



## Notes from 'Swings and Things' Webinar

### Why create Swings and 'Things' with Children?

- Physiological need (Maslow [1943] Hierarchy of Needs)
- Fresh air
- Benefit Risk Assessment - judgements
- Physical development
- Intellectual - HOTS & problem solving
- Creativity
- Social
- Emotional - Trust & Resilience, self regulation
- Curriculum coverage- STEM, Language, HWB

### Laws & Legislation linked to and that could be considered when reviewing Benefit Risk Assessments:

- The Health and Safety at Work Act 1974
- Occupiers Liability Act 1960  
Take reasonable care, suitable and sufficient assessment
- Compensation Act 2006  
Takes account of the benefit of activities (benefits outweigh risks)
- Disability Discrimination Act (1995, 2010)

The 2008 version of BS EN 1176 Playground Equipment Standard recommends & EN 1177 Surface standard. IAS (Impact Attenuating Surfacing) for fall heights greater than 0.6 metres, and in the UK, well-maintained grass is appropriate for fall heights of up to 1.5 metres, subject to a risk assessment (BSI, 2008a from <https://www.bsigroup.com/en-GB/standards/>)

However, these standards are set for playgrounds and not wild spaces

### Balancing Benefits Vs Risk

- The environment
- The resources
- The experience
- The individual
- The group

### The three vital questions

- 1) What is good about doing this (benefits)?
- 2) What do we need to be careful of (hazards and/or risks)?
- 3) How do we stay safe (precautions)?



Hazards:

- Rope/string
- Height
- Surfaces (including slope, stone, roots, water)
- Tree or shrub/supporting structure
- Canopy/ Overhead structures
- Tools
- Biohazards
- Weather
- People

Selecting a tree - species

- Sycamore
- Oak
- Beech (aware in high winds)

If mature/large & healthy-

- Lime
- Cherry
- Horse chestnut
- Ash

Avoid these species -(often flexible limbs)

Spruce, Pine, Fir, Larch, Birch, Willow

Be aware of scuffing ground & effect upon the tree

Avoid prominent trees (Conservation heritage)

Selecting fixed point (s)

- Tree/Shrub- maturity, health, swing zone, surface
- Health- cracks, bulges, splits, fungal growth, hollow, dead wood, hanging branch
- Consider the lever effect- further away, greater load

Fall Height/Zones

- Fall height - A good rule of thumb is no your feet should be no higher than the head height
- Fall zone- you should have at least 6ft or 2.5m around you (I.e 4m diameter with the object you are standing on in the centre or swing zone).

Rope, Cordage, String

- Braided (commonly core synthetic fibres with plait /braid around outside (e.g boat mooring line min 20mm)
- Webbing (45mm min)
- Synthetic ropes - light, strong, water resistant, hard wearing (abseil rope or with care Dynamic climbing rope 10mm min).



- Most climbing ropes breaking strain of 2500kg. Strength often related to weight of the rope. (length/thickness/composition) ([outdoorenquirer.com](http://outdoorenquirer.com))
- Lifespan - depends on use (in/out & regularity)  
1-2 times/year = 7 years, weekly replace after 1 year
- For Nylon rope 3 or 8 strand rope:  
[https://www.engineeringtoolbox.com/nylon-rope-strength-d\\_1513.html](https://www.engineeringtoolbox.com/nylon-rope-strength-d_1513.html)

Choice- fit for purpose:

- Properties (Dynamic {stretches} to Static {low stretch})

Considerations:

- Wear
- Break strength
- Environmental credentials
- Texture (friction burn)
- Weight
- Cost

Care

- Storage
- Coil
- Wash
- Dry
- Check for damage

Getting a rope over a tree:

- Weight the end (either coiling the rope, or wrap securely around an object)
- Or Throw (weighted) string attached to a rope over the branch - sheet bend

When putting a physical 'creation' up:

- An adult constructs or helps in the construction
- Undertake a BRA with the children (3 questions)
- Ropes are not wrapped around parts of the body
- Activity is below the level of the participants heads (maximum height 2m from ground)
- Activity level and challenge is appropriate to experience/competency not confidence levels
- Equipment should be fit for purpose
- Surfaces should be checked and where possible cleared of hard, protruding materials.  
Ground should be relatively flat
- An adult tests the experience
- Children must be able to climb up/down without being lifted.
- Children are encouraged to self regulate with an adult overseeing



Check you insurance small print!

Knots, hitches, bends, lashings

Terminology

- Working end
- Standing end
- Loop/turn
- Bight

Hitches

Lark's Foot

<https://youtu.be/h58Ulj2jDMc>

Timber Hitch (hammock 6 twists)

<https://youtu.be/n7R0Yp5uP1g>

Bends

Fisherman's bend

<https://youtu.be/IBdN53vuQR8>

Sheet bend - to attach 2 ropes of different sizes  
See a YouTube film or book

Knot

Figure of 8

- Stopper
- On a bight (loop)
- Rethreaded
- Slippery

<https://youtu.be/x3l6JrB-lo0>

Make your own Trim trail - low level

- Balance beams
- Stepping stones
- Bridges- with hand rail (1 or 2)
- Ladders - log (notch cut) or lashing
- Swing

(Commercial Slack lines/bouldering mats)

<http://slackline.co.uk/kit/>

<https://www.gibbon-slacklines.com/en/products/slackline-sets/funline-treewear-2019/>

Make your own balance line

<https://youtu.be/JyitpKFSqoU>



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[www.do-learn.co.uk](http://www.do-learn.co.uk)

Hammock (with or without a shelter over

Pre- designed

<https://youtu.be/-hspxCZRI5Q>

Or created yourself with a clove hitch over an object and timber/round turn & 2 half hitch tie off

Solid timber ladder

Ladder Lashing

<https://youtu.be/xsU3seShYPI>

Rope Ladder

Marlinspike Hitch

<https://youtu.be/egKHdQJuyOs>

Swing

Single attachment

- Hole drilled through 'seat' or lashed centrally (Marlinspike)
- More movement - a range of directions

Double attachment

- More controlled and directional movement (cadence)

<https://youtu.be/ZRhTujoc-So>

Protection /prevention from falling & injury

- Training - bend knees, how to hold, use
- Check surfaces
- Bouldering mats

Contact details & References:

[k8dolearn@gmail.com](mailto:k8dolearn@gmail.com) [www.do-learn.co.uk](http://www.do-learn.co.uk)

- D. Ball, T. Gill and B. Spiegel (2008) Managing Risk in Play Provision: Implementation guide The Department for Children, Schools and Families (DCSF) and the Department for Culture, Media and Sport (DCMS).
- Murray, L and Sutton, A (2010) Children's tree swings: A guide to good practice London: London Play. Online: <http://www.londonplay.org.uk/file/1542.pdf>

Websites

<https://circleoflifetraining.com/wordpress/wp-content/uploads/2017/12/fce-rope-swings-dens-fires.pdf>

<https://www.owlscotland.org/images/uploads/resources/files/>

[Forest Kindergarten Guidance for Landowners.pdf](#)

<https://www.playengland.org.uk/resource/managing-risk-in-play-provision-implementation-guide/>

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[www.do-learn.co.uk](http://www.do-learn.co.uk)

<https://freshpatio.com/diy-tree-swing-ideas/>

<https://climbingblogger.com/when-to-retire-a-climbing-rope/>