



## IASI FREESTYLE MANUAL

**Part 1:**

1. Freestyle skiing is constantly evolving. To keep up with the names of all the latest tricks and styles as the sport progresses is nearly impossible. Only those that live and breathe freestyle skiing will be able to do this.

As a coach if you have an understanding of the movements required when performing basic tricks on a variety of features you can use it to work out what more complex tricks actually are and how skiers do them. This enables you to keep up with progressions often without actually knowing the name of a trick.

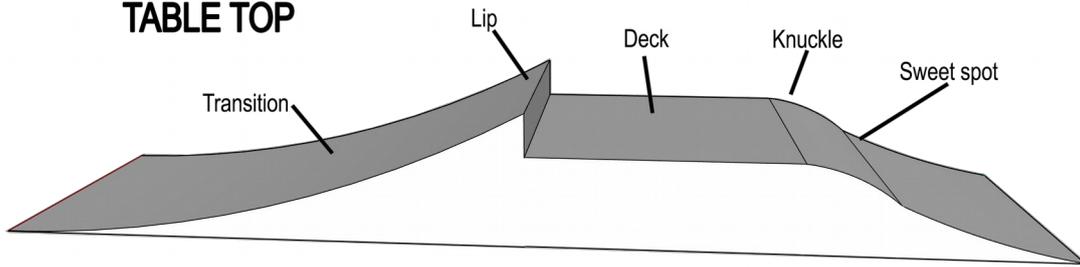
When coaching freestyle beginner's good demonstrations are needed. This gives the one being a coached a clear example of what to do. At the most basic level students don't know what movements to make so need to be shown as well as told. Performing a good demonstration generates trust between the coach and the student, a necessary ingredient for a good training session.

Coaching however is different to instruction. Quite often a coach can be coaching someone who is a higher level or technically better than them. With a good knowledge of progressions and an eye for the technical details involved in freestyle movements coaching someone over a higher level shouldn't be a problem. The coach should be able to get the student to perform and improve whatever their level.

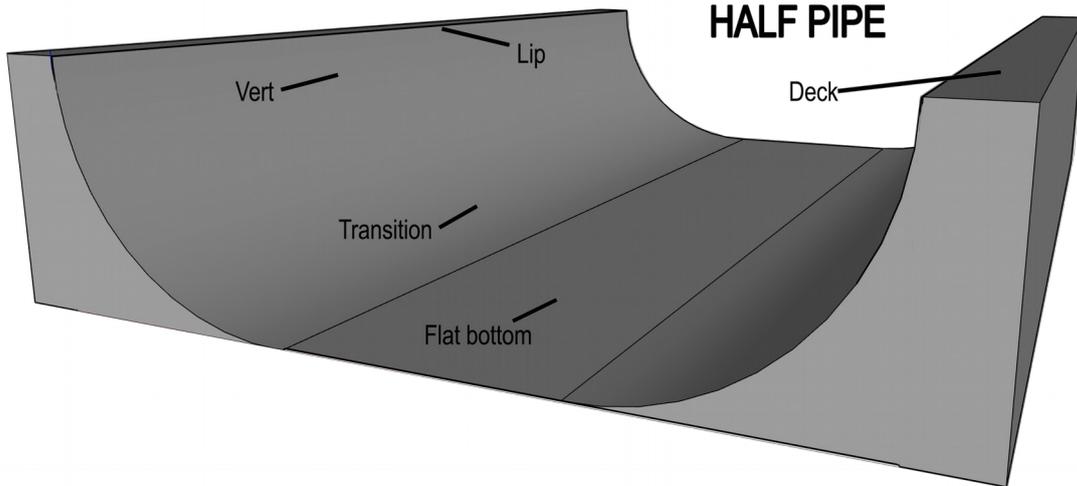
To coach someone of a higher level the coach will have to use a wide range of coaching tools to get performance from the student. We will look at these tools later in this workbook.

2. The following drawings show a variety of terrain park features. They are to give you a greater understanding of a terrain park and how it works. These are just a few features and there are many more as well as slightly different varieties of the same features. Your educator will go through these with you as a group during the course.

