10 · Project sheet · Ayo is Stuck!

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

1. At a glance

Time	40 minutes (fits the lesson; 15 min if used on its own)
Group size	Whole class, then groups of 4–6
Learning goal	I can say what the problem is.
Coding idea	Spot and name the problem first: what stops Ayo? That is the first step of fixing anything.
Week link	https://rhinoxscientifica.com/q/n1-t3-w1

2. Materials needed

Item	Per	Low-cost swap
Cut-out Ayo	class	A toy
Big light box	class	A chair or a pile of cushions
Taped path + “school gate” sign	class	Chalk line and a drawn gate
Problem + no-problem picture cards	group	Real objects (closed door, cup on its side)
Empty cup, shoe with laces	class	Mime it
Step Star stickers	child	Washable marker star on the hand

3. Safety and care

- Act spills with an empty cup.
- The box is light and empty.
- Danger sign = stop, step back, tell a grown-up.
- No climbing on the box.

4. Before the lesson

1. Tape the path and put the box on it.
2. Print the problem cards, one set per group.
3. Read the lesson spec the evening before and lay out the cards.

5. Step-by-step guide

Step	Teacher says	Children do
1	“Ayo is walking to school… oh no! He stopped.”	Watch Ayo get stuck
2	“What is the problem?”	“The problem is the box!”
3	“How do we know it is a problem?”	“Ayo can’t get to the gate.”
4	“Now you act a problem. Class, what is it?”	Act and name problems
5	“Problem spotters! Point to what is wrong.”	Point and say each problem card

Step	Teacher says	Children do
6	“Is this a problem? What do we do?” (danger sign)	“Stop, step back, tell a grown-up!”

6. Explore it

Question	How do we know something is a problem?
Predict	“If the box stays there, can Ayo get to the gate?”
Try	Push Ayo along the path to the box.
Observe	“What happened? Did Ayo get there?”
Explain	It is a problem because something stops us doing what we want.

7. Talk about it

1a. What is Ayo’s problem?

1b. How do you know?

1c. Who could help Ayo?

2a. What is the problem in this picture?

2b. Is this picture a problem or not?

2c. What do we do if we see a danger sign?

8. Support and stretch

Support	Sentence starter “The problem is…”; point to the wrong part together.
Stretch (optional)	Say two ways to solve Ayo’s problem. Never assessed.

9. How we check

Observation only, not marked.

Look for	Secure	With prompts	Not yet
Says what Ayo’s problem is	☐	☐	☐
Points to what is wrong in a picture	☐	☐	☐
Knows to tell a grown-up about danger	☐	☐	☐

10. Take-home and parent note

> **Dear parent or carer**
> This term we are **problem solvers**. Today we learned to say what the problem is.
> At home: when something goes wrong, ask “What is the problem?” and let your child say it first.

11. Show and share

- Children show their “problem and who helped” drawings.

- Everyone says: “The problem is…!” with the hand sign.
- Every child who said what the problem is 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.