



## Module 3 Vertical Core Skills syllabus

As copied direct from the LCMLA Handbook Edition 5 2010

### VERTICAL EQUIPMENT

Leader's Personal Equipment – suitability / care  
 Choice and suitability of equipment for group members' use – harness / cowstails / descender etc  
 Knowledge of PPE regulations and Equipment Standards  
 Ropes – types / construction / longevity / usage / storage / care etc  
 Karabiner / Maillons – types / usage / limitations etc  
 Ladders / Spreaders / Tethers – types / construction / linkage / limitations / coiling / storage etc  
 Descenders / Ascenders / Pulleys / Belay devices etc – types / usage / limitations  
 Bolt hangers – types / usage / limitations

### KNOTS

Use of an appropriate range of knots  
 Knowledge of suitability / limitations

### RIGGING

Equipment Preparation / Packing  
 Rigger Protection – methods and their advantages / limitations  
 Natural Anchors – suitability and use  
 Artificial Anchors – pre-use checks  
 Knowledge of Fall Factors  
 Traverse Lines  
 Belay systems – construction using rope / slings – alignment and forces – sharing loads  
 Pitch head – approach / ease of access / position of leader etc  
 Ladders – use of spreaders etc. / deployment etc  
 Group abseil rope  
 Lifeline – incl. double lifelining

### PERSONAL SRT (optional and assessed as Module 5)

Due consideration of accident to leader  
 Personal SRT equipment – suitability and use  
 SRT personal skills – pitch head / descent / ascent / deviations / rebelay etc.  
 Self-Rescue – improvisation in case of equipment failure or loss etc.  
 Ropes and Knots for SRT  
 Use of Rigging Guides / Topos  
 Rigging for SRT – principles / personal safety / traverse lines / pitch head / rebelay / deviations  
 Conversion of SRT Rigging for lifeline / group abseil / group lower  
 Use and suitability of Personal SRT equipment for life lining / lowering / rescue  
 Consideration and use of Travelling Ladders

### LIFELINING METHODS

Belay Methods and Devices – use and limitations  
 Position of Leader  
 Safety of group members – waiting / to & from pitch head  
 Efficiency / Fluidity of Lifeline Technique  
 Double Lifelining  
 Communication

### DESCENT / ASCENT

Group Ladder climbing- pros and cons / hazards / style  
 Group Abseiling – pros and cons / hazards  
 Lowering – pros and cons / hazards  
 Leader Personal safety – ladder / abseil

### EMERGENCY VERTICAL TECHNIQUES

Improvised Harness – rope only / slings & krabs  
 Use & Limitations of Waist Belay  
 Chosen belay method or device – ability to lock off / ability to lower off / ability to convert to hoist etc  
 Ladder problems and solutions  
 Abseil problems and solutions  
 Lowering problems and solutions  
 Traverse problems and solutions  
 Assistance to exhausted ladder climber  
 Hoist of exhausted / injured group member – with assistance / without assistance  
 Conversion of hoist to lower