



HOLLYBURN
Cross Country Ski Club

Good Drills and Games
Jackrabbits 4 and Track Attack

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Section 1: Warm Up

1. Rock Scissors Paper

Do this without poles! The skier uses their whole body to “mime” a rock (crouch in a ball), scissors (split on leg and arm forward, one leg and arm back), or paper (spread out like an X).

Section 2: General Games and Relays

Games

One of the best ways to introduce children to skiing skills is through games. Almost any game that can be played on foot can be played on skis.

XC Ski Nation has videos showing 33 games, which are free to view.

<https://xcskination.com/cross-country-ski-games-for-kids/>

1. Bagel

One participant throws ball into the air and calls someone’s name, everyone skis or scooters and when named participant picks up the ball He/she yells “freeze” and everyone else must freeze. He/she skis three glides and throws the ball to tag the next person. If the ball hits the person, they get a “B”. Named participant takes the ball and throws it back into the air and calls another name. If a person gets hit a second time, they get an “a”. Third time a person is hit they get a “g” and so on until they all the letters in “Bagel” and then they are out.

2. Crows & Cranes

Set-up 2 lines of skiers. One group is crows and the other is cranes. Leader shouts “Crows” and the crows chase the cranes. When leader shouts “cranes”, the cranes chase the crows. Challenge participants with the use of the other words that rhyme with crows (toes/ rows, cows) and cranes (planes/trains/rains).

3. Tag - Regular Tag, Frozen Tag, Amoeba Tag and Group Tag

Amoeba Tag

- one person is ‘it’, they tag someone and are partnered with them
- the pair then tag someone else and they join to make a group of 3
- the group of 3 tags a 4th person and then the group of 4 divides into 2 groups of 2
- each group of 2 tags people until they each get to 4 and then those groups divide into 2 groups of 2
- keep going until everyone is tagged

Group Tag

- one person is ‘it’, each time they tag someone they join on the group
- the entire group is ‘it’

- keep going until everyone is tagged

4. Octopus / Polar Bears on the Ice

- there are two lines of safety and one person who is 'it'
- the group of people skis from one safety line to the other (when they are called) while the person who is 'it' tries to tag them between the two lines
- anyone who is tagged is frozen to the ice but can tag anyone who runs by
- the group (when called) continues to ski from one safety line to the next until everyone is tagged

5. Polar Bears and Artic Hares: Form 2 safe lines about 20 m apart. Divide the group into 2 teams- Bears and Hares. Kids ski up to the centerline. Coach yells either "Polar Bears" (bears chase hares and try to tag them before they cross their safe line), or "Hares" and then hares chase bears and try to tag them. Tagged kids join the other team. Game ends when all kids are either bears or hares or the coach is too cold to play longer.

6. Kick the ball up the hill (use the orange street hockey balls) you will need good new solid tracks;(don't try this with lots of new snow or when tracks are skied out) – this drill encourages the skier to swing their leg forward so that foot lands ahead of the other foot on hills

Relays

- Ski with poles (classic or skate)
- downhill and ski back up hill races
- take one ski off and put all the skis a certain distance away, races to their ski, put on their ski, and race back (be careful not to destroy tracks)
- ski with only one pole
- skate or classic with out poles
- mixed technique relay: ie double pole out to turn around and classic back
- ski back wards (with or without poles)
- 1 ski and 1 pole ski (variations – forwards, backwards)
- In Pairs: one skier pushes or pulls the other, at turn around spot reverse places Switch poles with another skier on team (must choose someone with a different length pole, can switch one pole only or both)
- Jelly Bean Relay – a plastic spoon for each team and a jelly bean each. After they skill the length of the relay they may eat the jelly bean, and speed back to pass the spoon to the next person. If they drop the jelly bean they need to pick it up and start over again. Not good for deep snow! Smarties don't work as well!