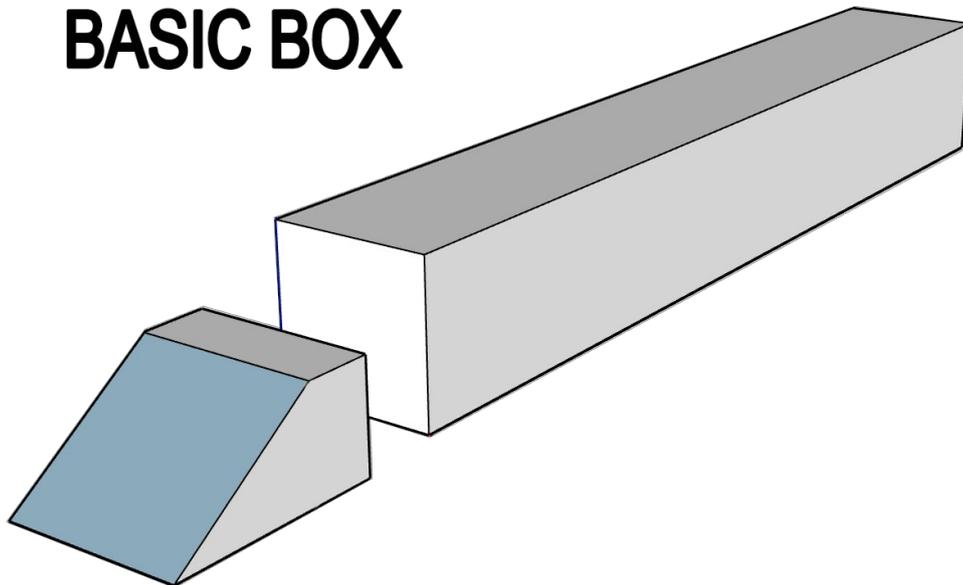
### TABLE TOP



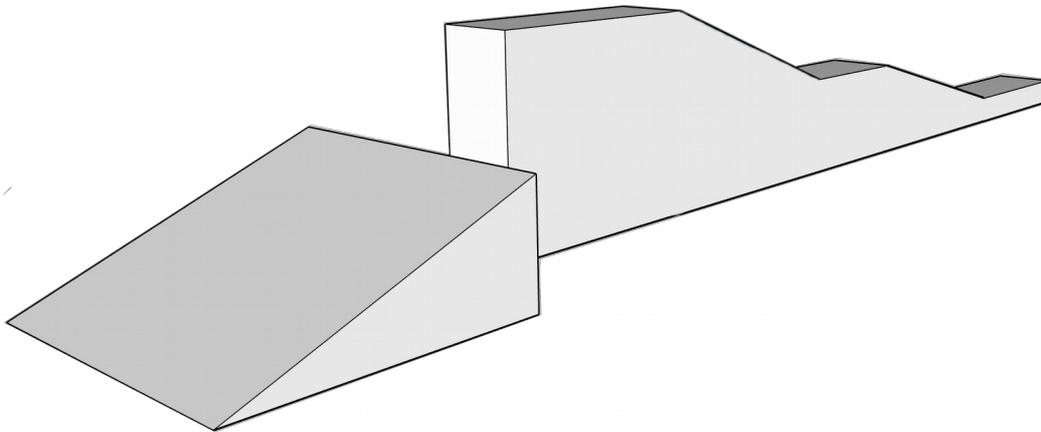
### HALF PIPE



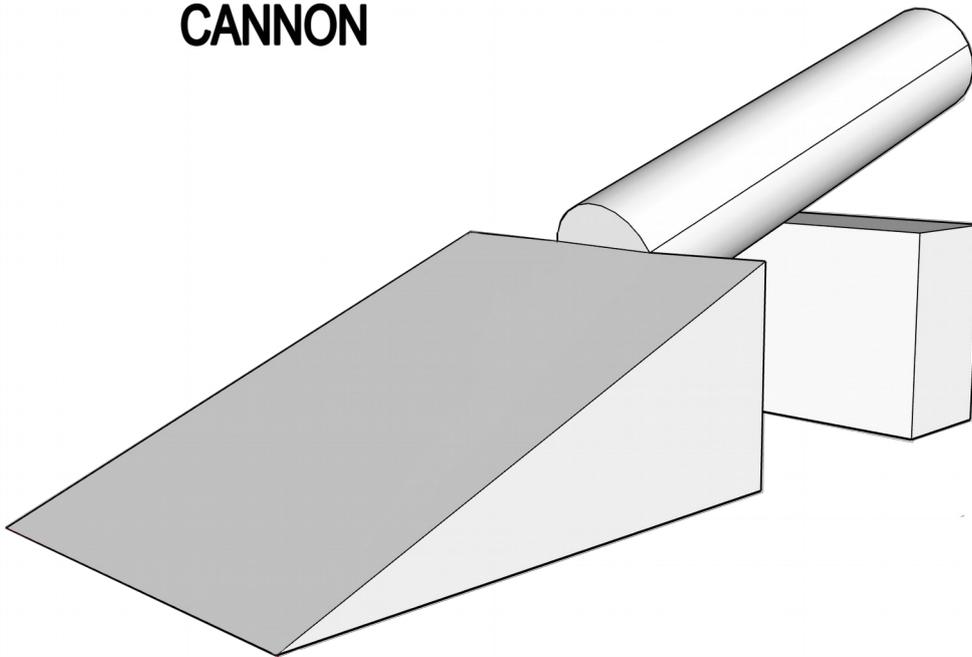
### BASIC BOX



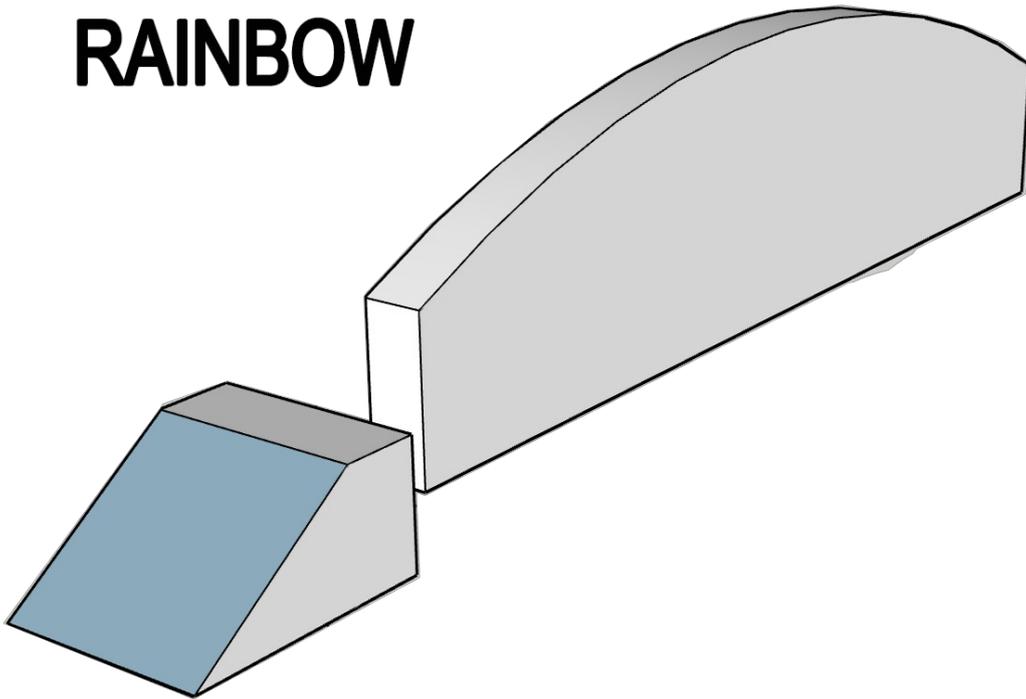
## KINK



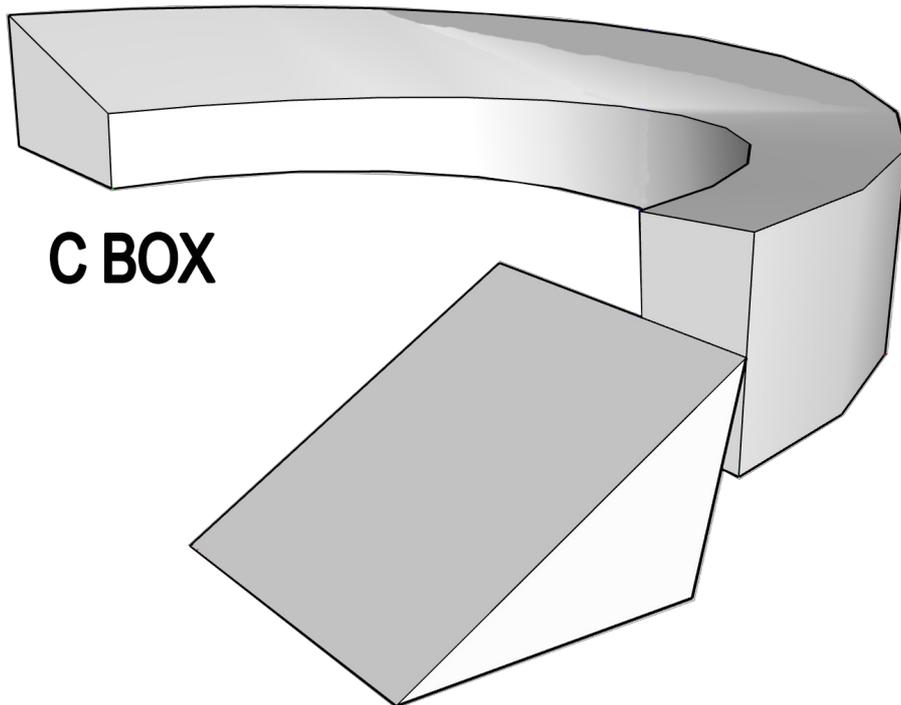
## CANNON



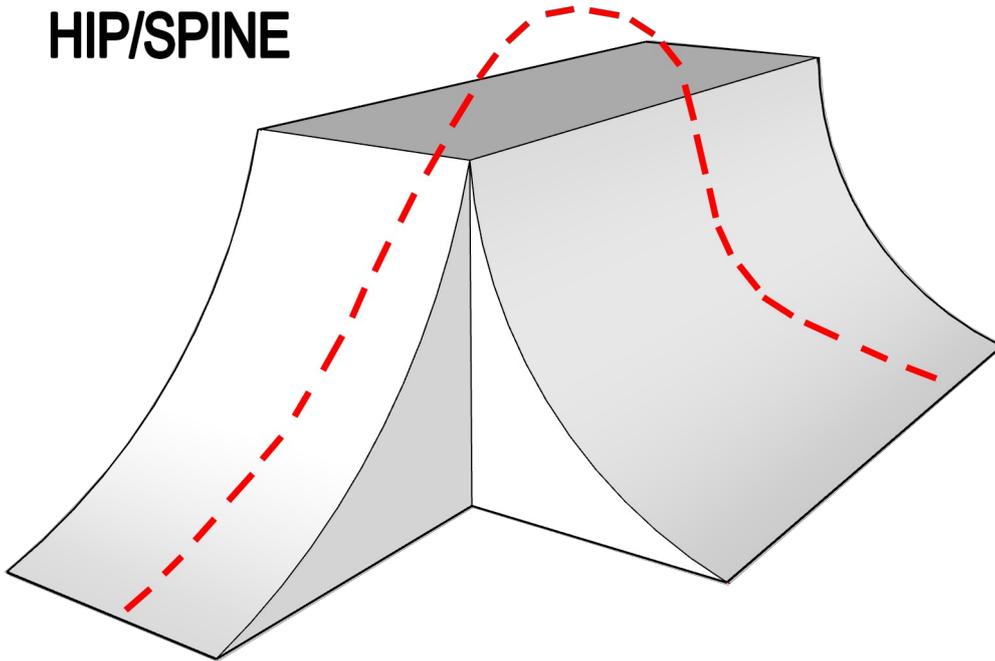
# RAINBOW



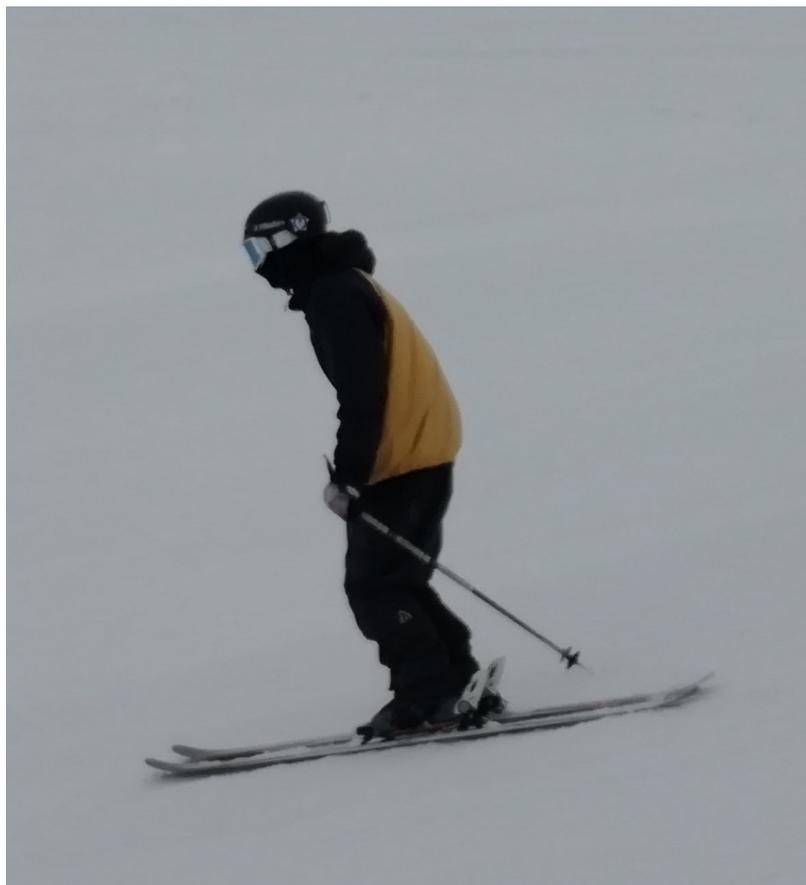
# C BOX



## HIP/SPINE

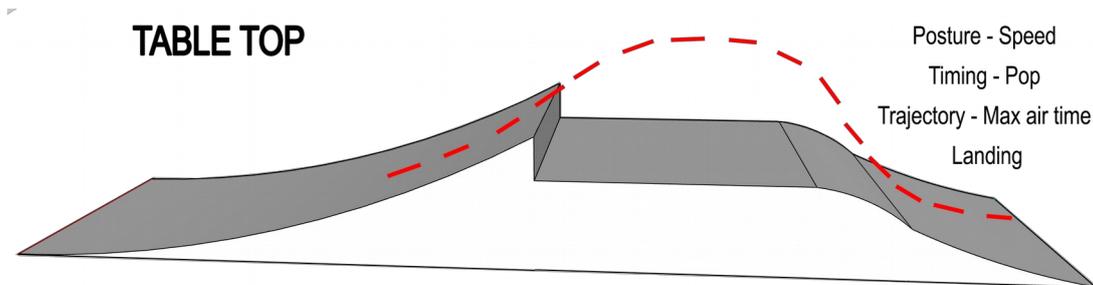


3. To understand how to perform tricks on any of the above and other features we first need to look briefly at basic ski posture and relate it back to freestyle. Below is a skier in a “neutral position”. Take note that the skier's weight is centered and flexed at 3 joints (ankle, knee and hip). From this neutral position the skier is able to move and pop, spin, flip, butter, grab etc. When coaching freestyle to beginners one of the first things we tend to look is the pop. This is an explosive or fast extension of the 3 joints.



