

Hobby Cards

12 hobbies, 2 pages each (aquarium 3), all tables. Built from 1–2 core books per hobby. Ashish Agarwal, 2026.

Hobby (tap to jump)	What it gives you	Core books
 01 Fish aquarium	Two living worlds: a planted office tank and a hardy outdoor pond	Ecology of the Planted Aquarium — Diana Walstad (1999, 2nd ed. 2003); Encyclopedia of Aquarium and Pond Fish — David Alderton (2005, new ed. 2019)
 02 Palmistry	Hast Rekha: read shape first, then mounts, lines, marks	The Laws of Scientific Hand Reading — William G. Benham (1900); Cheiro's Language of the Hand — Cheiro (1894)
 03 Astrology (Jyotish)	Read a Vedic kundli: grahas, rashis, bhavas, nakshatras, yogas, dashas	Brihat Parashara Hora Shastra, 2 vols — Parashara, tr. R. Santhanam (1984); Light on Life — Hart de Fouw & Robert Svoboda (1996)
 04 Planting / Plants	Pots and beds in NCR: right light, drained mix, seasonal care	The House Plant Expert — D.G. Hessayon (1980, new ed. 1991); The New Vegetable and Herb Expert — D.G. Hessayon (1997, rev. 2014)
 05 Stone art	From a ₹300 painted pebble to marble carving and Agra inlay	Stone and Marble Carving: A Manual for the Student Sculptor — Alec Miller (1948); The Art of Painting Animals on Rocks — Lin Wellford (1994)
 06 Wood work	Turn raw boards into lasting objects with sharp hand tools	Essential Woodworking Hand Tools — Paul Sellers (2016); Understanding Wood — R. Bruce Hoadley (2000)
 07 Numerology	Names and birth dates turned into numbers: Western, Chaldean, Indian, Lo Shu	Cheiro's Book of Numbers — Cheiro (1926); Numerology: Key to Your Inner Self — Hans Decoz (1994)
 08 DJ	Phrase-true mixes, clean levels, the right song for the room	How to DJ Right — Bill Brewster & Frank Broughton (2003); Rock The Dancefloor (2nd ed.) — Phil Morse (2024)
 09 Vastu	Read any site or floor plan by direction: home, office, farmstay	Mayamata (tr. of the Sanskrit treatise) — Bruno Dagens (1985); The Penguin Guide to Vaastu — Sashikala Ananth (1999)
 10 Body language	Read comfort and discomfort; project calm confidence; know the limits.	What Every Body Is Saying — Joe Navarro with Marvin Karlins (2008); Emotions Revealed — Paul Ekman (2003)
 11 Landscaping	Read the land; design shade, water, paths and light first	Garden Design — John Brookes (1991); RHS Encyclopedia of Garden Design — Chris Young, ed. (2009)
 12 Plant Landscaping	Right plant, right place: layered, repeated, hardy NCR planting.	Planting: A New Perspective — Piet Oudolf & Noel Kingsbury (2013); Trees of Delhi: A Field Guide — Pradip Krishen (2006)

Legend:  Beginner  Intermediate  Advanced  Top pick  Caution ●●● Rating: more filled dots = more

Picture credits

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 - Facial muscles behind the FACS action units, such as the zygomatic major and orbicularis oculi: *1106 Front and Side Views of the Muscles of Facial Expressions numbered.jpg*, CNX Anatomy 2013, CC BY 4.0, Wikimedia Commons
- Namaste, the respectful Indian greeting that is safe with elders, women and clients: *Namaste a greetngs gesture by a local lady while meeting whom she knew at Okhaldunga Nepal IMG 3068.jpg*, Sumita Roy Dutta, CC BY-SA 4.0, Wikimedia Commons
 - Edward Hall's distance zones: intimate, personal, social and public: *Personal Space POL.png*, Personal_Space.svg: WebHamster derivative work: Przykuta (talk), CC BY-SA 3.0, Wikimedia Commons
 - A two-deck DJ controller: jog wheels, tempo faders, pads and the mixer in the middle.: *Pioneer DDJ-RX DJ-Controller (front) with computer running mixing software Rekordbox.jpg*, Foto: Jonn Leffmann, CC BY 3.0, Wikimedia Commons
 - A DJ mixer: trim, high, mid and low EQ, channel faders and crossfader.: *AUDIOPAN Pokket Mixer - zero battery mixer with EQ & cue, built in Berlin! pokketmixer.com (2011-10-23 by j bizzie).jpg*, j bizzie from MINNEAPOLIS, USA, CC BY 2.0, Wikimedia Commons
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 - The three basic fingerprint patterns: arch, loop (Shankha) and whorl (Chakra): *Fingerprint Arch.jpg*, unknown author, Public domain, Wikimedia Commons
 - The major lines: life (Jeevan), head (Mastishk), heart (Hriday), fate (Bhagya) and sun (Surya): *Perin's science of palmistry; a complete and authentic treatise (1902) (14596165268).jpg*, Perin, Carl Louis, No restrictions, Wikimedia Commons
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 - Mealybugs: white cottony pests in leaf joints, treated with alcohol and neem oil: *Mealybug on blue background.jpg*, Devastator, CC BY-SA 3.0, Wikimedia Commons
 - Pothos (money plant), the easiest office plant and the aquarium nitrate sponge: *Epipremnum aureum (Golden pothos).jpg*, Filo gèn', CC BY-SA 4.0, Wikimedia Commons
 - Snake plant, a low-light, low-water office plant: *Potted plants or snake plants.jpg*, Marisankar Mk, CC BY-SA 4.0, Wikimedia Commons
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 - Parchinkari at the Taj Mahal: semi-precious stones inlaid flush in white Makrana marble: *Art Work inside Taj Mahal 01.JPG*, Rajesnewdelhi, CC BY-SA 3.0, Wikimedia Commons
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01 Fish aquarium

Two living worlds: a planted office tank and a hardy outdoor pond

Books: Ecology of the Planted Aquarium — Diana Walstad (1999, 2nd ed. 2003); Encyclopedia of Aquarium and Pond Fish — David Alderton (2005, new ed. 2019)

T01 = office planted tank

T02 = outdoor tank

B I A Beginner/Inter/Adv

★ top pick

! caution

• • • hardness/ease

L/M/H light low/med/high

NH3 ammonia · NO2 nitrite · NO3 nitrate

ppm = mg/L

WC water change

FS full sun · PS part shade

Zone T/M/B top/mid/bottom

₹? = price not researched

T01 OFFICE PLANTED TANK — AT A GLANCE

Item	Value
Size	31 × 15 × 12 in (79 × 38 × 30 cm)
Water	91 L gross · ~70 L real (2 in substrate)
Style	Low-tech jungle + riparium (plants out of the top)
Kit now	HOB filter, LED, thermometer, 2 plant baskets; no heater
State 10-13	No fish, green water, thread algae, sword yellowing
Light	6–7 h on a timer; no window sun on glass
Target	24–25 °C · pH 6.5–7.5 · NH3 0 · NO2 0 · NO3 < 20–40

T02 OUTDOOR TANK — AT A GLANCE

Item	Value
Size	10 × 2 × 2 ft (305 × 61 × 61 cm)
Water	1,133 L gross · ~1,000 L (6 cm freeboard)
Climate	NCR: winter nights ~5 °C air, summer 45 °C, monsoon
Threats	Heat, sun, rain overflow, birds, cats, mosquitoes
Pump	Turnover ≥ 250 L/h goldfish · ≥ 500 L/h koi
Shade	½–¾ surface under plants + shade sail at noon
Cover	Bird/cat net or mesh lid; overflow pipe with mesh

T01 STOCKING — SOFT, SMALL, PEACEFUL (~70 L)

Animal	Qty	Size	°C · pH	Zone · behaviour	Compatibility
Neon tetra ★	20	3 cm	21–25 · 6–7.5	M · tight blue school	Eats shrimp babies; buy active fish, no pale patches
Honey gourami	3 (1♂ 2♀)	5 cm	22–28 · 6–7.5	T · curious, begs at glass, bubble nests	Indian native; 1 male only; eats shrimplets
Pygmy corydoras	10	3 cm	22–26 · 6.4–7.4	B/M · group hovers, sifts lightly	Does not dig; needs small sinking food
African dwarf frog	2	4–6 cm	23–26 · 6.5–7.8	B · surfaces to breathe, the clown	! Not clawed frog (separate fingers). Slow, near-blind: pipette-feed
Otocinclus	4	4 cm	21–26 · 6–7.5	Glass/leaves · algae-film grazer	Mature tank only; add algae wafers
Amano shrimp ★	6	5 cm	20–27 · 6.5–7.5	All · best thread-algae eater	Larvae need brackish: no breeding
Cherry shrimp	20 start	2–3 cm	18–28 · 6.5–8	Plants · breeds freely	Babies survive only in moss/carpet
Nerite snail	3	2–3 cm	22–27 · 7–8.5	Glass/rock · strong algae grazer	Needs GH ≥ 6; eggs never hatch in freshwater
Mystery snail	1	5 cm	20–28 · 7–8	All · eats leftovers, dead leaves	Pink clutch above waterline; remove to stop 100 babies
Shared target	—	—	24–25 · 6.8–7.4	3 layers filled: T/M/B	No digger in list: carpet stays put

T01 ADD IN THIS ORDER (6–8 WEEKS)

Week	Add	Check first
0	Fix light, blackout, top up	Re-cycle: 2 ppm NH3 → 0 in 24 h
1	Floaters + basket houseplants	Green water clearing
2	Amano 6 · Nerite 3	NH3 0 · NO2 0
4	Otocinclus 4 · Cherry 20	Algae film present; GH ≥ 6
5	Neon tetra 10	Heater holds 24–25 °C
6	Neon 10 · Pygmy cory 10	Tests 0 / 0 after 1 week
8	Honey gourami 3 · ADF 2 · Mystery 1	Quarantined 2–4 wk in a tub

T01 NEVER ADD

Animal	Why
Goldfish	Coldwater, messy, uproots, outgrows 70 L
Angelfish, big gouramis	Eat neons and shrimp
Tiger barb	Fin-nipper
Cichlids, crayfish	Dig, uproot, kill shrimp
Common/bristlenose pleco, SAE	Grow 15 cm+, big waste
Bronze/panda cory, loaches	Dig up the carpet
African clawed frog	Grows big, eats fish
Betta	Hunts the shrimp colony

T01 ANIMALS



Neon tetra



Honey gourami



Pygmy cory



African dwarf frog



Cherry shrimp



Nature aquarium style

T02 STOCKING — HARDY, NCR YEAR-ROUND (~1,000 L)

Animal	Qty / 1,000 L	Adult	Range °C · hardness	NCR verdict	Notes
Comet goldfish ★	6–8	25–30 cm	Cold-hardy; stress > 30 · ●●●	Year-round	Rule: 1–3 kg fish per 1,000 L; plan for adult size
Shubunkin	in the 6–8	25–30 cm	As comet · ●●●	Year-round	Calico comet; mixes perfectly with comets
Koi	1–2 max	60 cm+	Best 15–25; stress > 27 · ●●●	! Heat risk, outgrows	Use instead of 2 comets; rehome past ~40 cm
Zebra danio ★	15–20	5 cm	Wild water 12–39 · ●●●	Year-round	Indian native; fast, eats larvae
Rosy barb	10–12	6–8 cm	Comfort 14–28 · ●●●	! Borderline Jan	N-Indian native; keep a heated tub ready
Giant danio	8–10	10 cm	Min ~18 (care sheets) · ●●●	! Mar–Oct only	Indian native; winter indoors
Blue panchax	6	5–8 cm	Tropical; cold limit unknown · ●●●	! Summer trial	Native killifish, proven larva-eater (Hora & Nair)
Guppy, Gambusia	0	3–6 cm	Guppy suffers < 15–18	! Avoid	NBA lists both invasive alien; never release
Fancy goldfish (oranda etc.)	0	15 cm	Weak swimmers	Avoid outdoors	Out-competed; birds take them
Native pond/ramshorn snails	Self-arrive	1–4 cm	●●●	OK	Come on plants; graze algae; goldfish thin them

T02 PLAN OPTIONS

Plan	Stock	Bioload
A ★ Goldfish pond	Comet/shubunkin 8 + zebra danio 15 + snails	●●●
B Koi accent	Koi 2 + comet 3 + zebra danio 15	●●● needs 500 L/h
C Native stream	Zebra 20 + rosy barb 12 (+ giant danio summer)	●●●

T02 MOSQUITO CONTROL

Method	Note
Fish ★	Any healthy fish clears larvae; danios fastest
Flow	Pump or air keeps surface moving
Floaters thinned	Dense mats hide larvae from fish
Bti dunk	Bacterial larvicide, fish-safe; for fishless pots
! Gambusia	Used by Delhi MCD, but invasive: never

T02 BUILD AND SAFETY RULES

Rule	Detail	Rule	Detail
Shade	Shade sail 11 am–4 pm; lily/lotus pads cover ⅓–½	Top-up	Dechlorinated; ≤ 10% at a time; temp-matched
Oxygen	Air pump on UPS; aerate night + dawn (lowest O2)	Pots	Plants in pots, gravel on top; koi/goldfish dig
Overflow	Pipe with mesh at 6 cm freeboard; rain can't flush fish	Thermometer	Read daily in May–Jun and Dec–Jan
Predators	Net or mesh lid vs herons, kingfishers, crows, cats	Depth	Keep full 55 cm: deep water swings less
Filter	Bio media rinsed in pond water only, never tap	Leaves	Net out daily; rotting leaves → NH3

T02 NCR SEASON CALENDAR

Months	Air	Water risk	Do
Dec–Jan	Nights ~5 °C	Cold, slow fish, tropicals die	Goldfish/koi: feed little, stop below ~10 °C water ; tropicals indoors; lid on at night
Feb–Mar	Warming	Algae bloom as sun returns	Restart feeding above ~10 °C; split/repot lilies + lotus; add shade early
Apr–Jun	40–45 °C	> 30 °C water, low O2, evaporation	Shade + full aeration; feed less, wheat-germ food above 28 °C; slow cool top-ups
Jul–Sep	Monsoon	Overflow, pH/KH drop, runoff, mosquitoes	Keep overflow clear; test KH; no garden fertiliser runoff; lotus flowers
Oct–Nov	Mild	Best season	Stock fish, plant, clean filter, net leaves

T02 ANIMALS AND PLANTS



Comet goldfish



Koi



Rosy barb



Lotus



Water lily



Water lettuce — invasive, contain

INDOOR PLANTS (T01)

Plant	Type	Light	Growth	Care	Flag
Dwarf sagittaria	Carpet	M	●●● runners	T01's grass; pull thread algae weekly	—
Java moss	Carpet/epiphyte	L	●●●	Tie on wood/rock; shrimp nursery	★ shrimp
Amazon sword	Rosette	M	●●● big	Heavy root feeder: root tabs 2–3 mo	Old leaves yellow = N/K low
Crypt wendtii	Rosette	L–M	●●●	Mid-ground; may melt after moving	Regrows from roots
Vallisneria	Rosette, runners	L–M	●●●	Background ribbons	! Melts with liquid carbon
Hygrophila polysperma	Stem	L–M	●●●	Indian native; nitrate sponge	Trim weekly
Water wisteria	Stem	L–M	●●●	Background; Indian region	Trim + replant tops
Rotala rotundifolia	Stem	M	●●●	Pink tips under stronger light	Trim weekly
Java fern	Epiphyte	L	●●●	Tie to wood	! Never bury rhizome
Anubias	Epiphyte	L	●●●	Tie to wood, shade	Spot algae in strong light
Salvinia minima / red root floaters	Floating	M	●●●	Shades tank, starves green water	Scoop excess; not S. molesta
Brazilian pennywort	Float/emersed	M	●●●	Trails over rim	Grows above water happily
Pothos, syngonium, peace lily	Emersed houseplant	Room	●●●	Basket, roots in water, all soil washed off	★ best nitrate filter

OUTDOOR PLANTS (T02)

Plant	Type	Sun	Depth / pot	Care	Flag
Lotus (bowl/dwarf) ★	Deep-water	FS	15–22 cm over soil; wide pot	Heavy loam, no drain holes; flowers Jul–Sep; dormant winter	Large types want 40–60 cm
Tropical water lily	Deep-water	6–7 h FS	20–30 cm over soil; 35–45 cm pot	Crown centred; fertiliser tab monthly in season	Tropicals suit India; day + night bloomers
Hardy water lily	Deep-water	6–7 h FS	13–25 cm over soil	Rhizome at pot edge, tip out	Better for hills; OK in NCR winter
Umbrella palm (Cyperus)	Marginal	FS–PS	Pot on brick, rim at surface	Tall vertical accent	Divide yearly
Colocasia / taro	Marginal	FS–PS	Roots wet, crown above	Big leaves shade water	Cut back in winter
Water spinach (kalmi)	Marginal/creeper	FS	Edge, trailing	Indian native, edible, nitrate sponge	! Fast spreader; trim
Azolla	Floater	FS–PS	Surface	Native fern; fixes nitrogen; red in sun	Scoop half when full
Duckweed (Lemna)	Floater	FS–PS	Surface	Goldfish food	! Hard to ever remove
Water lettuce (Pistia)	Floater	PS	Surface	Shades, eats nutrients	! Invasive in India; contained only
Water hyacinth / Salvinia molesta	Floater	—	—	—	! Never: worst invasives
Hornwort (Ceratophyllum)	Oxygenator	FS–PS	Free-floating	No roots; goldfish spawn on it	★ Native, tough
Hydrilla / Vallisneria spiralis	Oxygenator	FS–PS	Weighted pots	Native; fish nibble	Thin monthly in summer

PLANT RULES (WALSTAD)

Rule	Why
Plants are the filter	Take NH4 before bacteria do
Floaters + emersed win	Air CO2 → beat algae
Fish food = fertiliser	Light stock, no CO2 needed
Soil option: 2.5 cm soil + 2.5 cm gravel	Feeds roots for years
Many fast plants on day 1	Starve algae from the start
Midday light "siesta"	Lets CO2 rebuild
Don't vacuum planted gravel deep	Roots + bacteria live there
T01 heavy stock → keep weekly WC	Walstad's rare WC = light stock only

NITROGEN CYCLE

Step	What happens
1	Waste, food, dead leaves → NH3
2	Bacteria: NH3 → NO2
3	Bacteria: NO2 → NO3
4	Plants eat NH4/NO3; WC removes rest
Cycle	3–6 wk; done when 2 ppm NH3 → 0/0 in 24 h
Speed-up	Used sponge from a healthy tank, bottled bacteria
T01 now	Long fishless spell: bacteria may have starved, re-test
!	Rinse sponge in tank water, never tap

