

materials

Changing materials: squash, bend, tear, stretch

Lesson at a glance

Hold up one soft ball of play-dough and ask whether hands alone can change how it looks. Mime and name squash on the dough, then bend, tear and stretch as class mimes. Children stay at one tray with play-dough, short pipe cleaner, paper strip and elastic band, trying each change. Partner talk names one change and what stayed the same or became different. Close by matching a clay pot and a folded card to squash, bend or tear.

Learning objectives

- Change a material by squashing, bending, tearing or stretching
- Name the change they made to a material
- Notice one thing that stayed the same and one thing that is different

Before the bell – prep

Night before: portion small play-dough balls; cut pipe cleaners or soft craft wire to ~15 cm with ends tucked; ready scrap paper strips and one wide elastic band per child on each tray or mat. Gather a small clay pot and a folded card for the close. Plan one tray per group, not four room rotations.

**Materials**

Item	Qty	Per	Source	Low-cost substitute
play-dough (small ball)	1	pupil	classroom	soft modelling clay or homemade salt dough
soft craft wire or pipe cleaners (short lengths, about 15 cm)	1	pupil	classroom	pipe cleaners only, or thin twist-ties with ends covered in tape
scrap paper strips	3	pupil	classroom	old newspaper or used drawing paper
wide elastic band	1	pupil	classroom	hair bobble or short strip of stretchy fabric
tray or work mat for materials	1	group	classroom	large sheet of newspaper as a work mat
small clay pot or mug (or a simple photo of a pot)	1	class	classroom	any ceramic cup or plant pot already in school
folded birthday card or paper booklet	1	class	classroom	any folded paper card or reading book already in the room

Safety watch-point

Stretch and bend away from faces and eyes; no flicking elastic bands; soft wire only; no tasting play-dough; wash hands after dough and tidy bands into a pot.

Teaching moves

- **Four ways to change:** Press the dough flat slowly with both palms while the class watches one full squash. Only then ask what looks different and whether it is still the same kind of dough. Add bend, tear and stretch as mimes children copy — short action labels, not board definitions.
- **Changing trays:** Model one full cycle aloud first: I wonder, I think, I squash, I notice same and different. Send children to stay at their place with all four materials. Circulate with tray prompts after hands are busy — squash and re-roll dough, bend wire into a hoop, tear paper gently, stretch the band slowly and let go.
- **What stayed the same?:** Each child holds only one changed object; trays stay put and bands stay still. Run stems one at a time: name the change, then what stayed the same, then what is different. Revoice vague answers by pointing at the object. Draw out the elastic band springing back if it appears.
- **Who changes materials?:** Hold up the real pot, then the card. Ask which change the pot needed (squash and/or bend) before optional card talk. Keep the board to objects plus one choice question; oral only, no typed reflection.



What it should show

Children should name squash, bend, tear or stretch and notice the material is still the same kind of stuff while shape, size or number of pieces changes. Elastic often springs back — useful talk that some changes stay and some do not. If a child says the dough became a different material, revoice: still play-dough, only the shape changed.

Misconceptions & interventions

- **If I change it, it turns into a different material — torn paper is not paper any more.** — Point to the object in their hand: Is it still paper? Still dough? Revoice: only the shape or number of pieces changed; it is the same kind of stuff.
- **It changed — with no name for the action or what is different.** — Point and prompt one stem at a time: Did you squash, bend, tear or stretch? How many pieces now? Is it flatter, longer or curved?

Differentiation

Emerging	Developing	Proficient
• You name the action word while they do the move; stick to one material and one change before same/different talk.	• After the change, prompt both stems: What stayed the same? What is different now?	• Try to undo a change (re-roll dough, unbend wire) and say which is easy or hard to put back; notice the band springing back.

Cross-curricular hook

Link to Visual Arts making — potters and card-makers change materials on purpose so everyday things work better.