1. Padlocks

- Combination Padlocks
  - Open using a rotating dial or multiple dials with preset number sequences.
  - No key required—ideal for users who prefer memorized access.
  - Commonly used for lockers, toolboxes, and school storage.
  - Susceptible to brute-force attacks or decoding.
  - Resettable combinations available on some models.
  - Weather-resistant versions exist for outdoor use.
- Keyed Padlocks
  - Operated with a physical key; generally more secure than basic combo locks.
  - Used in areas needing quick access (e.g., gates, sheds).
  - Comes in rekeyable and non-rekeyable forms.
  - More durable against tampering than combination versions.
  - May come with long or short shackles.
  - Vulnerable to lock picking if not high-security rated.
- Shrouded Padlocks
  - Have protective shackle guards to prevent bolt cutter attacks.
  - Designed for high-security environments (containers, trailers).
  - Often have hardened steel bodies and anti-drill cores.
  - Ideal for harsh or outdoor conditions.
  - More expensive due to reinforced design.
  - Not easily opened even with heavy tools.
- Smart Padlocks
  - Unlock via Bluetooth, apps, or biometric authentication.

- No key or combination needed—often use phones or fingerprints.
- Track access history and user permissions via app.
- Rechargeable or battery-powered.
- Vulnerable to hacking if not updated or poorly encrypted.
- Great for modern home, school, or office settings.

2. Deadbolts

- Single Cylinder Deadbolt
  - Uses a key on the outside and a thumb turn inside.
  - Easy to operate and install; most common type.
  - Shouldn't be used near windows—can be unlocked from inside if glass is broken.
  - Offers strong resistance to forced entry.
  - Popular for residential exterior doors.
  - Cost-effective and reliable.
- Double Cylinder Deadbolt
  - Requires a key on both sides to lock/unlock.
  - Prevents intruders from opening the door if they break glass nearby.
  - Not ideal in emergencies (fire exit risk).
  - Used in doors with large windows or glass panels.
  - Provides better security than single cylinder.
  - Often regulated or banned in some areas due to safety concerns.
- Lockable Thumb Turn Deadbolt
  - Hybrid: key on outside, thumb turn on inside that can be locked/unlocked.
  - Offers convenience with optional security.

- Can lock the thumb turn when away from home.
- Safer for quick exit during emergencies.
- Popular in high-security home installations.
- Combines benefits of single and double deadbolts.

3. Knob Locks

- Integrated into the door knob itself.
- Typically used for interior doors (bedrooms, bathrooms).
- Not very secure for exterior use—can be broken or twisted easily.
- Keyed entry from one side; knob or button lock on the other.
- Often paired with deadbolts for main doors.
- Vulnerable to lock bumping and picking.

4. Lever Handle Locks

- Use a lever handle to operate the latch.
- Easier to open than knob locks—ADA compliant (ideal for elderly/disabled).
- Used mainly in commercial buildings and offices.
- Come in passage, privacy, or keyed entry formats.
- Vulnerable to torque attacks if not reinforced.
- Can include push-button or keyless access versions.

5. Mortise Locks

- Installed in a pocket cut into the door edge.
- Contains both latch and deadbolt components in one assembly.
- Offers high strength and durability—great for commercial buildings.

- Can support multiple locking functions (e.g., key + thumbturn).
- More difficult to install and expensive.
- Provides superior resistance to picking and brute force.

6. Rim Locks

- Surface-mounted on the inside face of a door.
- Include a latch or bolt operated from outside by key and inside by knob.
- Easy to install—used often on older doors or apartments.
- Not as strong as mortise or deadbolt locks.
- Can be used in combination with other locks.
- Often used as secondary locks for added security.

7. Cam Locks

- Uses a rotating metal cam to lock/unlock a device.
- Common in lockers, cabinets, mailboxes, and vending machines.
- Requires a simple tubular or flat key.
- Easy to install and replace.
- Inexpensive but low security.
- Comes in various cam lengths and configurations.

8. Euro Cylinder Locks

❖ Single Cylinder

- Keyhole on one side only (usually outside).
- Used when only one-way locking is needed.
- Cheaper and simpler to install.

- Vulnerable to snapping and bumping unless reinforced.
- Common in apartment entrance doors.
- Useful for emergency exit doors.

❖ Double Cylinder

- Key access on both sides of the door.
- Provides more control but inconvenient in emergencies.
- Higher security than single-cylinder.
- Often used in patio or glass doors.
- Can be fitted with anti-snap features.
- Requires careful key management.