WATER PARAMETERS

Parameter	T01 target	T02 target	Why	If off
NH3 ammonia	0	0	Burns gills; worse in warm, alkaline water	30–50% WC, stop feeding 1 day
NO2 nitrite	0	0	Blocks blood oxygen	WC; wait for bacteria
NO3 nitrate	< 20–40	< 40	Stress, feeds algae	More plants, regular WC
Temp °C	24–25 stable	10–30, shade in summer	Swings kill more than numbers	Heater (T01); shade + air (T02)
pH	6.5–7.5	7–8, stable	Don't chase pH	Stable source water
GH / KH	4–10 / 2–6	Moderate / ≥ 3	Shells, moults / pH buffer	Mix RO + tap; rain lowers KH
TDS	150–300	150–400	Quick hardness proxy	RO for soft, tap for hard

MAINTENANCE SCHEDULE

When	T01 indoor	T02 outdoor
Daily	Temp, count animals, feed what goes in 2 min	Temp (summer/winter), count fish, check net + pump
Weekly	20–30% WC, wipe glass, trim, pull thread algae	10–20% WC (dechlorinated), skim leaves, thin floaters
Fortnightly	Test NH3/NO2/NO3/pH (weekly first 2 months)	Test NH3/NO2/pH; KH after heavy rain
Monthly	Squeeze sponge in tank water; prune stems	Rinse pump pre-filter; lily/lotus fertiliser tab
2–3 months	Root tabs at sword + crypts; check heater, timer	Cut dead pads; repot crowded lilies (Feb–Mar)
Twice a year	Replace half the sponges, never all	Full clean before Apr heat; check net + overflow

ALGAE FIXES

Type	Cause	Fix
Green water	Sun + spare nutrients	Block sun, 3–4 day blackout, floaters
Thread/hair	Strong light, new tank	Toothbrush twirl, Amano, 6 h light
Brown diatoms	New tank, silicates	Wipe; otos + nerites; fades
Green spot	Strong light	Scrape; nerites
Black beard	Unstable CO2, old waste	Trim; liquid carbon spot-dose
Blue-green slime	Poor flow, dirty floor	Siphon, flow, blackout
T02 pea soup	Full sun	Shade + lilies; fish fine, don't panic

HEALTH QUICK CHECK

Sign	Likely	Do
Salt-grain spots	Ich	Hospital tub, raise heat slowly 28–30 °C
Ragged fins	Fin rot	WCs, fix cause
Gasping at top	NH3 or low O2	Big WC, air stone, stop feeding
Pinecone scales	Dropsy	Isolate; often fatal
Neon pale, alone	Neon disease	Remove; no cure
Shrimp die moulting	GH/WC shock	Smaller, slower WCs
! Copper meds	Kill shrimp, snails, frogs	Treat in a separate tub only

START KIT (₹, AMAZON.IN 13-OCT-2026)

Item	₹	For	Item	₹	For
Heater 100 W (Sobo / Eheim)	899 / 7,131	T01 winter	Algae wafers (Hikari)	400	Otos, snails
API Freshwater Master kit	4,700	Both	Frozen bloodworm	378	Frogs, corys
GH + KH kit	1,000–1,500	Both	Feeding pipette	244	Frogs
TDS pen	300–700	Both	Root tabs + liquid fert	500–1,300 each	T01 plants
Seachem Prime	1,397	Both	Battery air pump / UPS	800–3,000	Power cuts
Plug timer	629	T01 light	Gravel siphon + bucket	300–800	WCs
Auto-feeder	997	Holidays	Floaters, stems, moss	100–300 / portion	T01
Micro pellets (Hikari)	406	T01 fish	Pond pump, shade sail, net, pond pellets	₹?	T02

FEEDING

Who	Food	How
Neons, gourami	Micro pellets, crushed flake	1–2×/day, 2 min
Corys, frogs	Sinking pellets, frozen bloodworm	Pipette to frogs
Otos, snails	Algae wafers, blanched veg	2–3×/week
Goldfish, koi	Floating pellets; wheat-germ when hot	1–2×/day > 10 °C
All	One fast day a week	Holidays: auto-feeder

BUYING CHECKS

Check	Why
Shop tanks clean, no dead fish	Disease comes home with the fish
Active, full colour, fins open	Neon farm stock can be weak
Dwarf frog: webbed front feet	Clawed frog has separate fingers
Quarantine 2–4 wk, sponge + heater tub	Stops ich and neon disease
Buy Oct–Nov or Feb–Mar	Mild weather, less transport shock

BREEDING BASICS

Animal	What happens
Cherry shrimp 	Berried ~3–4 wk; babies hide in moss
Mystery snail	Pink clutch above waterline; remove if unwanted
Nerite snail	White dots on wood; never hatch
Pygmy cory	Eggs on glass after cool WC; mostly eaten
Honey gourami 	Male gold, dark throat, bubble nest; fry need infusoria
Amano shrimp	Larvae need brackish: no breeding
Goldfish (T02)	Spawn on hornwort in spring; adults eat eggs

LEARN IN THIS ORDER

Step	Learn → do
 1	Nitrogen cycle → test T01, log readings
 2	Water sources → TDS of tap, borewell, RO
 3	Light + algae → timer, shade, blackout
 4	Plants → floaters + basket houseplants
 5	Stocking + quarantine → crew, then fish
 6	T02 build → shade, net, pump, goldfish
 7	Lotus + lily care → pot, feed, divide
 8	Breeding → shrimp colony, gourami fry

POWER CUTS AND HOLIDAYS

Event	Do
Cut > 2 h	Rinse filter media in tank water before restart
Any cut	Battery air pump or UPS keeps O2
3–5 days away	Healthy adult fish skip food safely
Longer	Auto-feeder, tested 1 week before
Office boy	One-page plan: feed, light, check, whom to call
T02 in summer	Shade + air matter more than food

AVOID

Mistake	Instead
Fish before cycling	Test 0/0 first
Overfeeding	2 min, 1 fast day
Window sun on T01	Shade + timer
No heater in winter	100 W thermostat
Filter rinsed in tap	Old tank water
All fish at once	Stage over 6–8 wk
Hyacinth/Pistia/Gambusia outdoors	Native plants + fish
Unshaded T02 in May	Sail + pads + air

02 Palmistry

Hast Rekha: read shape first, then mounts, lines, marks

Books: The Laws of Scientific Hand Reading — William G. Benham (1900); Cheiro's Language of the Hand — Cheiro (1894)

B

Beginner

IIntermediate

AAdvanced

!caution

★key rule

Bn = Benham · Ch = Cheiro · IN = Indian (Samudrika) lore

Jup Sat Sun Mer Ven Mo Ma = Jupiter, Saturn, Sun, Mercury, Venus, Moon, Mars

LL HdL HtL FL = life, head, heart, fate line → = means

READING ORDER (BN, CH)

#	Step	Look for
1	Which hand	Writing hand = active
2	Backs + feel	Size, nails, texture, firmness
3	Hand type	7 types (below)
4	Fingers + thumb	Length, tips, knots, setting
5	Mounts	Strongest = Bn planetary type
6	Major lines	LL, HdL, HtL, FL, Sun
7	Minor lines, marks	Then prints, loops
8	Timing, synthesis	3–4 themes, both hands

WHICH HAND

School	Rule
Ch	Left = born with; right = made of self
Modern	Passive = potential; active = now
IN	Right for men, left for women
Left-hander	Reverse: left is active
★ All	Difference between hands = change

HAND TYPES (D'ARPENTIGNY, USED BY CH)

Type	Hindi	Look	Character
Elementary	Nimna	Thick, heavy, short fingers	Physical, simple, instinctive
Square (useful)	Vargakar	Square palm, square tips	Practical, orderly, reliable
Spatulate (active)	Chamsakar	Tips broad like a spatula	Energetic, inventive, restless
Philosophic (knotty)	Darshanik	Long, bony, knotted joints	Analytical, thoughtful, independent
Conic (artistic)	Kalatmak	Tapering fingers, rounded tips	Impulsive, artistic, sociable
Psychic (pointed)	Adarshvadi	Long, slender, pointed	Idealistic, dreamy, sensitive
Mixed	Mishrit	Features of several types	Versatile, adaptable

FINGERS (PLANET IN BOTH TRADITIONS)

Finger	Sanskrit	Planet	Governs
Index	Tarjani	Jup (Guru)	Ambition, leadership
Middle	Madhyama	Sat (Shani)	Duty, balance
Ring	Anamika	Sun (Surya)	Creativity, fame
Little	Kanishtha	Mer (Budh)	Speech, business
Thumb	Angushtha	Will + logic	Whole character

FINGER CHECKS

Feature	Reading
Long (middle ≥ 7/8 palm)	Patient with detail
Short	Quick, big picture
Index > ring	Confidence, leadership
Ring > index	Risk-taker, creative
Little finger set low	Shy, hard early life
Leans to neighbour	Borrows its qualities
Top knot / lower knot	Ordered ideas / ordered things

MOUNTS (PARVAT) AND BN PLANETARY TYPES

Mount	Hindi	Where	Strong → (Bn type)	Flat →
Jupiter	Guru	Below index	Ambition, pride, religious (Jupiterian)	Low drive, self-esteem
Saturn	Shani	Below middle	Wisdom, solitude, serious (Saturnian)	Normal, balanced
Sun / Apollo	Surya	Below ring	Charm, art, success (Apollonian)	Little interest in fame, art
Mercury	Budh	Below little	Wit, business, eloquence (Mercurian)	Poor talker, gullible
Upper Mars	Mangal	Percussion, HtL–HdL	Moral courage, endurance (Martian)	Gives up easily
Lower Mars	Mangal	Inside LL, above thumb	Physical courage, fight	Timid
Plain of Mars	Mangal	Hollow centre	Firm: temper, drive	Hollow: low luck, energy
Venus	Shukra	Ball of thumb	Warmth, passion, music (Venusian)	Cool, detached
Moon / Luna	Chandra	Lower percussion	Imagination, travel (Lunarian)	Literal, unimaginative
! Rahu / Ketu	Rahu, Ketu	IN only: centre / above wrist	Sudden gain / spirituality	Varies by author

FEEL OF THE HAND (BN, CH)

Check	Reading
Fine skin / coarse	Refined, sensitive / robust, practical
Firm, elastic	Energy, action
Soft, flabby	Love of comfort, indolent
Hard, rigid	Stubborn, limited
Bends back easily	Adaptable, generous, extravagant
Stiff	Cautious, reserved, economical
Pink / pale / red	Warm / low energy / passionate
Short nails / long	Critical, argumentative / calm, artistic
IN: no gaps, fingers closed	Holds wealth; gaps let it slip

LINE QUALITY (CH)

Look	Reading
Clear, deep, even	Strong
Broad, shallow	Wasted energy
Chained, islanded	Weak period
Broken	Interruption, change
Overlapping break	Change, cushioned
Sister line	Support, protection
Influence line	Another person, event

MAJOR LINES (REKHA)

Line	Hindi	Path	Variant → reading
Life	Jeevan	Thumb–index gap, around Venus	Wide sweep: energy · hugs thumb: cautious · island: strain. ! Short ≠ short life
Head	Mastishk / Buddhi	Across mid-palm	Joined LL: cautious · separate: independent · straight: logical · slopes to Moon: imaginative · fork: writer
Heart	Hriday	Percussion → index/middle	Ends Jup: idealistic · Sat: self-focused · between: warm · curved: expressive · straight: reserved
Fate	Bhagya / Shani	Wrist → middle finger	From LL: self-made · from Moon: via public · new start: career change · absent: free spirit, common
Sun / Apollo	Surya / Ravi	Up to ring finger	Success, recognition, contentment; upper palm only: late success; often absent
Simian	—	HdL + HtL fused	Intense, single-minded; ~1.5–3% of people

MINOR LINES

Line	Hindi	Where	Traditional meaning
Mercury / health	Budh / Swasthya	Rises to little finger	Health, business; better absent
Relationship	Vivah	Short, percussion below little	Key relationships, not marriage count
Children	Santan	Fine verticals above Vivah	! Unreliable
Girdle of Venus	Shukra Valay	Arc above HtL	Sensitive, nervous energy
Ring of Solomon	Guru Valay	Around base of index	Wisdom, insight into people
Ring of Saturn	Shani Mudrika	Around base of middle	Isolation, pessimism (rare)
Intuition	Chandra	Crescent Moon → Mer	Strong intuition
Line of Mars	Mangal	Inside, parallel to LL	Protection, extra vitality
Travel	Yatra	Horizontals, lower percussion	Journeys, restlessness
Bracelets	Manibandh	Across wrist	IN: 3 clear = long, healthy life
Worry	—	Venus → across LL	Stress, anxiety

SIGNS AND MARKS (CH)

Mark	General	By place
Star	Sudden event	Jup/Sun: success; line: shock
Cross	Obstacle	Jup: happy union
Mystic cross	Occult interest	Between HdL–HtL, under Sat
Island	Weakness	HdL: strain
Grille	Scattered energy	Mount in excess
Triangle	Talent	Great: LL+HdL+health
Square	Protection	Around break: survived
Circle	Unlucky	Sun mount: good
Dot	Shock, illness	Temporary
Chain	Unstable	Common on HtL
Fork / tassel	Versatile / decline	At line ends

INDIAN AUSPICIOUS MARKS (IN)

Mark	Hindi	Reading
Fish	Matsya	Prosperity, merit; near wrist
Conch	Shankha	Fame; also loop print
Lotus	Padma	Status, Raj Yoga
Wheel	Chakra	Power; also whorl print
Trident	Trishul	Great fortune, end of FL/Sun
Flag, pot	Dhwaja, Kalash	Honour, abundance
Barley grain	Yava	On thumb: wealth

FINGERPRINTS AND LOOPS

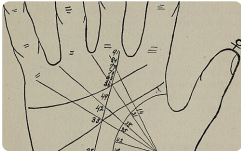
Pattern	Hindi	Reading
Loop (most common)	Shankha	Adaptable, sociable
Whorl	Chakra	Individualist, intense
Arch (least common)	—	Practical, reserved
Tented arch (rare)	—	Enthusiastic, idealistic
Double loop	—	Sees both sides, undecided
Rajah loop	Index–middle	Charisma
Seriousness / humour	Mid–ring / ring–little	Purpose / humour

TIMING (APPROXIMATE)

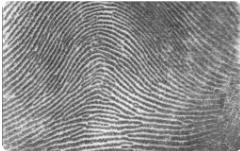
Method	Age points
LL, read downward	Below mid-index ~20–25
	Below index–middle gap ~35
	Below mid-middle ~50
LL equal division	~10 yrs per section
FL, read upward	Crosses HdL ~35, HtL ~50
★ Anchor	Known event, count from it

Method	Age points
! Always	Say "around", give ranges

PICTURES



Major lines (Perin 1902)



Arch, loop, whorl



Simian line

START KIT

Item	Use	₹
Magnifier 3–5x, LED	Fine lines, ridges	250–800
White LED lamp	Lines vanish in yellow light	400–1,500
Water-based block ink + 4" roller	Palm prints	500–1,100
A4 + folded towel	Catches palm hollow	150
Ruler, divider	Finger ratio, timing	100–250
Cheiro + Benham (Indian reprints)	Core texts; Ch free online	150–900 ea

LEARN IN THIS ORDER

Level	Topic	Practice
B	Hand map, Hindi names	Label own print
B	7 types, feel of hand	Type 10 hands
B	4 major lines	Draw them on 10 prints
I	Fingers, phalanges, thumb	Index:ring table
I	Mounts, Bn types	Rank mounts on 10 prints
I	Minor lines, marks, IN signs	Mark hunt
A	Prints, timing	Anchor on known events
A	Synthesis, both hands	Blind reading

AVOID

Mistake	Instead
Lines before shape	Type sets meaning
One hand only	Compare both
One sign decisive	Need 2–3 repeats
Mixing up Mars mounts	Learn by position
Creases as lines	Check in daylight
Ignoring proportion	Length vs own palm
Cold reading as skill	Fits anyone = not a reading
! Death, illness, divorce talk	Never; tendencies only
! Paid remedies, fear	Harms people
Evidence	No better than chance in tests; read for fun

03

Astrology (Jyotish)

Read a Vedic kundli: grahas, rashis, bhavas, nakshatras, yogas, dashas

Books: Brihat Parashara Hora Shastra, 2 vols — Parashara, tr. R. Santhanam (1984); Light on Life — Hart de Fouw & Robert Svoboda (1996)

Su Sun · Mo Moon · Ma Mars · Me Mercury · Ju Jupiter · Ve Venus · Sa Saturn · Ra Rahu · Ke Ketu

Ar Ta Ge Cn Le Vi Li Sc Sg Cp Aq Pi = 12 signs H = house · 5L = lord of 5th

↑ exalted · ↓ debilitated · MT moolatrikona · Rx retrograde F E A W = fire earth air water

Mv Fx Du = movable fixed dual Gana D Deva · M Manushya · R Rakshasa

Grp K kendra · T trikona · Ds dusthana · U upachaya · Mk maraka YK yogakaraka

MD/AD = maha/antar dasha B I A level · ! caution · ★ key

NAVAGRAHA — THE 9 GRAHAS

Graha	Nature · karaka	Own (MT)	↑ / ↓	Friend / Enemy	Day · gem · asta
Su Surya · Sun	Malefic · soul, father, authority, govt	Le (Le 0–20°)	Ar 10° / Li 10°	Mo Ma Ju / Ve Sa	Sun · ruby (manik)
Mo Chandra · Moon	Benefic waxing · mind, mother, public	Cn (Ta 4–30°)	Ta 3° / Sc 3°	Su Me / none	Mon · pearl (moti) · 12°
Ma Mangala · Mars	Malefic · courage, siblings, land, surgery	Ar Sc (Ar 0–12°)	Cp 28° / Cn 28°	Su Mo Ju / Me	Tue · coral (moonga) · 17°
Me Budha · Mercury	Neutral · speech, intellect, trade	Ge Vi (Vi 16–20°)	Vi 15° / Pi 15°	Su Ve / Mo	Wed · emerald (panna) · 14°
Ju Guru · Jupiter	Great benefic · wisdom, children, wealth	Sg Pi (Sg 0–10°)	Cn 5° / Cp 5°	Su Mo Ma / Me Ve	Thu · pukhraj · 11°
Ve Shukra · Venus	Benefic · spouse, love, arts, vehicles	Ta Li (Li 0–15°)	Pi 27° / Vi 27°	Me Sa / Su Mo	Fri · diamond (heera) · 10°
Sa Shani · Saturn	Malefic · longevity, labour, delay, grief	Cp Aq (Aq 0–20°)	Li 20° / Ar 20°	Me Ve / Su Mo Ma	Sat · neelam · 15°
Ra Rahu · N node	Malefic, like Sa · obsession, foreign	Aq (co-lord)	BPHS Ta / Sc · many Ge / Sg	—	gomed (hessonite) · Rx
Ke Ketu · S node	Malefic, like Ma · detachment, moksha	Sc (co-lord)	BPHS Sc / Ta · many Sg / Ge	—	lehsunia (cat's eye) · Rx

