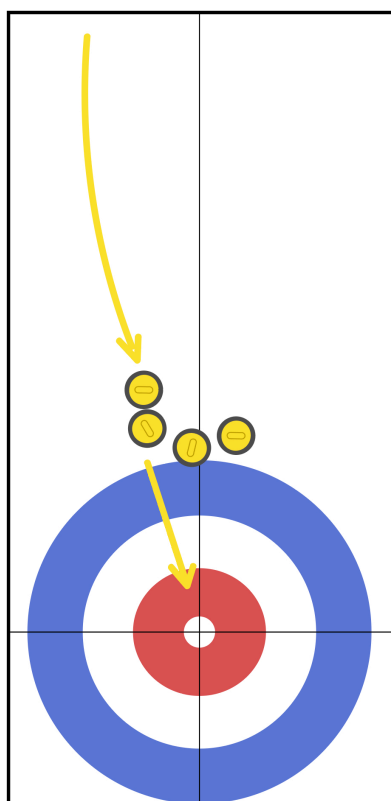
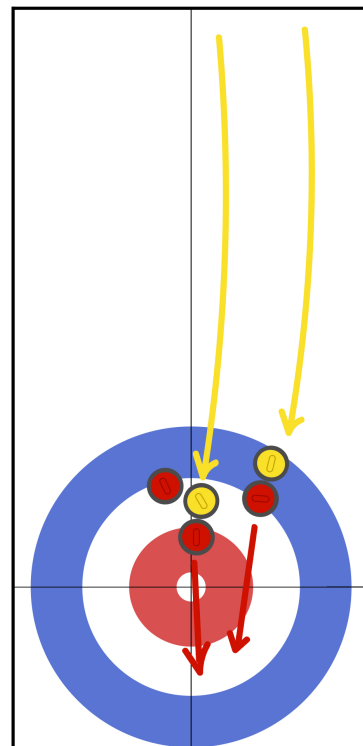
Most of what has been discussed here assumes everyone on your team can make all their shots. Even at the highest levels of curling, this is rarely the case! Below, we will discuss some ways to design an attainable strategy and come back from misses. (In these examples you are yellow.)

### 1. "Tap Everything Back"

Say you are a beginning team, playing a team that has better draw weight than yours, or they are on broom more often. They are putting a lot of draws in the top of the house, because they are trusting that you can't outdraw them, and you might not be accurate enough to hit their stones out.

Once they have a few draws built up, don't try to peel their stones out; just use a heavy draw or hack weight to tap them to the back 8 or back 12. These kinds of shots have a larger margin for error, and will build up a wall of "backing" in the house, preventing your opponents from being able to easily hit your rocks out.

This tactic is a good idea when you *do* have hammer, since the backing you are creating also allows you to have something to bump up against if you have to draw on your last shot for a point.



### 2. "Push the Pile"

This is a similar tactic to "tap everything back" but it can help when your team is erring light on their shots, leaving a very crowded guard zone. The idea is to build a pile of your own stones tight to the house in the guard zone or top of the house, and you can use heavy draw-weight shots to tap them farther back into the house.

These shots also have a wide margin for error, since they can be tried again almost identically if the shot is a little heavy (and the rock goes out or too far in the back of the house) or if it is a little light (the same shot can be tried to push it in farther).

This is a good tactic when you *don't* have hammer, since it has the added benefit of blocking paths to the button.

