

## **GCSE PE Adventurous Activities – Indoor Climbing: Working**

### **Skills Manoeuvres 1-8**

#### **Safety briefing**

Trainers will need to stress the inherent hazards of climbing to candidates and judge whether these have been understood and appreciated. With minors an air of responsibility rather than play needs to be cultivated from the outset. Centre rules and expected behaviours need to be communicated and reinforced.

#### **Preparation**

Candidates need to be told about suitable clothing and footwear (rock shoes are not needed) as well as removing jewellery and tying back long hair.

#### **Equipment**

The correct method of putting on a harness and helmet should be explained though at this level some assistance with this is acceptable. Only one type of harness needs to be demonstrated (simple one-piece harnesses are good) but candidates must appreciate if it is being worn and buckled correctly. The harness belt should be around the waist, not the hips, and sufficiently tight. Leg loops should be appropriately adjusted. There should be no twists in the webbing and loose ends should be tucked away.

#### **Warm ups**

All candidates should participate in warm up exercises such as jogging on the spot, windmilling the arms etc. The reasons for this should be explained in a simple way. Stretching is not required at this level.

#### **Connection to the rope**

Candidates need to be taught where to connect the rope to the harness and how to tie a rethreaded figure of eight knot with a stopper knot. Considerable care will be needed to introduce this method at this level. There must be a tidy knot with a suitable length tail close to the harness with no loops created.

#### **Belaying**

Belaying at this level is only to be done under direct supervision. Any appropriate belay system may be used as long as it is efficient and safe. Tailing/backing up is acceptable but candidates should be able to manage an appropriate device (which could be an auto-locking device) on their own or with a peer under supervision. It is not expected for candidates to be fully competent for all situations nor to be totally independent. They must demonstrate a consistent safe attitude and awareness of the responsibility and skill required. Any successful peer belaying session where the trainer/assessor does not have to intervene should be seen as adequate for this level. If a candidate is mature enough to be taught to belay independently then this should be done if appropriate. Lowering of the climber does not have to be mastered at this level. This can be done, or be backed up, by the trainer.

#### **Descending**

Candidates should be taught how to descend correctly whilst being lowered by a belayer/ instructor. They should lean back holding only their end of the rope and walk down the wall.

#### **Climbing movement**

Candidates should be introduced to the most rudimentary principles of climbing movement: standing up straight and trying to maintain balance, looking at their feet when finding footholds, pushing up with the legs and relaxing.

#### **Bouldering**

If the climbing centre has a bouldering facility then its safe use could be introduced. Attention should be drawn to the risks of bouldering and minors participating at this level should always be supervised. Fall zones and safe descents should be highlighted. As this is statistically the highest risk activity with minors at a climbing centre, due care and attention should be paid to the briefing and supervision of candidates. Simple traverses are often the most appropriate activity at this level. Spotting is an advanced skill that is only introduced much later at level 5 in the scheme. It is not recommended to introduce this skill to youngsters at this stage.

### **Assessment Skills Manoeuvres 1-8**

Assessment may take the form of continuous assessment during training. At this level assessors can exercise considerable latitude in their judgement of a candidate's ability to satisfy the assessment criteria. This stage is designed to enthuse and encourage participants to pursue climbing further rather than be a difficult hurdle. A positive and responsible attitude displayed by the candidate is just as important as any technical skill demonstrated.

Assessors should look for a candidate who can follow instructions willingly and consistently, can maintain concentration and work cooperatively with their peers.

Some simple questions on safety and centre rules, followed by a gearing up and warming up session, then a group bottom roping session with maybe a short bouldering exercise should suffice for an assessment. Bouldering is not a required activity for assessment however if facilities do not exist.

#### **Assessment log components:**

- Awareness of safety rules and hazards
- Put on harness and helmet correctly
- Tie a retied figure of eight knot with stopper knot
- Climb a chosen route with confidence
- Descend from a route correctly
- Belay safely under supervision
- Demonstrate consistent safe behaviour
- **Complete 10 climbs of any grade (eg: rainbow)**
- **Complete 10 belays**

#### **Skills Manoeuvres 9-13**

##### **Tying into the harness**

Candidates need to understand how to tie into both a one piece and two piece harness (ie: with or without an abseil loop). The basic designs of a harness need to be explained along with their suitability for indoor climbing. In particular different harness buckle systems should be examined and their merits and weaknesses described.