GRAHA RULES

Rule	Detail
Benefic / malefic	Ju Ve waxing-Mo pure-Me / Su Ma Sa Ra Ke
Functional	Per Lagna: 1L 5L 9L good; 6L 8L 12L bad
Dignity ladder	↑ > MT > own > friend > neutral > enemy > ↓
Temporary friend	In 2 3 4 10 11 12 from each other
Asta (combust)	Within asta° of Su: significations weaken
Vargottama	Same sign in D1 and D9 = strong

12 RASHIS (ODD = MALE, EVEN = FEMALE)

Rashi	Ld	Tattva · Q · body	Here
1 Mesha · Ar	Ma	F · Mv · head	Su ↑ Sa ↓
2 Vrishabha · Ta	Ve	E · Fx · face	Mo ↑
3 Mithuna · Ge	Me	A · Du · arms	—
4 Karka · Cn	Mo	W · Mv · chest	Ju ↑ Ma ↓
5 Simha · Le	Su	F · Fx · stomach	Su MT
6 Kanya · Vi	Me	E · Du · waist	Me ↑ Ve ↓
7 Tula · Li	Ve	A · Mv · lower belly	Sa ↑ Su ↓
8 Vrishchika · Sc	Ma	W · Fx · genitals	Mo ↓
9 Dhanu · Sg	Ju	F · Du · thighs	Ju MT
10 Makara · Cp	Sa	E · Mv · knees	Ma ↑ Ju ↓
11 Kumbha · Aq	Sa	A · Fx · calves	Sa MT
12 Meena · Pi	Ju	W · Du · feet	Ve ↑ Me ↓

27 NAKSHATRAS × VIMSHOTTARI LORDS (EACH 13°20' = 4 PADAS OF 3°20')

Lord · MD yrs	Span in each 120° block	1–9 (Ar → Cn)	10–18 (Le → Sc)	19–27 (Sg → Pi)
Ke · 7	Ar/Le/Sg 0°–13°20'	1 Ashwini · Ashwini Kumaras · D	10 Magha · Pitris · R	19 Mula · Nirriti · R
Ve · 20	Ar/Le/Sg 13°20'–26°40'	2 Bharani · Yama · M	11 Purva Phalguni · Bhaga · M	20 Purva Ashadha · Apas · M
Su · 6	Ar/Le/Sg 26°40' → Ta/Vi/Cp 10°	3 Krittika · Agni · R	12 Uttara Phalguni · Aryaman · M	21 Uttara Ashadha · Vishvedevas · M
Mo · 10	Ta/Vi/Cp 10°–23°20'	4 Rohini · Brahma · M	13 Hasta · Savitar · D	22 Shravana · Vishnu · D
Ma · 7	Ta/Vi/Cp 23°20' → Ge/Li/Aq 6°40'	5 Mrigashira · Soma · D	14 Chitra · Tvashtar · R	23 Dhanishta · 8 Vasus · R
Ra · 18	Ge/Li/Aq 6°40'–20°	6 Ardra · Rudra · M	15 Swati · Vayu · D	24 Shatabhisha · Varuna · R
Ju · 16	Ge/Li/Aq 20° → Cn/Sc/Pi 3°20'	7 Punarvasu · Aditi · D	16 Vishakha · Indra-Agni · R	25 Purva Bhadrapada · Aja Ekapada · M
Sa · 19	Cn/Sc/Pi 3°20'–16°40'	8 Pushya · Brihaspati · D	17 Anuradha · Mitra · D	26 Uttara Bhadrapada · Ahir Budhnya · M
Me · 17	Cn/Sc/Pi 16°40'–30°	9 Ashlesha · Nagas · R	18 Jyeshtha · Indra · R	27 Revati · Pushan · D

VIMSHOTTARI DASHA (120 YRS)

Rule	Detail
★ Order	Ke 7 · Ve 20 · Su 6 · Mo 10 · Ma 7 · Ra 18 · Ju 16 · Sa 19 · Me 17
Birth MD	Lord of Moon's janma nakshatra
Balance	MD yrs × part of nak still to cross
Example	Mo 10° Ar: 25% of Ashwini left → Ke 1y 9m
AD (bhukti)	MD × AD yrs ÷ 120; first AD = MD lord
Example	Sa–Me = 19 × 17 ÷ 120 = 2.69 y (2y 8m)
Lord gives	Houses owned + occupied, joins, D1/D9 dignity
★ Synthesis	Promise D1/D9 → timing dasha → trigger transit

12 BHAVAS (HOUSES, WHOLE-SIGN)

H · name	Signifies	Karaka	Grp
1 Tanu	Self, body, health, temperament	Su	K T
2 Dhana	Wealth, family, speech, food	Ju	Mk
3 Sahaja	Younger siblings, courage, effort, short trips	Ma	U
4 Sukha	Mother, home, land, vehicles, peace	Mo	K
5 Putra	Children, intellect, past merit, speculation	Ju	T
6 Ari	Enemies, disease, debt, litigation, service	Ma Sa	Ds U
7 Kalatra	Spouse, partners, business, public	Ve	K Mk
8 Ayu	Longevity, sudden events, inheritance, occult	Sa	Ds
9 Dharma	Fortune, father, guru, religion, long trips	Ju Su	T
10 Karma	Career, status, deeds, authority	Su Me Ju Sa	K U
11 Labha	Gains, income, elder siblings, wishes	Ju	U
12 Vyaya	Loss, expense, foreign, sleep, moksha	Sa	Ds

HOUSE GROUPS

Grp	Houses	Rule
K Kendra	1 4 7 10	Pillars; benefics here protect chart
T Trikona	1 5 9	Fortune; lords always auspicious
Ds Dusthana	6 8 12	Trouble; their lords spoil what they touch
U Upachaya	3 6 10 11	Improve with time; malefics do well
Mk Maraka	2 7	Used in longevity work
Bhavat bhavam	House from itself	9th from 9th (= 5th) = father's fortune

DRISHTI (ASPECTS, SIGN-BASED)

Graha	Full aspect on H from itself	Note
All	7th	Opposite sign
Ma	4th 7th 8th	Ma in H1 → H4 H7 H8
Ju	5th 7th 9th	Trinal blessing
Sa	3rd 7th 10th	Pressure, delay
Ra Ke	5th 7th 9th	! Texts differ
Join	Same sign	Count inclusive; no orbs

KEY YOGAS

Yoga	Forms when	Gives
★ Raja	Kendra L + trikona L join/aspect/swap	Power, status
Yogakaraka	One graha owns kendra + trikona	Raja yoga by itself

Yoga	Forms when	Gives
Dhana	2L/11L link with 1L/5L/9L	Wealth
Gajakesari	Ju in kendra from Mo	Fame, intellect, reputation
Ruchaka	Ma own/ ↑ in kendra from Lagna	Courage, command
Bhadra	Me own/ ↑ in kendra	Intellect, eloquence, trade
Hamsa	Ju own/ ↑ in kendra	Wisdom, respect
Malavya	Ve own/ ↑ in kendra	Beauty, comfort, arts
Shasha	Sa own/ ↑ in kendra	Authority, endurance
Budha-Aditya	Su + Me together	Learning, intelligence
Viparita Raja	6L/8L/12L in dusthanas	Rise after adversity
Neecha Bhanga	↓ lord in kendra (Lagna/Mo)	↓ graha rises later
Parivartana	Two lords in each other's signs	Links the two houses
Kemadruma	2nd + 12th from Mo empty (excl. Su Ra Ke)	Hardship; often cancelled
! Mangal	Ma in H1 2 4 7 8 12	Matching; many exceptions
! Kala Sarpa	All between Ra–Ke	Not in BPHS

Lordship by Lagna

Lagna (1L)	Good: 5L · 9L	Bad: 6L · 8L · 12L	YK
Ar (Ma)	Su · Ju	Me · Ma · Ju	—
Ta (Ve)	Me · Sa	Ve · Ju · Ma	Sa
Ge (Me)	Ve · Sa	Ma · Sa · Ve	—
Cn (Mo)	Ma · Ju	Ju · Sa · Me	Ma
Le (Su)	Ju · Ma	Sa · Ju · Mo	Ma
Vi (Me)	Sa · Ve	Sa · Ma · Su	—
Li (Ve)	Sa · Me	Ju · Ve · Me	Sa
Sc (Ma)	Ju · Mo	Ma · Me · Ve	—
Sg (Ju)	Ma · Su	Ve · Mo · Ma	—
Cp (Sa)	Ve · Me	Me · Su · Ju	Ve
Aq (Sa)	Me · Ve	Mo · Me · Sa	Ve
Pi (Ju)	Mo · Ma	Su · Ve · Sa	—

Divisional Charts (Vargas)

D	Name	Span	Use
D1	Rashi	30°	Body, everything; main chart
D2	Hora	15°	Wealth
D3	Drekkana	10°	Siblings, courage
D4	Chaturthamsa	7°30'	Property, home, fortune
D7	Saptamsa	4°17'	Children
D9	Navamsa	3°20'	★ Spouse, dharma, real strength
D10	Dashamsa	3°	Career, power
D12	Dwadashamsa	2°30'	Parents
D30	Trimshamsa	unequal	Misfortune, illness
D60	Shashtiamsa	30'	Past karma; exact time only
D9 start	F Ar · E Cp · A Li · W Cn	1 pada = 1 navamsa	
! D16+	Shift in minutes	Rectified time only	

Kundli Reading Order

#	Do	Look for
1	Check birth data	Exact time, place, zone; War Time 1942–45
2	Cast with Lahiri	Lagna within 1° of edge → rectify
3	Lagna + 1L	Sign, house, dignity, aspects = vitality
4	Moon	Sign, nakshatra, waxing?, neighbours = mind
5	Each graha	↑ ↓ own, friend, combust, Rx, vargottama
6	Lordships	1L 5L 9L good, 6L 8L 12L bad, YK
7	Joins + drishti	On each house and its lord
8	Yogas	Then check cancellation, strength
9	D9, then topic varga	D10 career, D7 children
10	Current MD/AD	Houses those lords own and occupy
11	Transits	Sa, Ju, Ra–Ke vs Lagna and Mo
12	★ Synthesise	3 factors agree before predicting

Chart Formats & Data

Item	Rule
North Indian (NCR)	Houses fixed, Lagna top, anti-clockwise; nos = signs
South Indian	Signs fixed, Pi top-left, clockwise
Ayanamsa	Lahiri: Spica 0° Li; ≈24°13' (2026), +50"/yr
Vedic vs Western Sun	~4 in 5 people: Sun one sign earlier
Time sensitivity	Lagna changes ≈ every 2 h; D9 ≈ 13 min

Gochara (Transits)

Graha / rule	Detail
Ju	≈1 yr per sign, 12 yr cycle; good 2 5 7 9 11 from Mo
Sa	≈2.5 yr per sign, 29.5 yr cycle
Ra Ke	≈18 months per sign, always Rx, 18.6 yr cycle
Sade Sati	Sa in 12th, 1st, 2nd from natal Mo, ≈7.5 yrs
Dhaiya	Sa in 4th (Kantaka) or 8th (Ashtama) from Mo
Double transit	Ju + Sa both touch house or its lord
Sky Oct 2026	Sa Pi to ≈Jun 2027 (Sade Sati: Aq Pi Ar Moons)
	Ju Cn ↑ → Le ≈1 Nov · Ra–Ke → Cp–Cn ≈6 Dec

Panchang & Muhurta

Limb / item	What	Count / rule
Tithi	Each 12° Mo gains on Su	30 (15 shukla, 15 krishna)
Vara	Weekday, sunrise to sunrise	7
Nakshatra	Moon's mansion that day	27
Yoga	(Su + Mo) ÷ 13°20'	27, Vishkambha → Vaidhriti
Karana	Half a tithi (6°)	11 types; avoid Vishti (Bhadra)
! Rikta	Tithi 4, 9, 14	Avoid for starts
Rahu Kaal	Which ⅓ of daytime	Mo2 Sa3 Fr4 We5 Th6 Tu7 Su8
Ashtakoota	Varna 1 Vashya 2 Tara 3 Yoni 4 Maitri 5 Gana 6 Bhakoot 7 Nadi 8	/36; ≥18 usual

Start Kit

Item	₹
★ Jagannatha Hora (Windows)	Free
Kundli + panchang phone app	Free
BPHS 2 vols, Santhanam (Ranjan)	≈1,200 set
Lahiri Ephemeris + Tables of Ascendants	Few hundred / vol
Regional printed panchang	50–200

Learn in this Order

Lvl	Learn	Practice
B	9 grahas, 12 rashis, dignity	Flashcards; recite ↑ degrees
B	12 bhavas, groups; chart formats	Cast own chart in 2 apps
B	27 nakshatras, padas	Janma nakshatra of 10 family
I	Drishti, lordship, yogas	Hunt yogas in 20 charts
I	Vimshottari MD/AD; D9, D10	Hand-calc own dasha table
A	Timing; dasha + double transit	Time 10 known family events

Avoid

! Mistake	Fix
Newspaper Sun sign as rashi	Rashi = sidereal Moon sign
Mixed ayanamsa across apps	Standardise on Lahiri
Birth time rounded to hour	Get the record; rectify
Sign alone, no lordship	Always check house lordship
Yoga declared unchecked	Cancellation, combustion, dasha run?
Sade Sati / malefic = disaster	Conditions, not verdicts
Casual gemstones	Gem boosts bad lordships too
Evidence	Carlson 1985, Narlikar 2009: no better than chance

04 Planting / Plants

Pots and beds in NCR: right light, drained mix, seasonal care

Books: The House Plant Expert — D.G. Hessayon (1980, new ed. 1991); The New Vegetable and Herb Expert — D.G. Hessayon (1997, rev. 2014)

B Beginner **I** Intermediate **A** Advanced ••• easy ••• fussy

S full sun 6 h+ · PS part sun 3–5 h · BI bright indirect · M medium · L low light

R Rabi · K Kharif · Z Zaid Nur nursery · Tx transplant CP cocopeat · VC vermicompost · PL perlite

d days · wk weeks · ea each N-P-K nitrogen-phosphorus-potassium · Mg magnesium

Bt *Bacillus thuringiensis* spray VHE tip from Veg & Herb Expert top pick caution

LIGHT & PLACEMENT

Light	Where	Suits
L	Office interior, 2–3 m from window	ZZ, snake plant, pothos, peace lily
M	Near N or E window	Syngonium, philodendron, dracaena
BI	Beside E window, covered balcony	Rubber plant, monstera, ferns
PS	E balcony, 3–5 h sun	Greens, mint, coriander, begonia
S	Open terrace, S/W balcony	Veg, roses, hibiscus, succulents, basil

INDOOR & OFFICE PLANTS

Plant	Light	Water when	Ease	Watch for
ZZ (Zamioculcas)	L-BI	Every 2–3 wk	•••	Rhizomes store water; rots if kept wet
Snake plant (<i>Dracaena trifasciata</i>)	L-S	Every 2–4 wk	•••	Tolerates AC + neglect; overwatering = rot
Pothos / money plant	L-BI	Top 3 cm dry	•••	Soil or water; trail or pole; trims → cuttings
Peace lily	L-M	Keep just moist	•••	Droops when dry, recovers in hours; white flowers
Aglaonema	L-M	Top dry	•••	Coloured forms need more light; hates cold glass
Syngonium	M	Lightly moist	•••	Pinch tips to keep bushy
Spider plant	M-BI	Moderate	•••	Brown tips from salty water; plantlets propagate
Rubber plant (<i>Ficus elastica</i>)	BI	Top 5 cm dry	•••	Leaf drop if moved; wipe leaves in smog
Monstera	BI	Top 5 cm dry	•••	Needs space + moss pole
Areca palm	BI	Lightly moist	•••	Spider mites in dry AC air; mist undersides
Succulents, cacti, adenium	S, 4 h+	Mix fully dry	•••	Gritty mix; keep out of monsoon rain

NCR CALENDAR — SOW + CARE

Months	Weather	Sow veg	Sow / plant flowers	Key care
Jan	7–20°C, fog	Lettuce, radish; Tx onion	—	Water late AM; shield tropicals
Feb–Mar	10–30°C, mild	Z: gourds, cucumber, okra, cowpea, melons	Zinnia, portulaca, cosmos	Repot; start feeding; peak bloom; save seed
Apr–May	21–45°C, loo	Last gourds (Apr); nothing in May	Vinca, sunflower	Shade net, mulch, water daily; no feed/repot
Jun–Jul	Monsoon ~27 Jun	K: okra, gourds, beans; Nur brinjal, chilli	Balsam, celosia	Clear drains, raise pots; take cuttings
Aug–Sep	Wettest → 25–34°C	Nur cole + tomato; Sep: spinach, radish, carrot	Winter annual seed	Stake; pest patrol; air layer; Sep repot
Oct–Nov	Pleasant, smog	R: peas, methi, coriander, potato, garlic	Tx annuals; bulbs; prune roses	Busiest ; feed; wipe leaves; water less
Dec	8–22°C, rare frost	Succession greens; Nur brinjal, chilli	—	Cut water; shelter tender plants

