02 · Lesson spec

Mini-project: Ayo's Ramp and Route · 40 minutes · fully unplugged

Goal (I can)	**I can plan in 3 steps, guide Ayo with 3 cards and fix it.**
Teacher aim	Teams plan and finish a ramp or tower, guide Ayo to it with 3 cards, test and fix. The Station 1 check starts.
Focus	Term build: ramp or tower, then guide Ayo on the grid
Key words	problem · plan · build · test · fix
Materials	One ramp board or tower base per group (2–3 big blocks, teacher-made). Big blocks. A large toy car. Plan cards (blocks → ramp → test). Forward and stop cards. Paper bread. Taped grid. 4-item checklist.
Before class	Read this plan. Before class, prepare one base per group; adults do any cutting. Set up Station 1 for the checklist. Plan roles: planner, builder, card-layer, checker.



1. Think (5 min)

- **Ask:** "What is Ayo's problem? What small steps? Which way? What if it does not work?"
- **Give each team their base and roles:** planner, builder, card-layer, checker.

2. Code (8 min)

- **Plan first:** teams lay 3 plan cards (blocks → ramp → test) before building.
- Card- layers lay Ayo's straight route on the grid to the ramp: forward, forward, stop.

3. Build (20 min)

- Teams add 2–3 big blocks and test: roll the toy car down the ramp (or stand the bread on the tower). If it falls off, add a block, test again.
- Guide Ayo along the route; fix any wrong card. No climbing.

4. Present & close (7 min)

- **Teams show another class:** "Ayo's problem was… we solved it by…"
- Children colour their stars and draw their build.
- Tick who you saw at Station 1 (8–12 children).

Activity Book page

- Colour a star for plan, build and test, route, fix; draw your team's build. Picture checklist, not marked.

How we check

- **Look for:** Does the child help plan in 3 steps, test and fix the build, and guide Ayo with 3 cards, fixing a wrong card?

Common mistake

- One child does all the building. Give clear roles and swap them halfway. Ask the checker: "Did it work? What do we fix?"

Support and stretch

- **Extra help:** Put support children in a team near you. Keep their base ready-made; they add one block and test. Start Ayo's route with 2 cards.
- **Stretch (optional, not in badges):** Add one extra step or a second target to the build.

No power? No problem

- Fully unplugged: needs no power, device or kit. No ramp board? A big book or a tray on blocks makes a ramp.

Before and next

- Before: Weeks 1–9, especially Week 5 Let's Build It! and Week 7 Help Ayo Move. Next: the Week 11–12 station check and the Week 13 showcase. Keep every build for both.

> **Safety**
> Big blocks only; adults cut; no climbing on builds; towers no taller than a knee; car wheels checked; walk with an adult to visit another class.

Hand signs (where shown) and the Safety box are Lesson Plan extras added by Rhinox. Everything else follows the Teacher Guide and the Activity Book.