



Play Australia

# Outdoor Safety Issues in Early Childhood Centres

Mary Jeavons

Director



# OUTLINE

- WHAT RULES APPLY?
- PLAYGROUND SAFETY STANDARDS - KEY CONCEPTS AND THEIR APPLICATION
- DISCUSSION



# WHAT RULES APPLY?

- Education and Care National Regulations
- Toy Standards (in some instances)
- Australian Standards for Playground Equipment and Surfacing



# Education and Care National Regulations



- Minimum operational requirements for most education and care services
- Regulated under the National Law.
- Organised around each of the seven quality areas of the National Quality Standard (ACECQA, 2013a)

## Main issues:

- Shade and fencing,
- Design to facilitate supervision
- Opportunities for children to explore and experience natural environments.



# Toy Standards

- Australian Standard /NZS  
ISO 8124.1-2013  
Safety of Toys



- Applies to the loose toys and other equipment that is not strictly play equipment
- Toys for children under 36 months is a mandatory Standard

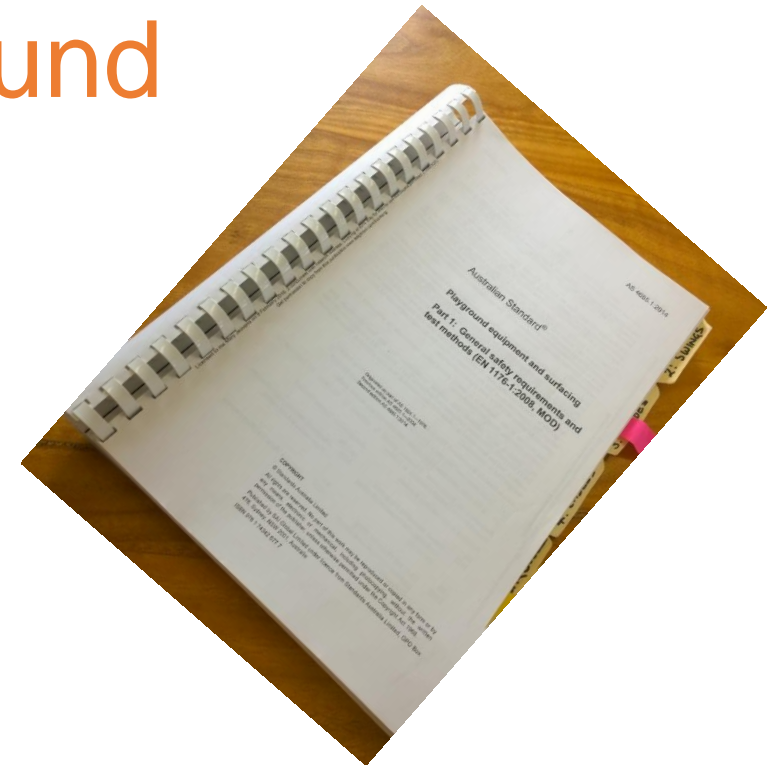




# Australian Standards for Playground Equipment and Surfacing

The main topic of today:

- AS 4685 Part 1- 6 and 11: 2014 (mainly Part 1: Playground Equipment General Requirements
- AS 4422: 2016 Playground Surfacing
- AS 4685 Part 0 forthcoming – Installation, Operations and Maintenance



# Scope for today

- Not about detailed design/construction of equipment
- More about using play spaces and equipment, setting areas up
- General info that will be useful for anyone planning a space
- Not exhaustive – this session does not present dimensions and details but is a general guide only for educators



# PLAYGROUND SAFETY STANDARDS

## Main focus

Preventing Impact injuries caused by:

- Falls
- Forced movement and
- Collisions

Preventing injuries from:

- Entrapment and strangulation
- Sharp protrusions
- Crush injuries

Consider other safety issues such as:

- Toxicity
- Drowning
- Biohazards

Maintenance





# Some Important Definitions



# Definitions:

## Supervised Education and Care Services (S.E.C.S.)

- particular clauses that are only applicable to Supervised Education and Care Services (S.E.C.S.)
- those services licensed under the National Quality Standard (NQS)
- allow a little more flexibility in the rules
- recognise the role of educators whose supervision and judgement is itself a safety provision