KITCHEN GARDEN — SOWING CHART

Crop	Season	Sow in NCR	Container	Ready in	Tip (VHE)
Spinach (palak), methi	R	mid Sep–Nov	Tray 15 cm	25–40 d	Cut-and-come-again
Coriander (dhaniya)	R	Oct–Dec	Tray 15 cm	30–40 d	Split seed; sow every 2–3 wk; bolts in Mar
Radish (mooli)	R	Sep–Jan	Bag 30 cm	40–50 d	Thin early; pull young
Carrot	R	Sep–Nov	Bag 30 cm	80–100 d	Stone-free mix or roots fork
Peas (matar)	R	mid Oct–early Nov	Bag 30 cm	60–90 d	Support; powdery mildew late
Cauliflower, cabbage, broccoli	R	Nur Aug–Oct, Tx 4–5 wk	Bag 30 cm	60–100 d post-Tx	Hand-pick caterpillars
Tomato	R / spring	Nur Jul–Aug or Nov, Tx 4 wk	Bag 38–45 cm	70–90 d post-Tx	Stake; remove side shoots; water evenly
Garlic	R	late Sep–Oct	Bag 30 cm	~5 months	Lift when leaves yellow
Potato	R	mid–late Oct	Deep bag	90–110 d	Earth up as stems grow
Onion	R	Nur Oct–Nov, Tx Dec–Jan	Bag 30 cm	Spring	Stop water as tops fall
Okra (bhindi)	Z, K	Feb–Mar, Jun–Jul	Bag 30 cm	45–50 d	Pick every 2 d while tender
Gourds, cucumber, melons	Z, K	Feb–Mar, Jun–Jul	45 cm bag / drum	45–100 d	Trellis; steady water; mildew in damp
Cowpea (lobia), French bean	Z, K	Mar, Jun–Jul	Bag 30 cm	50–60 d	Rotate: follow tomato / chilli bags
Amaranth (chaulai)	Z, K	Mar–Jul	Tray 15 cm	25–30 d	Green that loves heat
Brinjal, chilli, capsicum	K / spring	Nur Jun–Jul or Nov–Jan	Bag 30 cm	60–80 d post-Tx	Whitefly: sticky traps

HERBS

Herb	Life in NCR	Light	Tip
Tulsi	Perennial	S	Pinch flower spikes; shelter on frost nights
Mint (pudina)	Year round	PS	Own wide pot (spreads); shade in May
Curry leaf	Perennial shrub	S	Slow year 1 + winter; feed lightly
Lemongrass	Perennial	S	Divide clumps or root shop stalks
Sweet basil	Feb–Oct	S	Dies back in cold; pinch tips
Rosemary, thyme	Oct–Mar	S	Gritty mix; rot in monsoon
Aloe vera	Perennial	S–BI	Water sparingly; split pups

WATERING — FINGER TEST: TOP 2-3 CM DRY, THEN SOAK

Season	Outdoor pots	Indoor	Succulents
Apr–Jun	Daily; small pots 2×	4–6 d	Weekly, early AM
Jul–Sep	Only when dry; skip after rain	7–10 d	2–3 wk, out of rain
Oct–Nov, Mar	2–3 d	Weekly	7–14 d
Dec–Feb	3–5 d, late morning	10–14 d; AC 2×/wk check	3–4 wk

IDENTIFY



Pothos — money plant



Snake plant



Mealybug — white cotton

POTTING MIXES (BY VOLUME)

Mix	Recipe	Use
General	40 soil · 30 CP · 30 VC + handful neem cake	Flowers, shrubs
Terrace veg	40 CP · 40 VC · 20 PL	Grow bags
Aroid	40 CP · 20 VC · 20 PL · 20 bark/charcoal	Pothos, monstera
Succulent	30 soil/CP · 30 coarse sand · 30 PL · 10 compost	Cacti, adenium
Seed	50 fine CP · 30 VC · 20 PL	Trays, nursery
! Rules	Rinse CP block (salty); never plain garden soil	Reuse: sun-dry + ½ fresh VC

FEEDING — ACTIVE GROWTH ONLY, LITTLE + OFTEN

Feed	NPK	Use	Dose
VC	~1–2% each	Every mix; top-dress	2–3 handfuls/pot monthly
Mustard cake	~5-2-1	Leaf + bloom	Soak 3–5 d; 1:10
Neem cake	2–5% N	Soil pests + mild feed	1 spoon/pot monthly

PESTS — ORGANIC FIXES

Pest	Signs	Common on	Organic fix
Mealybug	White cotton clusters, sticky leaves	Hibiscus, croton, succulents	Alcohol on cotton bud; neem weekly
Aphid	Tiny green/black insects on new tips	Rose, mustard, chilli	Water jet; neem or soap spray
Spider mite	Fine web, speckled leaves; dry heat	Areca, beans, AC-room plants	Rinse undersides; neem
Whitefly	White flies rise when touched	Tomato, brinjal, hibiscus	Yellow sticky traps; neem every 5 d
Scale	Brown immobile bumps on stems	Ficus, citrus	Scrape; alcohol; neem
Fungus gnat	Small black flies over wet mix	Overwatered indoor pots	Dry out mix; sticky traps
Caterpillar	Holes, droppings	Cabbage, cauliflower, tomato	Hand-pick; Bt spray
Powdery mildew	White powder on leaves	Peas, gourds, roses	Remove leaves; diluted buttermilk or baking-soda spray
Neem spray	5 ml cold-pressed neem oil + 2–3 ml liquid soap / 1 L warm water	Use same day	Evening, both leaf sides, repeat 4–7 d; ! patch-test; never near aquarium

SYMPTOM → CAUSE → FIX

Symptom	Likely cause	Fix
Lower leaves yellow, soil wet	Overwatering, poor drainage (Hessayon's no. 1 killer)	Let dry; clear hole; repot if roots black
Pale yellow all over, soil dry	Low N or too little light	Feed lightly; brighter spot
Yellow between green veins	Iron / Mg lack, hard water	Micronutrient spray; flush salts
Brown crispy tips	Dry AC air, salty water, underwatering	Flush pot; filtered water; humidity
Wilts with wet soil, soft stem base	Root / stem rot	Cut rot, repot dry mix; save cuttings
Afternoon wilt, fine by evening	Normal heat stress	Mulch, afternoon shade; don't add water
Scorched patches on top leaves	Moved into sun too fast	Shade net; harden off over a week
Long thin stems, small pale leaves	Too little light (etiolation)	More light / grow light; prune back
Seedlings collapse at soil line	Damping off	Sterile seed mix; less water; airflow
Lush green, no flowers	Too much N, too little sun	Switch to P+K feed; more sun
White crust on soil and rim	Hard-water + fertiliser salts	Flush monthly; scrape top layer

START KIT

Item	₹	Item	₹
Pots with holes 6–12"	60–300 ea	Grow bags 12–18"	30–100 ea
Cocopeat block 5 kg	250–450	Vermicompost 10 kg	150–400
Perlite 1–2 kg	200–450	Neem + mustard cake	80–200 ea
Neem oil 250 ml	200–450	Sprayer 1–2 L	200–500
Secateurs + trowel	500–1,500	Shade net 50% 3×5 m	500–1,500
Sticky traps	150–350	Drip kit + timer	1,500–5,000

AVOID

Mistake	Instead	Mistake	Instead
Watering by calendar	Finger test; soak, then wait	Sun-lover in a dim office	Match plant to light
No drain hole; full saucers	Hole; empty saucers	European sowing dates	NCR sows Sep–Nov
Garden soil in pots	Proper mix	Nursery shade → May sun	Harden off a week
Neat mustard cake; feeding in May	Dilute 1:10; feed in growth	Neem at midday / near the tank	Evening; keep away from fish

Feed	NPK	Use	Dose
Bone meal	High P	Roots, bulbs, flowers	1 spoon/pot at planting
19:19:19	Balanced	Quick feed	1 g/L every 2 wk
0:52:34	P+K heavy	Flower + fruit	1 g/L every 2 wk
! Never	—	May heat, deep winter, post-repot	—

PROPAGATION

Method	How	Plants	When
Cutting in water	10–15 cm, 2–3 nodes	Pothos, syngonium	Jul–Aug, spring
Cutting in mix	Below node + hormone	Hibiscus, rose, tulsi	Jul–Aug, Feb
Leaf	Dry 2–3 d, lay on mix	Succulents, snake plant	Oct–Mar
Division	Split clump	Peace lily, lemongrass	Feb–Mar, Jul
Air layer A	Ring bark + moist moss	Rubber plant, lemon	Monsoon
Layering	Pin low stem into soil	Jasmine, bougainvillea	Monsoon
Seed	2–3× seed depth	Veg, annuals	Per chart

REPOTTING

When	How
Signs	Roots out of hole; water runs straight through
Timing	Feb–Mar or Sep–Oct; ! not May–Jun or Dec
Method	2–5 cm wider pot; tease roots, cut mushy; same depth; shade 1 wk, no feed 1 month

LEARN IN THIS ORDER

Step	Do
B 1	ZZ, snake plant, pothos at office + home; finger test
B 2	Make general + aroid mix; repot a nursery-bag plant
B 3	Root pothos / syngonium cuttings in water
B 4	Oct: coriander, methi, mint in trays
I 5	10-bag terrace plan: R → Z → K for a year
I 6	Raise tomato + chilli Nur; Tx; stake
I 7	Monthly VC + mustard-cake schedule; pest log
A 8	Air layer in Jul; compost bin; timer drip

05 Stone art

From a ₹300 painted pebble to marble carving and Agra inlay

Books: Stone and Marble Carving: A Manual for the Student Sculptor — Alec Miller (1948); The Art of Painting Animals on Rocks — Lin Wellford (1994)

B

Beginner

I

Intermediate

A

Advanced

★

top pick

!

caution

•••••

ease of working (5 = easiest)

Mohs = scratch hardness 1–10

grit = abrasive no. (low = coarse)

P3/P100 = top-grade dust filter

k = ₹ thousand

NCR = Delhi region

FORMS OF STONE ART: PICK ONE DOOR

Form	What you do	Stones	Start cost	Space	Level
★ Pebble painting	Acrylics + dot mandalas on smooth pebbles, then seal	River/garden pebbles	₹0.8–2k	A table	B
★ Carving	Remove stone (rasp, chisel, grinder) to reveal a form	Soapstone → alabaster → marble	₹3–15k	Balcony/yard, dust control	B → A
Inlay (parchinkari)	Cut coloured stone, set flush into marble	Makrana marble + lapis, malachite	₹5k+	Bench + water	I → A
Mosaic	Cut tesserae, fix with adhesive, grout	Marble, glass, tile, pebbles	₹1.5–4k	A table	B
Balancing / suiseki	Stack on 3 contact points; display natural stones	Whatever nature gives	~₹0	Outdoors, shelf	B
Lapidary	Tumble-polish; cut cabochons	Agate, jasper, quartz	₹6–40k	Corner, power + water	I

MOHS LADDER + FIELD TESTS

Mohs	Mineral	Field test
1	Talc	Greasy; fingernail digs in
2	Gypsum (alabaster)	Fingernail (2.5) scratches
3	Calcite (marble)	Copper coin (3) scratches
4–5	Fluorite, apatite	Knife scratches easily
5.5	—	Steel knife, glass
6	Feldspar	Scratches glass slightly

Mohs	Mineral	Field test
7	Quartz (sandstone grains, agate)	Scratches knife + glass

READ A BLOCK BEFORE YOU BUY

Check	How	Bad sign
Soundness	Ring test: tap with hammer	Dull thud = hidden crack
Veins, flaws	Wet it: true colour shows	Soft inclusions, open veins
Grain / bed	Look for layers	Carving across beds splits
Shape	Form already inside block?	Thin necks, tails snap

STONE TYPES

Stone	Mohs	Ease	Where in India	Best for
★ Soapstone (steatite)	1–2.5	••••• knife, rasp, file	Gorara (Hamirpur/Mahoba, UP), carved in Agra; Rajasthan, Odisha	First carvings, boxes, small figures
Alabaster (gypsum)	2	••••• fragile, water-soluble	Mostly imported (Italy, Spain)	Translucent forms; keep indoors, dry
Marble	3–4	••••• steel/carbide chisel	Makrana (Raj.), Rajnagar (Udaipur), Ambaji (Guj.), Katni (MP)	Sculpture, inlay base, murtis
Limestone (Kota)	3–4	••••• even, forgiving	Kota district, Rajasthan	Relief, lettering
Serpentine / schist	3–5	••••• dark polish	Odisha, Karnataka (Hoysala temples)	Detailed figures
Sandstone	6–7 grains	••••• ! blunts tools, silica dust	Dholpur red/cream, Jodhpur pink, Bansi Paharpur, Agra red	Garden, architectural
Granite	6–7	••••• carbide + diamond only	Mahabalipuram (TN), Karnataka, Andhra	Advanced sculpture
Agate, jasper, carnelian	6.5–7	••••• lapidary tools only	Khambhat (Gujarat) bead trade	Tumbling, cabochons, inlay
Lapis lazuli	5–5.5	•••••	Imported (Afghanistan); Jaipur/Agra trade	Inlay, cabochons
Malachite	3.5–4	••••• ! toxic dust, work wet	Imported	Inlay, small cabochons
River pebbles	~6–7	not carved	Gurugram nurseries (₹50–150/kg)	Painting, balancing, mosaic

CARVING TOOLS (MILLER)

Tool	Job	Stage	Stone
Point (punch)	Bulk removal at ~45°, pitted surface	Rough	Marble, lime-, sandstone
Pitching tool	Split slabs off block edge	Rough	Harder stone
Claw (tooth)	Level the form; cross-hatch marks	Refine	Marble, lime-, sandstone
Flat chisel	Planes, crisp edges, letters	Define	All
Rasp	Fast shaping	Rough–shape	Soapstone, alabaster
Riffler	Hollows, detail	Shape	Soft stone, marble
Mallet / dummy	Soft-metal/wood for soft stone; lump hammer for hard	All	All
Banker + sandbag	Holds stone at working height	All	All
100 mm grinder, diamond blade	Fast cut, rough out	Rough	Marble → granite
Steel vs carbide	Steel: soft stone · carbide: marble, granite	—	—

CARVING PROCESS (MILLER)

#	Step	Rule
1	Design	Draw 3 sides; clay maquette; compact form
2	Choose block	Form fits block; wet + ring test
3	Mark up	Outlines on all faces; redraw after each cut
4	Rough out	Point at 45°, work away from edges
5	Refine	Claw across, alternating directions
6	Define	Flat chisel; rasps + rifflers on curves
7	Smooth	Wet-and-dry, wet, never skip a grit
8	Finish	Polish / wax / oil; mount on base
—	Whole piece	Turn often; bring all parts up together
—	Chisel grip	Hold loosely, watch edge, many light blows

SANDING LADDER → FINISH

Grit	Result	Stop here for
80–120	Removes tool marks	—
220	Even surface	—
220–400	Velvety, light colour	Matte honed (marble, limestone)
600–1,000	Satin	Oiled soapstone
1,500+ + compound	Glassy, veins show	High polish

FINISHES

Finish	Stone	Effect
Tooled	Sandstone, granite, marble	Claw/point marks left; rustic
Oil (mineral/drying)	Soapstone	Darkens, deepens; renew
Wax (microcryst./bees)	Marble, alabaster, soapstone	Soft sheen, some protection
Penetrating sealer	Outdoor marble, sandstone	Resists stain + water
Acrylic varnish	Painted pebbles	2–3 thin coats; gloss/matte
! Care	Marble	No lemon, vinegar, acid cleaners

PEBBLE PAINTING (WELLFORD)

Step	How
Pick	Smooth, flat, fine-grained, no pits; let shape suggest subject
Source	Nursery/online pebbles; never rivers, ASI sites
Prep	Scrub, dry fully (longer in monsoon)
Prime	Gesso or white acrylic keeps colours bright
Paint	Camlin / Fevicryl acrylics; Posca pens for detail
Dry	24 h, bone dry before sealing
Seal	2–3 thin coats, spray outdoors; ! test pens first

DOT MANDALA

#	Step
1	Dark base coat (black/navy); dry fully
2	Big centre dot with largest tool
3	Rings outward: same tool + same paint per ring
4	Smaller tool, new colour each ring outward
5	Dot-on-dot only on dry dots (raised, jewel effect)
—	Tools: erasers, toothpicks, nail-art, brush ends

INLAY: PARCHINKARI (AGRA METHOD)

#	Step	Note
1	Cut + smooth white marble base	Makrana
2	Draw design	Over thin poster colour
3	Engrave outline, cut cavity	Shallow, even depth
4	Shape each stone on wheel	Check against cavity
5	Set with adhesive	Epoxy for hobby
6	Grind + polish flush	Joins vanish
Hobby	Coaster: 1–2 colour leaf	Rotary diamond burr, file
Stones	Lapis, malachite, carnelian, jasper, onyx, MOP	MOP = mother-of-pearl

MOSAIC + TUMBLING

Item	Rule
Direct method B	Tesserae face up on base; 3D objects
Indirect method	Face down on paper; flat floors/tables
Cutting	Wheeled nippers; hammer + hardie for marble
Andamento	Outline subject in 1–2 rows, background echoes
Grout	After adhesive cures (1 day+); float, sponge, buff
Tumbler 4 stages	60/90 → 120/220 → 500 → AlOx/cerium, ~7 d each
Tumbler rules	$\frac{2}{3}$ – $\frac{3}{4}$ full, same hardness, wash between stages
! Grit slurry	Settle, bin as solid; never down drain
Cabochon	Slab → template → trim saw → grind → dop → dome → polish

SAFETY !