### 3. Throw the Same Shot the Whole End (or Game!)

(A.K.A. "Throw Everything to the Pin")

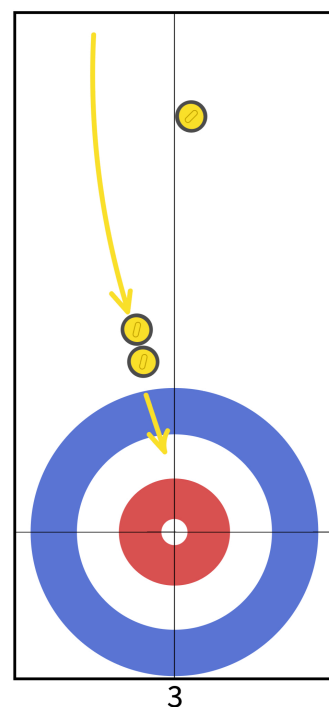
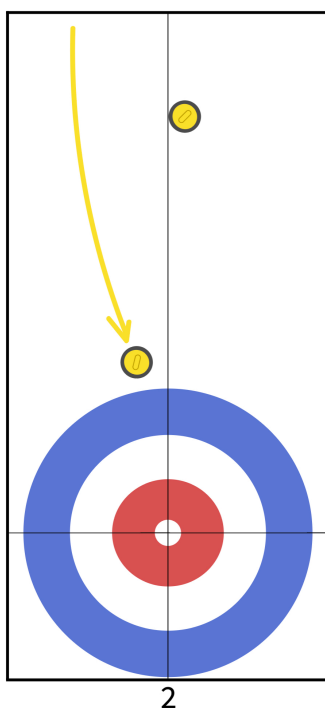
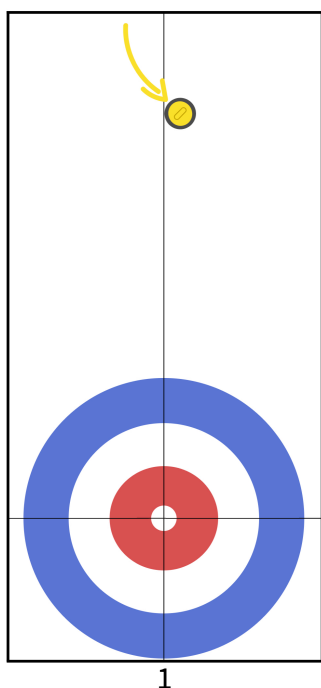
Let's be realistic. New curlers miss most of their shots. How do you get better? Practice! It's hard to improve when you only have two shots per end, and have to throw a hit followed by a delicate guard. What if you're off on weight or line for both? It's difficult to practice calibrating your weight control and line of delivery, especially with an arena setup where we aren't offered much (if any) practice time.

So: If you and/or your team is hopelessly off on most of your shots, *call the same shot till you start making it*. You might give up some big ends at first, but as you and your team improves end to end and game to game, you will start to see yourselves be able to make more accurate adjustments for weight and line as necessary.

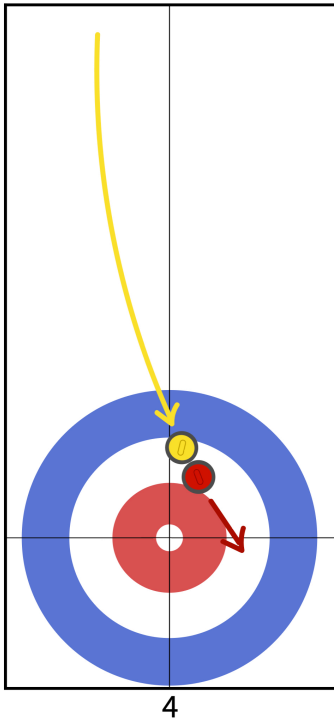
1. For example, you're trying to use an out-turn draw (for righties) to draw to the button. But it's light, so now you have a guard. (We are ignoring Red's stones for now)

