

technology

ScratchJr: make it move to a goal

Lesson at a glance

Open by naming a simple screen game and what the character tries to reach. Model planning arrows on the board, then snap a short ScratchJr sequence that deliberately misses the goal and fix it. Pairs plan with arrows on scrap paper, build on a pre-loaded tablet scene, and fix until the character reaches the flag or fish. They record plan, tick/cross and one change in the Investigation Journal, then share one fix in a display-only talk.

Learning objectives

- Plan a short block sequence so a character reaches a goal
- Run the sequence and fix it if the character misses the goal

Before the bell – prep

Charge tablets and pre-load every device with one background, one character on the left and one clear goal on the right. Count move blocks needed and script your demo miss. Scrap paper and pencils beside each tablet. One tablet per pair, or drive ScratchJr on the IWB if short.

Materials

Item	Qty	Per	Source	Low-cost substitute
tablet with ScratchJr installed	1	group	school kit	teacher drives ScratchJr on the IWB while pairs take turns and the class predicts and suggests fixes
Investigation Journal page	1	pupil	provided printable	plain paper with three picture spaces: plan arrows, tick or cross at the goal, draw one change
scrap paper for quick arrow plans	1	group	classroom	the back of a used worksheet or the margin of the journal page
pencils and crayons	1	pupil	classroom	any writing and colouring tools already in the room

Safety watch-point

Tablets flat on desks; chargers out of walkways; gentle hands only. Count devices back in at tidy-up.

Teaching moves

- **Watch how we plan:** Sketch the arrow plan on the board first. Snap START plus one too many or too few move blocks so the miss is reliable. Name what happened, fix one block, run again, then introduce the word bug. Ask: what is our goal, and if it goes past, what could we change?
- **Plan, build and fix:** Hold pairs to one character and the pre-loaded goal. Scrap-paper arrows before any blocks. Circulate for planning talk (right, right, up). On overshoot ask too many or wrong direction; on short ask what could you add. Reveal one board sentence at a time. Stretch only for confident pairs: a turn, hop or waiting second character.
- **Record our sequence:** Tablets down first. Prompt three drawings only: plan arrows, tick or cross at the goal, and one mark for the change (too far, too short, wrong way). About seven minutes, then pencils down. A miss still counts if they record what happened and a next try.
- **Steps on a screen:** Lead with one pair's concrete fix before any games link. Revoice plan, sequence, goal, bug, fix. Anchor back to the game named at the start. Keep praise on the plan and the fix, not speed.

What it should show

Most pairs reach the pre-loaded goal with a short straight sequence after one or two fixes. First runs often overshoot, stop short or go the wrong way — that is the teaching moment. A pair stuck usually has a missing green-flag START, unsnapped blocks, or deleted the whole chain instead of changing one block.

Misconceptions & interventions

- **More blocks are always better — a long chain must get there.** — Point back to the board arrows: the right number in the right order matters more than length. Have them remove one block and watch the fix.
- **When it misses, delete the whole sequence and start again.** — Ask too many blocks, too few, or wrong direction? Coach changing one block only, then re-run.

Differentiation

Emerging	Developing	Proficient
• Sit at the teacher table with a partly-planned arrow sketch already started; coach one direction at a time toward the pre-loaded goal.	• After a successful straight run, ask why that number of blocks worked and whether one block could change.	• Add a turn, a hop, or a short second character that waits at the goal — still one clear goal, still plan first.

Cross-curricular hook

Links to Maths sequence and ordinal language — first, next, then — as pairs order move arrows before building.