Hazard	Control
Silica dust (sandstone, granite, quartz)	Silicosis, no cure; shows in 10–30 yrs
1. Substitute	Learn on soapstone, alabaster, marble
2. Work wet	Wet sanding, water-fed tools
3. Ventilate	Outdoors, wind behind; wet-mop, never sweep
4. Respirator	Half-mask P3/P100; cloth mask useless
Grinder	Guard on, two hands, clamp work, rated disc
PPE	Face shield + glasses, ear defenders, no loose dupatta
NCR	No power carving on high-AQI winter days
Soapstone	Some deposits hold asbestos-like fibre; known supplier

START KIT

Item	₹
Acrylics 12–24 + dotting tools + 2 Posca	750–2,100
Varnish spray + 2 kg pebbles	450–1,000
Soapstone block 1–2 kg	300–1,200
Rasp + riffler set	800–3,000
Wet-and-dry 120–1,500 (6 sheets)	120–240
P3 half-mask + glasses	2,800–5,000
Wax / mineral oil	300–1,500
Later: carbide chisels + mallet	3,000–12,000
Later: 100 mm grinder + diamond blade	2,800–6,500

LEARN IN THIS ORDER

Lv	Learn	Practice
B	Mohs, safety	Scratch-test 10 stones: nail, coin, knife
B	Dot mandala, sealing	10 stones; leave half unsealed a month
B	Soapstone, rasp + file	Palm-sized pebble form

Lv	Learn	Practice
B	Maquette → carve	Clay model, then soapstone
I	Grits + finishes	One piece 120 → 1,500, oil
I	Point, claw, flat	Relief leaf in marble/limestone
I	Mosaic / tumbling	20 cm coaster; one 4-stage batch
A	Inlay; power carving	Malachite leaf in marble tile

AVOID

Mistake	Fix
Starting on marble/granite	Soapstone first
No drawing/maquette	10-min clay model
Finishing one part first	Rough whole piece together
Skipping grits	Every grade, wet
Dry sanding, cloth mask	Wet + P3 respirator
Sealing paint too soon	24 h dry
Uneven dots	One dip per dot
Alabaster outdoors	Indoors, dry
Stacking in streams, ASI sites	Own land/beach; dismantle
Grinder guard off, hand-held stone	Guard on, clamp work
Mixed hardness in tumbler	Agate + jasper + quartz only

WHERE IN INDIA (+ NCR BUYING)

Place	What
Agra	Parchinkari (GI tag), Gorara jaali; see workshops
Makrana / Kishangarh	Marble quarries + slab yards
Dholpur / Bharatpur	Sandstone (Rashtrapati Bhavan)
Mahabalipuram	Granite sculpture (GI 2017)
Jaipur	Marble murtis, old-city workshops
Odisha (Puri)	Temple carving; soapstone, khondalite
Khambhat	Agate beads, polishing
NCR offcuts	MG Road marble market, tile dealers
NCR tools	Delhi tool markets; rasps, tumblers online
Courses	Lalit Kala Akademi studios, art colleges

BALANCING + SUISEKI

Item	Rule
Balance	Find 3 contact points; centre of mass between
Styles	Simple stack; counterbalance (heavy on small)
Ethics	Own land/beach; photograph, then return stones
! Never	Streams (crush life), trails (fake cairns), ASI sites
Suiseki	Natural stone, never carved/polished; suggests a scene
Types	Landscape: mountain, island, waterfall · object: figure, animal, hut, boat
Prefer	Hard, dark, subdued colour, weathered skin
Display	Daiza (fitted wood base) or suiban (sand/water tray)

KEY TERMS

Term	Meaning
Subtractive	Only remove; stone never goes back
Maquette	Small clay model made before carving
Pietra dura	Italian hard-stone inlay (Florence workshop 1588)
Tesserae	Small cut mosaic pieces
Hardie	Chisel-edged anvil for splitting marble tesserae
Cabochon	Domed, flat-backed polished stone
Dop stick	Wax-held stick for grinding a cabochon
Cairn	Human-made stone pile marking a trail

LOOK AND LEARN



Taj Mahal pietra dura: flush stone flowers in marble



Suiseki on fitted wooden daiza

06 Wood work

Turn raw boards into lasting objects with sharp hand tools

Books: Essential Woodworking Hand Tools — Paul Sellers (2016); Understanding Wood — R. Bruce Hoadley (2000)

B

Beginner

I

Intermediate

A

Advanced

★

top pick

!

caution

•••••

rating: more filled = more of that column (strength, difficulty, ease, durability)

Janka = hardness, lbf

cft = cubic foot

MC = moisture content

KD = kiln-dried

PVA = white glue

PU = polyurethane

TPI = teeth per inch

T/R = tangential/radial

INDIAN WOODS

Wood	Janka	₹ / cft (dealer ask)	Hand-work ease	Best use	Watch out
Pine (NZ radiata, chir) B	Soft	540–900 imported	•••••	Practice, shelves, jigs, painted	Dents, resin, blotches under stain
Mango (aam) B★	~1,070	450–800	•••••	Boxes, boards, budget furniture	Perishable, needs treatment; wild-grain tearout
Teak (sagwan)	~1,070	2,500–3,500 Malaysian; 3,500–4,500 CP; 5,000+ Burma	•••••	Doors, outdoor, premium furniture	Silica blunts tools; wipe oil before glue; ! dust
Sheesham I	~1,660	500–1,200 ask; seasoned more	•••••	Classic furniture, carving, beds	Interlocked grain; sapwood insects; ! dust
Rubberwood	~960	Finger-joint board ₹80–90/sq ft	•••••	Shelves, panels	Must be treated + KD
Deodar	Soft, light	300–1,450	•••••	Doors, chests	Aromatic, durable; many "deodar" are pine
Neem	n/a	Low (~200 seen)	•••••	Rustic furniture, handles	Resists splitting; poor high gloss
Babool / kikar	Very hard (~2,650)	Local quote	•••••	Mallets, tool handles	Heavy, tough by hand
Oak (import)	White ~1,360; red ~1,220	Premium, get quote	•••••	Modern furniture, floors	Open grain; only white oak for damp

TOOLS: BUY FIRST (SELLERS)

Task	Hand tool — buy first	₹	Power tool — later	₹
Measure + mark ★	Steel rule, combination square, marking gauge, knife	150–2,500 each	—	—
Crosscut	Japanese pull saw (ryoba/dozuki) or tenon saw	1,500–4,000	Circular / mitre saw	—
Rip	Panel saw; or dealer rips it	—	Circular saw + guide	—
Curves	Coping saw	300–800	Jigsaw	3,000–8,000
Flatten + smooth ★	No. 4 smoothing or No. 5 jack plane	2,500–8,000	Thicknesser (big work only)	—
Joinery	Chisels 6/12/18/25 mm + mallet	200–300 each; mallet 300–800	Trim router	3,000–8,000
Holes + screws	Barma / brace	—	Cordless drill-driver ★ day one	4,000–10,000
Smooth surface	Sanding block, card scraper	—	Random orbital sander	3,000–8,000
Hold work ★	Heavy bench + vice, 4+ F/bar clamps	400–1,200 / clamp	Shop vacuum	5,000–12,000

FINISHES

Finish	Durability	Look	Best use	Notes
Oil: linseed (alsi), tung, Danish	•••••	Natural, low sheen	Cutting boards, chairs, rustic	Easy repair; ! oily rags self-ignite: dry flat or soak
Wax (beeswax, paste)	•••••	Soft satin	Over oil/shellac, toys	Mineral oil + beeswax for food boards
Shellac / French polish (lac)	•••••	Warm amber, deep gloss	Heirloom box, Indian furniture, sealer	Indian lac in spirit; water/heat leave white rings
Melamine polish	•••••	Clear satin/gloss	Interior furniture (polisher standard)	Usually sprayed; ! fumes
PU (incl. 2K)	•••••	Film, matte–gloss	Tabletops, kitchen	Hardest; 2K sprayed by pros
Stain	None alone	Colour only	Darken cheap wood	Test on offcut; seal pine/mango first

WOOD SCIENCE RULES (HOADLEY)

Rule	Number / action
Hardwood / softwood	Botany, not hardness: broadleaf vs conifer
Fibre saturation point	~28–30% MC; shrinking starts below it
Indoor furniture MC	8–12%; IS 287 sets limits by zone
Movement direction	Across width only; length negligible
T vs R shrinkage	$T \approx 2 \times R \rightarrow$ flatsawn cups, quartersawn flat
NCR swing	Wide top moves a few mm, May→Aug
Acclimatise	1–2 weeks in workshop before cutting
Air seasoning	~1 year per inch thickness, stickered
Sapwood	Pale, weak, borer/deemak food: cut away
Interlocked grain	Sheesham, neem: tears out both ways → scraper
Glue rule	Long grain to long grain only; end grain fails

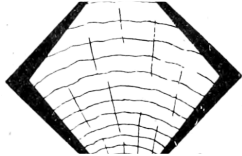
SHEET GOODS (19 MM, 2026)

Board	₹ / sq ft	Use	Weakness
Commercial ply (MR, IS 303)	50–80	Dry interiors, carcasses	Edges need banding
BWR ply (IS 303)	90–150	Kitchen, bath	Grade varies by maker
Marine ply (IS 710)	220–300	Wet areas	Costly
Blockboard	65–112	Long shelves, doors	Core lines show
MDF	45–77	Painted panels, templates	Swells; poor screw grip; ! dust
HDHMR / particle	Low	Factory modular	Weak joints, chips

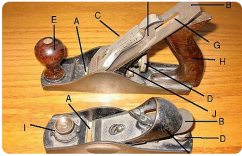
JOINERY

Joint	Strength	Difficulty	Use
Butt	•••••	•••••	Boxes with screws/dowels
Rabbet (rebate)	•••••	•••••	Box corners, cabinet backs
Pocket screw	•••••	••••• jig	Face frames, quick carcasses
Biscuit	••••• aligns	••••• joiner	Edge-joining panels, ply
Dowel	•••••	••••• jig	Panels, knock-down furniture
Dado (housing)	•••••	•••••	Bookcases, shelves
Half-lap	•••••	•••••	Frames, stools, stretchers
Mortise + tenon ★	•••••	•••••	Tables, chairs, doors
Dovetail	••••• pull	•••••	Drawers, boxes, chests

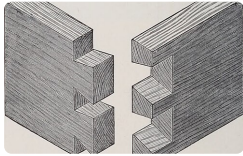
PICTURES



Square near pith dries to diamond (T > R)



Bench plane



Dovetail joint

SHARPENING (25/30 RULE)

Step	Stone grit	Angle
1 Flatten + polish back (once)	Coarse → fine	Flat
2 Primary bevel	250–400 / diamond	25° (hard wood 30°)
3 Hone till burr along edge	~1,000	25°
4 Microbevel, few strokes	4,000–8,000	30° (hard wood 35°)
5 Remove burr, strop	Leather + compound	Back flat
Sellers method	Diamond plates + strop	Freehand convex
Kit	Indian combination oilstone; honing guide B	1,000–4,000

SANDING GRITS (REGMAL)

Grit	Use
40–60	Heavy shaping, deep damage only
80	Remove saw/planer marks
100–120	Start on smooth stock
150–180	Final before oil / paint
220	Final fine work; between coats
320–400	Knock down nibs between coats
600+	Wet sanding, gloss rub-out
Rules	Skip max 1 grit; last passes with grain; end grain 1 grit finer; damp-wipe before water finish

GLUES + FASTENERS

Item	Use	Timing / tip
Fevicol SH (PVA) ★	Wood, ply, veneer indoors	Open 10 min; clamp 30–60; load 24 h
Fevicol Marine	Damp / outdoor	Same as PVA
Epoxy	Gaps, oily teak, mixed	Slow, costly
PU glue	Waterproof	Foams; needs moisture
CA (instant)	Small repairs, hold parts	Seconds
Screws	Pilot lower, clearance upper	Countersink; slot in solid tops
Buttons / figure-8	Solid top to frame	Lets top move
Cam lock / confirmat	Ply, particle board	Knock-down

PROJECT LADDER

#	Project	Wood	Joints / skills
1 B	Cutting board	Mango, teak offcuts	Edge glue, plane, oil
2 B	Simple box	Pine, mango	Rabbet / butt + pins
3 B	Low stool (patla)	Pine → sheesham	Half-lap → M+T
4 I	Wall shelf	Pine, teak	Dado, rabbet, French cleat
5 I	Dovetailed box	Mango, teak	Through dovetails
6 A	Side table	Sheesham, teak	M+T, buttons, floating top

HAND-TOOL TECHNIQUE

Skill	Key rule
Mark	Knife line; one rule all project; X on waste
Reference	Mark face + edge; measure only from them
Check square	Draw, flip, redraw: gap = 2× error
Saw	Light grip, full stroke, waste side of line
Saw teeth	Rip = chisels; crosscut = knives; more TPI = finer
Plane	Downhill with grain; tearout → turn board
Four-square	Face → edge → width → thickness
Chisel	Chop with mallet from waste; pare by hand

SAFETY

Risk	Rule
Eyes / ears	Glasses always; muffs for router, saws
Dust I	N95/FFP2 + vacuum; MDF, teak, sheesham worst
Hands	Both behind chisel; clamp the work
Machines	No sleeves, rings, dupatta, loose hair
Kickback I	Stand aside, riving knife, no freehand

Risk	Rule
Electrics	Earthed 15/16 A socket, RCCB circuit
Blades	Unplug before changing; sharp = safer

BUY IN NCR

Place	For
Kirti Nagar Timber Market ★	~500 dealers: timber, ply, veneer; bargain
Gurugram MG Road (Rajendra Mkt, Sikanderpur)	Sheesham, ply; closest
Gurugram Daultabad Road	Ply, rough timber
Ajmeri Gate / GB Road	Power tools, blades, bits, abrasives
Mayapuri	Industrial tools, spares
Yamuna Nagar (HR)	Ply hub; bulk
Amazon / IndiaMART	Hand tools; dealer quotes
Cft maths	L ft × W in × T in / 144; 6'×6"×1" = 0.25
Checks	+20–30% waste; reject twist, end cracks, holes; ask per cft or sq ft

START KIT (HAND-TOOL ROUTE)

Item	₹
Rule, combination square, gauge, knife	1,450–6,000
Pull saw + coping saw	1,800–4,800
No. 4 or No. 5 bench plane	2,500–8,000
4 chisels (Taparia) + mallet	1,100–2,000
Combination stone + honing guide	1,000–4,000
4 F / bar clamps	1,600–4,800
Cordless drill-driver	4,000–10,000
Glasses, ear muffs, N95	800–2,500
Moisture meter	1,000–3,000
Fevicol SH, 10 regmal, linseed + beeswax	650–2,700
1 cft pine or mango	450–900
Total	~16,000–49,000

BAZAAR WORDS

Word	Means
Randa / aari / chheni / barma	Plane / saw / chisel / hand drill
Regmal	Sandpaper, sold by grit
Sunmica	Laminate sheet
Deemak	Termite
Barhai / mistri	Carpenter
Kerf	Saw slot; cut on waste side
Dado / rabbet	Cross-grain groove / edge step
S4S / four-square	Planed flat + square on 4 faces
Flatsawn / quartersawn	Cut across / along rings; QS stays flatter
Squeeze-out	Thin glue bead = enough glue

LEARN IN THIS ORDER

Step	Learn
1 B	Safety, grain, knife marking
2 B	Sharpen until edge slices paper
3 B	Saw to line; four-square pine
4 B	Edge glue, sand, oil: cutting board
5 I	Rabbet, dado, half-lap: box, shelf
6 I	Mortise + tenon: 10 joints, then stool
7 I	Movement design; shellac, PU; trim router
8 A	Dovetails; own designs; French polish

AVOID

Mistake	Fix
Blunt tools	Sharpen week one; touch up often
Wet timber	Meter it; acclimatise 1–2 weeks
Glued-down solid top	Buttons, slotted holes, floating panel
Pencil lines, sawing on line	Knife line; saw on waste side
Big kit / table saw first	Few good hand tools; dealer rips
Untested stain	Offcut test; pine, mango blotch
Monsoon rust, termites	Oil tools, silica gel; timber off floor

07

Numerology

Names and birth dates turned into numbers: Western, Chaldean, Indian, Lo Shu

Books: Cheiro's Book of Numbers — Cheiro (1926); Numerology: Key to Your Inner Self — Hans Decoz (1994)

P = Pythagorean (Western) C = Chaldean (Cheiro) → reduces to 16/7 = compound/root

LP Life Path · Exp Expression · SU Soul Urge · Pers Personality · PY Personal Year

ML Mulank · BG Bhagyank · NM Namank F friend · N neutral · E enemy

Ex = Rohan Mehta, b. 14-03-1988 (invented) B I A level ! caution ★ top pick

LETTER CHARTS + PLANETS

No	P (A–Z order)	C (by sound)	Graha (India)
1	A J S	A I J Q Y	Sun (Surya)
2	B K T	B K R	Moon (Chandra)
3	C L U	C G L S	Jupiter (Guru)
4	D M V	D M T	Rahu [Cheiro: Uranus]
5	E N W	E H N X	Mercury (Budh)
6	F O X	U V W	Venus (Shukra)
7	G P Y	O Z	Ketu [Cheiro: Neptune]
8	H Q Z	F P	Saturn (Shani)
9	I R	none (sacred)	Mars (Mangal)
Name	Full birth name	Name in daily use	

REDUCTION RULES

Rule	Example
Add digits until one is left	1988 → 26 → 8

CORE NUMBERS – HOW TO CALCULATE (DECOZ)

Number	Lvl	Formula	Shows	Ex: Rohan Mehta 14-03-1988
Life Path ★	B	D → + M → + Y →, reduce	Main life theme	5 + 3 + 8 = 16/7
Expression (Destiny)	B	All letters of full name; each name → then add (P)	Talents	ROHAN 29 → 11 + MEHTA 20 → 2 = 13/4
Soul Urge (Heart's Desire)	B	Vowels only	Inner motivation	O A E A = 13/4
Personality	B	Consonants only	First impression	R H N M H T = 36 → 9
Check	B	SU + Pers = Exp	Catches sum errors	4 + 9 = 13 → 4 ✓
Birthday	B	Day of birth, kept as is	A specific gift	14/5
Maturity	I	LP + Exp	Pull after ~40	7 + 4 = 11
Personal Year / Month / Day	B	D + M + UY (2026 = 1, 2027 = 11) ; PY + month ; PM + date	Yearly, monthly, daily theme	2026: 5+3+1 = 9 ; Oct = 19 → 1
Karmic Lessons	A	Values 1–9 absent from name letters	Gaps to learn	Missing 3, 7
Hidden Passion	A	Value appearing most in name	Strong drive	
Pinnacles 1–4	A	M+D · D+Y · P1+P2 · M+Y; P1 ends at 36 – LP	4 life periods	8, 13/4, 3, 11; P1 to age 29
Challenges 1–4	A	M–D · D–Y · C1–C2 · M–Y (always +)	4 obstacles	2, 3, 1, 5

MEANINGS OF 1-9 AND MASTER NUMBERS

No	Keyword	Positive	Negative	Personal Year	House number
1	Leader	Independent, original, driven	Bossy, impatient	New starts, plant seeds	Independence
2	Partner	Diplomatic, gentle, cooperative	Over-sensitive, indecisive	Patience, partnerships	Peace, partnership
3	Communicator	Creative, joyful, expressive	Scattered, superficial	Social life, creativity	Growth, learning
4	Builder	Disciplined, practical, reliable	Rigid, overworked	Hard work, foundations	Hard work, instability
5	Free spirit	Adaptable, curious, travel	Restless, excess	Change, travel, surprises	Activity, change
6	Nurturer	Responsible, caring, home	Interfering, self-sacrificing	Home, family, marriage	Family comfort ★ for homes
7	Seeker	Analytical, spiritual, studious	Aloof, secretive	Rest, study, reflection	Study, solitude
8	Executive	Ambition, money, power	Materialistic, controlling	Money, career, harvest	Struggle, then wealth
9	Humanitarian	Generous, compassionate, wise	Moody, martyr-like	Completion, letting go	Energy, conflict
11/2	Illuminator	Intuition, inspiration	Nervous tension	Master year (2027 = 11)	
22/4	Master builder	Big visions made real	Overwhelm, pressure		
33/6	Master teacher	Selfless service, healing	Heavy burdens		

