

Big push, little push

Lesson at a glance

Open with a quick hands-up: will a little push or a big push send a ball further down the hall. Define push with hand gestures only, then pairs rotate on two taped floor lanes — same soft ball or toy car, same start — one little push then one big push, marking each stop while watchers call which went further. Keep the model stop marks visible for a whole-class point-and-compare, then one slow clear demo. Children draw both pushes on the Investigation Journal page showing the big push went further, and close with an oral make-sense talk.

Learning objectives

- Roll a ball or car with a little push and a big push and watch which goes further
- Say that a bigger push can make something go further

Before the bell – prep

Before the bell, tape two clear 3–4 m floor lanes with masking tape and push desks back so feet stay clear of both paths. Place one soft ball or toy car and two stop markers (beanbags or scrap tape) at each lane. A toy car is fine if balls bounce. Keep a tub ready for tidy-up.

Materials

Item	Qty	Per	Source	Low-cost substitute
soft ball or toy car	2	class	classroom	a tennis ball or a small cardboard roll car
masking tape for floor lanes and start lines	1	class	classroom	chalk lines on a hard floor, or long skipping ropes laid straight
beanbag or scrap of tape to mark stop points	4	class	classroom	a shoe, a peg, or a sticky note on the floor
Investigation Journal page	1	pupil	provided printable	a blank A4 sheet for a simple drawing
chunky crayons	1	pupil	classroom	colouring pencils

Safety watch-point

Roll only along the taped lane and away from feet. No throwing. Stop play if a lane gets crowded or anyone steps into the path. An adult peels the masking tape at tidy time.



Teaching moves

- **Getting Started:** Keep it light and floor-free. Stand where all can see and put the question with both hands: a tiny finger-tap for little, a bigger arm swing for big. Point at the board flag only as something to guess about — the real comparison is the floor lane later. Count hands for each guess so every child feels heard; guesses are never wrong.
- **What do you think?:** Keep the board almost empty. Say and show: a push moves something away from you (hands forward); a little push is gentle (tiny tap); a big push is strong (bigger push). Ask children to show both with their hands. Head off talk about colour or size of the toy — keep the focus on how hard we push.
- **Push along the lane:** Model one live cycle first: wonder, guess, little fingertip roll and mark, big two-handed roll from the same start and mark, then notice the big push went further. Split the class across two lanes in rotating pairs — one little and one big each, then swap. Watchers stay still beside the lane and join your call: little or big, which mark is further. Leave both model marks on one lane.
- **Which went further?:** Bring everyone to the lane that still has both stop marks. Point to each mark and keep it fully oral: where did the little push stop, where did the big, which is further. If a pair's big push did not win earlier, ask whether the push was really bigger, then re-run one careful pair so the class sees a clear difference.
- **One more clear go:** Screen off; stay on the real floor. Do one slow pair of runs yourself or with one confident pair: little push and mark while the class whispers little push; big push and mark while they whisper big push; then everyone points to the further mark. Say the finding together: a bigger push can make something go further.
- **Draw what you saw:** Hand out the Investigation Journal page in class. Every child draws the class finding — little push shorter, big push further — whether they pushed or watched. Offer stems aloud: my little push went... my big push went... the big push went further. Celebrate clear little-versus-big pairs, not neat artwork.
- **Make-sense talk:** Whole-class oral circle, no writing. Lead with did the big push go further, then revoice: a bigger push can make something go further. Give a quick teacher example of a footballer kick as a big push with the foot. If someone names colour or shine, return to same car, same start — only the push changed. Invite two children to hold up drawings and point to the further run.

What it should show

On a smooth floor the big-push run should clearly pass the little-push mark. Most infants will notice and name that the big push went further. If both stops look the same, the little push was still too strong — model an even softer fingertip tap and re-mark so the difference is obvious before drawing.

Misconceptions & interventions

- **Some children think the colour, size or shininess of the ball or car is what makes it go far.** — Point back to the two marks on the same lane: same toy, same start — only the push changed. Ask which mark is further and revoice that a bigger push can make something go further.
- **A child gives two pushes that feel about the same strength, so both stop marks look alike and they decide push size does not matter.** — Model an even softer little tap beside a clearly stronger big push on the same start line. Have the class whisper little push and big push as each mark is placed so the difference is seen and named.

Differentiation

Emerging	Developing	Proficient
• Pair the child as the marker-placer beside a confident pusher, or keep them in the watcher ring calling little push or big push with you. • At drawing time, point with them to the two class stop marks first so they copy little-shorter and big-further on the Investigation Journal page.	• After their go, ask which mark is further and have them point before the next pair starts. • During make-sense, invite them to hold up their drawing and point to the further run.	• Fast finishers add themselves as the pusher, or a footballer giving a big kick, still on the same Investigation Journal page. • Ask them to show the class a little push and a big push with their hands and say which went further.

Cross-curricular hook

Link to PE striking and kicking — a footballer's hard kick is a big push with the foot that sends the ball far.