##### **Pre-climb checks**

Candidates should be taught the importance of pre-climb checks and the common problems to look out for: twisted harnesses, loose or incorrectly adjusted harness, buckle systems not correctly doubled back or functioning properly They should tie in correctly with a long tail and stopper knot, with no loops and the knot close to the body. Karabiners should be screwed up (use a squeeze test), the belay device correctly threaded, orientated and appropriate for use. Candidates should be able to tie in another climber and correctly check their knot and harness.

##### **Belaying**

Candidates should be taught to belay correctly with a non-autolocking device. Other devices can be introduced including auto-locking devices for comparison but advice as to the most appropriate for use in this context should be given. (Gri Gris are not recommended at this stage as their use is counter-intuitive to standard belay devices and their lowering action is more difficult to control.) The belaying action needs to be of a high standard with a good degree of anticipation exhibited by the belayer. In particular the following points should be highlighted:

1. Correct stance and position (not too far out from the wall)
2. Correct attachment and orientation of belay device with the dead rope exiting the bottom of the device or to the side of the braking hand.
3. The principle of a 180° lock off on the rope
4. Taking in the rope with one hand always on the brake rope
5. Brake rope held in front of the body – not to one side (in abseil position)
6. Keeping the dead rope locked off as much as possible
7. Keeping hands in front of the rope – not passing them between the body and the rope
8. Smooth belaying action
9. Lowering with both hands held onto the brake rope at all times – no swapping of hands
10. Smooth lowering at a safe speed.

##### **Ground anchors**

Candidates need to know what to do if their climbing partner is of a significantly different weight to them. Trainers should introduce them to the options in ground anchor systems such as ground slings and ballast bags. The pros and cons of these should be discussed. Candidates also need to be able to assess the suitability of a belay system to suit the weight and frictional dynamics of the climber/rope/anchor systems they find themselves in. They also need to be able to judge if the situation is too difficult to belay safely.

## **Holding falls**

Practical experience in holding a top rope fall is invaluable to give candidates the feedback they need to make decisions detailed above. All practice falls must be done with an instructor backing up the belayer until deemed ready to do it safely without back-up. Falls should not be big; there should be very little slack rope – just enough to show that the system works.

## **Communication**

Traditional climbing calls are inappropriate on most artificial climbing structures. However a clear process of communication between partners and awareness of the climber's needs on behalf of the belayer should be developed.

## **Grades**

The French sport grading system (most commonly adopted in climbing walls) should be explained and candidates encouraged to determine their current climbing ability through choosing and attempting routes of various grades.

## **Climbing technique**

Candidates should be coached in elementary climbing movement and technique: using holds in an efficient manner, having an upright relaxed stance with heels dropped, concentrating on good foot placement, planning moves before execution and moving smoothly in balance using the leg muscles and resting on straight arms. Climbing shoes are not necessary at this level but would be highly desirable to teach proper footwork at this early and influential stage. The concept of balance and coordinated movement are fundamental here. Climbing games on a bouldering wall or exercises on the wall to develop basic technique can be of great benefit.

## **Bouldering**

It is highly desirable that candidates should be introduced to bouldering at this stage. Instructors should attempt to provide low level traverses on their climbing wall if they do not have a purpose made bouldering facility. Candidates need to be taught the appropriate skills to become safe and effective independent boulderers. Safe heights, correct attire, climbing within one's limits, awareness of other users, controlled descent, selection of appropriate problems and a simple explanation of sports injury avoidance should be covered.

## **Assessment Skills Manoeuvres 9-13**

Candidates need to be faultless and consistent in the basic skills of putting on equipment, tying on, belaying, lowering and communicating with their partner. In particular the emphasis of this stage is on sound and safe belaying. Assessors should be looking for someone who they would be happy to leave alone to top rope with a competent peer. (However centres will have their own policies as to whether this may actually happen with minors of various ages).

Candidates need to have developed sound risk awareness in the climbing wall environment and have a mature and careful attitude to safety.

If there are no dedicated bouldering facilities at the climbing centre, an award can still be gained though it would be highly beneficial to have experience of this activity. If there are bouldering facilities candidates need to have developed a safe approach to the activity and be able to seek out their own problems.

