

materials

Describing properties

Lesson at a glance

Open with a mystery piece hidden behind a book; a few pupils stroke it and the class chorally offers feeling words. Teach the pair rough and smooth, then groups stroke tray materials and sort them into rough and smooth hoops, saying the reason out loud. A short IWB picture-sort pulls the tray work together. Pupils draw one sorted piece on the rough or smooth side of the Investigation Journal page and pair-share one property word before tidy-up and handwashing.

Learning objectives

- Handle materials safely and describe a property they notice
- Group materials by a chosen property such as rough or smooth
- Say one property word for a material they handled

Before the bell – prep

Night before: set one identical materials tray plus two sorting hoops or labelled trays at every group table. Print rough/smooth picture-word cards (bumpy/scrapey and slippery cues) and the Investigation Journal page per pupil. Ready the picture-sort interactive on the IWB. Include sandpaper, foil, plastic lid, shiny spoon, bark/stick, soft fabric, cotton wool or sponge.

**Materials**

Item	Qty	Per	Source	Low-cost substitute
varied materials tray (sandpaper squares, cotton wool, kitchen foil, smooth plastic lids, smooth sanded wooden blocks, sponges, soft fabric scraps, bark or rough sticks, shiny spoon)	1	group	classroom	any clean classroom odds and ends with clear rough and smooth surfaces
property picture/word cards (rough with bumpy cue, smooth with slippery cue)	1	group	provided printable	draw a bumpy line for rough and a flat line for smooth on sticky notes or mini whiteboards
sorting hoops or labelled trays	2	group	classroom	two cardboard box lids or two sheets of paper with bumpy and slippery picture cues
Investigation Journal page	1	pupil	provided printable	a blank page folded into two columns labelled rough and smooth

Safety watch-point

Supervise sandpaper and bark handling; wipe dusty tables and build in full handwashing time at tidy-up so the wash is not rushed.

Teaching moves

- **Getting Started:** Hide one mystery piece (sandpaper or soft fabric) behind a book. Invite two or three pupils to stroke it with one finger and say a feeling word. Ask the seated class 'Do you agree?' and take choral answers briskly so watchers stay involved.
- **Property words we can use:** Show only the board lines and large rough/smooth picture-word cards. Keep today's taught pair to those two words. Ask which word fits the mystery piece. If a child offers nice or big, gently steer to a property word.
- **Feel and look:** Model at the front: 'I stroke the sandpaper. It scrapes. I think it is rough.' Send every group to its own pre-set tray together. Children stay seated, take short turns, and tell a talking partner one feeling word. Fold hard/soft notices back toward rough or smooth.
- **Property table sort:** Agree the rule: one piece at a time into the rough hoop or the smooth hoop, saying 'I put this here because it feels...'. Walk and watch for stroking before placing and a spoken property word. Soft/fluffy pieces may go either way with a clear reason; a sanded wooden block is a talk point, not a correction.
- **Board sort: rough or smooth:** Open the picture-sort interactive. Read 'Is it rough or smooth?' each time and drag after the class calls out. A 'wrong' hoop is a conversation: 'Stroke it in your mind — does it scrape or slip?' Keep cotton wool and sponge off this board sort.
- **Show and draw:** Hand out the Investigation Journal page. Pupils draw one sorted piece on the rough or smooth side; emergent labels are welcome. Circulate and ask each child to say one property word for something they handled; scribe only if asked.
- **Make-sense talk:** Give two minutes to one think-pair-share only: one property word and which material it belonged to. Revoice into clear property language. Prompt a hand show — rough scrape or smooth stroke.

What it should show

Most pupils will name rough for sandpaper, bark and rough stick, and smooth for foil, plastic lid and shiny spoon. Cotton wool and sponge are often called soft or fluffy rather than clearly smooth — accept the true feel and talk it through. A sanded wooden block may land in either hoop with a clear reason. Success is a drawing placed on the rough or smooth side plus one spoken property word.

Misconceptions & interventions

- **'It's nice' or 'it's big' — children offer opinion or size instead of a property word.** — Accept the notice, then ask 'Does it scrape or slip under your finger?' and point them to the rough or smooth picture-word card.
- **'The shiny spoon is rough because it looks bright' — mixing a look word with a feel word.** — Have them stroke the spoon: 'Shiny is what your eyes see; smooth is how it slips under your finger. Both can be true.'
- **Placing cotton wool or sponge as smooth without stroking, just because it looks soft.** — Ask them to stroke first and say the true feel (often soft or fluffy), then choose the hoop that fits best with a reason.

**Differentiation**

Emerging	Developing	Proficient
• Offer the rough/smooth picture-word cards as a pointing scaffold; drawing alone in the correct group counts as success. • Pair with the teacher table for one modelled stroke-and-place before independent turns.	• Invite a second true word if noticed (for example 'smooth and shiny'). • Early finishers run a short oral hard/soft sort with the same tray — no second board list.	• Ask 'Who else picks materials with a reason — someone who makes a soft toy or a coat?' • Challenge them to show with hands why two pieces belong in different hoops.

Cross-curricular hook

Oral language: pair-share one property word and the material it belonged to, building Senior Infants descriptive talk.