

IT Essentials - LINCS Vocabulary

(Grades 6-8)

IT Essentials: Build, Connect, Protect, and Fix

Tech for Everyone · LINCS Vocabulary Sheet

About This Resource

This is a LINC S vocabulary sheet for *IT Essentials: Build, Connect, Protect, and Fix* (Grades 6-8). LINC S is a proven vocabulary strategy from the University of Kansas that helps students lock new terms into long-term memory by connecting each word's *sound* to its *meaning* through a story and a picture.

Teachers can use this sheet to model the strategy, run vocabulary warm-ups, or build review stations. Students can use the ready-made cards below as examples, then practice making their own with the blank card on the last page. Every vocabulary term from all five chapters of the book is included, listed under the chapter where it first appears.

The five LINC S steps are:

1. **List the parts** — write the term and its definition.
2. **Identify a reminding word** — pick a familiar word that sounds like (part of) the term.
3. **Note a LINCing story** — write a mini-story that connects the reminding word to the term's meaning.
4. **Create a LINCing picture** — sketch a simple scene from the story.
5. **Self-test** — quiz yourself in both directions until recall is automatic.

Tip

How to self-test: Cover everything except the term. Say the reminding word, retell the story, picture the sketch, and recall the definition. Then flip it: cover the term, read the definition, and work backward through the picture and story to name the term. Practice both directions — that is what makes the memory stick.

Chapter 1: Hardware — What's Inside Everything

This chapter introduces 5 terms about the physical parts inside every computing device.

CPU

Definition: Central Processing Unit — the chip that carries out instructions and does the computer's actual thinking and calculating.

- **Reminding word:** professor ("Processing" sounds like "professor")
- **LINCing story:** The Professor sits in the central office of the school and does all the real thinking — every question from every classroom gets sent to him, he calculates the answer, and sends it back.
- **Picture idea:** A professor at a desk in the middle of a building, with arrows bringing in questions from every room and arrows sending answers back out.

RAM

Definition: Random Access Memory — the computer's fast, temporary workspace that holds whatever it's actively using; it empties when the power turns off.

- **Reminding word:** ram ("RAM" sounds like "ram," the sheep)
- **LINCing story:** A speedy ram carries all your open projects on its back while you work, but the second it lies down to sleep, everything slides off and is gone.
- **Picture idea:** A ram with sticky notes and papers piled on its back, and the papers sliding off as it falls asleep.

Storage

Definition: The drive (SSD or HDD) that permanently keeps your files, apps, and operating system, even when the power is off.

- **Reminding word:** store ("stor-" sounds like "store")
- **LINCing story:** The store's back room keeps every box safe on its shelves all night long — even with the lights off, nothing disappears, and it is all still there in the morning.

- **Picture idea:** A dark store room with shelves of boxes labeled "files," "apps," and "photos," and a light switch turned off.

Motherboard

Definition: The main circuit board that every other component plugs into, letting all the parts communicate with each other.

- **Reminding word:** mother ("mother-" sounds like "mother")
- **LINCing story:** At the dinner table, Mother sits in the middle and everyone talks through her — the kids never speak directly, they each plug their message into Mom and she passes it along.
- **Picture idea:** A mom at the center of a table with strings running from her to each family member.

Peripheral

Definition: Any external device that connects to a computer to add input, output, or storage — like a keyboard, mouse, monitor, printer, or game controller.

- **Reminding word:** purr-fur ("periph-" sounds like "purr-fur")
- **LINCing story:** A purring, furry cat sits OUTSIDE the computer tower, batting at everything plugged into the sides — the keyboard, the printer, and especially the mouse.
- **Picture idea:** A fluffy cat pawing at a computer mouse whose cable plugs into the side of a computer tower.

Chapter 2: Networks — How Data Moves

This chapter introduces 6 terms about how data travels between devices and across the internet.

Router

Definition: The device that creates your home network, gives every device a local address, and directs traffic between your devices and the internet.

- **Reminding word:** Route 1 ("rout-" sounds like "route")
- **LINCing story:** A crossing guard stands where Route 1 meets your street, hands every house a number, and points each passing car of data to exactly the right driveway.
- **Picture idea:** A crossing guard by a "Route 1" sign directing toy cars toward numbered houses.

Bandwidth

Definition: The maximum amount of data a connection can move per second, measured in megabits per second (Mbps) — how wide the pipe is, not how far away things are.

