

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 laying step cards, circling the clap-stamp repeat, then swapping in one wrong step and naming it a bug. Groups order a shuffled pack (dance, border pattern or tidy-up), act it once and crayon-circle the repeat, then run a ready buggy pack to spot and swap the wrong card. They record only the repeat, the bug and the fix on the Investigation Journal page, then share everyday repeats in a talk.

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 pack (plus matching fix card) per group the day before — Sets A–C are written in the lesson notes. Bag each set separately so handoff is fast. Have crayons ready for circling; clear a little floor space for acting.

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 a little floor space before groups act the dance or tidy sequence so nobody trips on bags or chair legs.

Teaching moves

- **Getting Started:** Do clap-stamp yourself once, then invite the class to join. Ask which bit keeps coming back and accept clap-stamp or the two-beat chunk. Keep it light — no cards or vocabulary board yet.
- **Steps, repeats and bugs:** Lay three clap and three stamp cards in order, circle the clap-stamp pair and name it the repeat. Swap one stamp for a jump, run it, name the jump a bug, then put stamp back. Head off the idea that a bug means a silly person — it is a mistake in the steps.
- **Order the cards and circle the repeat:** Give each group one shuffled set. They order the cards, act once to check, then crayon-circle the repeating chunk. Ask which steps come back and which happens only once. When time is up, leave clean strips aside for the buggy handoff.
- **Find the bug:** Hand each group a ready buggy pack plus the matching fix card so everyone starts together. Have them act, pause when it feels wrong, name the bug card, swap in the fix and re-run. Praise the fix, not who spotted it first.
- **Record what we found:** Keep the Investigation Journal ask short for 2nd Class: the repeat circled, the bug, and the fix — not all seven steps. Circulate and hear one bug-and-fix sentence per group aloud.
- **Where else do repeats hide?:** Seed with coat-before-jumper as a dressing bug, then draw out song choruses, skipping rhymes, knitting, clapping games and lining up. Revoice their words into repeat and bug.

What it should show

Groups should order the six repeating steps plus the one-off finish (freeze/star/chairs), circle the two-step chunk done three times, and swap the planted bug (jump / green circle / under the chair) for the matching fix card. A group that circles the finish step as the repeat has mixed the one-off with the loop — point them back to what happens again and again.

Misconceptions & interventions

- **A bug means the person doing the steps is silly or wrong.** — Hold up the jump card and say the mistake lives on the card, not in the child. Swap the fix card and cheer the mend — fixing is the clever part.
- **Pupils circle the freeze, yellow star or push-chairs step as the repeat because it feels important.** — Ask them to act the strip and tap only the cards that come back three times. The finish happens once, so it stays outside the loop.
- **Any order is fine as long as every card is used.** — Act a jumbled strip with them and freeze when the job fails. Put two cards back in sequence and re-run so they feel why order matters.

**Differentiation**

Emerging	Developing	Proficient
• Lay the first and last card of their set for them so they only order the middle five. • If stuck on recording, let them stick just three cards: start of the repeat, the bug, and the fix.	• Ask which step happens only once and whether they could say the job shorter as do this part three times, then finish.	• Stretch them to rewrite the ordered strip as do [repeat chunk] three times, then [finish step], still using only their existing cards.

Cross-curricular hook

Link to Music and Maths pattern work — choruses, clapping games and repeating border patterns use the same repeat idea.

