10 · Project sheet · The Button Game

Robot / Maker Lab practical · Nursery 1 · Term 3 · Week 6

1. At a glance

Time	40 minutes (fits the lesson; 15 min if used on its own)
Group size	Whole class, then pairs
Learning goal	I can follow an if–then rule.
Coding idea	If–then rules: if red, then stop. Programs and machines follow rules like this.
Week link	https://rhinoxscientifica.com/q/n1-t3-w6

2. Materials needed

Item	Per	Low-cost swap
Red, green and rain cards	class	Crayon circles
Paper buttons (red and green)	pair	Coloured lids drawn on paper
IF / THEN header cards + picture cards	pair	Say the rules aloud
Torch with AA batteries	teacher only	Torch picture
Basin or tray of dry sand (Stretch demo)	teacher	Skip
Step Star stickers	child	Washable marker star on the hand

3. Safety and care

- Torch: teacher only; AA batteries only; no coin or button cells.
- Battery cover stays shut; children never hold batteries.
- Pouring demo: teacher pours; wipe spills at once.
- Walk, don't run, in the button game.

4. Before the lesson

1. Print the cards and buttons.
2. Check the torch and screw the battery cover shut.
3. Read the lesson spec the evening before and lay out the cards.

5. Step-by-step guide

Step	Teacher says	Children do
1	"If it rains, then…?"	"Umbrella!"
2	(Show red) "If red, then…?"	Ayo-robots stop
3	(Show green) "If green, then…?"	Ayo-robots walk
4	"Now in pairs: you are the button!"	Show red/green; friend follows; swap

Step	Teacher says	Children do
5	“Match IF and THEN.”	Rain → umbrella, red → stop, dark → torch
6	(Torch) “If I switch on, then…?”	“Light!” “It needs batteries!”

6. Explore it

Question	What happens if…?
Predict	“If I switch on the torch, what will happen?”
Try	The teacher switches it on.
Observe	“What happened?”
Explain	If I switch on, then the light comes on, because the batteries give it power.

7. Talk about it

1a. If the light is red, what do we do?

1b. If it rains, what do we take?

1c. What does a torch need to work?

2a. Can you make your own if–then rule?

2b. What happens if we don’t follow the rule?

2c. What rules does a traffic light follow?

8. Support and stretch

Support	Red and green only first; add the rain card later.
Stretch (optional)	Make up your own if–then rule. Never assessed.

9. How we check

Observation only, not marked.

Look for	Secure	With prompts	Not yet
Follows red → stop, green → walk	☐	☐	☐
Matches IF and THEN cards	☐	☐	☐
Says the rule: “If…, then…”	☐	☐	☐

10. Take-home and parent note

> **Dear parent or carer**
> Today we learned **if–then rules**: if red, then stop; if it rains, then umbrella.
> At home: play the button game with something red and something green.

11. Show and share

- Pairs show their button game to the class.
- Everyone says: “If this happens, then that happens!”
- Every child who followed the rule 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.