# Definitions:

## Movable equipment

- not permanently fixed in place and can be adjusted and moved by educators on a regular basis to vary play opportunities





## Definitions:

### Moving equipment / forced movement

- the structure itself is securely anchored
- the equipment has moving parts (such as a swing, carousel or rocker) which cause or enable the user to move
- Note that a slide is fixed equipment, upon which the user moves



# Definitions:

## Free height of fall

- The maximum heights children can fall
- Measured from the height of the highest standing point or foothold (for climbing equipment)
- Or from a seat (i.e. a swing) or hand hold (i.e. monkey bar)



# How high can children fall?

Varies depending upon whether equipment is:

- fixed



Max height 1800mm in  
S.E.C.S

- movable



Max height 1500mm in  
S.E.C.S





# How high can children fall?

Fall heights also depend on the surface

- Heights less than 600mm



- don't need impact attenuating surfaces
- but use judgement in placing some items

- Heights 600mm or more



- need impact attenuating surfaces and
- impact areas (fall zone)



# Impact attenuating / “softfall” surfaces

- Playground surface or surfacing materials that have shock absorbing properties and are designed to reduce the risk of head and other serious injury.
- Typically either loose or sheet materials
- Each has its pluses and minuses



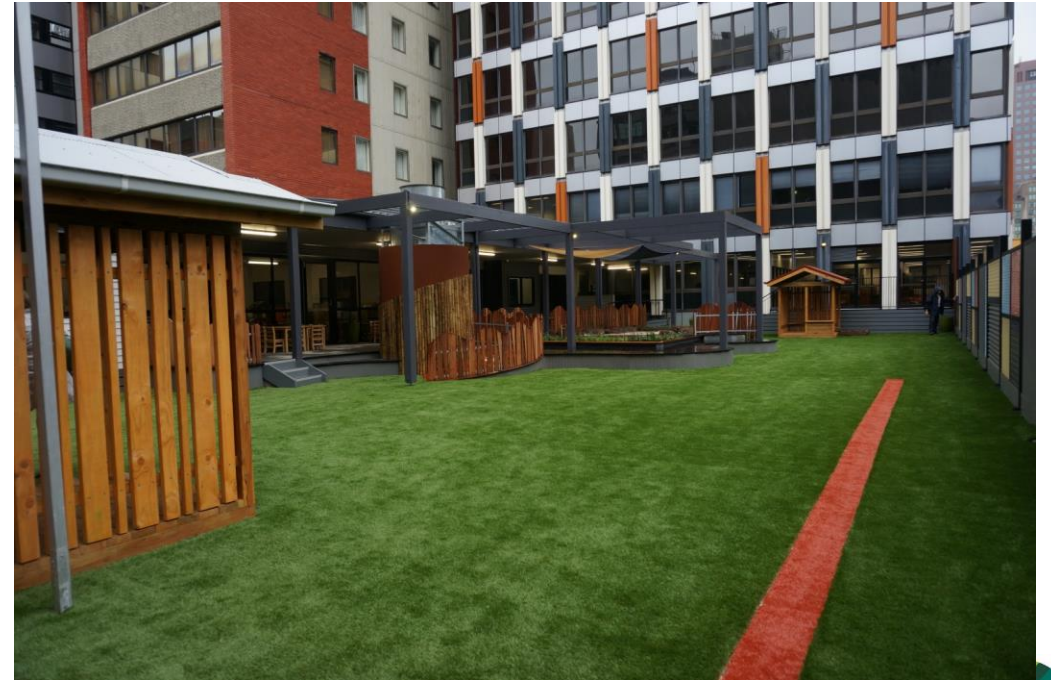


# Surfacing materials

- Mulch (“tan bark”) approx. 300mm deep
- Suitable sand



- Synthetic grass carpet with an underlay



- Wetpour synthetic rubber
- Various kinds of matting



Be wary of spaces like this, where the excessive amount of rubber, the poor layout and the lack of sensory or other play qualities add up to a space that does not offer a suitable setting for children for any extended time.