Station	Equipment needed	Procedure
1. Inner Tube relay	2 bike inner tubes (with valves cut off or taped down) Cones for start	Inner tube is on snow at end of course, skier must ski to tube manoeuvre body and skis through tube without taking ski off, lay tube on ground and return to tag next skier
2. Group Ski Relay	Cones for start and turn around area –	Entire group is on own skis, each skier hold skiers waist in front. The group must ski together to cone, (must stop and wait if someone lets go) turn around cone and return to finish
3. 3-Legged ski race	Material for tying skiers legs together, Cones for start, and turn around	Pairs of skiers tie to legs together and ski course in pairs
4. 1 ski/ 1 pole relay	Cones for start and turn around	Skier decides which one ski and pole to wear, skis to cone and returns to tag next skier
5. 1 ski/ 1 snow shoe relay	5 pairs of snow shoes, cones	Racer wears 1 ski and 1 snow shoe, skis course and returns to tag next skier
6. Slalom course on downhill or on flat	Cones or other obstacles, perhaps toys to pick up on way down, hoop to go under.....	Skiers take turns to ski course, can time older kids if desired
7. Chariot race	2 towing harnesses Horse uses skis and poles, charioteer only has skis but no poles	One skier tows other skier cone and returns, transfers harness to next pair of skiers
8. Backwards /forwards relay	Cones	Skier skis backwards to cones and then returns forward

Section 3: Example Session Plans

Example Jackrabbit Session Plans with games and drills from Caledonia Nordics

See Caledonia web-site for links to session plans and other coaching resources
<https://www.caledonianordic.com/programs/SDP-coach-resources>

Links to lesson plans with games and drills are outlined below.

Jackrabbits Level 4

<https://www.caledonianordic.com/uploads/Program%20Descriptions/SDP%20Coach%20Resources/Jackrabbit-Level-4.pdf>

Jackrabbits Level 4+/Beginner TA

<https://www.caledonianordic.com/uploads/Program%20Descriptions/SDP%20Coach%20Resources/Jackrabbit-Level-4+.pdf>

Section 4: Drills and Progressions

Drills from Cross Country Canada

<http://www.cccski.com/Special-Pages/Login.aspx?ReturnUrl=/Programs/Coaching-Development/Athlete-Development-Matrix/Athlete-Development-Matrix---Full-Access/technique-videos.aspx>

A. General Classic Progression

1. Legs together position: ankles, knees and hips flexed
2. With partner- support each other, lean forward to get hips over front of feet
3. Scooter, flex ankle of pushing foot, glide and stop, reposition and repeat
4. Practice preload, flexing, feeling push off the ball of the foot (Crouching tigers)
5. Hips forward (hands under butt and pull hips up and forward)
6. Swing arms, reach out to grab a snowball or shake hands and throw it behind you
7. Both skis- take three/four steps and freeze in glide position- how far can you go?
8. Poling- standing,
9. Poling arms only down slight hill (count number of poles taken to cover distance)
10. Poling with skiing
11. Toe-Knee Nose

B. Diagonal Stride Progression

1. Lunges, gentle downhill, no poles, hands behind back.
2. Lunges, gentle downhill, no poles, using arms with full movement.
3. Diagonal stride, gentle downhill, no poles, gliding as long as possible on each leg in the extended position
 - a. use arms in exaggerated movement to shoulder height both front and back,
 - b. also reach forward with the shoulder,
 - c. maintain a bent knee on gliding leg,
 - d. extend foot fully on pushing leg,
 - e. do not bend trunk forward.
4. As above but add holding poles in middle.
5. As above but add using one pole, making sure full extension and release.
6. As above but add using both poles.

7. Repeat on flat terrain, so have to add leg push, first without poles, then add poles.

C. One-kick Double Poling Technique Hints

- Emphasize coordination – arms up at same time as kicking leg going behind (“a pocket knife opening”).
- Finish pushing off as in regular double poling with legs together.
- Possibly practice first on gradual downhill then on flat without poles (imitate double poling motion by arms).

D. Free Skate Progression

1. **Edging the ski (no glide)**

- Turn knee in so that inside edge of ski is on snow.
- Turn knee in, edge ski and step to side, repeat with other ski.

I like to teach edging before weight shift, because weight shift is useless if the ski is constantly sliding out and away from under the skier.

DRILL: Sideways Sumo Wrestling (no poles)

On flat terrain partners stand side by side facing opposite ways. Have skiers plant outside ski and edge. Lean against each other shoulder to shoulder. Skiers shouldn't be able to push each other over nor should outside ski be sliding if outside ski is edged properly.

