

Freestyle

Artificial Slope Freestyle Ski Performance Coach (Acro) Award

Artificial Slope Freestyle Ski Coach (ACRO)

Aims of the Course

To provide aspirant Acro coaches with the necessary skills to hold coaching sessions for skiers who want to learn Acro Techniques.

Requirements

- Any aspirant Acro coach must have a considerable Acro experience. This is likely to be gained through working with freestyle skiers, observation of these skiers and /or through performance of the manoeuvres.
- When learning or teaching Acro, people with other complementary experiences, such as gymnastics, trampolining or dance, do have an added advantage.
- Safety is of paramount importance and will not be compromised. It is the absolute right of the Course Tutor(s) to fail an applicant who is not deemed to be suitable.
- Holders of the qualification will need to provide proof (log book) that they have been coaching regularly, for re-validation purposes.

Pre-Course Criteria

- Applicants must be registered with a Home Nation Governing Body (SNSC or ESC)
- Applicants must be at least 18 years of age.
- Applicants must participate in and pass an Acro judging course.
- Applicants must hold a current relevant First Aid Certificate- The SNSC's policy on First Aid is:

'There is a requirement for persons in charge of others that they owe each member of the group a duty of care.' The technical and leadership elements of this are examined in the SNSC qualification courses. The first aid and safety element should be gained through attending appropriate first aid training and must meet the requirements detailed below.

The First Aid training must be a minimum of 12 hours/2 days provided by an HSE approved centre and delivered by a qualified first aid instructor, registered with the HSE The training must be relevant to the outdoors and mountain environment and renewed every 3 years. SNSC recommend British Association of Ski Patrollers (BASP) courses as most suitable. 01855 811 443 or e-mail skipatrol@basp.org.uk.

• Applicants must either:

`a) hold 4* Acro Award or above

OR

b)be deemed to be a suitable applicant by the Course Tutor(s)

Duties of an Acro Coach

- To teach Freestyle Acro manoeuvres/moves, up to a level which is appropriate for their knowledge and experience, age and fitness level.
- To be responsible for running the session, ensuring that safety procedures are in place and be prepared to act in an emergency. (See Risk Assessment Appendix 1)

- To be aware of the potential dangers that Acro skiers face when executing inverted movements (cartwheels and pole flips), even when grass training (e.g. wet grass) and do everything they can to minimise these dangers.
- To prepare the skiers for each session with appropriate warming-up exercises. (!st practical session).
- To supervise pole-flip sessions (direct, control and teach). The role and the responsibility of the 'spotter' for flips needs to be clearly understood. (See Risk Assessment Appendix 1)
- To use correct progressions for teaching moves, to identify and correct faults and to teach at a level which is appropriate for both the skier and the coach.
- To assess skier's ability and fitness level. (See Appendix 2). It must be emphasised that what is apparently effortless to one person can be well beyond the capabilities of another. Fitnes regimes should not include a lot of high impact activities.
- To promote learning and motivation. (See Appendix 3)
- To prepare the skier for competition, considering choice of music for the fixed element and free runs.
- To impart a knowledge of the competition rules, judging criteria and competition strategy.
- To give feedback to the skier. (See Appendix 4)
- To be aware of psychological factors which might affect a skier's performance.
- To involve parents as much as possible in the skier's progress.

COURSE PROGRAMME

Introduction and welcome to the course:

DAY ONE

- Aims, Requirements, Pre-Course Criteria, Duties. (Handout and Appendices)
- Practical Session-
 - a) Warm up (handout 1)
 - b) The 5 basic Tricks (handout 2)

LUNCH

Practical Session--

Consideration of the free run and the scoring tricks leading to the development of 1-pole cartwheel and the development of axels (See Chapter 4 MS manual. Handout 3).

Focus on the teaching of inside, reverse-inside axels and 'outside' if not dealt with in previous session. Should generate discussion.

• Artistic Impression and Body Awareness.

Possible ideas;

Candidates devise a routine to fit 2 previously recorded 15 second pieces of music, showing different moods, eg grace, strength, aggression, flow, bounce, etc.

'101' to use poles to create variety and form.

• Plenary Session

Draw attention to details on the handouts.

DAY TWO

• Grasswork,

cartwheels and pole flips. A crash mat could be used here.

Look at the role of the primary and secondary spotter .(See Chapter 5 MS Manual Handout 4) Should generate discussion.

Health and safety aspects. (Appendix 6- handout) Risk assessment (Appendix 1)

• Video session looking at flips and artistic impression.

Use the FIS Acro tape for 1998. Should generate discussion.

LUNCH

- <u>Coaching Children.</u> (Appendix 5). Activities to 'make it' fun. Star Awards to be considered.
- <u>Use of codes</u> and filling in an APL sheet

• Final Practical Session

Each candidate to consider a chosen trick and suggest exercises to promote the successful execution of the trick.

Pointers:

Perform the trick whilst in a static position, i.e. not moving down or across the slope.

Learn the end before the start to enable the trick to be safely aborted part way through if things go wrong.

Break the trick into steps and start progressively with:

Step 1, step 1 & 2, step 1,2 & 3 etc.

Consider the mechanics of the situation.

Candidates could work in pairs. Tricks to be chosen could be javelin spin, tail spin, leg breaker, tail roll or many others. Should generate discussion.

• Final plenary session

This would make sure that any questions un resolved were dealt with and candidates given details of where further information could be accessed. E.g. Mike Smith's website or his CD (Freestyle Manual 2000). Feedback on sessions to be completed. Where do I (the candidate) go from here?

Because acro requires the body to work at full flexibility and power it is vital to carry out some warm up and stretching exercises.

Warm up should be carried out first with the objective of increasing the heart rate and ensuring that the muscles and ligaments have warmed ready for the increased rate of activity carrying out acro

Stretching should be the next objective to gently stretch the muscles to their limit without discomfort.

In reality it is not possible to achieve a complete warm up and stretch without tiring out the participants and therefore the type of maneuvers chosen to start any session should be those not requiring high power and extreme flexibility. The higher power and flexibility maneuvers can wait until the skier warms up fully.

In practice, an individual will carry out a mixture of warm up and stretches before skiing and will warm up through skiing progressively more demanding maneuvers. If the individual notices that they are not fully warmed up they will limit what they do until they are fully warmed up and stretched. The class do not have this opportunity to control what they are doing, therefore the instructor should do this for them.

The health and safety aspects resolve around the following:-

Sufficient warm up followed by stretching. This reduces strains and sprains.