When in the neutral position the skier should have the feet “hip width” apart. This allows the 3 joints to flex properly and equally. It is a skeletally strong position thus reducing the risk of injury upon any impact.

4. The pop should to be timed well in relation to the speed the skier travels to achieve the desired trajectory. Take a look at the drawing below.



When performing jumps, skiers need to stay in the air for as long as possible. This gives them time to make a trick look stylish. Therefore a jump should be as high as possible in relation to the take off and landing. Too much speed and not enough pop can lead to “clearing the landing”. Not enough speed and too much pop can lead to a “knuckle”. It’s a balance to get the right amount of pop and speed and every skier is different. This is why some skiers will start on the “in-run” for a jump in different places to others. Weight and wax can also play an important role.

The same as above can be applied to almost any other terrain park feature. For example in a half-pipe too much pop can lead to landing in the bottom and not enough can lead to landing on the deck. The timing of the pop is also important. Too early in the half-pipe will not achieve maximum airtime and can lead to landing in the flat bottom. Too late will lead to landing on the deck.

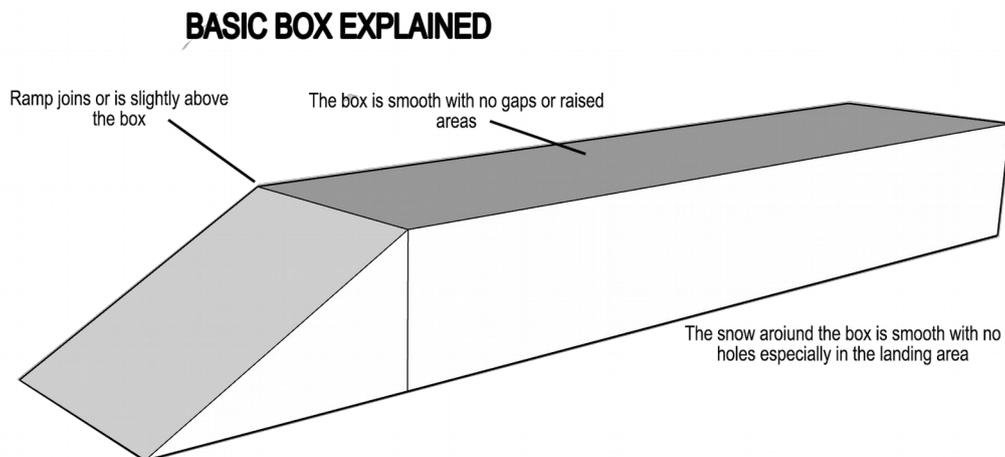
With rails the skier needs to make sure they get enough height to get up and onto it but they also don’t want to be coming down from a great height onto it too hard. The appropriate blend of pop VS speed needs to be applied. The idea with any terrain park feature is to perform stylish tricks with as little impact as possible.