Variation – if confident the exercise can be done safely have skiers try to push more aggressively with inside ski lifted off of ground.

2. **Rock Back and Forth (no poles)**

- Rock back and forth from ski to ski like a metronome or upside down pendulum (use cue words – “Tick, tock.”)
- Don't push with legs.
- Best done on very slight downhill.

Proves that shifting weight helps propel us down the track since skier will begin to move forward with out any force being created from legs.

3. **Weight shift (no poles)**

- Standing, have skier rock back and forth while lifting one ski off the ground.
- Repeat but have skier balance over ski while opposite ski is off the ground and hold balance for 2-5 seconds.
- Encourage skier to get nose, hip and belly button over glide ski.
- Ensure shoulders are square and thigh is aligned over the glide ski.

DRILL: Diamond Drill (no poles)

Have skier create diamond shaped window with thumbs and forefingers. On slight downhill or flat terrain, have skier stretch arms out over glide ski keeping their glide ski tip in their finger window. As weight shifts they must

then keep the opposite glide ski tip in the finger window. Encourage the skier to balance over the glide ski longer before shifting weight.

4. Knee & Ankle Flex

- *Skiers can get knee and ankle flex by lining up their thigh over their glide ski and trying to hide their toe with their knee when ski is first placed on ground.*
- *Have skier rock back and forth and try this with very little leg push.*
- *Have skier feel like 70% of their weight is on the balls of their feet.*

5. Kick to side not behind (no poles)

Power from the legs is lost when we push behind.

- *Have skier rock back and forth, but when ski is first placed on snow have thigh line up with ski and try to hide most of toe with knee*
- *Encourage lots of knee and ankle flex.*
- *Have them concentrate on pushing ski lightly to side.*

DRILL: Poles at Hips Check

Have skier place poles horizontally along hips, holding them against hips with wrists.

Have skier rock back and forth, placing knee over toe when ski is placed on snow.

Poles will indicate whether skier is pushing too far behind if poles swing forward and backwards like a kayak paddle. If poles just rock from side to side, leg push is adequately to the side.

DRILL: Peripheral Vision Toe Check

Have skiers look just in front of their ski tips.

Have skiers look to see if they can see their toes at the end of each leg push in their peripheral vision.

If they can't see their toes at the end of their leg push, then their leg push is ending too far back.

DRILL: Toe Flick

Assuming skier has enough ankle and knee flex, you can use the visual image of a toe flick to keep skiers toes to side or ahead.

At the end of a leg push, have skiers flick their toe up and away from them. Or with their pushing foot have them try to carve a C in the snow (left leg), backwards C (right leg) at the end of their leg push.

This trick works exceptionally well when off-setting uphill to avoid bogging down on steep hills.

6. Forward Lean

- *In order to direct power and momentum down the trail, a skier needs correct forward lean initiated at the ankles.*

- *Encourage a skier to lean forward by keeping hips over balls of feet and lots of flex at ankles in order to keep weight forward and to avoid a look of sitting back on skis.*

DRILL: Nickel between Butt Cheeks

To get hips ahead, have skier pretend that they must hold a nickel between their butt cheeks while skiing.

DRILL: Backwards Partner Push (1 set of poles)

With two skiers facing each other, one skier will skate forward pushing the other backwards up a slight hill. Using one pair of poles, the pusher must lean forward while holding the baskets of the ski poles at chest or shoulder height (not lower). The skier being pushed locks the handles of the poles at chest and stands upright in stable position with skis parallel. In order for the pusher to initiate skating motion and maintain momentum, they must lean into the poles at chest height and the pusher will then feel the correct lean needed for skate skiing.

Variation – With younger children I recommend that poles not be used but have both skiers stretch arms out and lock. Pusher will then press and lean against the palms of the skier being pushed.

7. Longer glide / Balance / Powerful leg push (no poles)

Once a skier has correct forward lean, correct push to the side, then you can work on increasing glide, and improving balance and power from legs. Always encourage equal power from each leg.