❖ Thumb Turn

- Key on one side, thumb turn on the other.
- Allows easy internal locking/unlocking.
- Safer in emergencies than double-cylinder.
- Combines convenience and security.
- Often used in rental properties or office doors.
- Some models include override keys.

9. Magnetic Locks (Maglocks)

- Use an electromagnet and an armature plate to keep doors locked.
- Powered by electricity—fail-safe or fail-secure configurations.
- Common in commercial, retail, or secure building doors.
- Requires constant power or access control input to operate.
- Can hold up to 1200 lbs of force.

- Easily integrates with access systems (keycard, fingerprint, etc.)

10. Keycard Locks

- Unlocked using RFID or magnetic-stripe cards.
- Common in hotels, modern offices, and dorms.
- Cards can be deactivated or reassigned easily.
- Less wear and tear than traditional keys.
- Vulnerable to hacking or cloning if poorly encrypted.
- Integrated with room management or audit trail systems.

11. Smart Locks

❖ Fingerprint Locks

- Authenticate access using biometric fingerprint scanning.
- Provide high convenience—no keys or codes to remember.
- Often include multiple user profiles and access logs.
- Common in modern homes, offices, and lockers.
- Vulnerable to spoofing if not high quality; reliability depends on sensor.
- Powered by batteries; some include emergency power ports.

❖ Bluetooth/Wi-Fi Locks

- Connect to smartphones or smart home hubs via wireless protocols.
- Allow remote access, status updates, and user management.
- Can be integrated into voice assistants (e.g., Alexa, Google Home).
- May include auto-lock/unlock proximity features.
- Vulnerable to network or firmware hacking if not regularly updated.
- Require battery changes or backup options for outages.

❖ Voice-Activated Locks

- Unlock using voice recognition or smart assistants.
- Often used with smart home ecosystems.
- Require verification through personal voice commands or linked devices.
- Good for accessibility; limited adoption due to security concerns.
- May combine with other modes like app or fingerprint access.
- Depends heavily on stable internet connection.

12. Chain Locks

- Consist of a heavy-duty chain and locking mechanism.
- Used primarily for securing bicycles, motorcycles, and gates.
- Chain links made from hardened steel resist cutting/sawing.
- Lock may be integrated or used separately (padlock).
- Flexible for wrapping around irregular objects.
- Vulnerable to bolt cutters if low-quality.

13. Barrel Bolt / Slide Bolt

- Manual sliding bolt that fits into a catch or socket.
- Used for internal security—bathrooms, bedroom doors, cupboards.
- Simple and inexpensive; no key required.
- Available in various lengths and strengths.
- Not suitable for external security.
- Easy to install with just screws and a drill.

14. Disc Tumbler Locks

- Use rotating discs instead of pin tumblers.
- Key rotates the discs to align slots at the shear line.
- Highly resistant to picking and bumping.
- Common in high-security padlocks and safes.
- Require specialized tools to decode or open.
- Durable and weather-resistant—often used in outdoor locks.

15. Wafer Locks

- Use flat wafers inside the lock cylinder that align with the correct key.
- Simpler than pin tumbler systems—used in cabinets, drawers, older cars.
- Low-cost and easy to mass-produce.
- More vulnerable to picking than pin tumbler locks.
- Often used where high security isn't a priority.
- Compact design makes it ideal for smaller enclosures.

16. Locking Bars

- Long steel/aluminum bars that physically block movement (doors, drawers).
- Used in commercial settings, safes, and garage doors.
- May require a padlock or keyed mechanism to secure.
- Simple yet highly effective against brute-force entry.
- No internal lock mechanism—security depends on bar material and mount.
- Often used as an added layer of physical defense.

17. Combination Locks

- No key required—unlock with a sequence of numbers or symbols.
- Types include dial, push-button, and electronic.
- Used in lockers, safes, and luggage.
- Combination can be reset in some models.
- Vulnerable to brute-force or decoding unless high security.
- Convenient and keyless but relies on user memory.

18. Biometric Locks

- Use fingerprint, facial recognition, or iris scanning to authenticate.
- Offer fast, keyless access with audit trail capability.
- High security when implemented with encryption and backups.
- Common in offices, luxury homes, and smartphones.
- May have fallback methods (keypad, card, app).
- Require power supply; sensitive to weather in outdoor settings.

