



Push & Pull! Year 1 Science at Home

You can help! Every time your child pushes open a door or pulls out a chair, they are doing science. You can help them notice forces everywhere!

Why are we learning this? Forces are everywhere up here

Pushes and pulls are part of everything we do every day. Paddling a dinghy or canoe uses push and pull forces to move through the water. Throwing a fishing line, kicking a footy, opening a heavy gate — these are all forces. Understanding how pushes and pulls work helps your child make sense of the physical world around them, and gives them the language to describe and predict what will happen when they move things.

My child will learn to:

✓ What is a force?

Know that a force is a push or a pull that can make things move or change shape.

✓ Strength of a force

Describe whether a force is gentle or strong, and what difference that makes.

✓ Direction of a force

Describe which way a force acts — pushes move things away, pulls bring them closer.

✓ Predict what happens

Guess what will happen to an object before applying a push or pull force.

Big ideas to know:

What is a force?

A force is a PUSH or a PULL. Forces can make things start moving, stop moving, go faster, change direction, or change shape.

Strength

Forces can be GENTLE (like softly blowing on a feather) or STRONG (like kicking a football hard). Stronger forces make bigger changes.

Direction

Every force acts in a DIRECTION. A push moves things away from you. A pull moves things towards you. The direction matters!

Push and Pull

PUSH

A push moves something away from you.



Examples:



kicking a ball



pushing a
rubbish bin



pushing
a gate open

PULL

A pull moves something closer to you.



Examples:



pulling in
a fish



pulling a wagon
of wood



pulling up
a bucket of water



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What forces can do:

Force effect	What it looks like	Home example
Make things MOVE	Kicking a ball makes it roll. Pushing a trolley makes it move forward.	<i>Push a toy car along the floor.</i>
Make things STOP	Catching a ball (pulling it back) makes it stop. Brakes push on a wheel to stop a bike.	<i>Grab a rolling ball with both hands.</i>
Change DIRECTION	Tapping a rolling ball from the side changes which way it goes.	<i>Gently tap a rolling ball sideways.</i>
Change SHAPE	Squishing playdough (pushing it) changes its shape. Stretching a rubber band (pulling) changes shape too.	<i>Push playdough flat. Stretch a rubber band.</i>

Think Like a Scientist — Force Explorer

Find 5 objects around the home. For each one, try pushing it and pulling it. Talk about: Does it move? Does it change shape? Which way does it go?

Ask your child to PREDICT first — "What do you think will happen?" Then try it!

Try these objects:

1. A pillow or cushion
2. A full water bottle
3. A piece of playdough or bread dough
4. A ball or a rolled-up sock
5. A door or a drawer

Questions to ask your child

1. Is that a push or a pull? (ask this any time your child moves something)
2. Can you push it gently? Now push it hard — what is different?
3. Which way did it move? Can you make it go the other way?
4. Can you find 3 pushes and 3 pulls in our house right now?
5. What would happen if we pushed it with more strength?
6. Can you change its shape? Is that a push or a pull?
7. How do you think we could make that ball stop rolling?

Tip: let your child test their prediction — being wrong is great for learning!

Key words to know:

Force	A push or a pull
Push	A force that moves something away from you
Pull	A force that moves something towards you
Motion	The way something moves
Direction	The way something is going — forward, back, up, down, sideways
Strength	How hard or how gentle a force is
Predict	To make a smart guess about what will happen before you try it

Key words to look up

Force · Push · Pull · Motion · Direction · Strength · Predict

What school will check

Your child needs to describe how pushes and pulls change the way objects move or change shape.

Try it at home!

Roll a ball gently, then roll it hard. Ask: Which push was stronger? How far did it go each time?