

materials

Describing properties

Lesson at a glance

Open by hiding a mystery piece and inviting two or three Senior Infants to stroke it and call a feeling word. Teach the words property, rough and smooth with picture cards, then groups handle a shared materials tray and sort pieces into rough and smooth hoops, saying the reason aloud. Consolidate with the picture-sort interactive on the IWB, then pupils draw one sorted material on the rough or smooth side of the Investigation Journal page and share one property word with a partner.

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

Set one identical materials tray and two hoops with rough/smooth picture-word cards at each table before the bell. Print Investigation Journal pages and have the picture-sort interactive ready. Include sandpaper, bark, stick, foil, lid, spoon, cotton wool, sponge and a sanded wooden block.

**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

Wash hands after handling sandpaper or bark; wipe dusty tables. Supervise one-finger stroking so pieces are not rubbed hard or put near faces or mouths.

Teaching moves

- **Getting Started:** Hide one mystery piece behind a book. Invite two or three children to stroke it with one finger and say a feeling word; ask the class if they agree. Keep it choral and quick — do not name property or lay out the tray yet.
- **Property words we can use:** Show only the short board lines and large rough/smooth picture cards. Teach: a property is how a material feels or looks; rough scrapes, smooth slips. Ask which word fits the mystery piece. Accept hard/soft/shiny if offered later, but keep today's pair as rough and smooth.
- **Feel and look:** Model at the front: stroke sandpaper, say it scrapes, call it rough. Send every group to its own tray at once — short turns, talking partner watches. Fold the group in with 'Is it rough or smooth?' Revoice any clear property word so the class hears the language.
- **Property table sort:** Agree the rule: one piece at a time into the rough or smooth hoop, saying 'I put this here because it feels...'. Watch for stroking before placing. Soft/fluffy pieces may go either way with a reason; treat wooden-block disagreement as talk, not correction. Early finishers can do a quick hard/soft oral sort with the same tray.
- **Board sort: rough or smooth:** Open the picture-sort interactive in explore mode. Read 'Is it rough or smooth?' each time and drag after the class calls out. A 'wrong' hoop is a conversation: ask them to stroke it in their mind — scrape or slip? Keep cotton wool and sponge off this board sort.
- **Show and draw:** Hand out the Investigation Journal page. Children draw one sorted material on the rough or smooth side; a first-letter label is enough if ready. Circulate and ask each child to say one property word for something they handled; scribe only if they want help.
- **Make-sense talk:** One tight think-pair-share only: 'What property word did you use, and which material?' Invite a hand gesture — rough scrape or smooth stroke — and revoice answers into clear property language.
- **What you covered:** One or two spoken recap lines while trays go away, plus a light clothes-maker link. Build in full minutes to return materials, wipe dusty tables and wash hands after sandpaper or bark — do not rush the wash.

What it should show

Most children will place sandpaper, bark and rough stick in the rough hoop and foil, plastic lid and shiny spoon in the smooth hoop, and say rough or smooth for a piece they handled. Cotton wool and sponge often land as soft/fluffy rather than clearly smooth — accept the true feel. A sanded wooden block may go either way with a reason; that is a talk point, not an error.



Misconceptions & interventions

- **Children say a material is 'nice' or 'big' instead of a property word.** — Gently steer: 'Nice tells me you like it — does it scrape your finger or slip?' Point to the rough/smooth picture cards and have them choose one.
- **Children think shiny means it cannot also be smooth, or force one 'right' property when two are true.** — Celebrate both: hold the spoon or foil and say 'smooth when we stroke it, and shiny when we look.' Two true properties can both fit.
- **Children sort by colour or size instead of how it feels.** — Stop the placement and model a one-finger stroke: 'Close your eyes — scrape or slip?' Then place from the feel, not the look.

Differentiation

Emerging	Developing	Proficient
• Offer the rough/smooth picture-word cards as a point-and-place scaffold; accept drawing alone on the correct Journal side as success.	• Ask them to say the full sentence 'I put this here because it feels...' and point to why it belongs in that hoop.	• Invite a second true word if noticed (e.g. 'smooth and shiny') or a quick hard/soft oral re-sort with the same tray.

Cross-curricular hook

Link to oral language: pair-share one property word and the material it belonged to, with a rough-scrape or smooth-stroke hand gesture.