DRILL: Pylon Drill (no poles)

Place 4-8 mini-pylons on ground in straight line approximately 1.5-2 metres apart (depending on age and ability of skiers). Skate ski straight at line of pylons. Aim to lift foot over each pylon allowing only one ski to glide in between. When skiers have mastered exercise, stretch the pylons out to increase the distance between each pylon.

This forces the skier to produce more effective preload (bigger leg push), encourages longer glide on each glide ski and works on balance.

E. One-Skate Progression

Flat or slightly downhill terrain -

1. Slow skate with hands behind back, parallel skis or very narrow V.

Aim: to keep low for power (bend knees so hide toes) and improve balance for glide.

2. As above but click heels together.

Aim: to help prepare for weight shift.

3. Slow skate holding poles horizontally at shoulder level with arms rigid and make sure shoulders turn in line with skis.
Aim: to ensure complete weight shift (poles always perpendicular to gliding ski).

4. Slow skate with poles behind shoulders (keep back rounded).
Aim: to ensure complete weight shift (poles always perpendicular to gliding ski).

5. Slow skate using poles, always fully extending arms, and balancing as long as possible at phase with leg extended to side.
Aim: ensure full arm extension, ensure weight shift, improve balance and glide

Gentle uphill -

6. Holding poles firmly under bum, pushing up with hands pressed to sides of body and back rounded, skate slowly up a slight hill.
Aim: to ensure push is to the side (i.e. from heel and not toe).

Note that these drills require skiers to hold their poles firmly in place so that they faithfully follow the movement of the upper body – check for this!

Can progress from slight downhill to flat to slight uphill so that the V of the skis progresses from narrow to wider, needing more extreme turning of the upper body over each ski and also a deeper knee bend to provide power to get up the hill.

After the drills, during a longer ski check that skiers are always fully extending arms, are one-skating wherever possible, are skiing slowly with full weight shift and maximum glide and are pushing from the full foot or heel and not the toe.

F. Another One Skate Progression

1. Discuss proper upper body movement for poling.
2. Have skier do a half double pole (come only half way down, not with back parallel to ground), while balancing on one ski. It is imperative that the foot of the ski off the ground be in front of the gliding foot, leg straight and ski tail dragging.
3. On a flat stretch of 50-100 metres, have skier try to double pole the whole way while balancing on one foot with opposite foot held in front.
4. Repeat doing 4 double poles and then switching glide leg. Skis stay parallel.
5. Repeat doing 2 double poles and then switching glide leg. Skis stay parallel.
6. Repeat doing only 1 double pole and then switching glide leg. Skis stay parallel for half of distance and then have skier gradually spread tips wider apart.
7. Ensure pole plant is on same side as weighted glide ski. When looking down at glide ski the skier should see hand – glide ski – hand.

8. Weight can start to shift as soon as pole tips hit the snow.

This progression usually has the skier planting poles at the correct time. i.e.: after the glide ski is already on the ground.

G. Two-Skate Progression after One-Skate

1. Slight downhill. Key is the rhythm (step-pole-step-up) so have a long enough stretch of terrain to get into the rhythm. Keep poles continually moving so that they have come back up in plenty of time for next sequence. Better to have them in front early than keep them too long behind.
2. Can have a slight bob for the second step to provide power.
3. Practice leading with left and with right side.

H. Offset Progression

1. March with exaggerated 3-point landing on the flat
Aim: to get the rhythm.
2. Repeat with other side leading
3. Add glide on gentle slope.
4. Steeper hill – must bend knees more and not bend upper body forwards
Aim: to get more power to move weight fully from ski to ski when V is wider which requires more upper body movement. Do not try to glide too much, more important to keep low.

Section 5: Technique

Technique Resources

Cross Country Canada Jackrabbit Technique Standards

Great resource with video analysis!

<http://www.ccski.com/getmedia/c3c588d4-5da6-441b-8267-e32a94096d94/Jackrabbit-technique-standards.pdf.aspx>

Cross Country Canada Athlete Development Matrix

<http://www.ccski.com/Programs/Coaching-Development/Athlete-Development-Matrix.aspx>

Technique summaries developed by Nakkertok

<https://xcskicoaching.wordpress.com/>