Warning that if they have any problem with knees, backs, shoulders etc. they should limit what they do to keep within their own limits.

Warning that if they do not have the flexibility they should not force anything. There is no such thing as no pain no gain. If anything is painful it is being damaged and should be stopped.

There is no equality among skiers – some are much fitter and more flexible than others!

Mentally assess each skier and from their body types make a note of what they might achieve and what they will not be able to achieve because of their body type.

Note that the skier will improve in training on a particular maneuver to a point and then get progressively worse as they tire. Stop the particular trick training as soon as the degradation point is reached.

Using the risk assessment sheet to remind skiers of hazards to be aware of. This list not to be taken as fully comprehensive and may need additional points added as raised by course members.

FIVE BASIC TRICKS; SPIN, INSIDE SKI TURN, OUTSIDE AXEL, LEVERAGE, and CARTWHEEL

SPIN

The majority of tricks involve the performer rotating (i.e. spinning). In order to spin the skier must be able to skid the skis and keep off the edges. As a side, when spinning the skier can loose height and gain speed therefore, in competitions extreme care needs to be exercised on plastic where spins are carried out.

DEVELOPMENT:-

Three point turn, plough in, plough out.

Rock forwards to start and rock backwards to complete.

Do not rush – allow the speed to increase while going backwards before turning forwards.

Allow the body to rotate into the direction of spin.

Outside edge one ski spin

Inside edge one ski spin

INSIDE SKI TURN

Many tricks involve a partial turn on the inside ski. The ability to ski the outside edge is required on many tricks. It is possible to carve on the outside edge but this requires very accurate balance and moderate speed. A skidded turn is much more controllable and should be the objective in most circumstances.

DEVELOPMENT:-

Carry out a parallel skid and lift the outer ski. (Except for a crash stop this form of stopping can be advantageous because it keeps the body high and allows tricks to be performed with the now free outside leg)

Skate onto the inside ski and lift the free leg behind. (Use the poles to grain any lost balance)

OUTSIDE AXEL

This is a trick with a score for technical difficulty. This trick involves powerful moments and the skier must be fully warmed up.

DEVELOPMENT:-

Practice facing up hill in a reverse plough and with both poles planted near the tips of one ski, kick the other backwards keeping the head and body up.

Ski into a reverse plough planting the poles, stop, kick, and hop round pushing off the poles.

Turn head and shoulders into turn.

Bring feet together in the air.

For maximum rotation keep tight round the axis of rotation.

LEVERAGE MANOUVRE

The tip spin is a start of a series of tricks whereby the skis are levered off the ski surface. This places maximum stress on ligaments and therefore the skiers should be fully warmed up.

DEVELOPMENT: -

Keeping the legs straight and both poles just beyond the ski tips, lean forwards to raise the tails of the skis off the surface.

Repeat, balance and allow the skis to fall to one side.

Repeat and turn the feet to assist the skis to fall to one side.

Generate forward movement and repeat allowing the momentum to carry the skis round. Repeat generating the forwards movement with a spring up and forwards.

CARTWHEEL

This basic maneuver is the basis for flips as it embodies the kick and generation of rotation about a horizontal axis. This trick involves strength in the arms and shoulders commensurate with the skier's weight. Some skiers may not be strong enough, or conversely overweight.

DEVELOPMENT:-

Handstand against a wall. Develop a rotation and not the "throwing" of the body into the

Cartwheels in trainers on the grass. Need a straight kick leg and straight legs in the air.

Cartwheel in ski boots.

Cartwheel with one ski on, then two.

The skier may tire quickly and the session may need to be short.

CHAPTER 4

JUMPS

SECTION NUMBER

CONTENT

4.1	GRASS TRAINING
4.2	WALTZ JUMP
4.3	INSIDE AXEL TO LEFT
4.4	OUTSIDE AXEL TO LEFT
4.5	360 POLE SPIN AXEL
4.6	TIP VAULT
4.7	KICKED AXEL
4.8	AXELS REVERSE INSIDE, INSIDE, AND OUTSIDE
4.9	REVERSE INSIDE AXEL
4.10	BRONK AXELS (REVERSE TIP DRAG AXELS)
4.11	LEGBREAKER AXELS
4.12	AXELS GENERAL

JUMPS

4.1 GRASS TRAINING

INSIDE AXEL

Check out both directions getting the second pole plant sorted out in order to avoid falling over it. The key element is the gaining of height and getting the feet together. Keep body upright, stomach in and bottom in flexing the legs for the landing.

OUTSIDE AXELS

Practise kicking the kick leg out to get it straight and horizontal. Develop a strong kick in order to achieve height. Bring the feet together in the air. Keep the body upright, stomach in and bottom in flexing the legs for the landing.

360 IN AIR SPINS

Jump THEN rotate keeping the body upright. This will prevent premature rotation that would be dissipated before take off. You must get height. Keep hands and arms tight into the body to assist rotation.

GENERAL COMMENTS FOR BOTH AXELS

On the grass practise the wrap and do several in a row but keep spinning on landing and then do a couple in the other direction to unwind.

4.2 WALTZ JUMP

- 1. Ski onto outside left edge. Plant the left ski pole while simultaneously swinging the right leg forward and round with a positive spring to land on the right ski.
- 2. The left ski carries out a tip spin.
- 3. The body must be erect

TEACHING POINTS

- a) Throw the free leg round and forwards with a hop.
- b) Emphasise the spring into virtually a tip roll pushing off the tip using the left pole for support. Throwing the right arm upwards will assist

As an exercise carry it out without poles.

4.3 INSIDE AXEL TO LEFT

- 1. While skiing lift right ski crossing over to left.
- 2. (1) Plant left pole while holding at a low angle with hand slightly behind.

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- 3. (2) Cross right ski turning it in the direction of spin onto an edge set. (Generally as far as possible)
- 4. (3) Plant right pole near to tip of right ski. Kick backwards with the left leg simultaneously springing from right ski throwing left hand/arm up and to left (like pulling on a cord starter) while uncrossing the ski.
- 5. (4) Push hard into spin with right hand gaining as much height as possible by pushing.
- 6. Bring hands in tight to the waist and bring arms in and feet together thereby increasing the spin and KEEP THE BODY UPRIGHT to assist the spin and also to achieve good form. Look and keep looking in the direction of spin.

Use a bent kick leg and then straighten in jump to give extra rotation.

Turn head and shoulders in the direction of the spin.

