ADVENTURE ACTIVITY GUIDELINES

# Challenge Ropes Course

Schools must follow the Department’s Excursion Policy and Guidelines and the requirements outlined in this document when planning, conducting and approving adventure activities.

These guidelines are for developing risk management plans specific to the location, activity and group participating. They are not intended to be used as a training manual. Staff instructing the activity must have sufficient knowledge/expertise in the activity.

Challenge ropes courses are designed to present physical and mental challenges to individuals and groups. They are a combination of low and/or high elements.

Challenge ropes courses may include activities such as log balances, walls and flying foxes.

[WorkSafe Victoria](https://content.api.worksafe.vic.gov.au/sites/default/files/2018-06/ISBN-Falls-prevention-guide-2017-06.pdf) states that the risk of serious injury or death from a fall increases significantly if you are working at heights over two metres. Therefore, students using high elements of a challenge ropes course must be thoroughly prepared and closely supervised while on the course.

Staff must give careful consideration to the method of moving between elements and the potential for students to be without safety attachments.

If an overnight camping component is planned, please also refer to Camping guidelines.

## activity Definitions

**Ascender** – a mechanical device used to grip and/or climb a rope.

**Belay** – refers to both the system and to the managing of the system that anchors a person who is at height.

**Descender** – a piece of climbing hardware typically used to grip a rope using friction to belay or to lower from high elements on a challenge ropes course.

**Dynamic belay** – an anchor system which uses a dynamic rope attached to the person at height, passes through a pulley or karabiner above them and is kept tensioned by a belayer or belay team below.

**High element** – any element for which the participant’s safety can no longer be achieved by spotting and requires safety systems such as harnesses, belay systems, specialist safety equipment or other established methods or systems.

**Karabiner** – a specialised clip typically used for joining ropes and harnesses during rope activities.

**Low element** – an element for which safety is achieved through safe and effective spotting (which must protect the participant’s upper body and head).

**Prussik loops** – a loop of rope with a multitude of uses, in particular, to grip a larger diameter rope in rescue situations.

**Spotting** – spotting involves the partner of a participant undertaking a low ropes element standing in such a way as to be able to break the participant’s fall should they slip off the element. Students who are spotting must be taught the spotting procedure for the specific course and be supervised throughout.

Spotting also occurs on high elements, where the partner of the participant provides a visual check of progress and may also belay them.

**Static belay** – an anchor system which requires a person at height to attach themselves to anchor points. Typically, this involves the use of a pair of karabiners, attached to the climber’s harness with loops of webbing.

## Staffing definitions

**Staff** – any adult approved by the principal who provides supervisory, instructional or educational elements of the activity or excursion. See Excursions Guidelines: Staffing for further details.

**Teacher** – a staff member registered with the Victorian Institute of Teaching who provides a supervisory role on a program.

The following roles can be filled by school staff, a teacher or an external provider, or a volunteer (See [Volunteers in Schools](https://www2.education.vic.gov.au/pal/volunteers/policy) policy).

**Designated Instructor** – the appointed staff member on a program who provides the lead technical expertise and supervision for the activity.

**Instructor** – a staff member who provides professional, technical expertise and supervision for the activity.

**Assistant Instructor** – a staff member who provides assistance to the instructor(s) in the provision of technical expertise and supervision for the activity. An assistant instructor role may be filled by a volunteer (See: Volunteers in Schools Policy).

## Student preparAtion and skills

Planning for activities should begin with an assessment of students’ current knowledge, skills and experience in challenge course activities.

The assessment of students’ current knowledge, skills and experience in the activity should be documented using [Documentation of Participant Preparation, Pre-requisite Skills/Knowledge​ ​ (doc - 139kb)](https://www.education.vic.gov.au/Documents/school/principals/safety/participrep.doc).

First timers and beginners must undertake lessons to receive competent instruction in basic skills taking into account factors such as activity area conditions, weather, terrain and the progress of students.

The instructor should ascertain the previous experience of each student.

Instructional staff must brief students on:

* equipment, clothing and footwear that is suitable for the activity and location
* safety measures appropriate to control risks associated with the activity and the environment
* minimal environmental impact techniques relevant to the activity and location
* historical and cultural considerations relevant to the activity and location
* activity scope and boundaries
* communication and communication signals
* relevant terminology
* the use of safety equipment including harnesses, helmets and descending devices
* proper belaying technique and back-up belaying technique must be taught.
* proper stance for descending safely
* the importance and method of spotting.

The responsibility of belaying must be emphasised. All student belayers must have a belay backup. A belay backup normally consists of another student holding, or also belaying, the belay rope. Belayers must be vigilantly monitored by staff.

## Equipment

All equipment used must be in sound condition, suitable for the activity and must meet applicable industry safety standards.

A log of use of all climbing equipment must be maintained by the owner.

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##### Belay devices

Belay devices that are in good working order and meet Union Internationale des Associations d’Alpinisme (UIAA) standards or Comite Europeen de Normalisation (CEN) or the Australian equivalent must be used.