- **Reminding word:** band width ("bandwidth" splits into "band" + "width")
- **LINCing story:** A marching band parades down the street — on a wide street, ten rows of players march past every second, but in a narrow alley they squeeze through single file, so far less music gets by per second.
- **Picture idea:** A wide street packed with rows of marching band players next to a narrow alley where they walk single file.

IP address

Definition: A unique number, like 142.250.72.14, that identifies a device on a network so data can find its way to it.

- **Reminding word:** a dress ("address" sounds like "a dress")
- **LINCing story:** The mail carrier can only deliver a dress to you because your house number is one of a kind — every device gets its own unique number so packages of data

always find the right door.

- **Picture idea:** A mail carrier holding a box labeled "a dress" and checking it against the house number 142 on a door.

DNS

Definition: The Domain Name System — the internet's phone book, which translates human-friendly names like google.com into the IP addresses computers actually use.

- **Reminding word:** Dennis ("D-N-S" sounds like "Dennis")
- **LINCing story:** Dennis is the office helper who knows everybody — you say "I need Google," and Dennis flips through his giant phone book and reads out the exact number to dial.
- **Picture idea:** A kid named Dennis holding a huge phone book, pointing at a number while someone asks for "google.com."

Server

Definition: A computer whose job is to provide (serve) something to other computers over a network — websites, files, game worlds, or video streams.

- **Reminding word:** serve ("serv-" sounds like "serve" in volleyball)
- **LINCing story:** In volleyball, you serve the ball over the net to the other side — a server computer serves up websites and game worlds over the net(work) to every computer that asks for them.
- **Picture idea:** A computer with arms serving a volleyball labeled "website" over a net to smaller laptops.

Cloud

Definition: Computing services — storage, apps, and processing — delivered over the internet from data centers, instead of running on your own device.

- **Reminding word:** crowd ("cloud" sounds like "crowd")
- **LINCing story:** Your photos are not floating in the sky — they live with a huge crowd of computers packed into a warehouse far away, and the internet carries them to your screen

whenever you ask.

- **Picture idea:** A warehouse full of a crowd of computer towers, with a painted cloud sign on the roof and a wire running to a distant phone.

Chapter 3: Operating Systems and Software

This chapter introduces 3 terms about the software layer that makes computers usable.

Operating system

Definition: The master program that manages a computer's hardware, files, apps, and users — the layer that makes the machine usable.

- **Reminding word:** opera ("opera-" sounds like "opera")
- **LINCing story:** The opera director runs the entire show — the stage crew (hardware), the scripts (files), and every performer (apps) — so the whole production works together instead of falling into chaos.
- **Picture idea:** A director with a baton in front of a stage split into sections labeled "hardware," "files," and "apps."

Permission

Definition: A rule set by the operating system that controls who can view, change, or run a file — and what each app or user is allowed to do.

- **Reminding word:** mission ("-mission" sounds like "mission")
- **LINCing story:** A spy on a mission can only open the doors her badge allows — the badge decides which rooms she may look into, which she may rearrange, and which stay locked.
- **Picture idea:** A spy holding a badge in a hallway of doors labeled "view," "change," and "run," with one door showing a padlock.

Update

Definition: A newer version of software delivered by its maker to fix bugs, patch security holes, and sometimes add features.

- **Reminding word:** up late ("update" sounds like "up late")
- **LINCing story:** The programmer stayed up late squashing bugs and sealing the holes in her app, and in the morning she shipped the newer, safer version straight to everyone's devices.

- **Picture idea:** A programmer at a desk under the moon, sending a package labeled "v2.0" toward a phone.

Chapter 4: Security — Threats and Defenses

This chapter introduces 6 terms about digital threats and how to defend against them.

Malware

Definition: Malicious software — any program designed to harm a device, steal information, or take control without the owner's permission.

- **Reminding word:** mall ("mal-" sounds like "mall")
- **LINCing story:** A shady kiosk at the mall hands out "free games," but each disc secretly steals wallets and wrecks the phones of everyone who installs one.
- **Picture idea:** A mall kiosk with a "FREE GAMES" sign and a thief hiding behind it holding stolen wallets.

Ransomware

Definition: Malware that encrypts a victim's files and demands payment to unlock them.