# Dimensions of softfall surfaces

## Impact area / fall zone

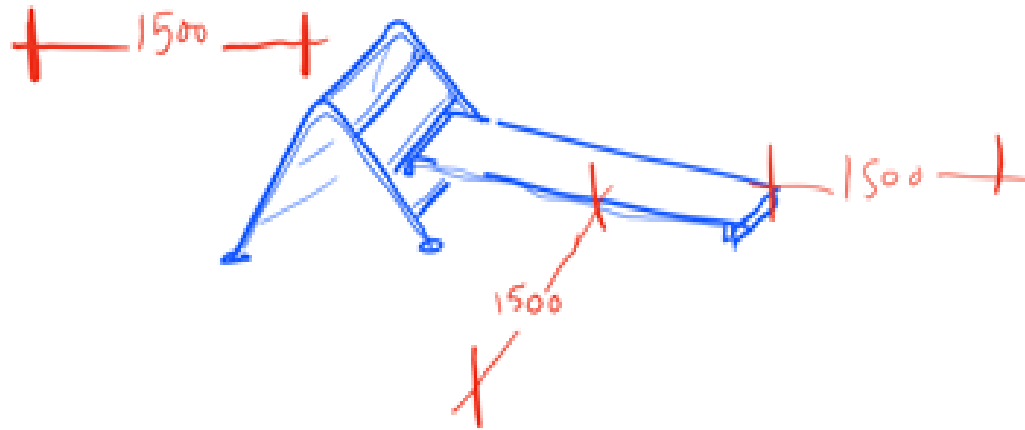
- The area around the equipment to cushion falls
- Need to accommodate falls from any combinations of fixed and movable equipment



# Dimensions of softfall surfaces

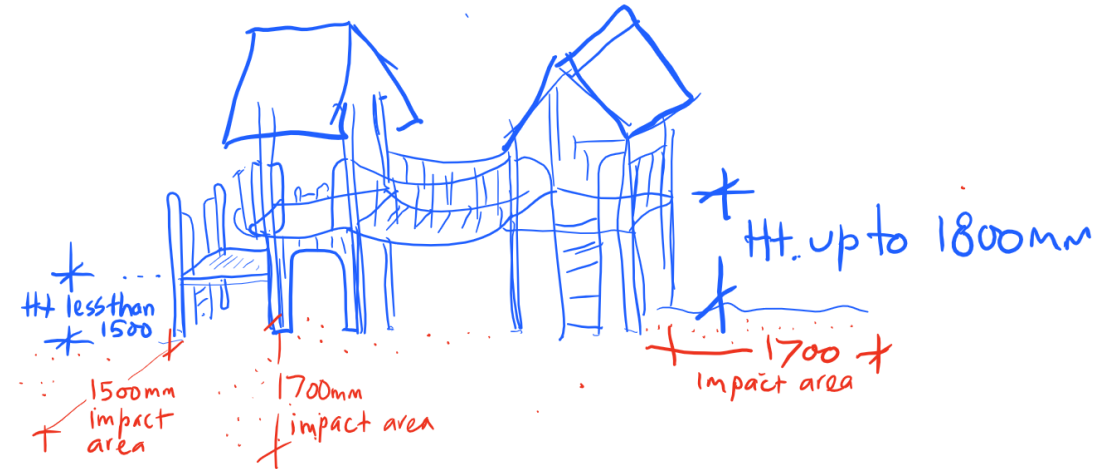
## Impact area / fall zone - relates to height

- Equipment between 600mm and 1500mm in height (both fixed and movable):



- Impact area should be 1500 mm wide

- Fixed equipment between 1500mm and 1800mm in height:

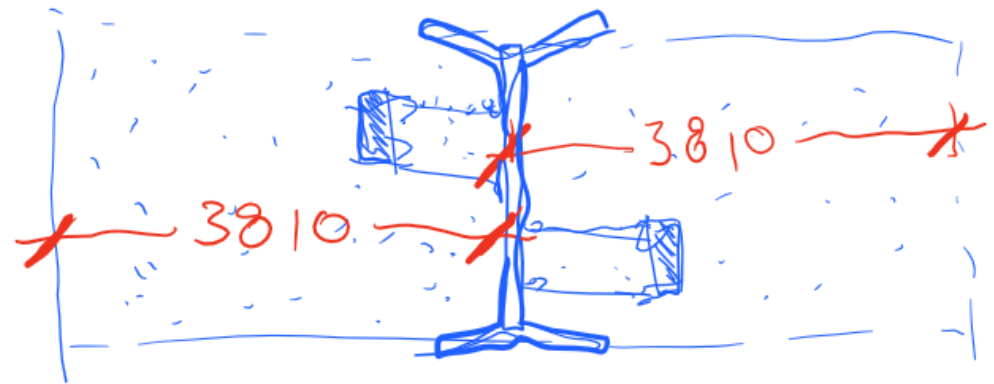
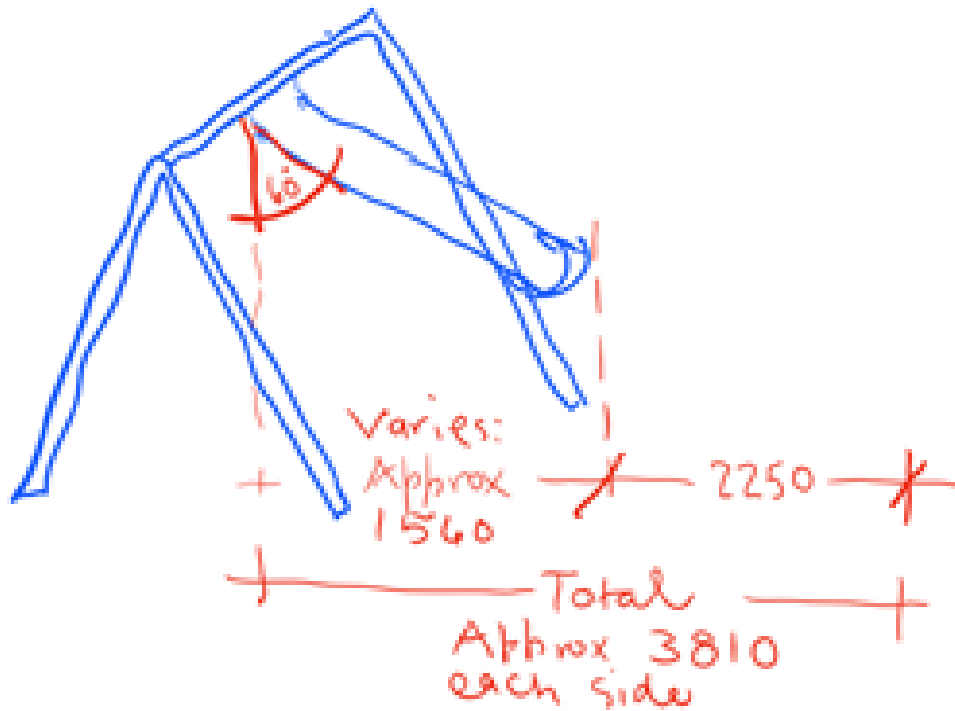