2. For the next shot, you try again with another out-turn draw. It's a little light and wide, so it's still a guard.

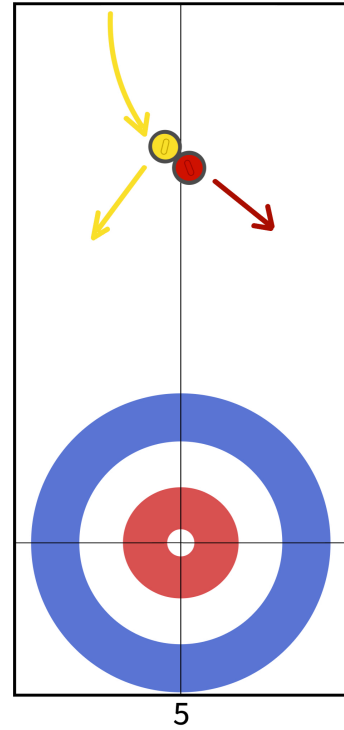
3. For your next shot, call the same out-turn draw, which will hopefully hit the previous shot into the house. It's just a draw to the button with extra steps!



4. Now say Red is in the house. Instead of hitting, use an out-turn draw to tap it away, kind of like "Tap Everything Back."



5. If Red has a guard that's in your way, instead of trying to use peel weight to get rid of it, use an out-turn draw to "tick" it to the side. It's not the same as a peel but it gets the job done and opens the center.



Also, if you miss, you'll either have a guard or a draw to work with. If you miss a peel, you're left with nothing.

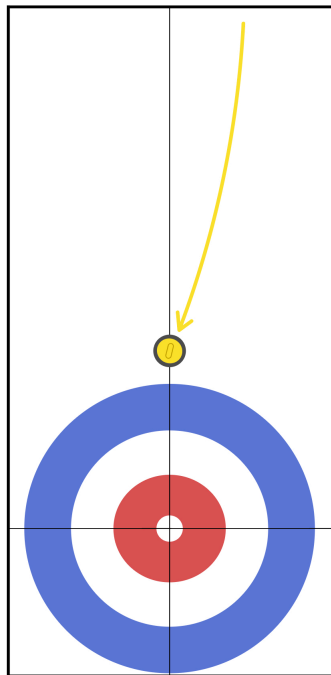
You get the idea!

## Pro-Side Error

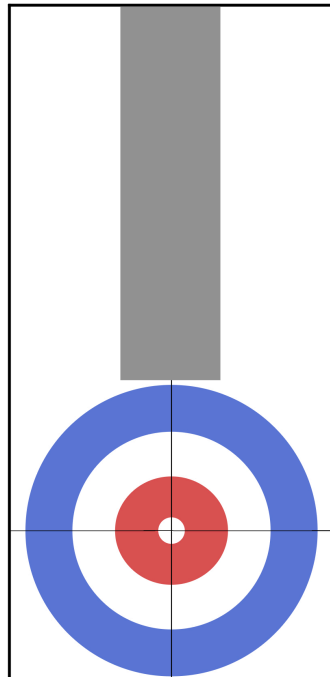
We talk a lot about strategy from the skip's point of view, as if they are the only team member who should be concerned with it, and everyone else just blindly does what they say. While the skip is mostly in charge of strategy, **every shot is a team shot**, including and maybe *especially* shots that aren't made 100%. Every member of the team should not only understand the desired outcome of a shot, but also should understand *the purpose* of the shot.

If you are delivering a rock and you don't understand how it contributes to your end goal, slight errors in the wrong direction can undermine your team's strategy. This is where "Pro-Side Error" (a.k.a. "Plan B" or "Tolerance") comes in to play.

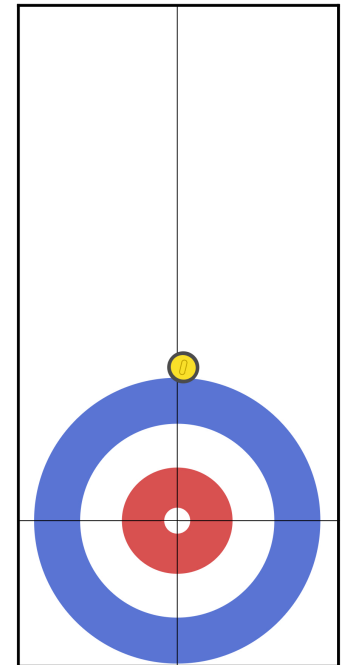
For example, say it's the beginning of the last end and your team needs to steal a point to win. Your skip asks you (the Lead in this case) to throw a tight center guard. Since the Free Guard Zone would still be in effect, and it can only potentially protect the first three of your team's rocks, you should understand that in this case, it would be better to be 10 feet light with a very high guard than to be 1 foot heavy and touching the house, where the other team can hit it out of play immediately.