Repeat above to right by interchanging the left or right.

TEACHING POINTS

Carry out (1) (2) (3) & (4) shouting numbers while carrying out the trick.

The above four elements are distinctive phases each of which require mastering and when carried out powerfully and precisely will produce the maximum number of revolutions.

- a) Get into cross position, spring up and uncross using poles to push upwards to gain more height.
- b) As above but rotate in the air through 90 then 180 and finally 360 degrees.
- c) Practice movement in a static position.
- d) Note that the crossed ski must stop in an edge set on artificial slopes in order to achieve the trick.

ALTERNATIVE METHOD

Ski forwards and lunge into the step to a stop keeping the body upright.

Ski forwards lunge into the step to a stop and kick backwards.

Ski forwards lunge into the step to a stop, kick and hop.

Ski forwards lunge into the step to a stop, plant one pole, kick, hop planting the second pole after the take off.

Repeat bringing the hands into the chest on take off.

Repeat bringing the hands into the waist on take off.

NB

Bringing the hands into the chest will make the skier stand more upright thereby enhancing the rotation.

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Bringing the hands into the waist will cause the skier to bend forwards.

Use the above to correct the skier's posture in the air.

GENERAL POINTS

Carry out by: -

Directing forward momentum upwards with edge set.

Need to sink in order to hop.

Turning head and shoulders in direction of spin keeping the body upright.

Turn arms and shoulders in the opposite direction to the rotation and THEN turn rapidly into pole plant KEEPING the rotational momentum so generated in order to maximise achievable in air rotation.

Bringing the feet together.

Keeping body upright, hips forwards and bottom in.

Planting first pole and pulling out when second pole is planted, pulling the hand into the waist.

Pushing off and round on the second pole and then bringing into the waist.

On plastic the ski should be crossed in the direction of spin on to an edge set. On snow a better edge set can be obtained if the ski is crossed and THEN skied onto the edge set by turning and pushing onto the edge set.

Keep the body upright.

Kick the leg backwards.

Push up from the ground and down the slope.

Think of pushing yourself up rather than the ground away.

To get more rotation go into the manoeuvre faster and consequently power into the rotation much quicker.

When achieving one and a half rotations attempt to land on the wrong edges. This is said to force you to get more rotation as no one wishes to land on the wrong edges! (a possible explanation could be that if you are still moving and land with the tails slightly before the tips, then the skis may be quickly forced round to complete two revolutions.)

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Health Warning: Freestyle requires strength and flexibility and injury can be sustained in falls

1.)

NOTE WELL

Note that if it is carried out with one ski over the other and not as a clean cross then it is called a crossed tip vault.

INSIDE AXEL STAY CROSS

To the left take off on the RIGHT foot and land on the heel of the LEFT foot with the RIGHT ski crossed over in the javelin position.

INSIDE AXEL RE CROSS

To the left take off on the RIGHT foot and land on the RIGHT foot with the LEFT foot crossed over in javelin.

4.4 OUTSIDE AXEL TO LEFT

- 1. While tip dragging to left into reverse plough facing up hill (NB the tip drag should be carried out dragging the whole inside edge of the ski for maximum spin initiation): -
- 2. (1) Plant left ski pole holding at a low angle.
- 3. (2) Come to edge set STOP on right ski.
- 4. (3) Plant right ski pole near tip of right ski, kick with a straight leg and then spring throwing left hand up and to left. (like pulling a starter cord)
- 5. (4) Push hard and round on the right ski pole to assist the rotation and gain height.
- 6. Bring hands into waist and hold tight and also bring arms and legs in thereby increasing the spin.

Keep the body upright to assist the spin and also to achieve good form. Look and keep looking in the direction of spin.

KEY ACTIONS ARE: - Stretch, Sink, Stop, Kick, Hop.

Turn head and shoulders in the direction of the spin keeping the body upright.

Repeat above to right by interchanging the left or right.

LEARNING PHASE

Carry out (1) (2) (3) & (4) shouting numbers while carrying out the trick.

The above four elements are distinctive phases each of which require mastering and when carried out powerfully and precisely will produce the maximum number of revolutions.

ALTERNATIVE METHOD 1

Enter tip drag and set up for manoeuvre by a lunge forward onto forward ski while keeping the body upright. (NB the tip drag should be carried out dragging the whole inside edge of the page 5

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dragged ski for maximum spin initiation. Feel the spin acceleration if you sink low on the support leg and let the dragged ski reach out to the side and be used to spin you round).

Lunge forwards to a stop keeping the body upright.

Lunge forward to a stop then kick keeping the body upright.

Lunge forward to a stop kick and then hop round keeping the body upright.

With one pole in left hand carry out outside axel to left by reaching forwards to plant pole well forwards, lunge to a stop, kick and hop round keeping the body upright.

Repeat above but with two poles and planting the second AFTER taking off.

Make use of the spin accelerator by dragging the out stretched ski.

ALTERNATIVE METHOD 2

Ski to a stop in V position turning to the left, then jump round without using the poles. Keep the body and head upright. Repeat with poles.

Repeat using poles but as you jump throw the left arm and shoulder round.

Repeat but planting the poles with the left away from the right ski tip (to avoid catching the right ski when jumping round) and planting the right ski pole close to the right ski tip keeping the right arm bent and hand near to the body (to enable a large force to be exerted through the right pole by the right arm in order to gain as much height as possible). Make it a Quick stab with the left pole, quickly followed by the right, then throw the left arm and shoulder round as you jump.

Repeat above but give a good straight left leg kick. Kick out to the side. Note that the kick leg should not stop at the edge set, but should continue through to achieve a greater and more powerful kick.

Repeat above making sure that the body is always upright, hips pushed forwards and keeping a tight backside.

Make use of the spin accelerator by dragging the out stretched ski.

The key points are:

Ski to a stop at the edge set.

Plant the right pole near to the right ski to maximise the push force.

Push down the right pole close to the body to maximise the push force.

As soon as right pole is planted, throw the left arm up to gain extra height.

As you throw the left arm up quickly rotate the shoulder to the left.

Kick up high and to the side with a straight left leg.

Keep the body upright, hips forwards and a tight backside.

AFTER take off and not before bring the hands, arms in and feet together.

Keep looking in the direction of the spin with body upright.

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GENERAL POINTS

Key points are: -

Must keep the body upright.

Must get edge set that is best achieved 180 degrees into spin.

