10 · Project sheet · Road Closed!

Robot / Maker Lab practical · Nursery 1 · Term 3 · Week 4

1. At a glance

Time	40 minutes (fits the lesson; 15 min if used on its own)
Group size	Whole class, then teams of 4–6
Learning goal	I can try another way.
Coding idea	When one step is blocked, change that step and test again: debugging a plan.
Week link	https://rhinoxscientifica.com/q/n1-t3-w4

2. Materials needed

Item	Per	Low-cost swap
Taped route + star target	class	Chalk line
Light “road closed” box + sign	class	A chair or cushions
“Walk straight” + “go round” cards	team	Hand signs
Blocked-path and two-route mats	team	Drawn on paper
Cut-out Ayo	team	A toy
Step Star stickers	child	Washable marker star on the hand

3. Safety and care

- Walk round the box, never climb or kick it.
- Blocks stay low.
- Walk, don’t run.
- Keep tape flat so no one trips.

4. Before the lesson

1. Tape the route and set the star target.
2. Make the road-closed box; print the cards and mats.
3. Read the lesson spec the evening before and lay out the cards.

5. Step-by-step guide

Step	Teacher says	Children do
1	“Walk the route to the star.”	Walk the taped route
2	(Put down the box) “Road closed!”	Stop: “Blocked!”
3	“Does Ayo give up?”	“No! Try another way!”
4	“Which card now: straight or round?”	Swap in the “go round” card
5	“Walk it to test.”	Walk round the box to the star

Step	Teacher says	Children do
6	“Can your team find another way too?”	Find and walk a second route

6. Explore it

Question	Is there more than one way to get there?
Predict	“How many ways round the box can we find?”
Try	Walk one way, then try a different way.
Observe	“Did both ways reach the star?”
Explain	There can be more than one way. If one is blocked, we try another.

7. Talk about it

1a. What blocked Ayo’s path?

1b. What card did you change?

1c. Did your new way work?

2a. How many ways did your team find?

2b. Which way was shorter?

2c. What do we say when something doesn’t work?

8. Support and stretch

Support	Hold up both cards: “Straight or round?”; walk it together.
Stretch (optional)	Find two other routes. Never assessed.

9. How we check

Observation only, not marked.

Look for	Secure	With prompts	Not yet
Does not give up when blocked	☐	☐	☐
Finds another route	☐	☐	☐
Swaps the card and tests it	☐	☐	☐

10. Take-home and parent note

> **Dear parent or carer**
> Today we learned to **try another way** when the road is closed.
> At home: block a path with a pillow and ask “What other way can you go?”

11. Show and share

- Teams show their two routes to the star.

- Everyone says: “Don’t give up! Try another way!”
- Every child who found another way gets a **Step Star sticker**.



The Step Star is a weekly sticker, not a badge. The term badge “Step Thinker · Term 3” is awarded in Week 13.