ANNEX A · WHAT IS A COMPUTER?

NAME _____ DATE _____

TASK 0 Before we start — true or false?

Circle T or F. Then write how sure you are: 1 = guessing, 3 = certain. This is not marked.

Statement	T / F	Sure? 1–3
1 A Wi-Fi router is a computer.	T F	
2 A computer understands what you type.	T F	
3 A phone has a processor and memory, like a laptop.	T F	
4 A 300 Mbps connection downloads 300 MB every second.	T F	
5 When you turn a PC off, its working memory is emptied.	T F	

TASK 1 Find your way

1 Log in to your PC with your user name and password. Open **Firefox**.

2 Type the address of the course site in the address bar (top of the window, not the search box):

`https://iessonferrer.com/sistemes_informatics/`

3 Find the answers on the site:

- (a) The only AI tool you may use in this course: _____
- (b) How many units the course has: _____
- (c) Open the **Glossary**. What does it say a **bit** is? _____
- (d) Open Unit 1 → What is a computer? Copy the three boxes under "Remember this":

_____ → _____ → _____

4 (e) Open Google Classroom with your **school** account and join the class. Code on the board:

_____

☐ **Done when:** you can see the page What is a computer? and your name is in the Classroom list.

TASK 2 Is it a computer?

In your group, decide for each object. Then write the rule your group used.

Object	Yes / No	Why?
Smartphone		
Wi-Fi router		
Hammer		
Smartwatch		
Pocket calculator		
Abacus		
Electric toothbrush with a timer		
Bank card with a chip		

Our rule: "Something is a computer if _____"

☐ **Done when:** all eight rows have an answer and your group can say its rule in one sentence.

After the explanation, write the three questions that decide it:

1 _____ 2 _____ 3 _____

TASK 3 Trace a voice message

Write one word for each step: **input**, **output**, **store**, **transform** or **transfer**.

What happens	Computer verb
1 You hold the button and speak into the microphone.	
2 The phone turns the sound into numbers and makes the file smaller.	
3 The file travels over Wi-Fi to a server.	
4 The server keeps it until your friend's phone is on.	
5 Your friend's speaker plays the message.	

☐ **Done when:** every step has one verb and you used all five.

TASK 4 Prove that your PC is a computer

Open a terminal: press **Ctrl + Alt + T**. Type each line exactly, then press Enter.

```
LC_ALL=C lscpu | grep "Model name"
free -h
lsusb
```

Question 1 · its CPU is: _____

Question 2 · row `Mem:`, column `total`: _____

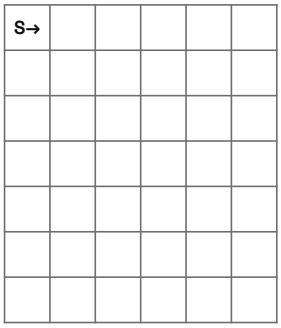
Question 3 · one device in the list: _____

☐ **Done when:** you wrote one answer for each of the three questions.

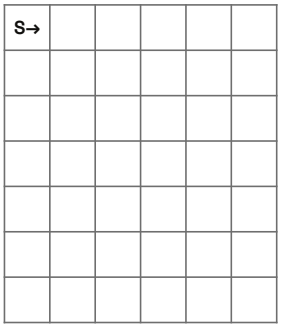
TASK 5 Be the computer

You are a pen on square **S**, facing **right**. `F 3` = go forward 3 squares and shade every square you enter. `R` = turn right. `L` = turn left. Do exactly what the program says. Do not think.

GRID 1 · PROGRAM A



GRID 2 · PROGRAM B



Program A

```
F 3 · R · F 2 · R · F 3 · L · F 2 · L · F 3
```

Program B (one instruction changed)

```
F 3 · R · F 2 · R · F 3 · R · F 2 · L · F 3
```

(a) Program A draws: _____

(b) In program B, what happens at the last step? _____

(c) Write a program that draws a capital letter (no diagonals). Give **only the program** to your partner.

My letter: _____ My program: _____

☐ **Done when:** your partner drew your letter from your program — or you found the bug together.

EXIT TICKET Alone. One answer each.

1. Why is a router a computer and a hammer is not?

- ○ a) It is more expensive
- ○ b) It follows a program, with a CPU, memory and I/O
- ○ c) It connects to the internet
- ○ d) It has lights and buttons

2. Your message waits on a server until your friend opens the app. Which verb is that?

- ○ a) Transform
- ○ b) Transfer
- ○ c) Store
- ○ d) Input

3. A computer is not smart. How can it edit a video?

- ○ a) It repeats a few simple operations billions of times per second
- ○ b) It understands what you want
- ○ c) It has one built-in operation for every task
- ○ d) It learns by watching you

4. Which one is **not** a computer?

- ○ a) A smartwatch
- ○ b) A bank card with a chip
- ○ c) A Wi-Fi router
- ○ d) An abacus