

EXPAND Band

Leader Guide



Fashion
through science

MODULE



We are
Engineers!



Movement
Improvement



Marvelous
Materials



Smart
Clothing



Patternmaking
Tools n' Tech

Big Picture

Spandex, or elastane, is an elastomeric polyurethane fiber that is combined with other fibers to create stretch fabrics. Trade names for spandex include Lycra® and Dorlastan®. When stretched, spandex fibers can expand up to seven times their original size, yet return to their previous dimensions when no longer under stress. Use of a substantial amount of spandex in a fabric will provide “power stretch” that can shape or support the body, as seen in shaping undergarments, bathing suits, and surgical support items. A small amount of spandex (usually under 5%) provides just a little give for comfort and fit called “comfort stretch”.

Materials

What you need: (per leader)

- One 6-yard length of spandex blend fabric, sewn together to form a continuous tube.
Suggested fabrics contain about 20% spandex (nylon blend swim and dance knits work well). Pre-made spandex bands can be purchased online from a variety of vendors.

Prep Time: 20 Minutes
Activity Time: 60 Minutes
Difficulty: Level 1

What's the goal?

This is an active way for a group to test the limits of the elasticity and strength of a spandex band made of “power stretch” dancewear fabric.



The group is challenged when performing a series of movement and weight-exchange exercises, which require coordination and teamwork.

- **Tip: ALERT!** Expand Band should always be supervised by an adult who reminds participants to keep the band stretched from above the shoulders to below the hips at all times.

Preparation

- Securely sew together the cut ends of a 6-yard length of Lycra fabric to create a continuous tube of fabric.
- Using a serger to join the fabric edges will create a strong and durable seam.

Let's get started!

1. **SIT ON IT!** Have the group stand inside the Lycra band with their backs against the band (from their necks to their calves) and begin to move backwards. Once the band is fully stretched, the leader calls out “sit on it!” Participants should be able to extend their legs toward the center of the circle leaning backwards fully supported by the band. This exercise helps the group trust the elastic and strength properties of the Lycra, as the band will hold the weight of the entire group.
2. **LET'S ROLL.** Have the group stand inside the Lycra band, stretching it only enough to keep it from falling to the ground. Each member of the group then begins to roll around the interior of the band in the same direction at the same time. Keep enough space between each participant to reduce accidental tripping.
3. **CROSS OVER.** This activity involves four participants, of approximately the same weight, spaced equally inside the band. Two participants standing opposite each other trade places, landing back-first onto the opposite sides of the band. Then the other two players trade places, also landing with back-first onto the opposite sides of the band. The excitement increases as the pace quickens.

VOCABULARY

Elastomeric fiber: A natural or synthetic fiber with elastic properties that allow the fiber to stretch beyond original size as well as return to previous size when no longer under stress.

Caution! Have the participants pass consistently on the same side of each other so as to avoid messy crashes. Walk through the crossing pattern a few times before accelerating the pace.

4. **SIX CROSS OVER.** This activity involves six participants, two teams of three, Team A (positioned 1,3,5) and Team B (positioned 2,4,6) in the circle. All at the same moment, each member of Team A moves to the next Team A spot, landing back-first. Then each member of Team B moves to the next Team B spot, landing back-first. The rhythm of this activity becomes clear as the participants continue exchanging places.
5. **STAR CROSS OVER.** Here there are six participants divided into three teams of two: Team A (positioned 1,4) and Team B (positioned 2,5) and Team C (positioned 3,6.) First Team A exchanges places, then Team B, then Team C. Again, the rhythm of the activity becomes clear as participants continue exchanging places.

Wrap it up

1. Did you expect the Lycra® fabric to have enough strength to support the group?
2. When you moved in the tube, what surprised you most about the behavior of the fabric?
3. We used a knit that contained Lycra® for this activity. Can you guess what would happen if we used a knit fabric without any elastomeric fibers?
4. What do you expect would happen if we used a woven fabric that contained an elastic fiber component? a woven fabric without an elastic fiber component?

Take it further

1. What types of activities would benefit from a garment constructed of a Lycra blend knit?
2. If used in swimwear, what other fiber characteristics besides strength and elasticity might be important?