Keep pole plant near to body in order to be able to push hard on pole(s) to increase height

Jump bringing hands into waist and feet together when take off is achieved.

For good marks from judges you must have the feet together in the air and on landing.

As exercise: -

Carry out outside axel with one pole using a good kick.

Carry out outside axel with no poles.

Ski down hill plough turn to face up hill and stop. Jump round to carry on down hill.

Face up hill in plough with ski poles either side of right ski. Rock left, right, left, right then jump round.

Carry out by: -

Spinning through 180 degrees to an edge set and simultaneously kicking the kick leg round (keeping it straight) getting the foot of the kick leg waist high.

FURTHER POINTERS: -

Enter it at speed.

Achieve a good edge set with the body upright and legs flexed for the spring.

Do not over reach with the poles. Have the hands close to the body.

Push hard on the poles to achieve height.

4.5 360 POLE SPIN AXEL

- 1. In right traverse plant poles to the left, holding elbows in and arms off centre.
- 2. Utilise off centre pole plant to throw you up and round keeping upright.

TEACHING POINTS

a) In traverse feel pole plant stop and lift you.

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b) STRESS ARMS IN AT ELBOWS AND ARMS TO ONE SIDE.

4.6 TIP VAULT

- 1. Carry out a tip spin type of movement to the left but ride up on the tips planting the poles close together but keeping the hands apart.
- 2. Allow the head/body to slightly pass between and above the pole handles and then bring the handles together while pushing up off the ski poles.
- 3. The effect of riding up onto the tips gives impetus to the 360 degree in air spin together with the bringing of the hands together.

TEACHING POINT

- a) Traverse and while moving push the hips forwards onto the ski tips causing the tails to lift up.
- b) The trick relies on the skis being compressed at the front end and twanging round when this compression is suddenly released.

The key elements are: -

Stretch up tall springing from the ski tips.

Keeping the body upright.

Getting a powerful spring.

Do not plant ski poles too far away.

VARIATION

A variation is with the tips crossed in the javelin position.

4.7 KICKED AXEL

In a static position kick the downhill leg backwards and as high as possible and carry out a 180 degree rotation in the air.

A variation is to cross the legs into a javelin position.

Learn the manoeuvre in the static position without rotation developing a good kick.

4.8 AXELS REVERSE INSIDE, INSIDE, AND OUTSIDE

Key points: -

Keep looking into direction of rotation.

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Bring hands into waist.

Keep upright hips forwards.

In reverse inside axels thrust hips into direction of spin.

In outside axels kick free leg into direction of spin and bring feet together.

Turn head and shoulders into direction of rotation.

Get feet together when airborne.

Enter axel slightly leaning backwards.

4.9 REVERSE INSIDE AXEL

- 1. To left enter manoeuvre quickly with sliding back cross sliding left ski behind right. Do not allow the left foot to cross behind the tail of the right ski to edge set.
- 2. Plant the left pole then the right while sinking ready for the spring.
- 3. Spring upwards from edge set uncrossing the skis and thrust the hips in the direction of the spin keeping the body on the inside of the spin.
- 4. Bring feet together in the air and for the landing and turn the feet in the direction of spin for the landing.

NB To achieve more rotation must enter the manoeuvre at speed.

Experiment placing poles close together and then wider apart.

REVERSE INSIDE AXEL EXERCISE

Carry out first half of manoeuvre to sliding back cross to edge set.

Carry out reverse inside axel.

Carry out reverse inside axel and close the eyes on jumping and keep them closed until manoeuvre completed.

Carry out reverse inside axel and keep eyes closed throughout manoeuvre.

Keep upright and bring hands in.

Carry out rapid plough stops to sharpen up the edge set

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4.10 BRONK AXELS (REVERSE TIP DRAG AXELS)

Enter reverse tip drag, start the reverse tip drag spin, then using the poles jump out by uncrossing the ski with a powerful kick gaining the maximum in air rotation.

The axel can be carried out in any manner and leads naturally into other follow on tricks. Experiment in order to invent new linking tricks.

Possible entries are: -

Traverse to the right (facing down the slope) and carry out a reverse tip drag spin to the left. Part ways through kick the reverse dragged ski out while jumping out and simultaneously planting the poles.

Traverse to the right (facing down the slope) and carry out a reverse tip drag spin to the left. Immediately jump out with pole plant.

Traverse to the right (facing down the slope) and carry out a reverse tip drag spin to the right. (Up the slope) Immediately jump out with pole plant rotating to the right.

4.11 LEGBREAKER AXELS

Carry out the legbreaker axel to the right as follows:-

Initiate a legbreaker to the right.

Plant both poles near the tip of the right ski.

Kick the left leg back in a legbreaker position hopping of the right leg and pushing off the poles.

Land on the right ski with the left ski crossed behind the right.

As confidence builds attempt more in air rotation by applying more kick, more hop, and more pushing off and away from the poles.

Remember to sink in order to be able to hop!

4.12 AXELS GENERAL

The sequence is: -

STOP - KICK - HOP

Do not rush.

It should be possible to see each element.

Keep body upright.

Flex legs for kick.

Achieve edge set by edging to stop the ski. (The ski may be flattened unwittingly)

KICK

HOP

BRING ARMS IN KEEPING BODY TIGHT

Differing opinions: -

- i) Keep head still and locked forwards.
- ii) Turn head in direction of spin.

One pole then other at edge set.

Lead out with first pole pushing up and round second.

Do not plant second pole too far away.

CHAPTER 5

POLE FLIPS

SECTION NUMBER

CONTENT

5.1	PREPARATION FOR POLE FLIPPING
5.2	BACKWARD FLIP WITH SKIS OR TRAINERS
5.3	BACKWARD FLIP WITH SKIS ON AND MOVING
5.4	FORWARD POLE FLIP WITH SKIS OR TRAINERS (PALM GRIP)
5.5	FORWARD POLE FLIP (SWORD GRIP)
5.6	FORWARD POLE FLIP INITIATED HANDS BY THE SIDE
5.7	ROCK AND ROLLER
5.8	GUT FLIP STAGE 1 (STATIC START)
5.9	GUT FLIP STAGE 2 (MOVING START)
5.10	HALF TWISTING GUT FLIP - SELF SUPPORTING
5.11	HALF TWISTING POLE FLIP - SELF SUPPORTING

POLE FLIPS

5.1 PREPARATION FOR POLE FLIPPING

Warm up and stretch

Assess the skill level of the skier

Find natural kicking leg when skier performs a cartwheel

The three essentials to pole flipping are; the HOP, the POSITION, and the MOVEMENT. To practice proceed as follows: -

THE HOP Bunny hops with full stretch of the legs

THE POSITION Handstands

THE MOVEMENT Cartwheels

PRELIMINARIES BEFORE POLE FLIPPING

Cartwheels both ways in multiples of say five.