Desired Outcome



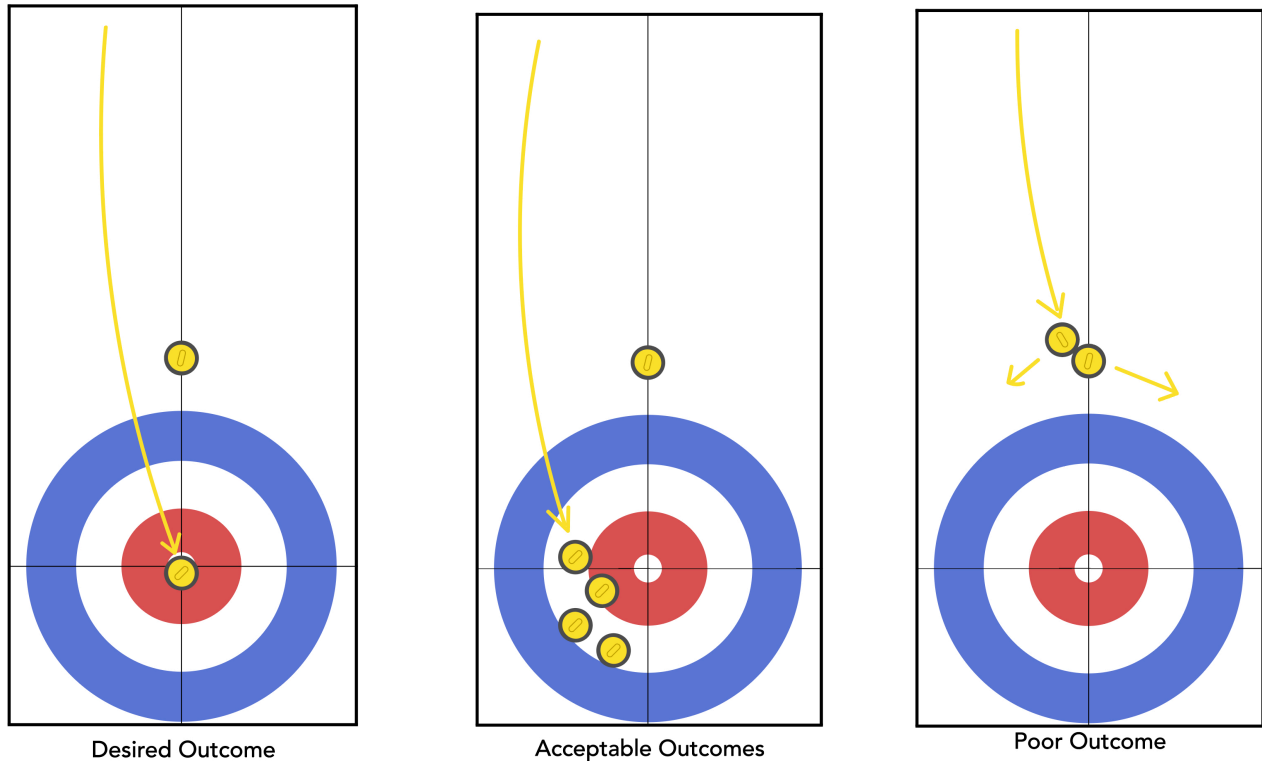
Acceptable Outcomes  
(Anywhere in the Gray)



Poor Outcome

A curler who did not understand the *purpose* of the shot might be pleased with the rock ending up so close to the desired place, not realizing that their team is more disadvantaged now than if they had been nearly 10 feet lighter. Sweepers should also understand the "pro-side" as well and avoid oversweeping this kind of shot.

