

RAFT IDEAS

Topics: Balance, Gross Motor Skills, Senses

Materials List

- ✓ Several large plastic spools
- ✓ Large board (wood, cardboard or foam core)
- ✓ Tape or glue

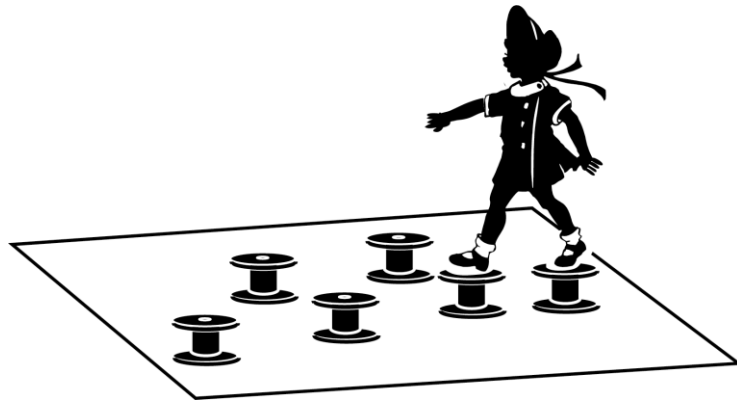
This activity can be used to support the teaching of:

- Gross motor development and balance in young learners
- Forces & Motion (Next Generation Science Standards: Grade K, Physical Science 2-1, 2-2; Grade 3, Physical Science 2-1)



Stepping Stones

Using spools as stepping stones is too cool!



Young students can improve their balance and movement skills with this low and sturdy balance apparatus.

Assembly

Use heavy-duty tape or glue to attach large plastic spools to a board. Place the spools in a “stepping stone” arrangement.

To Do and Notice

(Teacher safety note: Students should use the balance apparatus one at a time and in a well-supervised context. Hold each participant’s hand at least the first time across the apparatus and until the child is comfortable and confident with each task. Avoid jumping.)

1. Carefully walk across the apparatus by stepping on the flat sides of the spools. Try to reach the end without stepping off. For better balance, hold arms out to the sides when walking.
2. More challenging variations can follow, including combinations involving walking sideways, turning, and walking backwards.

The Content Behind the Activity

People generally learn that the senses are sight, sound, touch, smell, and taste; but humans actually have many more senses, including “spatial orientation”, or “which way is up”. This most basic of senses is critical for animal movement and navigation through the environment. For mammals (including humans), this sense combines input from several sources (ears, eyes, skin, joints), but the most critical body part is the vestibular system (or labyrinth), located in the inner ear. It registers directions of motion and positions of the head using fluid, hairs, and tiny crystal-shaped pieces called otoliths. People experiencing loss of spatial orientation (disequilibrium) due to motion sickness, vertigo, or inner ear infections can experience extreme loss of balance. Young learners can explore and develop this sense by practicing standing, walking, and turning on the apparatus used in this activity.

Web Resources (Visit www.raft.net/raft-idea?isid=414 for more resources!)

NASA’s research on the Vestibular system - www.nasa.gov/audience/forstudents/9-12/features/F_Human_Vestibular_System_in_Space.html