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##### Harnesses

Harnesses should meet EN 12277:1998 or the equivalent UIAA or Australian standards. Harnesses must be in good working order and correctly fitted. Students and staff must be vigilant in ensuring that harnesses are correctly refitted between sessions or after removal.

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##### Helmets

Helmets that meet UIAA standards or equivalent CEN (EN 12492) or Australian standard must be worn by all students and staff when on a challenge ropes course or in the vicinity of the challenge ropes course

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##### Ropes

Static ropes (10 mm to 11 mm) are ideal for belaying.

The rope should be secured to the harness according to the harness manufacturer’s instructions.

Belay devices must be attached to harnesses with a locking karabiner.

## Experience and qualifications

Staff instructing the activity should have sufficient knowledge and experience of the activity and the activity environment to operate in all reasonably foreseeable conditions.

**Low ropes**

The designated low ropes instructor(s) must have and provide evidence of having the following knowledge and skills:

Required knowledge:

* types of low ropes courses (linked and independent)
* function/mode of operation of common equipment used in low ropes course construction, including the following:
	+ eye bolts
	+ wedging devices
	+ wire rope grips
	+ shackles
	+ thimbles
	+ rigging screws
	+ turnbuckles
	+ staples
* safety issues with respect to low ropes course use
* group management during an outdoor activity.

Required skills:

* communication skills to convey safety procedures and the importance of adherence to procedures
* observation skills to make sure the activity is conducted in a safe manner
* group facilitation skills to make sure the activity is conducted in a positive and constructive manner.

**High ropes**

The designated high ropes instructor(s) must have and provide evidence of having the following knowledge and skills:

Required knowledge:

* the implications of relevant international, Australian and industry standards pertaining to equipment use and performance
* manufacturer's design specifications and recommendations for equipment use
* safety procedures including communication procedures, belay systems and risk management strategies
* the principles of belay systems and devices
* knots and their limitations
* the advantages and disadvantages of different belay systems, methods and devices
* the types of pulleys and situations in which they should be used, including belay pulleys, shear reduction pulleys and flying fox pulleys
* the types of challenge ropes courses (linked and independent)
* the function and mode of operation of common equipment used in challenge ropes course construction
* safety issues with respect to high ropes course use
* minimal impact issues, e.g. impact to trees, tree root systems and flora and fauna relating to challenge ropes courses
* group management during an outdoor activity
* suitable sequencing within an adventure-based program to achieve objectives
* the selection of anchors for personal and client safety systems, where required.

Required skills:

* equipment use and maintenance skills
* skills in vertical rescue techniques
* communication skills, to convey safety procedures and importance of adherence to procedures
* observation skills, to make sure the activity is conducted in a safe manner
* group facilitation skills, to make sure the activity is conducted in a positive and constructive manner
* programming skills, in order to develop and/or adjust a program to achieve client goals.

For current information about relevant recreation industry training please refer to: [Australian Government Department of Education and Training](http://training.gov.au/).

The designated high ropes assistant to the instructor must:

* be able to fit and check harnesses for safety and comfort
* be able to assume a supervisory role during the activity
* be able to competently assist in emergency response procedures, including CPR
* have conferred with the instructor to establish the emergency response and supervision responsibilities.

 [Documentation of staff qualifications and experience (doc - 151kb)](http://www.education.vic.gov.au/Documents/school/principals/safety/staffqual.doc) must be used to document staff experience and training in lieu of the listed qualifications.

Where an external contractor is chosen to run all or part of this activity, see: Excursions Guidelines – External Providers.

## Supervision

Supervision is a critical factor in managing risk in the outdoors.

A minimum of two staff members must be present for each activity, one with main responsibility for activity instruction and the other to assist the instructor.

It may be necessary to increase the staff allocation based on ability to observe or monitor students on activity with consideration to:

* students (medical conditions, age, physical, mental and emotional maturity, ability and experience)
* group (dynamics and size)
* staff (medical conditions, age, ability and experience, qualifications and skills)
* location (remoteness, communications and environmental conditions).

Reasons for increasing staff allocations must be documented.

The following table shows the minimum staff-to-student allocation that must be used for challenge ropes course activities.

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| **Low elements** |
| Staff numbers | Student numbers |
| 2 | 1–24 |
| 3 | 25-36 |
| High elements  |
| Staff numbers | Student numbers |
| 2\* | 1–12 |
| 3\* | 13–18 |

\*On High Elements, staff must directly supervise each belay transfer

The teacher in charge is responsible for the supervision strategy, which must be endorsed by the school principal as part of the excursion approval process. Staff members must supervise students according to that strategy, and in accordance with their duty of care. It is the role of the teacher in charge to clearly and adequately explain the supervision strategy to all participating staff members.

Students not directly participating in the activity must be separately supervised in line with Excursions Guidelines – Supervision.

## Peak bodies and expert advice

Australian Camps Association <http://www.auscamps.asn.au/>

Association for Challenge Course Technology <http://www.acctinfo.org/>

Australian Climbing Instructors Association <http://www.acia.com.au/>

Outdoors Victoria <https://outdoorsvictoria.org.au/>

For further enquiries, please contact community.stakeholders@edumail.vic.gov.au

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