- Impact area should be 1700 mm wide

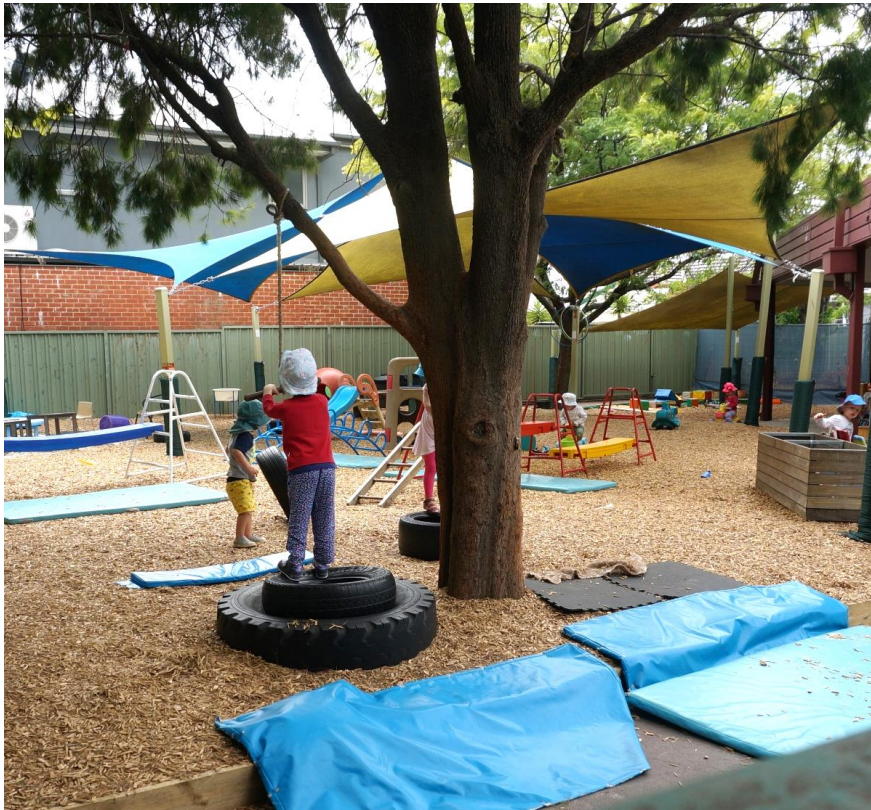




# Impact areas for moving equipment such as Swings



Hmmmm.....





# Placement of swings to avoid collisions

- Avoid placing swings where children have to run past them to reach other areas or play elements



