10 · Project sheet · Ayo's Light Pattern

Robot / Maker Lab practical · Nursery 1 · Term 2 · Week 1

1. At a glance

Time	40 minutes (fits the lesson; 15 min if used on its own)
Group size	Pairs; the class checks
Learning goal	I can copy and continue a pattern.
Coding idea	A pattern is a sequence that repeats. Find the part that repeats (red, blue), and you can say what comes next.
Week link	https://rhinoxscientifica.com/q/n1-t2-w1

2. Materials needed

Item	Per	Low-cost swap
Large red and blue card counters (counted out)	pair	Red and blue paper squares, big
Pattern strips (Printables)	pair	Draw circles on paper
Red and blue paper (pattern line)	child	Children in two colours of clothing
Large card shapes + thick string (optional)	pair	Skip the threading
Step Star stickers	child	Washable marker star on the hand

3. Safety and care

- **No bottle caps or small pieces in child hands.**
- **Count counters out to each pair and back in at the end.**
- Counters and shapes bigger than a toilet-roll tube opening.
- An adult punches any holes; string is thick and short.

4. Before the lesson

1. Print the colour cards and pattern strips (Printables pages 1–3).
2. Count counters into a bag per pair; note the number.
3. Optional: pre-punch threading shapes.
4. Read the lesson spec the evening before and lay out the cards.

5. Step-by-step guide

Step	Teacher says	Children do
1	"Ayo's lights flash red, blue, red, blue. Let's make his pattern!"	Look at the lights card
2	"Copy the pattern strip with your counters."	Lay red, blue, red, blue
3	"Say it with me: red, blue, red, blue…"	Say the pattern aloud
4	"What comes next? Add 2 more."	Add red, blue

Step	Teacher says	Children do
5	“Class, check it! Is it a pattern?”	Say it aloud; thumbs up
6	“Count your counters back into the bag.”	Count and return

6. Explore it

Question	If we know the part that repeats, can we say what comes next?
Predict	“Red, blue, red, blue… what will come after the next blue?” Hands up.
Try	Continue the strip 2 more, then 2 more again.
Observe	“Did red and blue keep taking turns?”
Explain	A pattern repeats the same part. Knowing the repeat tells us what comes next.

7. Talk about it

1a. What colours are in Ayo’s pattern?

1b. What comes after red?

1c. What comes after blue?

2a. Where do you see a pattern in our classroom?

2b. What part repeats?

2c. How is a pattern like “do it again”?

8. Support and stretch

Support	Continue 1 more counter, then 2. The teacher says the pattern while the child points.
Stretch (optional)	Continue an ABB pattern: red, blue, blue, red, blue, blue. Never assessed.

9. How we check

Observation only, not marked.

Look for	Secure	With prompts	Not yet
Copies an AB pattern strip	☐	☐	☐
Continues it 2 more	☐	☐	☐
Says the pattern aloud	☐	☐	☐

10. Take-home and parent note

> **Dear parent or carer**
>
> Today we made **Ayo’s light pattern**: red, blue, red, blue. Your child copied it and said what comes next.
>
> At home: make a pattern with spoons and forks, and ask “What comes next?”

11. Show and share

- Two pairs show their pattern; the class says it aloud.
- Show any threaded red–blue shapes.
- Every child who copied and continued a 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.