5. Spins or rotations. When learning to spin or rotate in the air it’s important to understand the movements required and the order in which they happen. Simply looking closer at the pop and the timing of it as well as the trajectory of the jump can break this down easily.

Firstly the skier needs to be flexed ready for the pop. They will need to generate some sort of momentum during the pop to initiate the spin. This is often referred to as the “set”. For example if the skier is going to rotate to the left over a jump they might “pre wind” slightly as they approach the take off and then “set their rotation to the left as they pop. It’s important to note that too much “pre wind” can have a negative effect on the spin. Your educator will elaborate more on this.

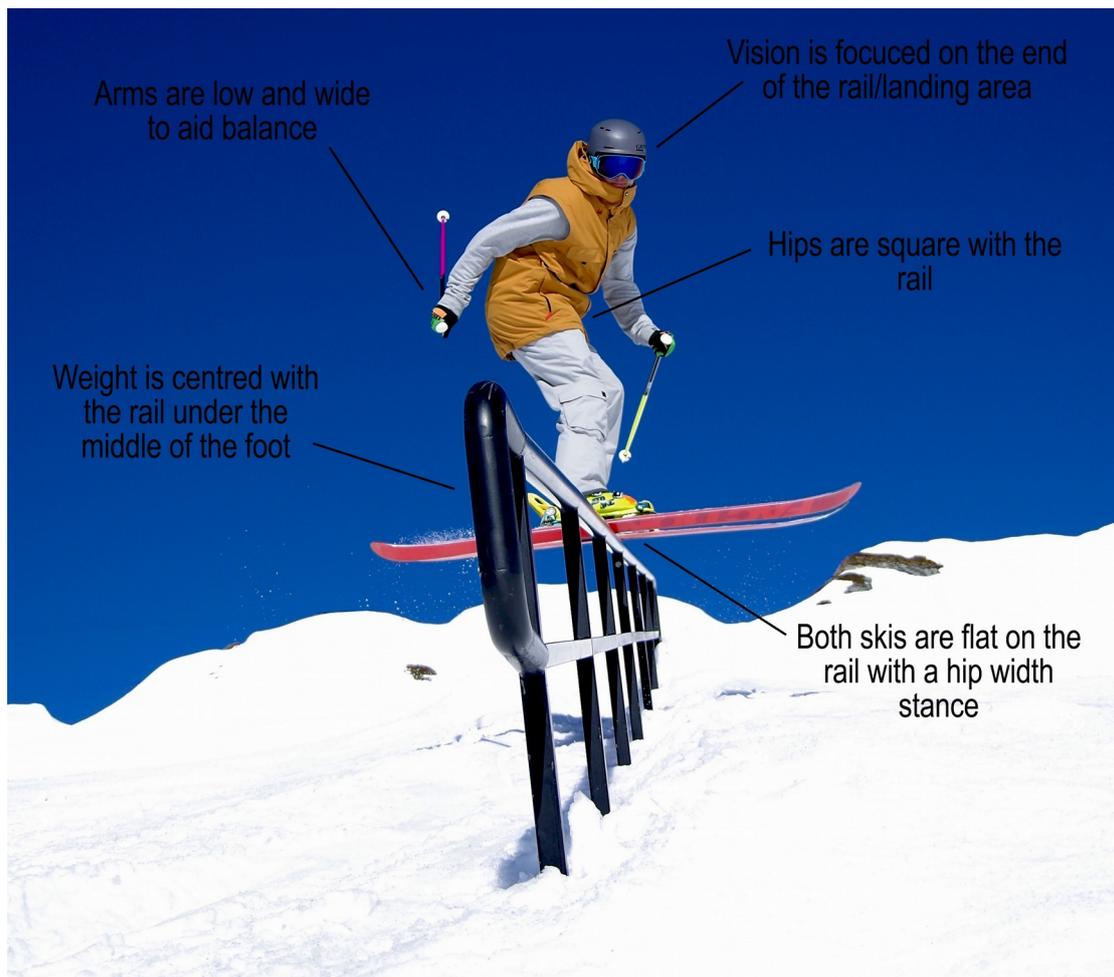
Once airborne it’s important to look closely at the trajectory and axis. If the skier spins at the same angle as the take off they are going to land “in the backseat”. This means for an upright rotation the skier needs to pop up and forward during the spin and then alter the angle of the spin for the landing. Driving the hands forward can do this and pulling the feet back underneath by bending the knees slightly when landing forwards. For a switch landing often drawing the knees up in front and keeping the vision up will help. Your educator will explain this a little more. Take another look at the drawing labeled “trajectory” to help visualize spins and trajectories.

When performing “on axis” rotations often keeping the vision level will help. One common mistake leading to a “back seat landing” is looking down at the feet during a rotation and particularly on take off.