CHEIRO COMPOUND NUMBERS

Total	Cheiro's name	Reading
10	Wheel of Fortune	Rise and fall, honour
16	Shattered Citadel !	Sudden fall; plan carefully
19	Prince of Heaven	Success, esteem
21	Crown of the Magi	Victory after struggle
23	Royal Star of the Lion	Help from superiors
Range	Cheiro reads 10–52	Look up in the book

INDIAN ANK JYOTISH – THE NINE GRAHAS

No	Graha	Traits (Indian practice)	Day	Colour	Gem
1	Surya (Sun)	Leadership, ego, authority, govt	Sun	Orange, gold	Ruby (manik)
2	Chandra (Moon)	Sensitive, imaginative, caring	Mon	White, cream	Pearl (moti)
3	Guru (Jupiter)	Wisdom, teaching, finance, law	Thu	Yellow	Yellow sapphire (pukhraj)
4	Rahu	Unconventional, sudden ups/downs, tech	Sat (none own)	Grey, electric blue	Hessonite (gomed)
5	Budh (Mercury)	Quick, communicative, trade, travel	Wed	Green	Emerald (panna)

Rule	Example
Write the chain, never just root	34/7, not 7
Master: final 11/22/33 not reduced (P)	38 → 11/2
Only FINAL totals are master	11 mid-sum keeps adding
Karmic debt: 13/14/16/19 before root	16 → write 16/7
LP: reduce D, M, Y separately first	can reveal hidden master
Indian BG: add all digits at once	1+4+0+3+1+9+8+8 = 34 → 7
Y = vowel only if sounded, no vowel near	Lynn: vowel; Priya: consonant

KARMIC DEBT (DECOZ)

Total	Past misuse	Lesson now
13/4	Laziness	Steady, disciplined work
14/5	Freedom	Moderation, commitment
16/7	Ego, love	Humility after a fall
19/1	Power	Independence without selfishness
Check in	LP, Exp, SU, Pers, Birthday	

No	Graha	Traits (Indian practice)	Day	Colour	Gem
6	Shukra (Venus)	Love, luxury, arts, comfort	Fri	White, pink, pastels	Diamond (heera)
7	Ketu	Spiritual, intuitive, detached, research	Tue/Thu (none own)	Grey, multicolour	Cat's eye (lehsunia)
8	Shani (Saturn)	Hard work, delay, late lasting success	Sat	Black, dark blue	Blue sapphire (neelam)
9	Mangal (Mars)	Courage, anger, property, uniform	Tue	Red	Red coral (moonga)

Friendship (Mitra/Shatru Ank)

No	F	N	E
1 Sun	2 3 9	5	6 8
2 Moon	1 5	3 6 8 9	none
3 Jupiter	1 2 9	8	5 6
4 Rahu (≈ Saturn)	5 6	3	1 2 9
5 Mercury	1 6	3 8 9	2
6 Venus	5 8	3 9	1 2
7 Ketu (≈ Mars)	1 2 3	6 8	5
8 Saturn	5 6	3	1 2 9
9 Mars	1 2 3	6 8	5
Couples	ML vs ML, then BG vs BG		
One-way !	Moon: Mercury F; Mercury: Moon E		
Western	LP concords 1-5-7 · 2-4-8 · 3-6-9		

Lo Shu Grid (Fixed Layout; Every Line = 15)

Plane	Thought	Will	Action
Mind	4	9	2
Emotional	3	5	7
Practical	8	1	6

Lo Shu – Fill and Read

Step	Do
1	Write DD-MM-YYYY, drop every 0
2	Each digit in its box, as often as it occurs
3	Optional: add ML + BG (some add Kua). State it
4	Empty box = missing quality to develop
5	Repeated digit = excess of that quality
Ex	1,4,3,1,9,8,8: missing 2 5 6 7; +ML/BG → 2 6
Ex 22-11-1985	1×3, 2×2, 5 8 9: Determination + Prosperity
Ex 19-06-1990	1×2, 6, 9×3: 3-5-7 empty = Poor Memory

Lo Shu Planes and Arrows (Arrow Names Vary by Teacher)

Line	Numbers	Governs	All present (strength)	All missing (weakness)
Mind (top row)	4 9 2	Thinking, planning, memory	Strong plane	Weak plane
Emotional (mid row)	3 5 7	Feelings, sensitivity, spirituality	Strong plane	Poor Memory
Practical (bottom row)	8 1 6	Money, material life	Strong plane	Losses
Thought (left col)	4 3 8	Ideas, planning	Strong plane	Indecision
Will (mid col)	9 5 1	Determination	Determination	Passivity
Action (right col)	2 7 6	Carrying things out	Strong plane	Weak plane
Diagonals	2 5 8 · 4 5 6	—	Prosperity · Stability	— · Frustration

Name, Brand, Mobile, House – Indian Practice

Use	Method	Aim / note
Name correction	ML + BG → C NM; add or double a letter (Ankit → Ankitt)	NM F to both. Favoured 1 3 5 6; avoid 4 8 unless chart suits
Ex name	Ankit Gupta: 13 + 22 = 35 → 8, E to ML 1	Ankitt Gupta 39 → 3 ★ (F to 1, N to 8); Ankit Guptaa 36 → 9
Brand / company	C total of name as on signboard, letterhead	F to owner's ML and BG; compare 2–3 options (e.g. + Studio / + LLP)
Ex brand (ML 4)	Sharma Interiors 46 → 1 (E) · Sharma Studio 41 → 5 (F)	Pick Sharma Studio ★ ; Sharma Interiors LLP 60 → 6 second
Mobile	Add all 10 digits →	F to ML; avoid 0 runs and adjoining 4-8 / 8-4
Ex mobile (ML 1, BG 8)	98765 43210 → 45 → 9	F to 1 but E to 8 → seek total 3, 5 or 6
House / flat	Reduce number; tower letter by C value, or digits only	B-704: 13 → 4 with letter, 11 → 2 without — show both
Vehicle, launch date	Same total check	F to ML
Legal !	Gazette needed for legal change	Change social spelling only; keep PAN, Aadhaar, passport, bank KYC same
Remedies	Weak/missing no.: graha's colour, day, gem, mantra	Optional; not needed to learn

Start Kit

Item	₹
★ Cheiro's Book of Numbers (Indian reprint / Hindi "Ank Vigyan Aur Jyotish")	150–350
Decoz, Key to Your Inner Self (imported)	600–1,500
Notebook for hand charts	100–250
Printed letter charts + blank Lo Shu grids	0–50
Google Sheet calculator (build your own)	Free
Calculator app — cross-check only	0–500/yr

Learn in This Order

#	Lvl	Learn
1	B	Reduction, master, karmic debt
2	B	P chart, LP, Exp; meanings 1–9
3	B	Grahas, ML, BG
4	I	C chart, NM; P vs C on 10 names
5	I	SU, Pers, Birthday, Maturity + check

#	Lvl	Learn
6	I	Friendship table, couples
7	I	Lo Shu grid, planes, arrows; PY/PM/PD
8	A	Cheiro compounds; name/brand/mobile; pinnacles

Avoid

Mistake	Fix
Mixing P and C charts	Pick one; state it
7 instead of 16/7	Always write the chain
Master from a mid-sum 11	Final totals only
Wrong name for system	P: birth name · C: daily name
Zeros left in Lo Shu	Drop them; state ML/BG convention
Friendship assumed mutual	Check both directions
Y and silent letters	Fix a Y rule; count every written letter
Odd name spellings	Must still match PAN/passport/bank
Big decisions on numbers !	No evidence it beats chance

08 DJ

Phrase-true mixes, clean levels, the right song for the room

Books: How to DJ Right — Bill Brewster & Frank Broughton (2003); Rock The Dancefloor (2nd ed.) — Phil Morse (2024)

B Beginner **I** Intermediate **A** Advanced **★** top pick **!** caution
• • • • • energy 1–5 bar = 4 beats ph = phrase (8/16/32 bars)
Lo/Mid/Hi = EQ bands Sh = Shift rb = rekordbox CFX = Color FX knob
A = minor, B = major (Camelot)

DDJ-FLX4 CONTROLS

Area	Control	Use
Deck	Play, Cue, Sync, Sh	Start; back to cue; match tempo
Deck	Hold Sync >1 s	Makes this deck the master
Deck	Sh + Sync	Tempo range ±6/10/16%/Wide
Jog	Outer ring	Nudge beat faster/slower
Jog	Top plate	Scratch / search
Tempo	Fader	Speed; 6–10% for ear matching
Pads	8 per deck	Hot cue, Pad FX, Beat Jump, Sampler
Loop	In, Out, 4-beat	Repeat; halve/double
Channel	Trim	Input level only
Channel	Hi, Mid, Lo	Tone; cut, don't boost
Channel	CFX	Filter: L = low-pass, R = high-pass
Mixer	Cue btn, faders, X-fader	Pre-listen; blend
Master	Master lvl; Phones Mix/Lvl	Out of red; Mix L = cue, R = master
Beat FX	Select, ch, depth, on	Tempo-synced echo/reverb/flanger
Smart	Smart CFX / Smart Fader	Auto helpers ! practise OFF
Rear	USB-C, RCA out, 6.3 mm mic	Power+audio; speakers; MC

YOUR CONTROLLER



DJ controller: 2 decks + mixer



Mixer channel EQ: Hi/Mid/Lo + fader

PAD MODES AND LIMITS

Item	rekordbox (FLX4 unlock)	Serato DJ Lite
Cost	Free (= Core plan) ★	Free; Pro paid
Pads	Hot Cue, Pad FX1, Beat Jump, Sampler	Hot Cue, Roll, Sampler, Auto Loop
Sh + pads	Keyboard, Pad FX2, Beat Loop, Key Shift	Varies Lite/Pro
Hot cues	8 per track	4 per track
Sampler	16 slots	4 slots
Record mix	Yes	Pro
Club USB	Export to CDJ/XDJ ★	No

BEATS, BARS, PHRASES

Section	Bars	What happens	DJ use
Intro	16–32	Drums, little vocal	Mix new track IN
Verse	16	Main vocal	Never layer 2nd vocal
Build	8–16	Rolls, risers	Time FX; prep drop
Drop/chorus	16	Full energy, hook	Cut in on drop
Break	8–32	Drums out	Mix out or breathe
Outro	16–32	Strips to drums	Mix next track over

TRANSITIONS

Transition	How	Length	Best for	Lvl
Cut ★	Switch on a downbeat	0	Big BPM/genre jumps; Bollywood, Punjabi	B
Fader blend	Sync, raise fader, drop old	8–16 bars	Similar BPM, beat-only intros	B
EQ blend	Beatmatch, Lo swap at ph	16–32 bars	House, techno, long outros	I
Filter	Sweep outgoing CFX while new comes in clean	8 bars	Busy tracks, simple exit	B
Echo out	Echo on outgoing, cut it, drop next on downbeat	1–2 bars	Film songs with no outro; tempo change	B
Loop	Loop last 4/8 beats of outro	As needed	Short outros, buys time	I
Drop swap	Cut straight into new track's drop	0	EDM, commercial peak	I
Beat jump	Skip verse / realign ph	0	Wrong-phrase fix	I
Spinback / brake	Jog backwards / slow to stop, then drop	1 bar	Party moment, hip-hop ! rare	I
Acapella over beat	Vocal-only over instrumental	16+ bars	Live mashup; needs key + BPM match	A
Sampler accent	Horn, siren, dhol hit on a pad	1 beat	Marking a transition ! rare	I
Power down / silence	Short pause, then big song	2–4 s	Entry, first dance, groom/bride arrival	B

PHRASE RULE

Rule	Detail
Count	1-2-3-4, 2-2-3-4 ... 4 bars aloud
Start	New ph downbeat = old ph downbeat
Why	Both change section together
Bollywood	Vocal start, abrupt end → cut/echo
DJ edits	Extended/club/intro edits = long intros

BPM BY GENRE

Genre	BPM	Note
Hip-hop	85–100	Trap 140 felt as 70
Reggaeton	90–102	Pairs with Punjabi
Punjabi/bhangra-pop	85–105	Many hits 95–100
Bollywood dance	90–130	Old slow, remixes fast
Commercial pop	100–128	Many ≈120
House	118–128	Tech house 124–128
EDM / big room	126–130	Usually 128
Techno	125–140	Hard techno faster
Dubstep	≈140	Half-time 70
Drum & bass	170–176	Most 174
! Stretch limit	±6–8%	More → cut/echo out
Key lock	rb Master Tempo	Keeps pitch on tempo change

BEATMATCHING BY EAR

#	Do	Check
1	Load B, press its Cue btn	B in phones only
2	Tempo fader B ≈ A's BPM	Range 6% or 10%
3	Release B on A's downbeat	Ideally ph start
4	Listen to kicks	B late = slow; early = fast
5	Nudge jog ring	Then fader same way
6	Repeat	16 bars steady, no nudge
7	Open B on mixer	At next ph start
Sync	Fast; frees attention	! Fails on bad grid

GAIN AND EQ RULES

Rule	How
Trim first	Fader up; peak upper green/amber
Faders mix	Trim only matches loudness
Master	Never red; room vol = speakers
Blend adds	Lower outgoing as new rises
One bass	Never 2 Lo at full together ★
Bring-in	New track Lo fully down first
Bass swap	At ph: A Lo down + B Lo up, one move
Fade-out	A Mid/Hi then fader, 8–16 bars
Lo / Mid / Hi	Kick+bass / vocals+snare / hats+air
Cut, not boost	Past centre → red
Perceived loud	Match ears, not just meters

CAMELOT KEY WHEEL

Code	A = minor	B = major	Code	A = minor	B = major
1	Abm (G#m)	B	7	Dm	F
2	Ebm (D#m)	F# (Gb)	8	Am	C
3	Bbm	Db (C#)	9	Em	G
4	Fm	Ab	10	Bm	D
5	Cm	Eb	11	F#m	A
6	Gm	Bb	12	C#m (Dbm)	E

CAMELOT MOVES

Move	Example	Effect
Same code	8A → 8A	Perfect match ★
±1, same letter	8A → 7A / 9A	Smooth drop / lift
Swap letter	8A → 8B	Same notes; mood shift
+2	8A → 10A	Energy boost, briefly
Wheel wraps	12A → 1A	12 sits next to 1
rb setting	Prefs → Key = alphanumeric	Shows 8A-style codes
When it matters	Long blends, melodies	Not cuts or drum intros
! Crowd first	Wrong key, great song	Cut or echo out instead

SET SHAPE (ENERGY JOURNEY)

Phase	Energy	Play
Warm-up	●●●●	Known, mid-tempo; no peak tracks
Build	●●●●●	Step BPM up ≈2–4 per track
Peak 1	●●●●●	Biggest singalongs, drops
Breather	●●●●●	Retro/romantic, let floor rest
Peak 2	●●●●●	Bhangra/Punjabi run
Close	●●●●●	Anthem, then planned stop

INDIAN EVENTS: WHAT WORKS

Event	Crowd	Energy	Music	Must-plan
Mehendi	Family, all ages, day	●●●●●	Light Bollywood, Punjabi folk-pop, soft	Moderate volume
Sangeet	Families performing	●●●●●	Choreo tracks on cue → Bollywood + Punjabi hits	Performance order + exact files
Baraat	Moving procession, dhol	●●●●●	Loud Punjabi/bhangra, short simple edits	Battery/generator, short cuts
Cocktail / reception	Mixed ages, social	●●●●● → ●●●●●	Retro Bollywood → current hits → intl pop → dance	Entry, speeches, cake, hard stop
House party	Friends, similar ages	●●●●●	Hip-hop, Punjabi, commercial, Bollywood remixes	Floor savers ready
Club-style night	Younger dancers	●●●●●	House, EDM, commercial dance; long blends	Booth monitor
Reading the room	Watch feet, not faces	—	Floor thins → change direction in 1–2 songs	1990s hit lifts families

WEEKLY PRACTICE ROUTINE

Session	Drill (Sync OFF part-time)	Min	Goal
Mon	Phrase count + hot cue each 16-bar ph	30	10 songs marked
Wed	Blind beatmatch + nudge recovery	30	Match < 30 s
Fri	Bass swap + echo out + filter exits	45	5 of each, clean
Sun	Recorded set (record in rb)	60	Play back next day, 3 fixes
Monthly	Camelot run / tempo ladder 95→128	45	10 tracks, no clashes
! Always	Smart Fader OFF, BPM hidden	—	Ears, not screen

START KIT

Item	₹ approx
DDJ-FLX4 (owned)	34–39k
rekordbox (FLX4 unlock) ★	Free
Closed-back DJ headphones	8–16k
Powered monitors (pair)	15–40k
RCA cables	0.5–1.5k
Musician's earplugs	1.5–3k
Dynamic mic (6.3 mm)	2–8k
Padded case	3–10k
2 USB sticks + ext SSD	2k + 6–10k
Surge-protected strip	1–2.5k
Laptop stand	1.5–4k

GIG CHECKLIST (NCR)

Check	Why
Local files only ★	Farmhouse/venue wifi fails
Surge strip + backup power	Unstable wedding power

LIBRARY: TAG 3,580, PREP 300-500

Field	Rule
Format	320 kbps MP3 or WAV/AIFF/FLAC/ALAC
! Reject	128 kbps, YouTube rips, duplicates
Tags	Title, artist, genre, year correct
Comments	Occasion + mood (searchable)
Analyse	BPM, key, grid: every track
Grid check	Live-drummed/old Bollywood drift
Memory cue	On 1st downbeat of every track
Hot cue colours	Red drop · Blue vocal · Yellow break · Green outro
Stars	Energy 1–5 → sort mid-set
Playlists	Mehendi, Sangeet, Baraat, Cocktail, Reception, After-party
Smart lists	e.g. BPM 95–105 + Punjabi
Floor savers	20 sure-shots per crowd type
Backup	2 drives + USB of night's set
Half/double BPM	Fix 180 ↔ 90, 70 ↔ 140 reads
Edits	Prefer extended/club/intro edits

Check	Why
USB copy of night's set	Laptop crash fallback
Booth monitor near you	Distant PA delay confuses beatmatch
Run sheet with planner	Entry, speeches, ring, cake, hard stop
Earplugs; phones moderate	Hearing loss builds, permanent
! Licence	Venue holds PPL/IPRS; wedding §52(1)(za) exemption contested

LEARN IN THIS ORDER

Step	Skill	Proof
1 B	FLX4 + rb setup; fader-only play	10 songs back to back
2 B	Beats, bars, phrases	Count ph in 10 songs
3 B	Gain staging	10 tracks peak same
4 B	Library prep	100 core tracks done
5 B	Sync + cut/fade on ph	20 clean transitions
6 I	Ear beatmatch, EQ swaps	32-bar blend, no mud
7 I	Transitions + Camelot	10-track key run
8 A	Hot cue edits, set build, gig	60-min sangeet set recorded