## **Assessment log components:**

- Connect rope to harness with retied figure 8 and stopper knot consistently
- Consistently performs pre-climb checks
- Can hold a simple top rope fall
- Belays consistently correctly
- Lowers a climber consistently correctly
- Communicates well with climber
- Understanding of French sport grades and selection of appropriate routes
- Safe and effective use of a bouldering/ traversing wall
- **Complete 35 set climbs of any grade**
- **Complete 35 belays**

## **Skills Manoeuvres 14-16**

### **Equipment**

A more in-depth look at climbing equipment should help candidates think about the systems that support their performance. Candidates should be introduced to different harness designs, their pros and cons, suitability for different uses, care and maintenance. They should also be taught how to evaluate their condition for use. Types of rock shoes, construction and fitting should be covered as well as the various chalk options that are used for increasing friction on the hands. The possible health and environmental

problems of using chalk indoors and outdoors should be discussed. Helmet design and their appropriate use should be discussed.

### **Knots**

Candidates should learn how to tie all the knots listed in the syllabus and understand their uses, characteristics and limitations. These knots are introduced here as they can be used for ground anchors, attachments and safety back ups in addition to the retied figure of eight.

### **Belaying**

Candidates should be introduced to a wide variety of belay devices that are suitable and commonly used on climbing walls. They should be able to evaluate their frictional properties and understand how the whole belay system depends upon rope, device and karabiner properties. They should be given practical experience in using these devices and be able to evaluate and choose an appropriate device for their use. Gri Gris or similar devices may be introduced at this stage though they are not recommended for unsupervised use for the reasons given earlier. The correct use of these and the hazards of lowering too fast should be explained carefully.

### **Climbing techniques**

Candidates should be introduced to the wide array of techniques that are available to the modern climber in using the available holds on a climb. A list of suggested techniques are detailed below:

- Hand holds: *Crimp, half-crimp, hang, slopers, pockets, pinch, jams*
- Hold orientations: *Side-pull, 'gastons', under-cuts*
- Footholds: *Edge, smear, pocket, heel hook, toe hook*
- Basic moves: *laybacking, chimneying, palming, bridging, mantleshelfing, rockovers, cross-throughs, twisting, flagging, foot-swapping, knee bars, arm bars, 'frog' position, deadpointing, dynos, resting (with the use of opposing forces, straight arms, relaxed grip)*

Trainers will need to choose those that are appropriate to the candidate's ability and applicable to the facility in which they are working. These techniques are best introduced at ground level on a bouldering wall where candidates can observe the trainer and their peers close up. The bouldering wall is an excellent venue for coaching. Later the techniques can be applied on routes.

### **Movement skills**

As well as teaching individual techniques, trainers need to train good movement skills to their candidates. Full guidance on this is beyond the scope of this handbook but key principles that need to be covered are listed below:

- Maintaining balance and an awareness of one's centre of gravity
- Reading moves ahead
- Accurate and controlled footwork
- Full use of legs and feet for propulsion
- Fluidity of movement – moving in balance
- Use of opposing forces for balance
- Relaxed grip and posture (use of the skeleton)
- Ability to spot rests and use correct resting style
- Assuming correct body position for movement off holds
- Use of body tension and core strength on steep ground
- Position of the hips close to wall on steep ground
- Correct breathing – aerobic/anaerobic

Reference to supporting materials on technique and performance training can be found in the appendices. It is important that candidates are introduced to the techniques and principles early on and then coached both on the bouldering wall and on routes. The use of multi-move circuits on a simple bouldering wall or training board can be a very useful tool. The aim is to develop smooth coordinated movement that candidates can transfer to boulder problems and climbing routes.

### **Assessment Skills Manoeuvres 14-16**

Candidates need to demonstrate that they have improved their performance significantly by one full grade (eg: from F6a to F6a+) on top roped climbs over the whole consolidation period. **Assessors need to check that candidates have logged routes matched to their ability.** Candidates should not log up many easy routes quickly just to satisfy the requirements.

Boulder problems are difficult to grade objectively across centres but the assessor must satisfy themselves that the candidate's performance has improved. If a centre has its own grading system for bouldering this will be relatively easy.