# Swings

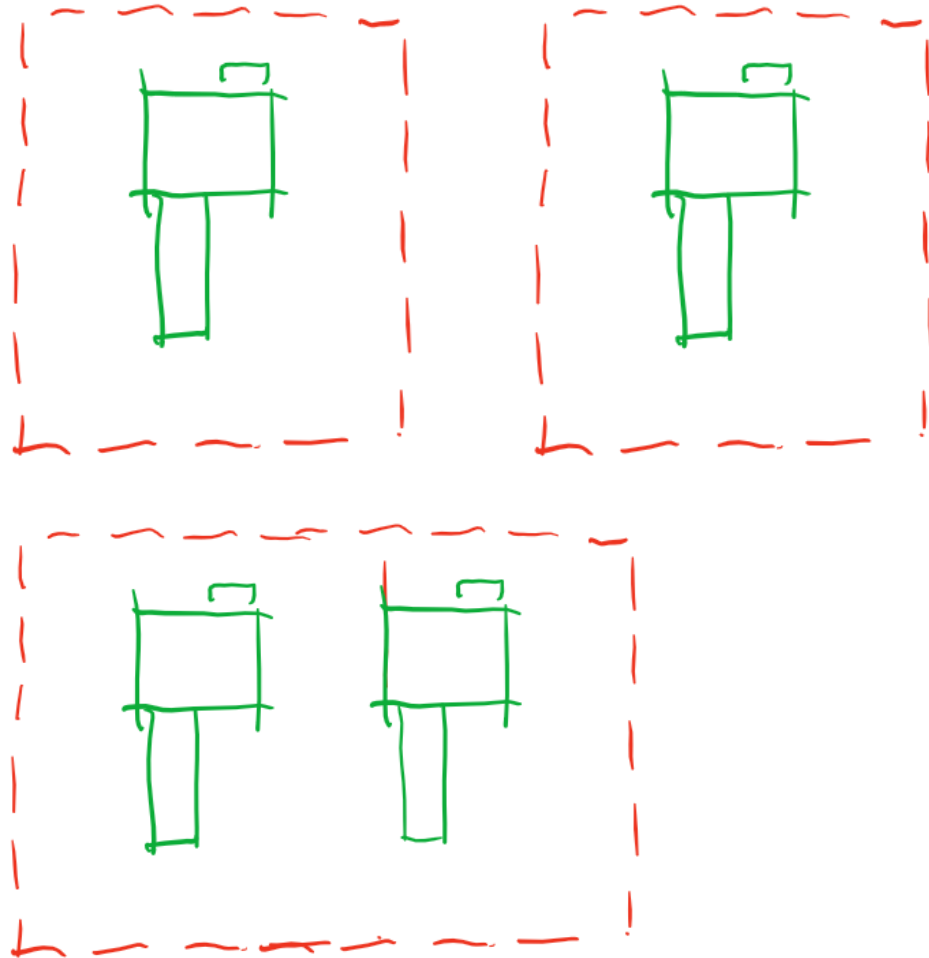


- Swings are best located in their own space on the edge



# Efficient use of surfacing

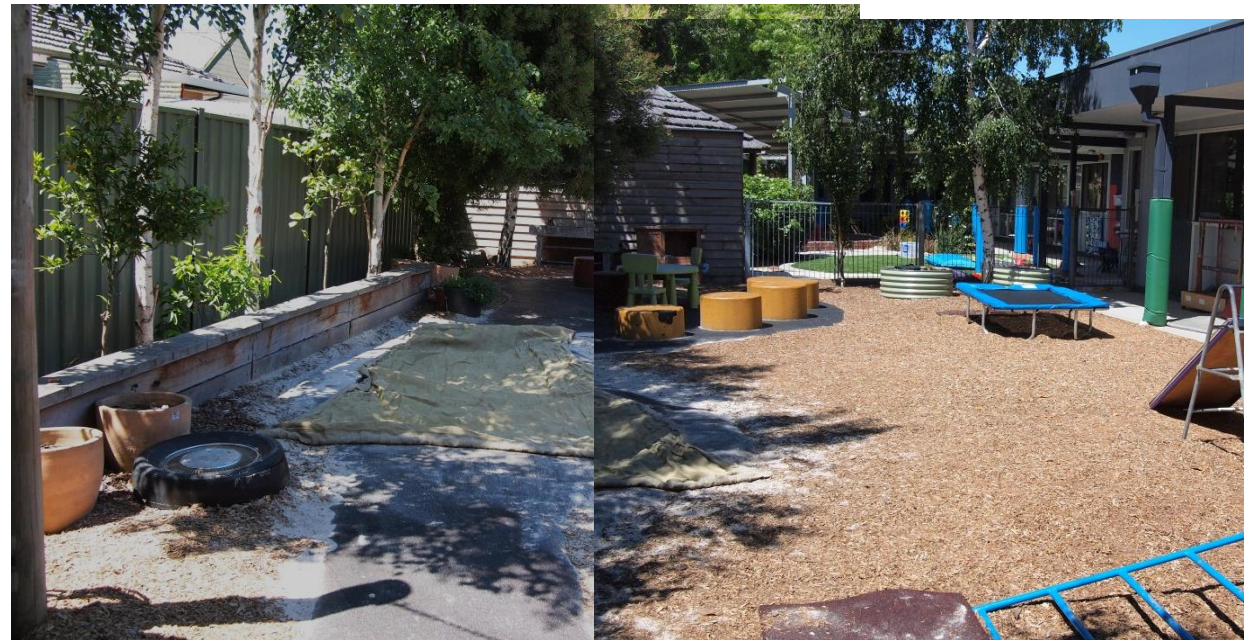
- It's inefficient to have multiple areas of softfall surfaces because of the wasteful 'edge effect' required for each perimeter impact area





# Efficient use of surfacing

- Consolidate climbing areas into one zone rather than many
- Avoid different loose materials adjacent to one another/spilling





# Efficient use of surfacing

- Join movable elements to fixed and save a fall zone for both



# OTHER ISSUES IN THE STANDARDS



# Entrapment and strangulation

Table E.1

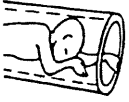


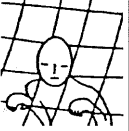
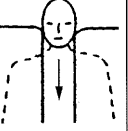
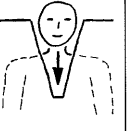
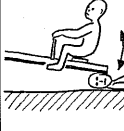
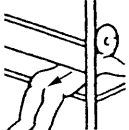

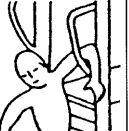

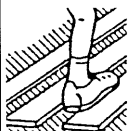
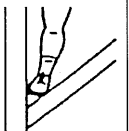
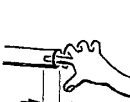


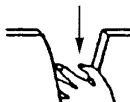
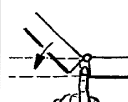
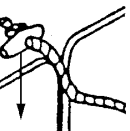

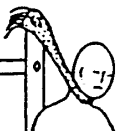
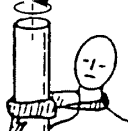

		1	2	3	4	5	6
		Completely bound openings		Partially bound openings	V-shapes	Protrusions	Moving parts of equipment
		Rigid	Non-rigid				
A	Whole body						
B	Head/neck head first						
C	Head/neck feet first						
D	Arm and hand						
E	Leg and foot						