AVOID

Mistake	Fix
! Living in red	Meters amber; raise speakers
Two basslines	Cut incoming Lo
Mixing mid-phrase	Count 16/32; start on ph
Blind Sync	Listen before opening fader
Vocal on vocal	Blend over instrumental parts
FX every mix	Effects are spice
Playing for self	Play for the room

Books: Mayamata (tr. of the Sanskrit treatise) — Bruno Dagens (1985); The Penguin Guide to Vaastu — Sashikala Ananth (1999)

N NE E SE S SW W NW = 8 directions

NNE ENE ESE SSE SSW WSW WNW NNW = 16-zone sectors (22.5° each)

BS = Brahmasthan (centre)

MM = Mayamata

16Z = modern 16-zone school (MahaVastu)

★ best

! avoid

B I A Beginner / Intermediate / Advanced

● = strength of basis

DIRECTION GRID — PLAN VIEW, NORTH AT TOP

↑ N at top	West side	Middle	East side
North row	NW Vayavya · air · Moon — guests, store, parking, sales, movement	N Uttara · water · Mercury — cash, entry, living, open space	NE Ishanya · water · Jupiter — ★ puja, sump, borewell; LOW, light, open, clean
Middle row	W Paschima · water/space · Saturn — dining, children, study, locker (16Z)	BS Brahma · space — ! keep EMPTY: courtyard, lawn, open hall	E Purva · air/space · Sun — entrance, living, windows, morning sun
South row	SW Nairutya · earth · Rahu — ★ master bed, owner, OH tank; HIGH, heavy, closed	S Dakshina · fire/earth · Mars — bedrooms, heavy walls, stairs	SE Agneya · fire · Venus — ★ kitchen, DB panel, DG set, accounts

8 DIRECTIONS — DEITY, PLANET, ELEMENT, COLOUR

Dir	Sanskrit · Dikpala (deity)	Planet	Element	Colours (modern)	Keep it
N	Uttara · Kubera (wealth)	Mercury	Water	Green, light blue	Open, low, entry/cash
NE	Ishanya · Ishana (Shiva)	Jupiter	Water (some: space)	White, cream, pale yellow	Lowest, lightest, most open
E	Purva · Indra (Surya in some lists)	Sun	Air / space	White, light green, light blue	Openings, low walls
SE	Agneya · Agni (fire)	Venus	Fire	Orange, pink, silver	Fire, power, heat
S	Dakshina · Yama	Mars	Fire / earth	Red, coral, pink	Solid, higher, fewer openings
SW	Nairutya · Nirriti + ancestors	Rahu	Earth	Beige, peach, earthy brown	Highest, heaviest, closed
W	Paschima · Varuna	Saturn	Water / space	Blue, grey, white	Solid, medium weight
NW	Vayavya · Vayu (wind)	Moon	Air	White, cream, light grey	Movement, short stays
BS	Brahmasthan · Brahma	—	Space	White, off-white, pale yellow	Empty, unloaded, lit

16 ZONES (16Z) — DEGREES FROM TRUE N

Zone	Degrees	Attribute	Typical use
N	348.75–11.25	Money, opportunity	Locker, entrance, open
NNE	11.25–33.75	Health, immunity	Open, water, medicines
NE	33.75–56.25	Clarity, divinity	★ Puja, meditation, water
ENE	56.25–78.75	Fun, recreation	Family lounge
E	78.75–101.25	Social connection	Living, entrance
ESE	101.25–123.75	Churning, anxiety	Toilet, washing
SE	123.75–146.25	Cash flow, fire	★ Kitchen, electricals
SSE	146.25–168.75	Power, confidence	Kitchen alt., bedroom
S	168.75–191.25	Fame, rest	Bedroom
SSW	191.25–213.75	Expenditure, disposal	Toilet, dustbin, septic
SW	213.75–236.25	Relationships, stability	★ Master bed, owner
WSW	236.25–258.75	Education, savings	Study, children
W	258.75–281.25	Gains, profits	Dining, children, locker
WNW	281.25–303.75	Depression, detox	Toilet, laundry
NW	303.75–326.25	Support, banking	Guests, store, goods
NNW	326.25–348.75	Attraction	Couple's bedroom

VASTU PURUSHA MANDALA (MM)

Item	Rule
Purusha	Being pressed face-down by gods; head NE, feet SW
Grid	Square of padas (cells), 1×1 up to 32×32
Named grids	Pitha 9 · Mahapitha 16 · Upapitha 25 · Ugrapitha 36 · Sthandila 49
Manduka 8×8	64 padas; usual for temples
Paramasayika 9×9	81 padas; ★ usual for houses
Deities	45: 32 outer ring + 13 inner, Brahma centre
Brahma's share	1 pada (9, 25) · 4 (16, 36, 64) · 9 (49, 81)
Brahmasthan	! No toilet, stair, column, beam, heavy load
Marma	Main lines × diagonals crossing; ! no pillar/load
Grid vs radial	MM grid parallel to walls; 16Z radial from centre



Vastu Purusha Mandala



Jawahar Kala Kendra, Jaipur (Correa, 9-square)

ROOM-BY-ROOM PLACEMENT

Space	★ Best	OK	! Avoid	Notes
Main entrance	N3–N4, E3–E4 padas	NE, N, E; S3–S4, W3–W4	SW; S-SW padas	Opens inward, clockwise; no clutter
Kitchen	SE	NW; SSE (16Z)	NE, SW, BS	Cook facing E; sink apart from stove

PLOT SELECTION

Factor	★ Prefer	! Avoid
Shape	Square; rectangle ≤ 1:2	Triangle, circle, L, irregular
Corners	All 90°; NE extension OK	Cut NE (worst); extended SW/SE
Front–back	Gaumukhi (narrow front) homes; Shermukhi (wide front) shops	Narrow rear for a home
Slope	High SW, falling to NE/N/E	Falling to SW
Roads	N or E; NE corner plot prized	Only-S road (some texts)
Road hit (vithi shoola)	Hit on N-of-NE or E-of-NE	Hit from S, SW, W-of-SW; SE/NW disputed
Neighbours	Open/low to NE; tall to S, W	Tall block NE; cremation, garbage
Soil	Firm, good smell, drains	Fill, rubble, waste, bones
Skewed plot	>10–15° off cardinal = read by corners (vidisha)	Forcing an 8-direction read

SITE TESTS FROM THE TEXTS (MM)

Test	Method	Good sign
Pit refill	Dig pit, refill with same soil	Soil left over (shortfall = bad)
Water	Fill pit with water, leave overnight	Water retained (firm soil)
Senses	Colour, smell, taste of soil	Uniform colour, pleasant smell
Orientation	Gnomon (shanku): join a.m./p.m. shadow tips	Line = true E–W

REMEDIES WITHOUT DEMOLITION

Remedy	Basis
Swap room use; move bed, desk, locker	●●● planning
Declutter NE, open NE windows	●●● planning + daylight
Heavy storage on S and W walls	●●● planning
Tall trees S/W, tulsi NE	●●● tradition; real shade
Vastu shanti puja	●●● classical ritual (MM)
Lamp in a cut corner; colours	●●● folk / modern
Metal strips, pyramids, salt	●●● modern commercial
Mirrors, chimes, crystals	●●● borrowed Feng Shui

Space	★ Best	OK	! Avoid	Notes
Master bedroom	SW	S, W	NE, SE	Head to S or E, never N
Children's room	W, WSW	NW	SW (head of family)	Study desk facing E or N
Puja	NE	E, N	Under stairs, next to toilet, SW	Pray facing E or N
Toilet	WNW, SSW, ESE (16Z)	NW, W (older view)	NE, SW, BS, N	Seat axis N–S
Staircase	S, W, SW	—	NE, BS	Climb clockwise
Overhead tank	SW	W	NE, BS	Weight on the high side
Sump / UG tank / borewell	NE	N, E	SW, SE, BS	Water stays low in NE
Septic tank	NW, WNW	SSW	NE, SW, BS	Keep far from borewell
Study	WSW	E, NE	Under a beam	Face E or N
Living room	N, E, NE	NW	SW	Heavy sofas on S and W walls
Guest room	NW	—	SW	Short stays = moving zone
Parking	NW	SE	NE	Keep NE light
Locker / safe	On S or SW wall, opens to N	W (16Z)	NE, SE	Kubera = N
DB panel, inverter, DG	SE	NW	NE, SW	Fire zone

Office, Shop, Factory, Farmstay – by zone

Zone	Office	Shop / factory	Farmstay / villa
NE	Reception, waiting; open, lit	NE open + lit; ! no dead stock	Pool, pond, lawn; ! no OH tank or tall build
N / E	Reception, entrance; staff face N/E	Entrance N, E or NE	Entry drive from N or E; low shrubs, flowers
SE	Accounts, server, electrical, pantry	Boiler, furnace (factory)	Kitchen block, DG set, transformer
S / W	Senior staff; conference (W)	Heavy racks on S and W walls; machinery	Tall trees, dense planting, heavy buildings
SW	★ Owner/MD cabin, face N or E, solid wall behind	Owner/cashier, face N/E; raw material	Owner's suite; ! never a pool
NW	Sales, marketing, conference	Finished goods (factory)	Guest cottages, staff quarters, parking
Centre	Open circulation	Open aisle	Courtyard or lawn per site and per building
Rules	No one under a beam or back to door; toilets WNW/SSW	Shermukhi plot; cash drawer opens N	Flats: judge the flat's own plan, not the tower

32 Entrance padas (16Z numbering)

#	N wall (from NW)	E wall (from NE)	S wall (from SE)	W wall (from SW)
1	Roga	Shikhi	Anila	Pitru
2	Naga	Parjanya	Pusha	Dauvarika
3	★ Mukhya	★ Jayanta	★ Vitatha	★ Sugriva
4	★ Bhallata	★ Mahendra	★ Grihakshata	★ Pushpadanta
5	Soma	Surya	Yama	Varuna
6	Bhujaga	Satya	Gandharva	Asura
7	Aditi	Bhrisha	Bhringaraja	Shosha
8	Diti	Antariksha	Mriga	Papayakshma

Compass & zone marking – steps

#	Step
1	Scaled plan 1:50 or 1:100; mark road side
2	Centre: cross diagonals; irregular = card-balance on a pin
3	Compass flat, edge on a long wall; ! away from steel, cars, panels
4	3 readings: gate, inside entrance, central room; must agree
5	True N = compass + 1.3° (Gurugram, 2026)
6	Draw N line through the centre
7	Lay 16Z chakra; lines at 11.25° then every 22.5°
8	Each wall = 8 padas of 11.25°; number from corner
9	Audit sheet: zone · room/object · ideal · conflict
10	Cross-check: 8 sectors of 45° (N = 337.5–22.5°) + 9×9 grid

Start kit

Item	₹
Baseplate / prismatic compass	300–2,500
Phone compass app (calibrate)	Free
Transparent 16-zone chakra	200–800
Laser distance meter	1,500–6,000
Tapes 5 m + 30 m	200–1,200
Graph + A3 tracing paper, scale	200–500
Mayamata (Dagens tr., MLBD)	1,500–5,000
Penguin Guide to Vaastu	300–1,500

Learn in this order

Lvl	Learn	Do
B	8 directions + corner rules	Draw the grid from memory
B	Compass, declination, centre	Read own home 3 ways
B	Room-by-room table	Audit own flat on paper
B	Plot shape, slope, road hit	Classify 10 plots on a street
I	Mandala 64/81, marmas	Overlay 9×9 grid on plan
I	16 zones + 32 padas	Mark entrance pada: home, office
I	Office/shop layout	Zone report for the office
A	Mayamata house chapters	Overlay farmstay site plan

Avoid

! Mistake	Fix
Compass near metal	3 readings away from steel
Plot facing ≠ door facing	Agree: direction faced walking out
Mixing 8-dir and 16Z rules	Pick one; other as cross-check
Wrong centre of L / cut plot	Complete rectangle or card-balance
Loading the BS	No stair, toilet, column there
Strips/pyramids taken as classical	Not in MM; skip the spend
Buying on Vastu alone	Title, drainage, access first
Evidence	Light/air/drainage logic sound; wealth/health claims untested

10 Body language

Read comfort and discomfort; project calm confidence; know the limits.

Books: What Every Body Is Saying — Joe Navarro with Marvin Karlins (2008); Emotions Revealed — Paul Ekman (2003)

B Beginner **I** Intermediate **A** Advanced **!** caution / common misread **★** most reliable cue
● ● ● reliability high ● ● ● low BL = baseline (person's normal relaxed behaviour)
AU = FACS Action Unit (numbered facial muscle movement) Hall = Edward T. Hall's distance zones

READING RULES (NAVARRO)

Rule	Do	Why
1 Baseline	Watch 3–5 min of small talk first	Fidgeter fidgeting = no news
2 Clusters	Need 3+ cues agreeing	One cue means little
3 Context	Check AC, chair, traffic, pain, phone	Many causes, same gesture
4 Change	Note the topic just before a shift	Topic is the clue, not gesture
5 Hypothesis	Discomfort → ask a follow-up	Not proof of lying
6 Feet up	Read feet/legs first, face last	Face is most controlled

LIMBIC RESPONSE: FREEZE → FLIGHT → FIGHT

Response	Office version	Your move
Freeze	Sudden stillness, breath held, feet locked on chair legs	Note topic; soften, re-ask
Flight	Lean back, torso turns, eye-blocking, file/laptop as barrier	Address the concern openly
Fight	Glare, jaw set, chest forward, sharp tone, space invaded	Lower voice, slow down, pause
! Order	Freeze first, then flight; fight rare at work	Catch it early

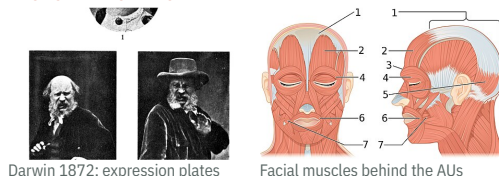
CUES BY BODY PART (NAVARRO)

Part	Cue	Likely meaning	Rel.	Caution
Feet	★ Feet/torso turn to exit	Wants to leave, disengaging	●●●	Check clock, next meeting
Feet	Happy feet: toes up, bouncing on good news	Positive feeling (gravity-defying)	●●●	Only vs BL; many bounce always
Legs	Bounce that suddenly stops	Freeze at that topic	●●●	Note what was just said
Legs	Ankles locked, legs wrapped round chair	Holding back, anxiety	●●●	Habit for some
Legs	Leg cross toward you / away	Comfort with you / barrier	●●●	Seat layout drives it
Torso	Lean back or ventral denial (front turns away)	Distancing from topic or person	●●●	Back pain, chair design
Torso	Turtle: shoulders rise, head sinks	Insecurity, wants to disappear	●●●	Cold room
Arms	Arms akimbo (hands on hips)	Territorial, authority, "issue here"	●●●	Can read as aggressive
Arms	Hands behind head, leaning back	Dominance, comfort; senior's pose	●●●	! Rude if junior does it
Arms	Crossed arms	Self-hug, closed off	●●●	AC, no armrests, comfort
Hands	★ Steepling	Confidence, certainty	●●●	Arrogant if held long
Hands	Thumbs up/out (lapels, pockets) / thumbs hidden	High confidence / low confidence	●●●	Cultural thumbs-up ≠ this
Hands	Interlaced fingers, white knuckles	Stress, anxiety	●●●	Cold hands
Hands	Open palms	Openness, sincerity	●●●	Easily faked by presenters
Shoulders	Full 2-side shrug / 1-side partial shrug	Genuine "don't know" / low commitment	●●●	Habitual shruggers
Mouth	★ Lips compressed or vanish	Holding back, stress, disagreement	●●●	Some resting faces
Mouth	Lip purse (pucker forward)	Disagrees, weighing an alternative	●●●	Classic at price quote
Mouth	One-side smirk / sneer	Contempt, superiority	●●●	Asymmetric smilers
Eyes	Eye-blocking: close, shade, rub	Dislikes what was seen/heard	●●●	Tired, dry eyes, lenses
Eyes	Eyebrow flash on meeting	Recognition, warmth	●●●	Absent = cool reception
Eyes	Gaze broken	Thinking, shyness, respect	●●●	! Not a lie cue; Indian juniors
Head	Head tilt	Interest, listening, comfort	●●●	Submissive if overused

7 UNIVERSAL EXPRESSIONS (EKMAN)

Emotion	Universal trigger	Brows / forehead	Eyes	Mouth / lower face	Key AU
Happiness	Pleasure, success	Neutral	★ Cheeks up, crow's feet, lower lids lift	Lip corners up and back	AU6+12
Sadness	Loss	★ Inner corners up and together	Upper lids droop, gaze down	Corners down, chin puckers	AU1+15
Surprise	Sudden, unexpected	High, curved, long horizontal lines	Wide, white above iris	Jaw drops, mouth relaxed open	AU1+2+26
Fear	Threat of harm	★ Raised and drawn together, flatter	Upper lids up, lower lids tense	Lips stretched back horizontally	AU1+2+4+20
Anger	Being blocked, unfair treatment	Lowered and drawn together, vertical lines	Hard stare, lids tense	★ Lips pressed thin or squared open	AU4+5+23
Disgust	Offensive, toxic, distasteful	Lowered	Lower lids up, narrowed	Nose wrinkled, upper lip raised	AU9+10
Contempt	Feeling morally superior	Neutral	Neutral or slightly narrowed	One lip corner tight and raised	AU14 (1-side)

FACES AT A GLANCE



Darwin 1872: expression plates

Facial muscles behind the AUs

PACIFIERS (STRESS JUST HAPPENED)

Pacifier	Looks like	Note
★ Neck touch	Rub nape/side of neck	Navarro: most frequent
Neck dimple	Hand to suprasternal notch	Concern, threat felt
Ventilating	Pulls collar off neck	Heat, irritation
Leg cleanser	Palms slide down thighs	Hidden under table; shoulders move
Face/lip rub	Cheek, lip, earlobe stroke	Anxiety, pressure
Tie/necklace	Fiddling, adjusting	Self-soothing
! Limit	Says something stressed	Never says why

COMFORT VS DISCOMFORT CLUSTERS

Area	Comfort	Discomfort
Face	Relaxed brow, full lips, real smile	Furrow, lips vanish, tight jaw
Eyes	Steady gaze, normal blink	Blocking, rapid blink, darting
Hands	Visible, open, fluid	Hidden, wringing, gripping arms
Torso	Leans in, faces you	Leans away, turned, shielded
Legs/feet	Toes up, crossed toward you	Pointed away, bounce stops, ankles locked
Voice	Even pace, varied pitch	Higher pitch, clipped, throat-clear