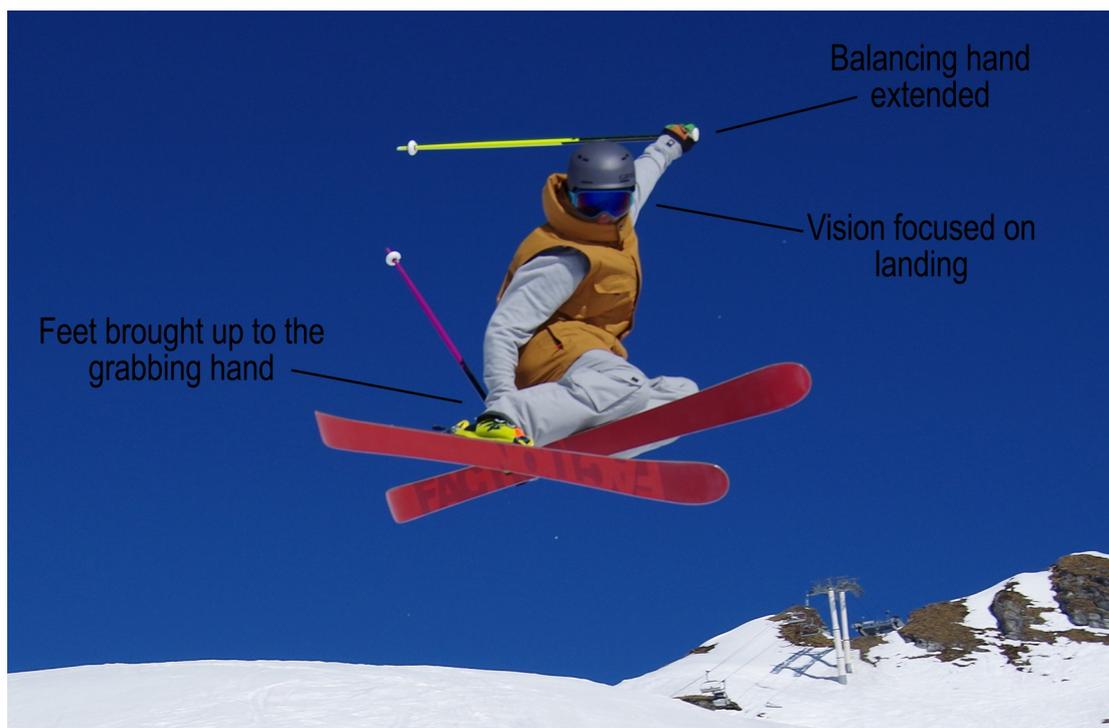
6. Rails and boxes. For freestyle beginners boxes are usually easier to start on. Like with all aspects of freestyle skiing, a safe progression is key to minimize the risk of injury. Boxes and rails feel very different to snow and can be quite daunting the first time a skier tries to slide one. It’s important to

convey the basic movements in a simple way usually accompanied by a good demonstration. Boxes can be slid in many ways whereas rails can mostly only be slid with the skis at 90 degrees. This is why a flat, wide, simple box is usually ideal for learning. Your educator will run you through a basic progression of sliding rails and boxes to give you an understanding of how to coach them safely. To understand the movements required a little better take a look at the photo and drawing below. From this neutral position we can then move and do more complex tricks as we increase our rail and box “trick bag”.



7. Grabs. Grabbing the ski or skis whilst in the air can be fun but also aid with balance and add to the style of a trick. When coaching skiers to grab you need to make sure the basic movements are in the right order. For example, the speed and the pop shouldn't really change and it's important that the skier remembers to pop before reaching for the grab and then releases it before landing. Note that with most “on axis” basic grabs the skis are

brought up towards the hands rather than the hands reaching down. Reaching down too much can result in the skier being sent off axis unintentionally. Some skiers like to grab with the whole hand whilst others may only use one or two fingers. This is personal preference but the idea is to make tricks look stylish and easy. Holding a grab without much movement or “flailing” for as long as possible during a trick can help with this. See the picture below.



8. Switch skiing. As freestyle skiers progress they will find more and more tricks involve switch take offs and landings. For example in a slope-style run a skier might land a rail switch followed by a jump with a switch take off and a switch landing. When coaching it's best to make sure the skier is comfortable skiing switch before attempting any switch take offs or landings. It's easy to understand the basic moves and progressions with switch skiing by looking at how we ski forwards.

We can take how we learn and progress with forwards skiing and simply switch it around to help us with switch skiing. For example a safe progression could be “straight running” on a shallow slope followed by “plough”, “plough turns”, “plough parallel”, “parallel” then “carving”. When coaching switch skiing it's important for the learner to get a firm grasp of each progression before moving onto the next.

**Part 2:**

As a coach you need to be able to use your technical understanding of freestyle skiing along with various coaching tools to run a safe and fun training session with maximum performance. Your educator will run through these tools and how they can be applied on the slope. See below for more information on coaching tools.

Before we can give feedback or even begin to plan what to do during a freestyle session firstly we need to know whom we are coaching, how long we have and what we have with regards to the facilities available. When planning your training session you may want to ask yourself the following questions.

1. Number of learners?
2. Age?
3. Previous freestyle skiing experience?
4. Any experience in disciplines similar to freestyle skiing?
5. Injuries/illnesses?
6. Are they enthusiastic? Confident? Scared?
7. What equipment do they have?
8. What is the emergency action plan in case of an accident?
9. Viewing angles?
10. Lift or lap, turn around time?
11. Facilities available?

All of the above and more can have a drastic effect on how you might want to structure and run your training session. Your educator will go through each of these in more detail with you.

1. Once you have a plan of what you want to do you need to make sure that your learners agree. Freestyle skiing can be especially daunting to a beginner and your learners need to be able to trust you. Most things involved in freestyle skiing need to be done with confidence. Being scared and trying a trick in a defensive position or even frame of mind can increase the risk of a crash or injury. Agree some goals with your learners. These need to be challenging yet realistic.

2. General warm up. This increases blood flow, allowing the body to prepare for exercise and prevent injury to muscles or joints. There is also a psychological aspect to this making the body becomes alert. Increasing blood flow is achieved by raising the heart rate. It's important to make your

learners want to do this warm up. With younger people it is often best to do this through a series of controlled games.

3. Specific warm up. This is a sport specific part of a warm up. It's a crucial part of a training session as it allows learners to focus and prepare themselves appropriately for tasks ahead. Your educator will elaborate and give examples of a specific warm up.

4. Main task. Plan a range of activities that will progressively challenge the athletes around a theme relevant to their development needs. Activities should be appropriate based on the agreed goals.

