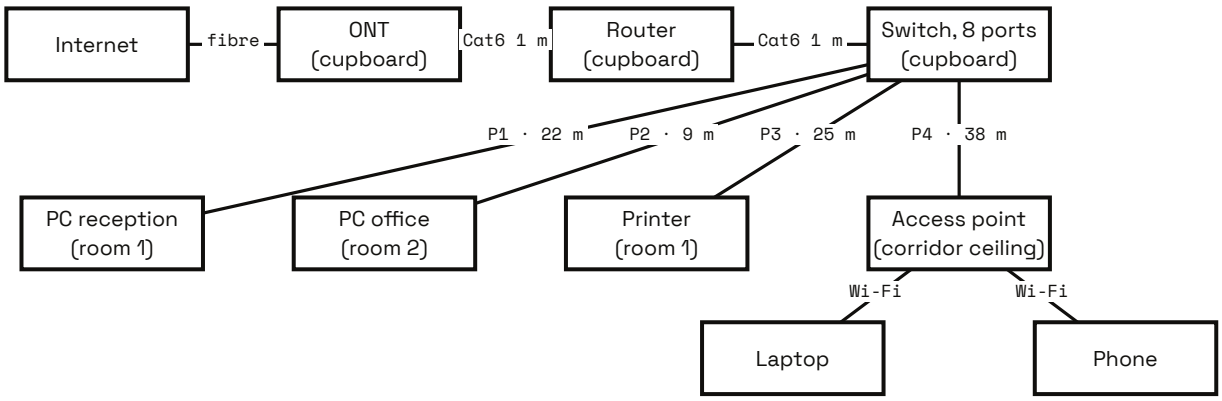
ANNEX A · PRACTICAL 1.4 · MAP THE CLASSROOM NETWORK

Name: _____ Date: _____ Group: _____

Work in a group of three. Each of you fills in this sheet; the group hands in **one physical map** and **one logical map** on separate sheets, with your three names. Hand in everything today, on paper. Marks: data 2 · physical map 3 · logical map 3 · questions 1.5 · legend, title and neatness 0.5.

TASK 1 Warm-up: read a map

This is the network of a small dental clinic.



a Which switch port does the printer use? _____

b Longest cable, and is it allowed? _____

c The cable on P2 is cut. Who is offline? _____

d The switch loses power. Who is offline? _____

e Who has no cable, and through which device? _____

f Physical or logical map? One clue: _____

DONE WHEN six answers, each one read from the map.

TASK 2 Your PC

Run `hostname`, then `ip -br link`, then `ip route`.

Name of the PC (`hostname`)	MAC of the Ethernet card (`ip -br link`)	Router: the address after `default via`

DONE WHEN the three members of your group have the same router address.

TASK 3 Follow your cable

With your eyes only, follow the network cable from your PC to its socket. Do not unplug it.

Label of the socket: _____ Category printed on the cable: _____

DONE WHEN you can point at your socket and say which port of the patch panel has the same label.

TASK 4 Inventory of the room

Thing	How many	Thing	How many	Thing	Answer
Student PCs		Printers		Where is the rack?	
Teacher's PC		Access points		Longest cable run (m)	

DONE WHEN your group agrees on every number.

TASK 5 The physical map (group, separate sheet)

Draw the room from above: walls, door, desks. Put every PC in its place with its **socket label**, the printer, the access point and the **rack** with what is inside. Draw the cables along the walls and write one or two lengths. Show where the cable to the rest of the school leaves. Add a **legend**, a title, the date and your names.

DONE WHEN a person who has never been in this room could find the socket of any PC with your map.

TASK 6 The logical map (group, separate sheet)

No walls and no cables now. Draw one box for the **classroom LAN** and group the devices inside it (for example "student PCs × 24"). Draw the **router** with its address, and the way out to the **Internet** as a cloud. Add a legend, a title, the date and your names.

DONE WHEN the map shows who is in the LAN and where the traffic leaves it, and nothing about where things are.

TASK 7 Three questions (alone)

1. One thing the physical map shows and the logical map hides, and one the other way round.

2. Which topology is this classroom? What happens if the switch fails?

3. Your own network cable is cut. Who is offline?

DONE WHEN three answers that use the words star, switch and LAN.

CHECK ANOTHER GROUP'S MAPS

- ☐ I found the socket I was asked for.
- ☐ Both maps have a legend, title, date, names.
- ☐ The rack and its contents are drawn.
- ☐ The logical map has router and Internet.
- ☐ The logical map has no walls or sockets.

EXIT TICKET Alone, no notes.

1. Which map tells you the label of a wall socket?
☐ A. Physical ☐ B. Logical ☐ C. Both ☐ D. Neither

2. Why can the switch disappear from a logical map?
☐ A. It is wireless ☐ B. It is too small
☐ C. All its devices are simply in the same LAN
☐ D. It belongs to the Internet provider

3. What does a cloud stand for on a network map?
☐ A. A Wi-Fi area ☐ B. A broken link ☐ C. A server
☐ D. The Internet, or a network we do not detail

4. What must every map have so that others can read it?
☐ A. Colours ☐ B. A legend ☐ C. A photo ☐ D. MACs