



# Rope Play... The New/Old Trend

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**W**hat is Rope? For the purpose of this article, 'rope' as used for commercial play equipment refers to galvanized steel cable wrapped in a polyester yarn. Steel cable was invented in the 1830s, and the first net structures developed for playful climbing equipment were created in Germany in the early 1970s. Rope used for net play structures can be a broad range of diameters. Typically, most ropes in reach of hands have a course surface texture which provides an optimal grip.

**Why Rope?** Movement is fascinating for children. It is always exciting and engaging to bounce, jump, spin, swing or see-saw. Rope is not dead material but instead it is flexible and enables a child to 'connect' with the equipment, as every

action is followed by a reaction. Rope is a play 'partner' and there is always a dialog between the child playing and the structure. Three-dimensional rope structures come in all shapes and sizes and are com-

monly referred to as 'space nets' and 'net climbers'. Structures can be quite tall, or closer to the ground and full of low course challenges, or a mix of both.



*This galvanized steel cable wrapped in a polyester yarn is typical 'rope' used for play equipment.*

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### What is a 3-Dimensional Rope

**Structure?** Most every major play equipment manufacturer now includes rope in their catalog offerings. However, there are no manufacturers of three-dimensional rope structures in the United States. The difference between two-dimensional and three-dimensional is a very important consideration when choosing your equipment. Two-dimensional structures offer 'paths' for a child to climb vertically, horizontally, or possibly across on a bridge or 'link'. Although the two-dimensional ropes add to the play experience, they fall way short of the benefits three-dimensional structures provide.

A properly designed, true three-dimen-

sional net climber encourages a sense of agility, achievement and power in a playful environment. There are no prescribed entry points. There are no specific paths to be followed as are found on more traditional and 2-D rope play structures. Children playing on a three-dimensional structure are empowered to make decisions. The open environment encourages social interaction and more benefits, such as:

- psychomotor development
- sense of balance
- skills to react
- body strength
- sense of achievement
- self-confidence

**There is a great misconception that net climbers are not safe and not accessible.**

**What about Safety?** The question of safety with net climbers typically is raised when speaking about taller structures. It is imperative to always ask your play equipment consultant to show proof that any proposed structure is compliant with ASTM F1487, CPSC guidelines and ADA guidelines.

The truth is, rope structures are extremely safe. The best way to understand this is to go climb on a structure yourself – or at the very least, watch kids play on one. Whether it is a tall structure, low course, or a combination, you will quickly recognize the challenge is what makes the



*Children enjoy a tall combination net structure at Sterling Elementary in Warrensburg, Missouri.*



*The wheelchair in this photo is empty. Where is the child? The child is playing with everyone else. This is truly inclusive play.*

difference. Progress requires control and focus. A child does not feel deceptively safe as they might while running freely through and around a traditional play structure. Each step and each grip is important. Per ASTM F1487-11, the opening size rules out falling through a structure. A child will always have at least two points of their body connected to the structure. Typically there will be three or four points of contact.

Two more very important safety benefits:

- The fabric covering the cable keeps it from getting too hot, unlike plastic-covered steel decks.
- The transparency of a net structure eliminates barriers to visual supervision even on a very busy playground, making it ideal for a school environment.

**What about Accessibility?** Properly designed structures not only meet but actually exceed the Americans with Disabilities Act requirements for play equipment. On most rope structures, the entire base perimeter serves as a transfer point to the climber. There is no need for an additional ‘transfer module/deck’ as is found on traditional post and platform equipment. With no prescribed entry points, children are empowered to decide for themselves where they want to enter the structure.

Accessibility should be carefully considered when working with your play equipment consultant.

**All Rope Structures are Not Created Equal.** When looking at three-dimensional net structures, ease of maintenance

should be paramount.

Galvanized steel cable is literally at the core of these structures. Because the cable is made of individual steel wires, it is important to keep the structure properly tensioned to prevent damage. Think about bending a paper clip back and forth; even though it is steel wire, it will eventually break. Ask questions and follow these suggestions when choosing your equipment:

- **How do I tension the structure?** Tension of the climber should be very easy. Depending on use, tensioning should only be needed once or twice per year. Avoid clunky turnbuckles that present possible trip and injury hazards.
- **What if a rope were to become worn or be vandalized?** First, be sure you can easily replace each individual rope strand of the structure. Second, only if



## The Space Wonders

Plenty of room for playing in a small area.

The compact Spaceballs have a play capacity typically offered only by way bigger structures. However, the Spaceballs do so without requiring large footprints. The innovative tensioning system together with individually replaceable rope strands ensure longevity and trouble-free maintenance.

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*Rope structures are durable, safe and fun.*

you see exposed steel wire is there a concern and with correct tension, it should be many years before this happens.

- **Will the structure be safe and easily serviceable at ground connection?**  
Avoid turnbuckles at the ground level needed for tensioning. Connection points at the ground should pose no potential hazard and be easy to service no matter what type of safety surfacing is used.
- **What about within the structure itself?**  
Turnbuckles, s-hook connections, and other possible hazards within the net climber should always be avoided. There should be no possible pinch points for small fingers.

Although rope play is old in the way it has been around for more than 40 years, it is still somewhat new to our area of the world. With its proven track record for fun, safety, beneficial play, low-maintenance and very cost-efficient designs, rope play should top the list when considering new play equipment.

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