5. Cool down. The cool down is important for snow sports training, more so than many other sports. Allowing the learners some free time to play, experiment often leads to an increase in performance. The intensity should be dropped but this can often be at the learner's own choice. This gives the learner space and time, an opportunity for cognitive breakthroughs and ensures they leave the slope happy. The warm down is the start of the recovery period for the athletes. Stretching, particularly with growing athletes, is an important routine to integrate at the end of any sport.

6. Conclusion. Recap on key outcomes from the training session whilst also giving the learners the opportunity for feedback. Coaches should try to make sure the training session ends on a positive and friendly note. Necessary information about future

### TRAINING SESSION PLANNER

Date and time:

Training group:

Facilities needed:

Age of learners:

Number of learners:

Introduction, key messages and points to be made (safety points):

Warm up:

Main task:

Warm down:

Conclusion:

### **Useful coaching points and info:**

Here are some useful points when coaching for you to use as a reference if you need to.

#### **Maximum class activity:**

When coaching we need to ensure all learners are motivated and engaged. Often your viewing position is the key to this. Choose a place where you can observe and give feedback without too much waiting around for the learners. This is often very different to “ski instruction”.

#### **Feedback:**

There are lots of different types of feedback we can give as coaches. This doesn't necessarily mean “the more feedback given the better”. Quite often keeping the feedback incredibly simple can have some of the best results. As ski instructors it is very easy to observe, assess, diagnose and then prescribe with technical feedback. Coaches however tend to steer away from technical feedback a little more and use other methods like tactical for example. So instead of saying “push here, press there” they might say, “go faster, pop earlier”. Generally the higher the level of skier the less technical the feedback will be. This is usually because the skier knows what movements they need to make and simply need to be guided to implement them to achieve maximum performance. See below for a simple way of thinking about feedback.

Technical example – “press here and extend legs through transition”

Tactical example – “Go faster and pop earlier”

Physical example - “Move faster, be more explosive”

Psychological example - “Be aggressive with it”

Equipment example – Tighten pole straps, change goggle lens”

Environment example – “Use the transition to carry speed into the jump”

#### **Specific equipment:**

Freestyle skis vary in shape, size and stiffness and some are better for certain aspects of freestyle skiing than others. If you are unsure on any of the below ask your educator to elaborate.

Half-pipe skiers tend to use stiffer, narrower skis. This is because they need to carve and carry speed through the transition and up the wall. Narrower is quicker from edge to edge. Stiff holds a better edge and helps prevent “washing out” through the transition into the flat bottom or up onto the vert.

Wider, softer twin tip skis are generally better for “jibbing”. Having a soft nose or tail can help with butters and presses and also allow the skier to pop off the nose or tail rather than the middle of the ski easier. Quite often a “mid-fat” twin tip is the choice for backcountry freestylers.

The ski edges on twin tips tend to be thicker and stronger than those of standard alpine skis. This is generally to help combat the abuse they receive from rails. The ski base tends to be tougher too for the same reasons but as a result is usually slower than a standard alpine ski base. (Note some top-level half-pipe skiers have a race base put onto a twin tip ski for extra speed).

Freestyle boots vary in stiffness and shape. Often the torsional stiffness and flex of the boot is less but this is generally down to personal preference. Some boots have a soft part in the toe area to help prevent “toe bang”. Some have a different liner that wraps fully around the leg and many people believe this helps to reduce “shin bang”.

Ski poles are usually shorter. This is because they generally aren’t used to plant for a turn but instead are just used more for balance. If the poles are too long they can get in the way when performing tricks and can even make a trick look ugly and less stylish. Some freestyle skiers don’t use poles at all and this is simply personal preference.

### **Code of ethics: (reference)**

As a coach you need to conduct yourself in a professional manner. See below for a reference on ethics and conduct for Snowsport coaches.

### **Background**

The National Coaching Foundation from the Code of Ethics (1989) published by the British Institute of Sports Coaches (BISC) has developed the following. It also adopts the principles contained in the Council of Europe’s Code of

Sports Ethics. The BISC Code formed the value statement underpinning the National Vocational Qualification Standards (1992) for Coaching, Teaching and Instructing. This code has replaced the original BISC code as the value statement in the revised standards (1998). The code is a framework within which to work and is a series of guidelines rather than a set of instructions.

## Introduction

Sports Coaches are expected to conform to ethical standards in a number of areas: humanity, relationships, commitment, co-operation, integrity, advertising, and confidentiality, abuse of privilege, safety and competence.

## Humanity

Coaches must respect the rights, dignity and worth of every human being and their ultimate right to self-determination. Specifically, Coaches must treat everyone equitably and sensitively, within the context of their activity and ability, regardless of gender, ethnic origin, cultural background, sexual orientation, religion or political affiliation.

## Relationship

The good Coach will be concerned primarily with the well-being, safety, protection and future of the individual performer. There must be a balance between the development of performance and the social, emotional, intellectual and physical needs of the individual.

A key element in a coaching relationship is the development of independence. Performers must be encouraged and guided to accept responsibility for their own behavior and performance in training, in competition, and in their domestic, academic or business life.

Coaches are responsible for setting and monitoring the boundaries between a working relationship and friendship with their performers. This is particularly important when the performer is a young person. The Coach must realize that certain situations or friendly words and actions could be misinterpreted, not only by the performer, but also by outsiders (or other members of a squad or group of performers) motivated by jealousy, dislike or mistrust, and could lead to allegations of misconduct or impropriety.

Where physical contact between Coach and performer is a necessary part of the coaching process, Coaches must ensure that no action on their part could be misconstrued and that any National Governing Body (NGB) guidelines on this matter are followed.

The relationship between Coach and performer relies heavily on mutual trust and respect. This means that the performer should be made aware of the Coach's Qualifications and experience, and must be given the opportunity to consent to or decline proposals for training, performance or competition.

