Computer Recovery and OS Comparison

Side Quest | Student job sheet

Prerequisite: ☐ Power Circuits Questions 1-6 complete ☐ teacher approval ☐ limited place assigned

Student 1	Student 2	Class	Date

Round	Technician	Recorder	Role swap confirmed
1			☐
2			☐

Prepare classroom computers and compare **Xubuntu 26.04 LTS** with **Linux Mint Xfce** before the teacher confirms the classroom standard. The current Xubuntu choice is provisional until this pilot is complete.

Matched computers and baseline

Record	Computer A	Computer B
asset number and exact model		
processor		
RAM		
storage type		
firmware configuration		
baseline condition or symptom		

Select computers that match as closely as possible. Explain any difference: _____

Photo evidence: ☐ exterior A ☐ exterior B ☐ interior after approval ☐ firmware or Apple Diagnostics

Safety, ESD, privacy, and sealed PSU

Shut down and unplug before opening. Use the approved ESD area and handle parts by their edges. Never open or probe inside a PSU. Never photograph passwords, network secrets, private screens, or unnecessary serial numbers. Stop for liquid, a swollen cell, burnt areas, damaged power hardware, loose metal, sharp damage, smoke, unusual smell, abnormal heat, unstable power, or unexpected noise.

Ready-to-power gate

☐ loose items removed ☐ RAM/cards seated ☐ storage secure ☐ connectors aligned and latched ☐ fans clear ☐ chassis stable and closed ☐ exterior cables correct

Teacher signature before power: _____ **Time:** _____

Startup keys

Machine	Key	Purpose	Result
PC	F2 or Delete	firmware setup	
PC	F12	boot selection, when supported	
Intel Mac	Option or Alt	Startup Manager	
Intel Mac	D / Option-D	Apple Diagnostics / Internet Diagnostics	
Intel Mac	Command-R / Option-Command-R	Recovery / Internet Recovery	

Use a wired keyboard. Record what the assigned model actually shows.

OS Crossover Results

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Crossover procedure

Use identical USB models, the same USB-port type, the same waiting period, and the same test procedure where possible.

- **Round 1:** A runs Xubuntu live; B runs Mint Xfce live.
- **Round 2:** swap USB drives; A runs Mint Xfce live; B runs Xubuntu live.
- Live-USB boot time is **not** a fair computer-performance benchmark.

Record **Pass, Concern, or Fail** for each test. Green, Yellow, and Red are reserved for the final machine classification.

Individual test	A Xubuntu	A Mint Xfce	B Xubuntu	B Mint Xfce
display				
keyboard				
mouse				
cursor stability				
USB				
Ethernet				
Wi-Fi				
sound				
internal-storage visibility				

Photos: ☐ Xubuntu live ☐ Mint Xfce live ☐ final desktop only after signed installation approval

Comparison criterion	Xubuntu evidence	Mint Xfce evidence
idle memory after the same wait		
browser launch		
Tinkercad usability		
Inkscape usability		
VS Code usability		
settings and interface clarity		
installation and update experience		

Student preference: ☐ Xubuntu ☐ Mint Xfce ☐ more testing **Evidence:** _____
Teacher OS decision: ☐ Xubuntu standard ☐ Mint Xfce standard ☐ Lubuntu for weak machines ☐ additional testing

Authorization and acceptance

Do not erase, partition, install, replace storage, or move RAM without a signed teacher approval gate.
Approved action and limits: _____
Teacher signature: _____ **Date/time:** _____
After an approved installation: ☐ restart/login ☐ display ☐ keyboard ☐ mouse/cursor ☐ USB ☐ Ethernet ☐ Wi-Fi ☐ sound ☐ storage ☐ updates
Final classification: A ☐ Green ☐ Yellow ☐ Red B ☐ Green ☐ Yellow ☐ Red
Green means safe and stable. Yellow means one defined repair or closer review. Red means stop student work and isolate for teacher review.

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