Here is another example of a pro-side error. Let's say you made your tight center guard pretty accurately. The next shot your skip calls is to curl around it to the four-foot. In this case, it would be better to be wide and/or heavy, coming to rest partially unprotected in the house (or even through!) than to be narrow and/or light, and accidentally tick your guard out of the way — then you have negated the effect of not only your current shot, but your previous shot as well.



The above example notwithstanding, as a *general* rule, it is better to err on the light side. A rock that is a bit too light can be swept, and the sweepers may have some control over the line, but not much can be done for a rock that is too heavy.

Again, the key is to understand the *purpose* of the shot, and what role it plays in your team's overall end plan. This is a concept that of course takes years to fully master but it is always good to get into a "pro-side" mindset as soon as you can. It also demonstrates why understanding the strategy goals is crucial for every member of a team, and not just the skip.

This is also a great example of why communication is important throughout every shot!

## Some Strategy Tips:

1. **Know what you and your team can and can't do.** While it's good to try trickier shots now and then (how else will you get better?), if you're trying to win a game, sometimes the best shot is the shot you can make. It would be great to hit and roll behind a guard, but asking for a draw or a short raise may be more likely to result in success. Likewise, it's good to know what your opponents can and can't do, and to try to force them to play difficult shots.
2. **Think about what shot you want to have to make** at the end of each end. Are you comfortable drawing for a point? Would you rather have some "backing" (rocks in the back of the house that can stop your draw)? Would you like the guard zone open? Would you rather hit for a point? Then call shots for your teammates that leave you your preferred shot.
3. **Do not be afraid to peel your own guards!** Just because it's YOUR rock in play doesn't mean it will help you achieve your end goal. If you have hammer and one of your own guards is blocking a path to the button, get rid of it!
4. **If the ice shows you who it is, believe it the first (or second) time.** Don't chase your opponent's stone for an entire end, with miss after miss, while they build up draws in the house for a big end. If your team misses a shot on a particular line repeatedly, the line just may not be there. Give up and call another shot to mitigate damage. Likewise, don't expect to draw around a guard if the ice is falling the opposite way. You will be disappointed.
  - A. **Use the first end to watch the ice.** Try to call a few shots of different weights on each side to see what they do. It will make it easier to plan subsequent ends (i.e. if hits are just not happening on one side of the sheet, it can be advantageous to draw there, and you may not even need a guard to keep that rock in play; additionally, you would have the foresight not to waste a shot trying to hit an opponent's rock on a particular side). Be sure to carefully observe your opponent's ice calls and shots, as well.
5. **Try to keep most of your rocks in the house above the tee line.** Closer to the button is not always better when you're talking in front/behind the tee line. In beginning games, a rock at the top 8 can be much more valuable than a rock in the back 4. For example, if you have a draw in the back 4, and your opponent taps it back a few feet, they are now shot. If your stone were in the top 8 and they tapped it back, you would likely still be shot.
6. **If it's possible, give yourself a "practice shot" before your last stone of an end.** For example, if you think you might have to draw for a point, instead of trying a hit or other difficult shot, practice your draw for your first shot, even if you know your opponent will probably hit it. That way you are better equipped to be accurate when it counts.

## References and Further Reading

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<b>Paulley, Glenn</b>	"Brushing Footwork in the Open Stance" "On-Ice Training for Brushing Footwork" "Brushing Footwork: A Case Study" "The Technique of Brushing" <a href="http://ontariocurlingcounsel.com">ontariocurlingcounsel.com</a>
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<b>Martin, Kevin</b>	Delivery Clinic (St. Paul Curling Club, 2019)
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