- **Reminding word:** ransom ("ransom-" sounds like "ransom," as in a ransom note)
- **LINCing story:** A digital kidnapper locks all your files in a cage, then slides you a ransom note: "Pay up, or you never see your photos again."
- **Picture idea:** Folders behind cage bars with a padlock and a note reading "PAY TO UNLOCK."

Social engineering

Definition: Tricking people into giving up information or access by manipulating emotions like fear, urgency, or excitement — hacking the human, not the machine.

- **Reminding word:** engine ("engineer-" sounds like "engine")
- **LINCing story:** The con artist never touches the engine — he scares the driver with "Your car is about to explode!" until the panicked driver hands over the keys himself.
- **Picture idea:** A trickster receiving car keys from a worried driver while the car's engine sits untouched.

Phishing

Definition: A scam message — usually email or text — disguised as a trustworthy source, designed to steal passwords, money, or personal information.

- **Reminding word:** fishing ("phishing" sounds like "fishing")
- **LINCing story:** The scammer goes fishing with fake bait — an email dressed up to look like your bank — and waits for someone to bite and hand over their password.
- **Picture idea:** A fishing hook holding an envelope labeled "Your Bank," dangling in front of a person at a laptop.

Multi-factor authentication

Definition: A sign-in that requires two or more different proofs of identity — like a password plus a code on your phone — so a stolen password alone isn't enough.

- **Reminding word:** factory ("factor" sounds like "factory")
- **LINCing story:** To enter the secret factory you need two different proofs — a keycard AND a fingerprint — so a thief who steals only the keycard still gets stuck at the door.
- **Picture idea:** A factory door with two scanners side by side: a card slot and a fingerprint pad.

Backup

Definition: A separate, up-to-date copy of your important files, stored somewhere else, so data survives theft, failure, or ransomware.

- **Reminding word:** backpack ("backup" sounds like "backpack")
- **LINCing story:** Maya keeps a second copy of her project in a backpack at her grandma's house — so when her locker floods, the project survives somewhere else.
- **Picture idea:** Two identical folders: one in a dripping-wet locker, one safe inside a backpack in another house.

Chapter 5: Troubleshooting and IT Careers

This chapter introduces 3 terms about fixing problems methodically and turning that skill into a career.

Troubleshooting

Definition: A systematic, step-by-step process for finding the cause of a problem and fixing it — as opposed to random guessing.

- **Reminding word:** sharpshooter ("-shooting" sounds like "sharpshooter")
- **LINCing story:** A sharpshooter never sprays shots everywhere — she aims at one target at a time until she hits the real one, just like testing one possible cause at a time until you find the true problem.
- **Picture idea:** An archer aiming carefully at three targets labeled "cable?", "power?", and "settings?", with an arrow in only one.

Help desk

Definition: The IT support team that takes users' problem reports (tickets), diagnoses issues, and fixes them or escalates to specialists — the traditional entry point into IT careers.

- **Reminding word:** desk ("help desk" splits into "help" + "desk")
- **LINCing story:** At the desk with the big HELP sign, a worker takes each person's ticket, figures out what broke, and either fixes it or passes it up to a specialist — and many IT careers start behind that very desk.
- **Picture idea:** A desk with a "HELP" sign, a worker holding a ticket, and a line of people carrying broken laptops.

Certification

Definition: An industry credential earned by passing a standardized exam, proving specific technical skills to any employer — no matter where or how you learned them.

- **Reminding word:** Sir T ("certi-" sounds like "Sir T")

- **LINCing story:** When Sir T passed the kingdom's official test, the king handed him a stamped scroll that every castle in the land would trust — proof of his skill, no matter where he had trained.
- **Picture idea:** A knight kneeling before a king, receiving a scroll with a big wax seal.

Blank LINCS Card

Copy this table into your notebook to make your own LINCS card for any new term.

Step	Your work
1. List the term	
2. List the definition	
3. Reminding word (sounds like...)	
4. LINCing story	
5. LINCing picture (sketch it!)	

Tips for good LINCS cards

- The reminding word must be a real, familiar word that genuinely sounds like part of the term — not the term itself.
- The story must connect the sound to the meaning: someone who remembers your story should be able to rebuild the definition.
- The picture must show the story, not the term — draw the scene, not the word.
- Keep it simple: if you cannot sketch the picture in 30 seconds, simplify the story.