

**Generic:** Playing on Rope swings, rope ladders, balancing, cargo net, hanging & swinging lines **Assessed by: Marina Robb**

**Date:**

**Next Assessment due:**

<b>Benefits of the Activity</b>					
Development of					
<ul style="list-style-type: none"> <li>• Vestibular sense - as they swing, balance, tilt and spin</li> <li>• Gross and fine motor skills - as children climb ropes, and balance</li> <li>• Proprioceptive sense - as they push and pull with their bodies</li> <li>• Visio-spatial awareness</li> <li>• Risk taking skills as they swing higher, balance at the high ends of the ropes and test themselves on heights</li> <li>• Swinging and being upside down gives a different perspective on the world</li> </ul>					
Additionally the children					
<ul style="list-style-type: none"> <li>• Undertake self-chosen challenges</li> <li>• Build up skills by repeating activities</li> <li>• Discover how a stable environment changes in different seasonal or weather conditions</li> <li>• Build up decision making skills               <ul style="list-style-type: none"> <li>• Materials – understanding strength &amp; stretch of ropes</li> </ul> </li> </ul>					
<b>To whom does this apply to: Young people/adults</b>					
Hazard e.g sharp knife & Risk e.g cutting/wound	Likelihood	Hazard Severity	Risk factor	Control measures to reduce the risk	Residual risk
Falling from swing	4	3	12	With fixed swings, ropes are tied to a suitable piece of wood or tree by a Forest School leader, or by a helper and checked by a Forest School leader. Rope attachments are tested for strength by pulling firmly. Ropes are minimum 12 mm thick. Be aware that rope stretching varies.	6
Sharp objects in Tree Zone	3	3	9	The area beneath the swing to be cleared of obstacles and sharp objects/ upward pointingshoots. The potential fall zone shall be suitable terrain.	6
Colliding with trunk	3	3	9	Swing to be attached to a branch that is well clear of the trunk. The swing will be supervised by an adult at all times. Adult to	6

				make sure other children do not get too close.	
Abrasions from rope	3	2	6	Choose rope carefully. Explain about friction burns	4
Colliding with other children	2	2	4	The swing will be supervised by an adult at all times. Adult to make sure other children do not get too close.	2
Further measures				The full height from the end of the rope at its highest likely swing point, must not exceed 2 metres from ground level. <ul style="list-style-type: none"> <li>Regular checks of the ropes used, for fraying or damage</li> <li>Ropes removed from wood between visits</li> <li>Damaged ropes replaced</li> <li>Check the integrity of branch/tree holding the rope</li> <li>The tree is inspected and deemed suitable to hold the swing and/or play equipment.</li> </ul>	
Cargo net injury from falling	2	2	4	Ensure net is securely attached to strong trees. Max of 2 adults. Ensure supervision at all times in use	2
Falling debris from overhead dead wood	3	3	9	Check for deadwood and possible debris above prior to setting up each time	3
Clothing/footwear getting caught on the netting	3	2	6	Ensure supervision at all times	3
Net failure and falling	2	3	6	Check net for any damage prior to use. Climbing rope threaded through the outside edge of netting. Ensure max of 2 adults at a time	3

**Risk Assessment scoring-** Scores of 8 and above cease activity or reassess the control measures

Likelihood		Hazard severity		Risk Factor (likelihood x hazard severity)	
1	Very unlikely	1	Minor injury, scratches, bruises, burns etc.	1-3	Low
2	Unlikely	2	Moderate injury, cuts, grazing, burns etc.	4-7	Moderate
3	Likely	3	Serious- Person requires hospital treatment or time of school/work	8-12	High
4	Very likely	4	Significant, risk of death or loss of limbs/ eyesight etc.	13-16	Very High



## Tree knowledge:

A tree assessment must be carried out from ground level prior to any climbing of trees on a site.

Trees strive for uniform stress distribution over their surface. If this is disturbed by

locally high stresses, then the tree will lay down thicker annual rings at this place. Conversely, if it is under-loaded, it will make less annual increments.

The form of a tree is thus an indication of its structural condition, the so-called 'body language of trees'. For these reasons visual tree assessment (VTA) is an appropriate and widespread method of tree diagnosis. The use of VTA when considering installing a rope swing is discussed below:

- Look for cracks, splits, bulges and unusual swelling as these often indicate biomechanical tree defects. Frequently these are not particularly significant, although in some cases they leave the tree liable to limb failure.
- Look out for fungal fruiting bodies and decay. Knocking a tree with a hammer (sounding) can help reveal the extent of hollows or decay. Dead branches at the ends of limbs are a sign of decay or infection. Obviously limbs with extensive decay or cavities should not be used to support a rope swing.
- Look at the point where the branch forks from the main stem or larger limb. If there is a seam, crack or "ears" at this point this indicates that the annual rings are not welded and the limb is at risk of tearing out. Limbs with these weak fork unions should not be used to support rope swings.
- Trees that have always grown with a lean should have adapted their growth to compensate and so, in the absence of any structural defects, are likely to be as strong as upright trees. However, trees that appear to have had recent rootplate movement should not be climbed or used for a rope swing.
- Any dead or hanging branches above the swing and areas of activity should be removed or stabilised. Using the swing is likely to dislodge any loose material in the crown that has not been removed or made safe in advance.

The findings of the tree assessment should inform your decision of whether the tree is suitable for a rope swing or not. You should record that you have made a tree assessment and your conclusion as part of your risk/benefit assessment.

Common suitable trees include: Oak, sycamore, hornbeam

Avoid: Larch, pine, silver birch, willow