19. Cable Locks

- Flexible steel cables used with a lock for temporary securing.
- Commonly used for bicycles, outdoor gear, and electronics.
- Lightweight and portable, but weaker than chains.
- Often combined with keyed or combination locking heads.
- Can loop through multiple items or around poles.
- Easy to carry but vulnerable to cutting with basic tools.

20. T-Handle Locks

- Feature a T-shaped handle that turns to engage/disengage a latch.
- Common in vending machines, ATMs, utility boxes.
- Secured by tubular keys or cam locks inside the handle.
- Provide tight and secure fit into the housing.
- Replaceable locking mechanism with master key option.
- Resistant to tampering but require proper alignment during installation.

21. Shackle Locks

- Shackle locks feature a U-shaped bar that can be secured into a locking mechanism.
- Commonly found in padlocks and are designed for use with chains or hasps.
- The thickness and length of the shackle can vary depending on security needs.
- Hardened steel shackles provide resistance to cutting and sawing.
- Some models include a double-locking shackle for added protection.
- Often used for securing bikes, gates, lockers, and storage units.

22. Cylinder Locks

- Comprise a cylinder mechanism where a key rotates a plug to unlock.
- Found in doors, cabinets, and some padlocks.
- Easy to rekey without replacing the entire lock system.
- Can be single or double cylinder depending on access needs from one or both sides.
- Vulnerable to lock picking unless upgraded to high-security variants.
- Widely used in residential and commercial buildings due to ease of use and maintenance.

23. Antique/Vintage Locks

- Designed to match the aesthetic of historic or vintage decor.
- Often handcrafted or stylized to resemble locks from past centuries.
- May use old-style keys like skeleton or barrel keys.
- Typically found on antique furniture, collectible items, or restoration projects.
- Less secure than modern locks but valuable for historical or decorative purposes.
- Can be restored or retrofitted with modern mechanisms for added security.

24. High-Security Locks

- Designed to resist lock picking, bumping, drilling, and unauthorized duplication.
- Often feature complex keyways, magnetic pins, or rotating discs.
- Certified by security standards such as ANSI Grade 1 or UL 437.
- Used in banks, military facilities, and high-value commercial assets.
- May integrate with access control systems or alarms.
- More expensive but provide superior protection.

25. Furniture Locks

- Compact locks used for desks, cabinets, drawers, and filing units.
- Typically cam or push locks that engage a catch or bolt when turned.
- Operated with a small key, often interchangeable among similar locks.
- Provide basic security to restrict casual access to contents.
- Easy to install or replace and available in keyed-alike systems.
- Common in offices, schools, and homes for organizing private storage.

26. Time Locks

- Operate on a timer mechanism, allowing access only during preset time periods.
- Commonly used in bank vaults and high-security safes.
- Prevents access outside of programmed hours, even with a correct key or code.
- Increases security by reducing human error or coercion-based access.
- Can be mechanical or electronic, with modern versions featuring programmable digital interfaces.
- Used to restrict access to high-value or sensitive areas.

27. Pivot Locks

- These locks work by securing a rotating or pivoting element, typically a latch or hinge.
- Found in swing doors, cabinets, and display cases.
- Allow for smooth opening and closing motion when unlocked.
- Often integrated into the hinge mechanism for compactness.
- Can include simple key mechanisms or more complex locking systems.
- Ideal for glass doors or specialty furniture.

28. Drop Bolts / Electronic Strike Locks

- Drop bolts (also called solenoid bolts) are electronic locks that insert a metal bolt into a strike plate.
- Often used in access control systems on glass or frameless doors.
- Electronic strike locks work by releasing the lock when triggered by an access system (keycard, intercom, etc.).
- Can be fail-safe (unlocked when power is lost) or fail-secure (remains locked during power failure).
- Enable remote control via intercoms, keypads, or security systems.

- Common in offices, server rooms, and restricted facilities.

29. Rim Latches

- Mounted on the surface of the door, typically on the inside.
- Engage with a strike plate on the door frame to secure the door.
- Often spring-loaded, so they automatically latch when the door closes.
- Frequently found in internal doors, older homes, and communal entries.
- Can be operated by a key from outside and a knob or thumb-turn from inside.
- Some models include a deadlocking feature for added security.