Candidates need to demonstrate knowledge of a range of climbing techniques and be able to apply appropriate ones in various climbing contexts. They should be able to demonstrate the skilful execution of a range of these. It is suggested that the assessor should ask the candidate to demonstrate five named techniques from the syllabus list on a bouldering wall or a route. The assessor should make sure that these techniques are applicable on the climbing surfaces available. *If a candidate fails to understand or perform a particular technique they should be given up to three alternative techniques to demonstrate before the assessment is terminated for that session.*

**Assessment log components:**

- Demonstrate progression of at least one full grade on top roped climbs
- Have knowledge of and demonstrate the use of three different belay devices
- Demonstrate detailed knowledge of basic indoor climbing equipment
- Demonstrate and explain 5 warming up exercises
- Demonstrate and explain 5 different climbing techniques
- Tie figure 8 on the bight, overhand knot and clove hitch

Mark Band	Assessment criteria
<b>9-10</b>	<p>Candidates should be able to perform skills/manoeuvres 1-16</p> <p>Candidates should be able to climb a route showing significant improvement with efficient and smooth style. They should be able to use a range of belay devices and have some considerable background knowledge about the indoor sport and its equipment. They should be able to demonstrate some technical moves either on routes or the bouldering room; eg: layback, mantelshelf, straight arms, foot swapping, side pulls, bridging etc and also have a good understanding of the structure of a climbing session, warming up exercises, stretching, gentle climbing, peaking, warming down, rest. They should demonstrate tying the figure 8 knot on the bight, clove hitch and overhand knot and how to attach a belayer to a ground anchor system.</p>
<b>7-8</b>	<p>Candidates should be able to perform skills/manoeuvres 1-13</p> <p>Candidates should be able to climb a route and show progression. They should belay independently and faultlessly with a modern friction based belay device and confidently hold a falling climber on top rope.</p> <p>For a mark of 13 the candidates must have :</p> <ul style="list-style-type: none"> <li>• <b>Have completed 35 set climbs of any grade</b></li> <li>• <b>Have completed 35 belays</b></li> </ul>
<b>5-6</b>	<p>Candidates should be able to perform skills/manoeuvres 1-11</p> <p>Candidates should be able to climb a route and show progression, understand the grading system, communicate clearly with their partner, and make effective use of the bouldering room demonstrating the rudiments of technique: use of feet, smooth movement and balance where appropriate.</p>
<b>3-4</b>	<p>Candidates should be able to perform skills/manoeuvres 1-8</p> <p>Candidates should be able to belay on their own with a suitable belay device and climb confidently under supervision. They should be able to climb a route of their choice confidently. They should be thoroughly safe under supervision.</p> <p>For a mark of 8 the candidates must have :</p> <ul style="list-style-type: none"> <li>• <b>Have completed 10 set climbs of any grade</b></li> <li>• <b>Have completed 10 belays</b></li> </ul>
<b>1-2</b>	<p>Candidates should be able to perform skills/manoeuvres 1-4</p> <p>Candidates should be able to attach the rope to their harness safely, fit their harness and demonstrate some climbing ability.</p>

**Skills/Manoeuvres assessed in situations of increasing difficulty to appropriately challenge the individual's level of performance**

1	Demonstrate awareness of safety rules and hazards	9	Clear communication with partner including assistance with route finding and technique
2	Put on harness and helmet correctly	10	Clear understanding of indoor (French) grades
3	Tie a retied figure of eight knot with stopper	11	Safe and effective use of the bouldering wall
4	Descend from a route correctly	12	Demonstrate consistent competent belaying with a modern friction based belay device including lowering
5	Belay safely under supervision using any appropriate device on their own	13	Hold a top rope fall confidently
6	Climb any chosen route (rainbow) confidently	14	Have working knowledge of other belay devices and climbing equipment
7	Consistently performs pre-climb checks	15	Demonstrate 5 named climbing techniques and 5 warming up exercises
8	Demonstrate consistent safe behaviour	16	Tie figure 8 knot on the bight, clove hitch and overhand knot and attaching a belayer to a ground anchor system.

**Notes:**

**Final mark:**

- NICAS Level 1
- NICAS Level 2
- NICAS Level 3 (Part)