10 · Project sheet · Ayo's Pattern Road

Robot / Maker Lab practical · Nursery 1 · Term 2 · Week 4 · build week

1. At a glance

Time	40 minutes (25 minutes of building)
Group size	Groups of 4–6; groups check each other's roads
Learning goal	I can make and build a shape pattern.
Coding idea	A shape pattern can be read, continued and built. Building it lets us test it with Ayo.
Week link	https://rhinoxscientifica.com/q/n1-t2-w4

2. Materials needed

Item	Per	Low-cost swap
Big round things (tins, plates, round boxes)	group	Paper circles
Big box things (shoe boxes, blocks)	group	Paper squares
Shape cards; build card	group	Draw the shapes
Cut-out Ayo	class	Any toy
Phone for photos	teacher	Draw the road
Step Star stickers	child	Washable marker star on the hand

3. Safety and care

- Adults do any cutting; big pieces only.
- Roads stay flat on the floor; no stacking above knee height.
- No sharp edges on tins or boxes.
- Walk Ayo; do not jump over the boxes.

4. Before the lesson

1. Collect and check round and box materials.
2. Print shape cards and the build card (Printables).
3. Read the lesson spec the evening before and lay out the cards.

5. Step-by-step guide

Step	Teacher says	Children do
1	"Look: circle, square, circle, square. Let's build Ayo a road like this!"	Look at the shape cards
2	"Put down a round thing, then a box thing."	Lay the first 2 pieces
3	"Keep the pattern going: say it as you build."	Build 6–8 pieces in AB

Step	Teacher says	Children do
4	“Swap roads! Check the other group’s pattern.”	Check and add the next 2 pieces
5	“Walk Ayo along your road.”	Walk cut-out Ayo; say each shape
6	“Photo time!”	Group stands by the road

6. Explore it

Question	Can someone else read our road and keep it going?
Predict	“Will the other group know what comes next on our road?”
Try	Swap roads; each group adds 2 pieces to another group’s road.
Observe	“Did they add the right shapes?”
Explain	A clear pattern can be read and continued by anyone, like a program others can follow.

7. Talk about it

1a. What shapes are on your road?

1b. What comes next?

1c. Did the other group continue it correctly?

2a. Find something round in our classroom. What shape is it?

2b. What shape is his body?

2c. How could we make the road better?

8. Support and stretch

Support	Copy the teacher’s first 4 pieces, then add 1.
Stretch (optional)	Colour and shape together: red circle, blue square… Never assessed.

9. How we check

Observation + photo, not marked.

Look for	Secure	With prompts	Not yet
Lays a shape pattern strip	☐	☐	☐
Builds an AB pattern road	☐	☐	☐
Continues another group’s road correctly	☐	☐	☐

10. Take-home and parent note

Dear parent or carer

Today your child **built a pattern road** for Ayo: round, box, round, box!

At home: make a pattern road with cups and boxes, and go on a shape hunt.

11. Show and share

- Each group walks Ayo along its road for the class.
- The class reads each road aloud.
- Every child who built and continued a shape pattern gets a **Step Star sticker**.



The Step Star is a weekly sticker, not a badge. The term badge “Step Thinker · Term 2” is awarded in Week 13.