Handstands.

Straight flip exercise: -

Face up hill and feel weight of body on poles with head down and shoulders touching poles.

Practice set up bending forwards kicking a STRAIGHT leg (Keep it stiff) with a little hop on the none kick leg. Check out that leg is straight. Feel the balance point. Take care not to over power and flip!

5.2 BACKWARD FLIP WITH SKIS OR TRAINERS

THE SKIER

Plants the ski poles either side of the body with the points slightly towards each other.

Holds pole for backward flip.

Hops to feel weight on arms.

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Hops while bringing knees up to and over chest to complete the movement. The head should be thrown backwards into the flip.

(Note that it should be a one foot take off i.e. step back on one and swing other up to chest first)

POSSIBLE INITIATION

- 1. Set up by hopping on none kick leg once swinging the kick leg forward.
- 2. Hop again swinging kick leg backwards.
- 3. Finally swing kick leg forwards and hop into back flip.

THE PRIMARY SPOTTER (On kick leg side)

The key function of the primary spotter is to support the skier's neck by holding the top of the skier's pole thereby trapping the hand. (Note that by not allowing the pole to tilt too much the head can never touch the ground.)

The main function is to control the hand, neck and back but may also assist the skier's rotation by assisting the legs over with the free hand noting to push from a point as near to the feet for maximum leverage.

THE SECONDARY SPOTTER (Function as primary but the primary controls the skier)

Supports the skier's neck by holding the top of the skier's pole thereby trapping the hand. (Note that by not allowing the pole to tilt too much the head can never touch the ground.)

Assists the skier's rotation by assisting the legs over with the free hand noting to push from a point as near to the feet for maximum leverage.

VARIATIONS

Back flip into splits.

Back flip into splits twisting round for landing.

TEACHING

Have skiers in circle in correct position for back flip and go round group giving support as necessary.

5.3 BACKWARD FLIP WITH SKIS ON AND MOVING

THE SKIER

Moves backwards.

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Health Warning: Freestyle requires strength and flexibility and injury can be stistained in falls.

Falling on the head or back may cause very serious injury!

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Plants ski poles either side of body behind heal holding poles in normal grip.

Hops while bringing knees up to chest to complete the movement.

(Note that it should be a one foot take off by stepping back on one ski and bringing the other up and over)

USE INITIATION AS ABOVE WITHOUT SKIS

THE PRIMARY SPOTTER STANDS ON THE DOWN SLOPE SIDE

(The kick leg must be on the down slope side)

The key function of the primary spotter is to protect the skiers' neck and back by trapping the hand on the ski pole.

Moves forward to support the skier's neck by holding the top of the skier's pole thereby trapping the hand. (Note that by not allowing the pole to tilt too much the head can never touch the ground.)

The main function is to control the hand, neck and back but may also assist the skier's rotation by assisting the legs over with the free hand noting to push from a point as near to the feet for maximum leverage.

THE SECONDARY SPOTTER (Function as primary but the primary controls the skier)

Supports the skier's neck by holding the top of the skier's pole thereby trapping the hand. (Note that by not allowing the pole to tilt too much the head can never touch the ground.)

Assists the skier's rotation by assisting the legs over with the free hand noting to push from a point as near to the feet for maximum leverage.

5.4 FORWARD POLE FLIP WITH SKIS OR TRAINERS (PALM GRIP)

THE SKIER

Plants ski poles with bases near to each other and hands apart.

Initially looks ahead in order to get forward projection, then looks at the ground for as long as possible in front of the poles.

Steps, kicks with straight leg, and hops up into the flip with the head down looking at the ground well in front to achieve forward projection and then just in front of the ski poles for as long as possible. Note that it is a one foot take off and looking in front of the ski poles will get you forwards and less likely to collapse backwards. The skier must project forwards.

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Falling on the head or back may cause very serious injury!

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Keeps the kick leg straight as well as the following behind leg keeping the body straight. The legs are in the splits position while upside down and come together for the landing.

Pulls the chest through the poles while arching the back to land on the feet.

THE PRIMARY SPOTTER

Supports the neck by holding behind the neck.

Supports the skier further by holding the top of the ski pole thereby trapping the hand

Goes down with the neck support hand and brings up to assist and protect the neck.

THE SECONDARY SPOTTER (Stands on the kick leg side)

Supports the skier by holding the top of the ski pole thereby trapping the hand Assists the skier's rotation by pushing the leg over if necessary.

STRAIGHT FLIPS NOTES

Project forwards looking well forwards.

Give a powerful straight leg kick with tight backside.

Keep looking forward for as long as possible.

Keep a tight backside.

Practise kicking with the head up using a straight leg and tight backside.

Spot well forwards.

Keep looking at the ground for as long as possible.

STRAIGHT FLIP SKIS ON NOTES

Step looking well forwards, and give a **powerful** straight leg kick keeping a tight backside. Should see the dendix not the feet while inverted. Pull the hands through to land arching the back. Concentrate on a straight leg in line with the back. (Not bending the body to leave the leg behind or before the kick). Must not tuck the head.

Work on a straight leg kick with the head up.

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5.5 FORWARD POLE FLIP (SWORD GRIP)

THE SKIER

Plants ski poles with bases together and hands apart.

Looks at the ground for as long as possible in front of the poles.

Steps, kicks with straight leg, and hops up into the flip with the head down looking at the ground well in front to achieve forward projection and then just in front of the ski poles for as long as possible. Note that it is a one foot take off and looking in front of the ski poles will get you forwards and less likely to collapse backwards. The skier must project forwards.

Keeps the kick leg straight as well as the follow behind leg keeping the body straight. The legs are in the split position while upside down and come together for the landing.

Pulls up on the pole while arching the back to land on the feet and pulls the chest between the poles.

THE PRIMARY SPOTTER

Supports the neck by holding behind the neck.

Supports the skier further by holding near the top of the ski pole thereby trapping the hand.

Goes down with the neck support hand and brings up to assist and protect the neck.

THE SECONDARY SPOTTER (Stands on the kick leg side)

Supports the skier by holding near the top of the ski pole thereby trapping the hand.

Assists the skier's rotation by pushing the leg over with the free hand.

