



Activity Summary: Learners take on the role of sports engineers to test how traction works on the sole of a soccer cleat. Learners will design, build, and test their own prototype soccer cleat. They'll explore how friction and traction affect movement and performance on different surfaces.

The calculations below are for a class of 30, with learners working together in groups of 3 (10 groups total). Consumable materials needing replenishment before the activity are indicated in the **Notes** column.

Item*	Class Quantity	Notes
Activity Guide (print)	1	Educator tool Download and print from webpage
Photo Set (print)	1 set	Educator tool Download and print from webpage
Plastic trays, 12x16"	10	1 per group
Turf pads (~12x16")	10	1 per group, fits in trays
Green felt (~12x16")	10	1 per group, fits in trays
Sandpaper (~12x16")	10	1 per group, fits in trays
Foam sheets (1")	10	1 per group (<i>consumable</i>)
Sharpened pencils or markers	30	1 per learner
1-inch golf tees, flat	60-80	6-8 per group
1-inch golf tees, tall	60-80	6-8 per group
1-inch golf tees, pronged	60-80	6-8 per group
Adult scissors	1	To cut materials to tray size (~12x16"), to cut foam into shoeprints
Shoe Footprint (print)	30	1 per learner (<i>consumable</i>) Download and print from webpage

*Links are suggestions - we encourage you to buy locally!

The materials in **PINK** are used in multiple activities; materials may be shared if activities are not running simultaneously.