30. Multipoint Locks

- Lock the door at multiple points (top, middle, bottom) with a single key or handle turn.
- Commonly used in uPVC and composite external doors.
- Provide enhanced security by distributing force across the door frame.
- Often include a combination of hooks, bolts, and rollers.
- Require precise alignment for effective operation.
- Offer excellent resistance against forced entry, such as prying or kicking.

31. Tubular Locks

- Also known as radial locks, they use a circular key and pin mechanism arranged in a ring.
- Popular in vending machines, bike locks, and ATMs.
- Provide compact and tamper-resistant locking solutions.
- Can be more difficult to pick than standard pin tumbler locks.
- Typically opened with a tubular key that matches the lock's pin depth.

- Widely used in kiosks, laundromats, and lockers.

32. Cross Locks

- Feature a cross-shaped key and corresponding keyway.
- Pins are set in a cross-like configuration, often in four directions.
- Provide moderate resistance to standard lock-picking tools.
- Common in some Asian and European security products.
- Require specialized key cutting and duplication.
- Used in drawer locks, safes, and sometimes motorcycles.

33. Restricted Keyway Locks

- Keys cannot be duplicated without authorization due to patented designs.
- Used to prevent unauthorized key copies and maintain tight control over access.
- Often combined with high-security cylinders or access systems.
- Keys are only cut by certified locksmiths or security providers.
- Ideal for businesses, institutions, or property managers.
- Provide an audit trail when used with access logs or master key systems.

34. Keyless Mechanical Locks

- Operate without keys using a push-button or dial-based entry system.
- Fully mechanical—no batteries or wiring needed.
- Ideal for environments where electronic access is not practical.
- Allow for quick code changes without rekeying.
- Durable and weather-resistant models exist for outdoor use.
- Common in offices, storerooms, and gates.

35. RFID Locks

- Use Radio Frequency Identification (RFID) tags/cards to unlock doors.
- Provide contactless and fast access control.
- Can be integrated into hotel systems, offices, and smart homes.
- Programmable and trackable access for users.
- Usually battery-powered with alert systems for low power.
- Supports multi-user functionality with restricted access levels.

36. Safe Locks

❖ Dial Locks

- Operated using a rotating dial to align internal discs or wheels to a set combination.
- Traditional mechanism found on many safes and vaults.
- No batteries or electricity needed; fully mechanical.
- Reliable but slow compared to digital options.
- Vulnerable to manipulation if not high-security rated.
- Require precise input to unlock successfully.

❖ Digital Locks

- Use a keypad or touchscreen to enter a numeric code.
- Fast and convenient for frequent access.
- Can include features like lockout timers, alarms, or dual code entry.
- Powered by batteries, sometimes with emergency key override.
- Often used in hotels, offices, and home safes.
- Allows easy code changes and user tracking.

37. Chain-and-Hasp Locks

- Composed of a metal hasp and a chain secured by a padlock.
- Common for gates, sheds, bikes, and temporary security setups.
- Easy to install and flexible for various applications.
- Security level depends on chain thickness and padlock strength.
- Can be cut if made from low-grade material.
- Ideal for portable or low-cost security needs.

38. Surface-Mounted Locks

- Installed on the exterior of the door rather than embedded within it.
- Examples include rim locks and certain deadbolt models.
- Easier to install or retrofit without extensive door modifications.
- Can be mechanical or electronic.
- Often used in older buildings or where mortising is not possible.
- Provide decent security but are more visible and potentially vulnerable.

39. Gate Locks

- Designed specifically for exterior gates (metal, wood, or composite).
- Weather-resistant and often more robust than standard locks.
- Can include latch locks, padlocks, or integrated mechanical/electronic locks.
- Some have keypads or RFID systems for controlled entry.
- Important for perimeter security in homes, farms, or industrial areas.
- Models range from simple latches to advanced automatic gate systems.

40. Vehicle Locks

❖ Ignition Locks

- Allow authorized starting of a vehicle through key insertion or push-start mechanisms.
- Integrated with steering and transmission locking for anti-theft.
- Modern cars include immobilizers and transponder key systems.
- Vulnerable to hot-wiring in older models without electronics.

❖ Steering Locks

- Prevents the steering wheel from turning, used as an anti-theft and vehicle security measure.
- Includes built-in ignition locks, clamp-style visible locks, and electronic steering locks (ESL).
- Built-in locks engage when the ignition is off and the wheel is moved; external locks are manually attached.
- Criminals may break the steering column, use fake key signals, or cut visible locks.
- Used for physical security testing; practice may involve bypassing or disabling visible locks.