5.6 FORWARD POLE FLIP INITIATED HANDS BY THE SIDE

Initiate with hands to side and go straight in with palm grip.

Practice hang initiating with hands by side.

Give good kick and keep kicking.

With palm grip can pull hard on arms to lift out.

Essentially: -

Achieve balance head down with vertical poles which enable lift out with arms.

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If step is early then the poles will collapse backwards.

If the step is late or too forwards then poles will collapse forwards.

A pull on collapsing poles will accelerate the collapse.

SPOTTING AS ABOVE FOR FORWARD POLE FLIP

5.7 ROCK AND ROLLER

THE SKIER

Plants ski poles with bases apart and hands together in an "A" position.

Holds the poles with a sword grip wearing gloves to protect the hands.

Sinks down flexing at the knees. Reaches forwards to plant the ski poles with bases apart and hands together in an "A" position. Hops up into an upright balance position head up and arms straight and looking ahead. (The "I")

After balance has been achieved see saws forward keeping legs straight looking at the ground in front of the pole bases as long as possible. (The "T".) Can assist balance by letting the feet touch the poles but must not lock out. Do not wait in balance position, go for flip immediately.

Until the skier has become very proficient the legs should be bent at the knees but NOT at the thighs/waist to assist or accelerate the flip. If the legs are also bent at the thighs the flip will be stalled.

Pushes the poles and parts them over head arching the back and bending the legs to land on the feet. The skier should finish the flip looking up at the sky.

POINTS TO BEAR IN MIND

- 1. Note that by see saw action, head and upper body go downwards, legs and skis come up in response.
- 2. In achieving balance DO NOT "lock out" with the skis or ski boots touching the poles. This will cause a "locked up" backwards fall should balance not be achieved and the skier tilts back.
- 3. Rest the arms on the pelvis in order to achieve support without the ski poles pushing into the stomach.
- 4. Look forwards while achieving balance.
- 5. Look at the ground for as long as possible when flipping. (Usually it is a common failing not to look at the ground for as long as possible)

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6. Bending the legs in balance position will generally speed up flip. Use this to control the flip speed if necessary. It is better if the flip can be achieved with straight legs. If good balance not achieved abort by dropping out of manoeuvre.

THE PRIMARY SPOTTER

Places foot at base of ski pole.

Puts nearest hand behind skier's hands holding poles.

Holds the skier by the clothing near the throat with the other hand.

Pulls the skier forward by the poles using palm of hand and the shirt at the front of the throat.

When balance is achieved with the skier in a vertical position, changes neck hold to behind the neck and supports the neck on completion of the flip.

For more experienced and stronger skiers, the skier can be raised into the "I" position by pulling forwards with the ski poles. Additionally the skier can be supported by holding behind the shoulders and neck.

THE SECONDARY SPOTTER

Stands by and alert to assist if the skier over balances.

Assists the see saw effect by moving the legs of less strong skiers.

For the heavier skier provides support by holding the pole nearest.

ROCK AND ROLLER EXERCISES

- Carry out set ups to balance position.
- 2) Carry out set ups but in balance position drop the head.
- 3) Carry out set ups but drop the head and shoulders.
- Carry out set ups dropping the head and shoulders bending forwards at the waist.
- 5) Carry out set ups keeping the head and shoulders up but bending the legs behind.
- 6) Carry out set ups bending the legs behind and bending forwards !!!
- 7) With supporter, Carry out set ups and flip by bending the legs behind, bending forwards looking at the mat and when coming out of the flip looking at the sky.

Key points: -

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Do not bend at the waist or you will stall the flip.

As you complete the flip open the poles to either side of the shoulder.

5.8 GUT FLIP STAGE 1 (STATIC START)

THE SKIER

Plants ski poles with bases together (baskets interlocked) and hands together.

Rises up sinks down and hops up into "T" position looking forward with the body and legs straight.

On achieving the "T" dives forwards into a flip looking at the ground arching the back and bending the knees slightly to land on the feet.

Open the poles on completion and pull the chest through to land on the feet.

THE PRIMARY SPOTTER

Places foot at base of ski pole.

Puts hand behind skier's hands holding poles.

Pulls the skier forward by the poles and the shirt at the front of the throat until skier reaches a "T" position.

Holding in a "T" balance it is possible to fully control the skier.

Change the neck support to behind the neck and allow the skier to complete the flip.

THE SECONDARY SPOTTER

Stands by and alert to assist if the skier over balances. Assists the flip if necessary by assisting the feet over into the flip.

5.9 GUT FLIP STAGE 2 (MOVING START)

THE SKIER

The ski poles are kept with the bases together and the hands together.

Runs towards the primary spotter, rises up sinks down placing the ski poles near the feet of the primary spotter, steps, kicks, and hops up into "T" position with a single foot take off, looking forward.

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On achieving the "T", body and legs straight, dives forward into a flip looking at the ground arching the back to land on the feet and opening the poles to drop between them and NOT to one side.

POINTS TO BEAR IN MIND

Keep a tight body otherwise there will be a tendency to produce a twist.

Move forwards at a suitable pace keeping square to and facing forwards

Plant pole hopping forwards off kick leg.

Kick the kick leg.

Must be a one leg take off. Hop up from remaining leg which is foremost.

Ensure that points of poles securely locate in ground. Must have good points on poles.

After going over the top open the poles between the shoulders to land otherwise you will drop off to one side.

THE PRIMARY SPOTTER

Move to meet the oncoming skier and ensures that the foot is at base of ski poles.

Puts hand behind skier's hands holding poles.

Pulls the skier forward by the ski poles and holds the skier by the shoulder as the skier reaches a "T" position. (If necessary.)

Changes the neck support to behind the neck and allows the skier to complete the flip.

THE SECONDARY SPOTTER

Stands by and alert to assist if the skier over balances.

5.10 HALF TWISTING GUT FLIP - SELF SUPPORTING

- 1) Carry out cartwheels and hand stands.
- Carry out one pole cartwheels entering cartwheel on pole BEFORE putting the hand down.

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- Carry out one pole cartwheels without putting the second hand down. Note that a good kick and speed into the movement is required.
- 4) Hold pole in sword grip and mount while kicking the kick leg to one side completing half a rotation.
- 5) Repeat hold the pole with the second hand lower down the pole.
- 6) Repeat trying to kick the leg more over the head and getting the head down.
- 7) Repeat varying the second hand position on the pole and trying to kick the leg over the head while twisting.