Table E.1 (continued)

		1	2	3	4	5	6
		Completely bound openings		Partially bound openings	V-shapes	Protrusions	Moving parts of equipment
		Rigid	Non-rigid				
F	Finger						
G	Clothing						
H	Hair						



- Note that head and neck entrapment only applies in situations 600mm or more above the ground (or standing surface)











# Unexpected locations to check for hazards

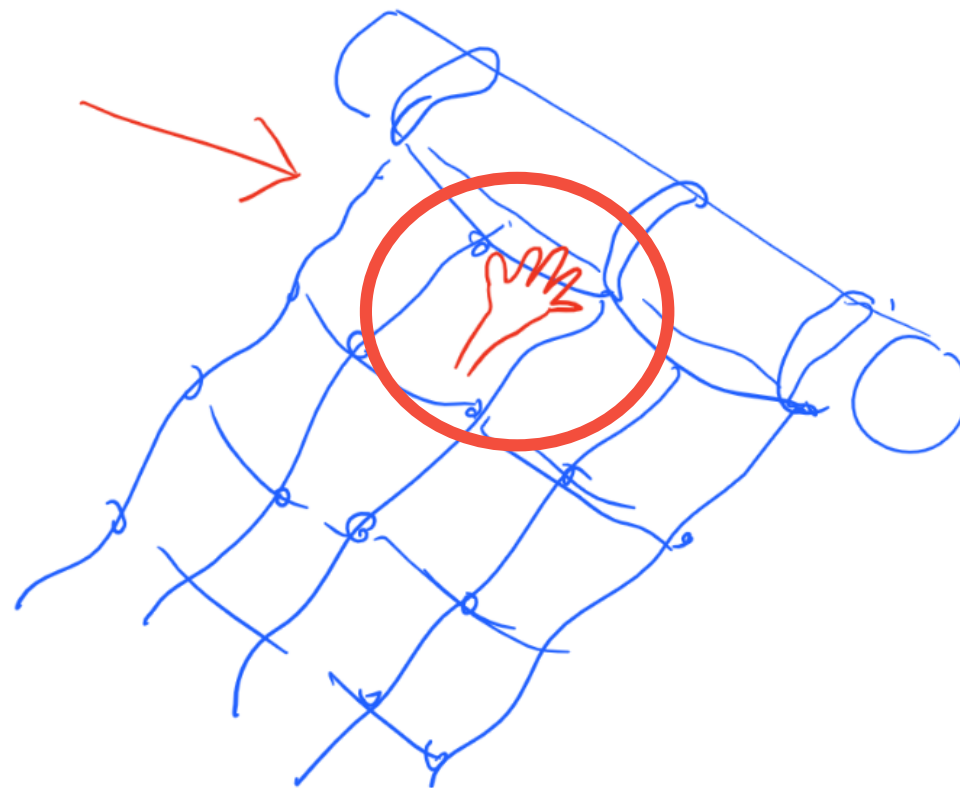




# Take care in setting up movable arrangements and with ropes







# Potential for crush injuries





# Sharp protrusions.



# INSPECTIONS AND MAINTENANCE

- Surfaces
- Rot and corrosion under the ground or mulch surface
- Feet of A frames
- Worn Pigtail hooks
- Vandalism/damage
- Wear and tear
- System in place
- Isolate
- Notify
- Repair/replace





# Pigtail hooks

- Make sure pigtail hooks have proper bearings
- Regularly inspect all moving parts



# IN SUMMARY

- Balancing paranoia vs carelessness
- Training educators
- Trusting the judgement of educators as a safety management strategy





# OTHER FACTORS that POSE REAL RISKS IN EARLY CHILDHOOD SETTINGS

- Inadequate space
- Crowding
- Low quality settings for play that don't engage children
- Lack of opportunities for physical exercise /strength / movement
- Indoor settings masquerading as outdoor play
- Lack of access to natural play settings



Thank you and over to you

© Mary Jeavons, Director

03 9387 7337

[www.jeavons.net.au](http://www.jeavons.net.au)

[mary@jeavons.net.au](mailto:mary@jeavons.net.au)