### Commitment

Coaches should clarify in advance with performers (and / or employers) the number of sessions, fees (if any) and method of payment. They should explore with performers (and / or employers) the expectation of the outcome of coaching. Written contracts may be appropriate in some circumstances.

Coaches have a responsibility to declare to their performers and / or employers any other current coaching commitments. They should also find out if any prospective client is receiving instruction from another teacher / coach. If so, the teacher / coach should be contacted to discuss the situation.

Coaches who become aware of a conflict between their obligation to their performers and their obligation to their NGB (or other organizations employing them), must make explicit to all parties concerned the nature of the conflict, and the loyalties and responsibilities involved.

Coaches should expect a similar level of reciprocal commitment from their performers. In particular, the performer (parent / guardian in the case of a minor) should inform the Coach of any change in circumstances that might affect the Coach / performer relationship.

Coaches should receive appropriate acknowledgment for their contribution to the performer's progress and achievement. Where money is earned from performances, it is reasonable to expect the Coach should receive an appropriate share of the rewards. Such apportionment with any attendant conditions should be agreed in advance (in writing) to avoid any misunderstanding.

## Co-operation

Coaches should communicate and co-operate with other sports and allied professions in the best interests of their performers. An example of such contact could be the seeking of:

- educational and career counseling for young performers whose involvement in sport impinges upon their studies
- sport science advice through the British Association of Sport and Exercise Sciences (BASES) Coaches must communicate and co-operate with registered medical and ancillary practitioners in the diagnosis, treatment and management of their performers' medical and psychological problems. Integrity Coaches must not encourage performers to violate the rules of their sport. They should actively seek to discourage and condemn such action and encourage performers to obey the spirit of the rules. Coaches must not compromise their performers by advocating measures that could constitute unfair advantage. They must not adopt practices to accelerate performance improvement that might jeopardize the safety, total well being and future participation of the performer. Coaches must never advocate or condone the use of prohibited drugs or other banned performance enhancing substances. Coaches must ensure that the activities, training and competition programs they advocate and direct are appropriate for the age, maturity, experience and ability of the individual performer. Coaches must treat opponents with due respect, both in victory and defeat, and should encourage their performers to act in a similar manner. A key role for a Coach is to prepare performers to respond to success and failure in a dignified manner.

Coaches must accept responsibility for the conduct of their performers and discourage inappropriate behavior in training, competition, and away from the sporting arena.

## Advertising

Advertising by sports Coaches in respect of qualifications, training and / or services must be accurate and professionally restrained. Coaches must be able to present evidence of current qualifications upon request. Evidence

should also be available to support any claim associated with the promotion of their services.

Coaches must not display any affiliation with an organization in a manner that falsely implies sponsorship or accreditation by that organization.

### Confidentiality

Sports Coaches inevitably gather a great deal of personal information about performers in the course of a working relationship. Coach and performer must reach agreement about what is to be regarded as confidential information (i.e. not divulged to a third party without the express approval of the performer).

Confidentiality does not preclude the disclosure of information about a performer to persons who can be judged to have a right to know. For example:

- Evaluation for competitive selection purposes
- Recommendations for employment
- In pursuit of disciplinary action involving performers within the sport
- In pursuit of disciplinary action by a sports organization against one of its members
- Legal and medical requirements for disclosure
- Recommendations to parents / family where the health and safety of performers might be at risk
- In pursuit of action to protect children from abuse Abuse of Privilege The sports Coach is privileged to have regular contact with performers and occasionally to travel and reside with performers in the course of coaching and competitive practice. A Coach must not attempt to exert undue influence over the performer in order to obtain personal benefit or reward. Coaches must consistently display high personal standards and project a favorable image of their sport and of coaching to performers, their parents / families, other Coaches, officials,

spectators, the media and the public. Personal appearance is a matter of individual taste but the sports Coach has an obligation to project an image of health, cleanliness and functional efficiency. Sports coaches should never smoke while coaching. Coaches should not drink alcohol so soon before coaching that it would affect their competence to coach, compromise the safety of the performers or obviously indicate they had been drinking (e.g. smell of alcohol on breath).

- Safety
- Within the limits of their control, Coaches have a responsibility to ensure as far as possible the safety of the performers with whom they work
- All reasonable steps should be taken to establish a safe working environment.
- The work done and the manner in which it is done should be in keeping with the regular and approved practice with their sport as determined by the NGB.
- The activity undertaken should be suitable for the age, physical and emotional maturity, experience and ability of the performers.
- Coaches have a duty to protect children from harm and abuse.
- The performers should have been systematically prepared for the activity and made aware of their personal responsibilities in terms of safety.
- Coaches should arrange adequate insurance to cover all aspects of their coaching practice.
- Competence
- Coaches shall confine themselves to practice in those elements of sport for which their training and competence is recognised by the appropriate NGB. Training includes the accumulation of knowledge and skills through formal coach education courses, independent research and the accumulation of relevant verifiable experience.
- Competence to coach should normally be verified through evidence of qualifications. Competence cannot be inferred solely from evidence of prior experience.
- Coaches must be able to recognize and accept when to refer performers to other Coaches or agencies. It is their responsibility, as far as possible, to verify the competence and integrity of any other person to whom they refer a performer.

- Coaches should regularly seek ways of increasing their personal and professional development.
- Coaches should welcome evaluation of their work by colleagues and be able to account to performers, employers, National Governing Bodies (NGBs) and colleagues for what they do and why.
- Coaches have a responsibility to themselves and their performers to maintain their own effectiveness, resilience and abilities. They should recognize when their personal resources are so depleted that help is needed. This may necessitate the withdrawal from coaching temporarily or permanently.

Author  
Andy Bennett  
IASI Education Team