ONE POLE GUT FLIP

Key points: -

Good kick into the manoeuvre.

Feel the lightness on the pole when getting the kick and hop right.

Pole plant is by the feet of the spotter.

For half twisting gut flips the spotter stands on the opposite side to the kick round and holds the shoulders.

5.11 HALF TWISTING POLE FLIP - SELF SUPPORTING

Plant ski poles near to each other down hill of the skier.

Apply pressure to poles in order for them not to slide away.

Hold in palms as for forward flip.

Hold the poles as far away as possible and ski towards poles stepping with the left leg, bending forwards head down swinging arms round to side, kick round with the right leg keeping leg straight, and hop round off the left leg. On landing push off with the ski poles while turning to the right.

As confidence grows kick over head to build into full half twisting pole flip.

Keep looking at the ground.

If kicking round to the left, on landing spin away to the right using the poles to push away.

Under no circumstances let go of the poles while upside down.

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NOTES

The STEP, KICK, and HOP are vital.

The kick must be powerful and must kick the legs over the head.

The second leg to leave the ground must be hopped and kicked over the head.

The legs must be straight and kicked over the head.

The hands must be at the side during the flip.

Look at the ground by the tips of the ski poles at all times.

Stand well back from the poles in order to be able to power into the flip.

LEARNING PHASE WITHOUT SKIS

Keeping pole points close to each other, head down holding poles in palm of hand, the hands by the side, stand on left leg and hop onto the right leg while turning through 180 degrees.

THE LEARNING PHASE MUST GET THE ABOVE RIGHT BEFORE PROCEEDING otherwise the skier may inadvertently carry out some form of unsupported pole flip and get injured.

When hop from one leg to other has been achieved, get the skier to start from a upright position with ski poles planted near to each other, step forwards onto left leg by ski pole, bend forwards head down bringing the hands to the side, kicking simultaneously round with the right leg to land on the right leg.

When above achieved, on landing push away with the poles turning to the right.

PRIMARY SPOTTER IF REQUIRED AS OPTION

Stands to side of skier holding skiers left (nearest) ski pole and ready to support the skiers right (furthest) shoulder.

As skier carries out movement the spotter moves to support the right shoulder to protect the neck and left shoulder if necessary.

Risk Assessment for Acro Skiing

Manoeuvre	Risk in Acro	Consequence	Action to be taken
All	Collision with other skiers	Injury .	Secure Area
All	Straining of muscles	Injury	Warm up before Freestyling
	and ligaments	·	Warm up further by carrying out manoeuvres which do not stress the body too much
			If anything is tight or pulling too much warm up further before continuing.
All	Falling during execution	Bruising / fracture	Carry out manoeuvre whilst stationary or moving slowly using poles for support
			Teach rolling out of fall
			Keep legs straight and powered up resist any imposed strain.
		•	Use poles for support to resist fall.
			Tuck head in to facilitate roll out
All	Becoming tired or fatigued	Falling	Have a break to recover and only ski while at peak performance level
Legbreaker	Straining knee	Strain	Keep knees straight and do not force position.
Tip spin & Roll	Snapping out of safety bindings	Strain	Check bindings and watch to see if heel rises
Javelin & Illusion	Becoming "stuck" half way through	Falling	Learn end of manoeuvre first to provide escape.
All high power manoeuvres	Straining of muscles and ligaments	Strain	Through fitness training develop appropriate muscles
Cartwheel	Straining of hand whilst supporting body	Hand strain	Clench ski pole in hand to prevent hand being forced beyond it's natural movement\
	Hitting back of head with skis	Cut head	Straight legs
Axels & Cartwheels	Being hit by ski after safety bindings release	Injury (self or other person)	Ensure binding correctly set for skier
Axels	Missing pole plant and falling	Falling	Make positive pole plant with good point contact.

Risk Assessment for Acro Skiing

Manoeuvre	Risk in Acro	Consequence	Action to be taken
Pole flips - spotter	Skier falling on head	Serious Injury	Keep poles vertical therefore if skiers
	,·	·	hand remains on top of the pole it will be impossible for the skier's head to contact the ground.
			For skiers who may not have enough strength to grip the top of the ski pole, trap their hand on top of the pole with your hand and keep it trapped throughout the flip.
			Always trap the hands of small children on top of the poles and keep hold until; you are sure they have finished. It is not unusual for them to try again even if their hands are not on top of the poles!
			Only support skiers who are light enough for you to support. Do not attempt to support some one who is too heavy for you!
			Ensure that you have full control and grip of skier.
*	Damage to spotter	Cuts to head	Keep head out of way.
Pole flips - skier	Skier falling on head	Serious injury	Never let go of the poles except after collapse to prevent head hitting ground
e a			Maintain pressure on ski poles (or you will pull them out of the ground just as you flip.)
5.4			Always ensure that you have a firm grip of the poles.
		·	Fully focus on the flip throughout and allow time to reflect before the next one.
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Fitness

With current lifestyles and the introduction of computers and games consoles into most family homes, children spend more time sitting in the home and less time running around. Children are generally less fit than they should be.

When performing sports or exercise our body adapts by becoming stronger, tougher and more capable of coping with the stresses of the activity. With inactivity these changes are all reversible.

Bearing this in mind, when introducing people to a new sport we must consider not only their age, but their current activity and fitness levels. An unfit or untrained body is not able to cope with heavy physical demands and is more likely to become injured.

Training for fitness must be fun, otherwise children will lose interest and drop out or not apply themselves. The secret to success is careful planning.

By carefully thinking through what areas of fitness need to be worked on, sessions can be planned to work these elements. The sessions should be varied, interesting and be related in some way to skiing.

Team games can also be introduced to work certain elements and to help build a team.

Regardless of what elements are being trained - All training sessions should involve a warm-up and cool down.

Training = Work+ Rest* + Recovery

*Without proper rest burnout can occur.

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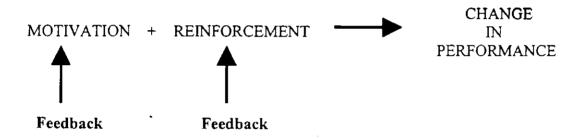
Learning & Motivation

The learning process is a slow process. Skills are not completely learned until they can be performed repeatedly under different circumstances and without thinking. This takes time with quality practice and corrective feedback.

If we can create a good environment, one in which the learner feels comfortable and secure, with few stresses or inhibitions to interfere with the learning process, speed of learning will improve.

