

technology

Order the steps, spot the repeat, find the bug

Lesson at a glance

Open with a shared clap-stamp pattern and ask which bit keeps coming back. Model ordering clap and stamp cards, circle the clap-stamp repeat, then swap one card for a jump and name it a bug. Groups order a shuffled step-card set (dance, border pattern or tidy-up), circle the repeat, then swap in a ready buggy pack, act it, spot the wrong step and fix it. They record the repeat, the bug and the fix on the Investigation Journal page, then share everyday repeats and wrong-step moments.

Learning objectives

- Order step cards for a job and identify the part that repeats
- Find and fix a bug in a step sequence

Before the bell – prep

Print and cut one clean step-card set and one ready buggy set plus matching fix card per group the day before; bag each set separately so clean and buggy packs stay distinct. Clear a little floor space for acting. Have crayons ready for circling the repeat.

**Materials**

Item	Qty	Per	Source	Low-cost substitute
step-card sets for class dance, border pattern and tidying the room (7 cards per set)	1	group	provided printable	write the same steps on sticky notes or scrap card
ready buggy step-card sets (correct set with one bug card already in place: jump once; green circle; book under the chair)	1	group	classroom	rewrite one existing card in pencil to show the wrong step and leave it in the pack
correct replacement cards for the fix (clap twice; blue triangle; book on the shelf)	1	group	classroom	keep one spare correct card from the clean set
Investigation Journal pages	1	pupil	provided printable	plain paper with three short headings: repeat, bug, fix
squared paper	1	group	classroom	plain paper with a simple drawn grid
crayons or pencils for circling the repeat	1	group	classroom	any classroom pencil

**Safety watch-point**

Clear floor space before groups act the dance or tidy sequence so nobody trips on bags or chair legs while stepping and freezing.

Teaching moves

- **Getting Started:** Do clap-stamp-clap-stamp-clap-stamp once yourself, then invite the class to join. Ask which bit keeps coming back; accept clap-stamp or the two-beat chunk. Keep it light and hold back the words repeat and bug until the model.
- **Steps, repeats and bugs:** Lay three clap and three stamp cards in order, circle the clap-stamp pair and name it the repeat, then swap one stamp for a jump, run it, name the jump a bug and put stamp back. Let each idea land before the next. Stress a bug is a mistake in the steps, not in the person.
- **Order the cards and circle the repeat:** Hand each group one shuffled clean set. They order the cards, act once to check, then circle the repeating chunk with a crayon. Ask which steps come back and which happen only once. When time is up, leave the clean ordered strip intact to one side.
- **Find the bug:** Hand each group its ready buggy pack plus the matching fix card — do not slip a wrong card in while they watch. Groups act, pause when it feels wrong, name the bug card, swap in the fix and re-run. Praise the fix, not who made the mistake.
- **Record what we found:** Keep the Journal ask short: the repeat circled (name or stick those cards), the bug, and the fix. Full seven-step copy is optional only. Circulate and hear one bug-and-fix sentence per group.
- **Where else do repeats hide?:** Seed with coat-before-jumper as a dressing bug, then draw out song choruses, skipping rhymes, knitting, playground clapping games and lining up. Revoice pupil talk into repeat and bug; keep the tone warm — bugs show us what to fix.

What it should show

Groups order the seven cards so the three-times pair comes first and the one-off finish sits last; the repeat is step-forward/clap-twice (A), red-square/blue-triangle (B), or pick-up-book/put-on-shelf (C). On the buggy pack they name the jump, green circle or under-the-chair card as the bug and swap in the fix. A group that circles all seven cards has not yet separated the one-off finish — ask which step happens only once.

Misconceptions & interventions

- **A bug means the person is silly or did something wrong on purpose.** — Hold up the jump card and say the bug is a mistake in the steps, not in the child. Praise the fix as the clever part when they swap the correct card back.
- **Every card is part of the repeat, including the freeze, yellow star or push-chairs-in finish.** — Point to the last card and ask: does this one come back again and again, or only once? Have them re-circle just the pair that loops.
- **Any different step is fine as long as there are still seven cards in a line.** — Act the buggy sequence and pause when it breaks the pattern. Ask what they expected on that card, then swap the fix and re-run so they feel the pattern restore.

**Differentiation**

Emerging	Developing	Proficient
• Lay the first and last card of the clean set for the group so they only order the middle five, then let them stick the start-of-repeat, bug and fix cards into the Journal instead of writing.	• After circling, ask them to say the job shorter: do this part three times, then the finish — and to name why the bug card broke the pattern before swapping the fix.	• Rewrite the clean sequence as 'do [this part] three times, then [finish]' and spot a second everyday place a wrong step could spoil the same job.

Cross-curricular hook

Link to Music and PE — song choruses, skipping rhymes and playground clapping games are everyday repeats the class already knows.