To create a good learning environment, first build a team, ensure everyone feels secure, then present a variety of tasks with different approaches. Basically, have fun!

To learn one must be motivated by effective teaching:



There are different factors that motivate individuals to participate in sport (intrinsic or extrinsic factors). These factors will affect performance and dictate the level of commitment given.

Intrinsic Factors- dedication, commitment, satisfaction, fun, achievement

A wish to take part for yourself.

Extrinsic Factors – Trophies, medals, prizes etc.

Participating to please the coach, a parent, peers etc.

A wish to take part for the reward.

Rewards can improve motivation and stimulate interest in the activity. If however the skier becomes motivated only by extrinsic factors and the rewards are removed, interest will be lost and the individual may withdraw from the activity.

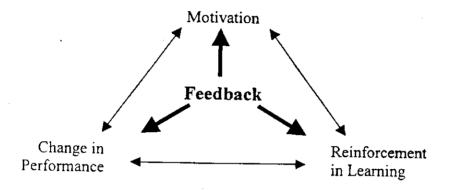
Coaches have an important role to play in determining how athletes perceive rewards. Winning must be put into perspective, stress the non-tangible values of sport (fun, fitness, and improvement) instead of participating solely for rewards.

Generally success and achievement motivate people. The level of performance required will depend on the individuals perception of success or acceptable achievement level. The coach can help by setting realistic goals or targets and evaluating progress made.

Feedback

As a learner practices a skill, images of the movements required are built up in the long-term memory. Gradually less effective aspects of the movement are eliminated and successful actions are reinforced. With repetitions this becomes a 'stored plan of action'.

Feedback is extremely important to reinforce learning, change performance and motivate the athlete.



How to Give Feedback

- 1) Use Positive Feedback Be constructive and encouraging
- 2) People Learn from mistakes- Do not ignore them!
 Instead of giving negative feedback in response to errors, a good teacher will balance and surround information about errors with the correct information and instructions -

Praise/Reinforce Corrective/Directive Praise/Reinforce

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Big Mac Attack:

- Different forms of feedback are appropriate to different stages of learning. In early stages of learning visual and verbal feedback are important. As the skier becomes more skilled, kinaesthetic feedback is more beneficial.
- 4) Individuals differ in the form of feedback they respond best to. Assess every individual's needs.
- 5) If possible feedback should be given <u>Immediately</u> after the performance. At this time the performance is still fresh in the skiers mind.

Types of feedback

1. Internal or External Feedback

Internal: From oneself e.g. Kinaesthetic, Visual or Auditory.

External: From another source e.g. Teacher, Class Video, Picture, Audience etc.

There is always some kind of feedback available, skiers should be made aware of all areas.

2. Positive or Negative:

+ve Reinforcement and Encouragement
-ve Punishment to eliminate undesirable behaviours

Negative feedback only tells what not to do and tends to de-motivate the performer. On the other-hand, **positive feedback promotes learning** and motivates the performer.

3. Teacher provided Feedback

Informative - informs the performer e.g. you managed 8 turns

Corrective - Information to help improvement e.g. Bring your hips forwards

Evaluative - Places a value statement on performance e.g. good, bad etc.

If teacher provided feedback is used all of the time, the skiers development of self awareness is restricted.

4. Peer Feedback

-What is said or done

-How it is said or done

Always encourage positive encouraging interactions between peers :

- Team Building

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Internal Feedback

Kinaesthetic – e.g. How did that feel? Visual – e.g. What do you see? Auditory– e.g. What noise could you hear?

By encouraging internal feedback, the skier takes more responsibility for their own learning and are able to continue evaluating their own performance and progressing even in the absence of the coach.

Coaching Children

Children behave and react differently to adults. When coaching, we should be aware of a child's needs and adapt our sessions appropriately. The following are some areas for consideration

- (1) Children have slower reaction times than adults do
- (2) If children are given too much to think about, or too much time to think about it, they may not be able to make a decision.
- (3) Children grow at different speeds and rate of maturation varies. We need to consider not only their chronological age but also their developmental age in order to assess their performance.
- (4) During or after rapid growth spurts, Children are often clumsy and co-ordination problems. This will affect their performance.
- (5) Most mature skills used in adult sports are adaptations of simple skills learned in childhood it is important to optimise the child's learning by introducing many different skills, movements and activities.
- (6) Teach to the child's level. Keep sessions simple and fun but remember children are not stupid; do not talk down to them.
- (7) Break complex tasks into simpler tasks. Once each step is learned, build the complete skill together.
- (8) Children have a short attention span and become distracted easily. Keep all sessions varied with different practices, games and skills.
- (9) Always give positive feedback and plenty encouragement.
- (10) Children learn through play. They should always enjoy the sessions and have fun.

Children's Injuries

Unlike adults, children have growth plates in certain regions of their bones. Growth plates are weak links in the transmission of force and are susceptible to injury. They are particularly susceptible to injury during periods of rapid growth.

Injuries can be caused by sudden application of force (e.g. landing a jump that is too high) or by repetitive force (e.g. too much jumping).

Sports which require explosive movements with rapid acceleration and deceleration of body parts or which expose children to impact, are potentially dangerous. Freestyle skiing falls into this category!

It is the coach's responsibility to ensure training sessions, training loads; frequency, content etc. are not too intense for the individuals concerned.

When fitness training - Avoid excessive jumping activities

- -Weights should not be used until after puberty
- -Stretching should be smooth
- -Avoid explosive movements or rapid changes in direction
- -When cross training avoid contact sports
- -Introduce a variety of safe but fun, activities and games.

Get to know your skiers well. Encourage them to discuss any injuries or pains with you or spot when they are troubled, and act appropriately.

POLE FLIPS-who should?

Most of the freestylers doing pole-flip training do not have the fitness level to achieve a flip on their own. It could be considered that there are 2 types of would -be pole-flippers and they should be treated differently. The different types are:-

The ones who have the fitness level or who are doing fitness training to be able to achieve a pole flip on their own.

The ones who do not have the fitness level and may want to just try it but stand no chance of being able to do it on their own.

The former will be fit and will be able to do most if not all of the work when being spotted. The latter may degenerate into 'throwing sacks of potatoes' and will be at risk of injury through their own unfitness and the spotters **must** be able to support their weight which means that the flipper must be lighter than the spotters. The spotter **must** refuse to spot freestylers who are too heavy for them to support. These freestylers may need their hands trapping on the top of the pole in case their grip weakens.