READING FACES (EKMAN)

Point	Detail
Macro vs micro	0.5–4 s normal; micro 1/25–1/5 s, rare (~2%)
Felt vs polite smile	Felt moves eyes (AU6); polite = mouth only
★ Hard-to-fake	Inner brow (sad), fear brows, thin lips (anger)
Fear vs surprise	Fear: brows flatter, lips stretched
Display rules	Culture hides emotion, e.g. anger before seniors
! Othello error	Fear of not being believed ≠ guilt
! Limits	Same face, many meanings (Barrett 2019)

PROXEMICS: HALL'S ZONES

Zone	Distance	Who	India note
Intimate	0–45 cm	Spouse, children	Metro crowds: people go still
Personal	45 cm–1.2 m	Friends, trusted staff	Same-sex friends stand closer
Social	1.2–3.7 m	Clients, interviews	Keep with opposite sex
Public	3.7 m +	Speeches, seminars	Staff meetings

SEATING AND TERRITORY

Set-up	Signals	Use for
Across desk	Authority, competitive	Firm instructions
★ 90° corner	Cooperative, open	Interviews, fee talks
Side by side	Same team, one document	Reviewing accounts
Spreads papers	Claims territory, status	Read who dominates
Chair pushed back	Distancing after hard Q	Note the topic

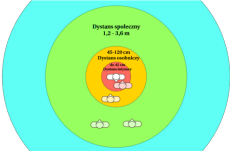
INDIAN CULTURAL CUES

Signal	Usual meaning	Watch out	Signal	Usual meaning	Watch out
Head wobble	Yes / okay / I hear you	Slow small wobble = maybe	Earlobe touch (both)	Sorry, my mistake	Mostly north India
"Yes sir", nods, "haan ji"	Heard, respect	⚠ Not agree or can-deliver; ask playback	Chin up + tongue click	No, disapproval	Easy to miss
Lowered eyes to seniors	Respect	⚠ Not evasion or guilt	Men holding hands	Friendship only	Normal in many regions
Namaste, slight bow	Safe greeting for all	Deeper bow, higher hands = more respect	Cross-gender touch	Limited at work	Woman initiates handshake
Left hand giving	Impolite	Pass files, cash, sweets with right	Feet touch someone	Rude	Touch person, then own eyes/chest
Senior pats shoulder	Status, approval	Junior never initiates	Finger pointing	Rude	Use open hand

INDIA PICTURES



Namaste: respectful greeting



Hall's four distance zones

INTERVIEW CHEAT SHEET

Moment	Read	Do
First 3 min	BL: blink, hands, voice	Small talk, 90° seat
Salary, notice, exit reason	Pacifiers, lips vanish, freeze	Note topic; ask for detail
Last project	Detail rich or thin?	Ask reverse-order recall
"Yes sir" to all	Deference, not capacity	"Walk me through how"
Close	Feet to door, relief	Explain next step clearly

MYTHS VS EVIDENCE

Myth	Evidence	Myth	Evidence
Liars avoid eye contact	No link (DePaulo 2003, 158 cues)	7-38-55: words are 7%	Only feelings when tone clashes (Mehrabian 1967)
Body reveals lies	People 54% vs 50% chance (Bond & DePaulo 2006)	Power poses raise hormones	Feel better, no hormone change (Ranehill 2015)
Fidgeting = lying	No consistent link	Microexpressions catch liars	Rare; weak evidence
Crossed arms = hostile	Often cold or comfort	Training makes you a lie detector	Confidence rises, accuracy doesn't

START KIT

Item	₹
Navarro + Ekman paperbacks	600–1,600
Notebook (BL diary, debriefs)	150–400
Phone tripod (self-video)	400–1,500
Laptop stand	800–2,500
Ring light / soft lamp	800–3,000
Full-length mirror	1,000–3,000

LEARN IN THIS ORDER

Step	Learn	Practice
B 1	4 rules + comfort/discomfort	BL diary on 5 staff
B 2	Freeze/flight/fight, pacifiers	Muted TV debate, count
B 3	Your own habits	Self-video 5 min, muted
B 4	Handshake, Indian etiquette	Feedback from 3 people
I 5	Ekman's 7 faces	Mirror each expression
I 6	Space, seating, voice	90° vs desk interview

PROJECT CONFIDENCE + WARMTH

Signal	Project	Avoid
Posture	Upright, still, shoulders down	Slump, turtle, big power poses
Space	Arms on armrests, papers spread	Elbows in, tiny footprint
Hands	Visible, waist–chest, steeple	Pockets, under table, fiddling
Gaze	Look while speaking; easy silence	Darting, staring down
Voice	Slower, lower, falling ends, pause	Rising ends, fillers, apologies
Warmth	Real smile, tilt, lean in, nod	Eye-roll, phone checking
Time	Start/end on time; you set pace	Rushing, keeping people waiting

HANDSHAKE AND GREETING

Element	Do	Avoid
Grip	Firm, full palm, match strength	Crusher, limp fingertips
Length	2–3 pumps, ~2 s, eye contact + smile	Holding on, looking away
Palm	Vertical	Palm-down dominance, 2-hand glove
Namaste	Elders, women, traditional clients	Forcing a handshake after namaste
Women	Let her choose; mirror her offer	Reaching first

NEGOTIATION CHEAT SHEET

Moment	Read	Do
You quote fee	Purse, lips vanish, lean back	Say number, stay silent 5 s
Their counter	Pacifiers = soft spot	Hold eye contact, no apology smile
Vendor eager	Leans in, quick yes	Room to push
Agreement near	Feet/torso turn toward you	Summarise, close
Rapport	Mirroring of pace, posture	Mirror lightly, after a delay

VIDEO-CALL CHEAT SHEET

Item	Do	Watch for
Camera	Eye level, laptop stand	Below chin = looks down
Light	Front light or ring light	Back-lit window
Gaze	Lens for key points	Eye-blocking, looking away
Face only	Ask verbal "yes"	Lip compression, slow unmute

AVOID

Mistake	Instead
Single-gesture reading	Wait for a cluster
Skipping BL	Small talk first
Discomfort = deception	Ask, then verify documents
Ignoring culture	Wobble / "yes sir" ≠ commitment
Over-mirroring	Subtle, delayed
Confirmation bias	Seek disconfirming cues
Forgetting yourself	You are read too
Big power poses	Calm stillness reads confident
Watching, not listening	Detail and documents beat gestures
Ignoring context	Check AC, pain, traffic, phone

11 Landscaping

Read the land; design shade, water, paths and light first

Books: Garden Design — John Brookes (1991); RHS Encyclopedia of Garden Design — Chris Young, ed. (2009)

B

Beginner

I

Intermediate

A

Advanced

high

low

★

top pick

!

caution

HS = hardscape (built) · SS = softscape (living)

₹/sq ft = material only unless "laid"

RWH = rainwater harvesting

EC = soil/water salt level · TDS = dissolved salts

K = kelvin (light colour) · IP = weatherproof rating

HSVP = Haryana urban authority · HWRA = Haryana Water Resources Authority

NCR SITE FACTS → DESIGN RESPONSE

Factor	NCR reality	Response
Heat	44–47°C May–Jun, west loo wind	Shade first: trees, pergolas
Rain	Most falls Jul–Sep, cloudbursts	Grade, drain, recharge at low point
Water	Gurugram aquifer over-exploited; hard, saline	Test TDS; drip; store rain
Soil	Alkaline (pH >7.5), low organic	Compost; skip acid-lovers
Kankar	Hard lime layer below surface	Break through in tree pits
Cold	2–4°C Dec–Jan, frost nights	Shelter tender palms, crotons

DESIGN PRINCIPLES (BROOKES / RHS)

Principle	Rule	Apply
Unity	One design, not a collection	Repeat 2–3 materials, colours

DESIGN PROCESS – BROOKES METHOD, STEP BY STEP

#	Step	Do	Output
1	Brief	Users, uses, events, staff, cars, pets; must-haves; ₹ ceiling	1-page brief
2	Site survey	Measure boundaries, levels, trees (spread), services, septic, borewell, wires; good/bad views	Base plan (Google Earth/drone)
3	Sun + wind	Shadows 9 am / noon / 4 pm in Jun + Dec; loo from W–NW	Sun/wind overlay
4	Soil + water test	KVK/lab: pH, EC, organic C, NPK; 60 cm pits; borewell TDS	Plant + lawn limits
5	Drainage	Walk site in monsoon rain; mark flow, pools, lowest point	Pond / recharge spot
6	Zoning + bubbles	Loose circles per zone, arrows for movement; test 3 options	Bubble diagram
7	Grid + master plan	Brookes: grid from house walls/windows; shapes on grid at 1:100 or 1:200	Scaled plan: levels, drains, pipes, lights
8	Planting plan	Draw plants at mature spread, not nursery size	Species, numbers, spacing
9	Phase + budget	Phase 1 = levels, drains, irrigation mains, conduits, trees	Costed phases, +10–15% reserve
10	Build → maintain	HS first, then grade, then plant; first 2 yrs decide success	Maintenance plan for 1 gardener

ZONES (SITE PLAN)

Zone	Contains	Place
Arrival	Gate, drive, parking, entry tree	Shaded; one reveal view
Social	Lawn, deck, pool, dining pergola	Near house, sheltered from W
Private	Bedroom courts, fragrance	Screened; night-scented plants
Play/event	Tough lawn sized for tents	Open sun, near power points
Productive	Kitchen garden, fruit, compost	Near kitchen (permaculture Z1)
Service	Staff, tanks, genset, waste	Hidden by hedge or wall

Principle	Rule	Apply
Balance	Even visual weight	Symmetry formal; asymmetry natural
Scale	Size to house and people	One big tree > 10 pots
Rhythm	Repetition leads the eye	Same tree every ~6 m on drive
Focal point	One per view	Lit tree, fountain, framed view
Colour	Warm advances, cool recedes	Hot near seats; cool at distance
Texture	Fine vs coarse contrast	Fine lawn vs agave, banana
Line	Edges direct movement	Straight = formal; curves deliberate
Simplicity	Few bold moves	Looks costly, ages well
Sequence	Discover in stages	Arrival → reveal → rest

PATHS, PATIOS, DECKS – RULES

Item	Rule
Fall	1:60–1:100 away from building
Finish	Flamed, leather, cleft; light at pool
Paver depth	60 mm path · 80 mm drive
Stone order	+8–12% for cuts, breakage
Edging	Stone, brick, steel on every bed
Before paving	Lay pipe + cable sleeves
Joints	Sand/gravel joints let rain soak in

HARDSCAPE MATERIALS (NCR, 2025–26)

Material	₹/sq ft	Durability	Heat in sun	Best use	Watch
★ Kota stone	18–40; 75–115 laid	●●● decades	Fairly cool	Paths, verandas, pool edge	Oil + hard-water stains
Dholpur sandstone	18–35 (red, beige)	●●● softer, porous	Beige cool	Rustic paths, patios	Seal vs moss, stains
Granite, flamed	40–120	●●● near permanent	! Dark = very hot	Steps, drives, edging	Never polished outdoors
Interlocking pavers	20–60; 65–105 laid	●● blocks relaid	Medium	Drive (80 mm), path (60 mm)	Sand joints soak some rain
Gravel / pebbles	Lowest	●●● top up	Cool, permeable	Dry gardens, side paths	Needs edging; bad for heels
WPC deck	220–430	●●● no termite	! Hot in sun	Shaded deck, poolside	Keep under shade
Teak / ipe deck	> WPC	●●● oil yearly	Medium	Feature decks	Cracks in dry heat
Aravalli quartzite rubble	Local, cheap	●●●	Medium	Walls, edging at Manesar	Looks right on site

LAWN GRASSES FOR NCR

Grass (botanical)	Sun / shade	Water	Wear	₹/sq ft	Best for
★ Mexican (Zoysia matrella type)	Sun–light shade	●●●	●●●	9–15	Home lawns, fine carpet
Korean (fine Zoysia)	Full sun	●●●	●●●	5–10	Ornamental mounds; no play
★ Selection No. 1 (Cynodon cv.)	Full sun only	●●●	●●●	2.5–3	Event, kids, shoot lawns
Doob / Bermuda (Cynodon dactylon)	Full sun only	●●●	●●●	—	Neglect, heat; browns in frost
Seashore paspalum	Full sun	●●●	●●●	—	Saline borewell water
St Augustine	Best in shade	●●●	●●●	—	Lawn under trees

LAWN BASICS

Item	Rule
Base	15–20 cm topsoil + compost; level, roll
Lay	Feb–Apr or post-monsoon; ! not May–Jun
Water	Deep and rare, at dawn
Mow	High in summer to shade roots
Size	Only where people use it; else gravel, meadow

FARMSTAY / VILLA GUEST DESIGN

Idea	Rule
Arrival	Gate → shaded drive → reveal of house/view
Shade first	Unshaded lawn is empty by 10 am
Outdoor rooms	Fire-pit (winter), pergola dining, hammocks
Photo spot	One focal point per zone; know the camera spot
Night scent	Harsingar, kamini, mogra, raat ki rani by rooms

WATER FEATURES

Type	Notes
Urli bowl	Still water, floating flowers; cheapest
Wall spout	Sound in a small court
Rill	Narrow stone channel; Mughal signature
Fountain	Formal focal point; scale from hard water
Lotus / natural pond	Site low point; clay or EPDM liner
! Rules	Pump + filter; guppies vs mosquito; ledge/grille for kids

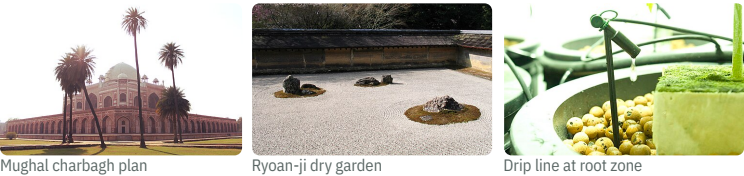
IRRIGATION

System	Use	Efficiency
★ Drip + filter	Trees, shrubs, hedges, beds	●●●
Micro-sprinkler	Groundcover beds	●●●
Pop-up sprinkler	Lawns only, at dawn	●●●
Hose + basin	Young trees, small sites	●●●
Greywater (STP)	Trees, hedges via drip; not edibles	●●●
Hydrozones	Lawn / shrubs / trees on separate valves	—

GARDEN STYLES – WHAT TO BORROW

Style	Origin	Key features	Borrow for NCR
★ Mughal charbagh	Persia via Babur; Humayun's Tomb c.1570	4 quadrants, axial paths, rills, central pool	Villa: symmetry, rill, central water
Kashmir terraced bagh	Shalimar, Nishat (Srinagar)	Terraces, cascades down slope	Sloping Manesar ground
Rajput / haveli	Rajasthan	Enclosed courts, fountains, pavilions	Shaded cool courts
Kerala nadumuttam	Nalukettu house	Open central court for rain, light	Courtyard in the new house
Japanese	Japan	Raked gravel, placed rocks, moss, shakkei (borrowed view)	Restraint; frame Aravalli view
English landscape	18th-c. England	Rolling lawn, tree clumps, lake, ha-ha	Farm: tree groups, open meadow
Xeriscape / gravel	US arid; Beth Chatto	7 rules: zone by water, compost, little lawn, natives, drip, 5–8 cm mulch, maintain	Most of the farmstay; dhau, khejri
Permaculture	Mollison, Australia	Zones 0–5 by use, catch all rain	Farmstay zoning, swales

STYLES AT A GLANCE



MAINTENANCE CALENDAR (NCR)

Month	Main tasks
Jan	Frost cover; light water; prune roses
Feb	★ Plant, lay turf, feed lawn
Mar	Plant trees; service drip; mulch
Apr	Deep water; last planting
May	Dawn water; shade young; mow high
Jun	Clean drains, recharge pits; dig pits
Jul	★ Monsoon tree/hedge planting; drip off
Aug	Weed; kill standing water; stake
Sep	Feed; cut back; 2nd planting
Oct	Sow winter annuals; top-dress lawn
Nov	Winter beds + pots; less water
Dec	Mulch; frost nights; plan changes

BUDGET SPLIT + PHASING

Head	Share
HS + civil (paving, walls, levels)	~50%
Plants + soil + compost	~25%
Irrigation + lighting	~10–15%
Contingency	10–15%
Phase 1	Levels, drains, mains, conduits, trees
Phase 2 → 3	Paving, water → lawn, beds, decor

RAINWATER + HARYANA RULES

Item	Rule
RWH mandate	Roof ≥ ~100 m²: harvest + recharge (HSVP 2001, HBC 2016)
Occupation cert.	Withheld without RWH; confirm with HSVP
Borewell	New/commercial needs HWRA permission
Recharge pit	Silt chamber → boulders → gravel → coarse sand
MICADA	Up to 85% drip subsidy, farm land only

LIGHTING

Technique	Rule
Uplight	Trunk/canopy of focal tree
Path + step	Low, shielded, no glare
Moonlight	Downlight from tree/pergola
Colour	Warm 2700–3000 K
Rating	IP65; buried IP67–68; conduits pre-paving
Less is more	Dark gaps = depth, fewer insects

HARDSCAPE VS SOFTSCAPE

Aspect	HS	SS
Cost	High upfront, low upkeep	Low upfront, ongoing water, labour
Heat	Stores heat, radiates at night	Cools by shade + transpiration
Rain	Sheds runoff; use permeable joints	Soaks rain in
Order	Build first	Plant after HS + grading
Tree pit	—	1 m cube, break kankar, 3–5 m off walls

START KIT

Item	₹
30 m tape + pegs	500–1,500
Graph paper, scale rule, tracing	300–800
Soil test (lab/KVK)	50–2,000
TDS meter	200–600
Drip kit + filter + timer	2,000–10,000
Spade, fork, khurpi, rake	1,500–4,000

LEARN IN THIS ORDER

Lvl	Learn → practice
B	NCR soil/water: test 1 property
B	Principles: critique 5 gardens
B	Scaled plot plan at 1:100
I	Sun/wind/drain maps, Jun + Dec
I	3 bubble options for the house
I	Stone yard: price + heat-test samples
I	Drip zone + timer on one bed
A	Master plan + costed phase 1

AVOID

Mistake	Fix
Plant at nursery size	Draw mature spread; trees 3–5 m off walls
Too much lawn	Lawn only where used
Flat paving	1:60–1:100 fall
Paving before sleeves	Conduits first
Dark/polished stone at pool	Light, flamed
Planting May–Jun	Feb–Mar or Jul–Aug
Daily light watering	Deep and rare
3-gardener design	Design for 1

12 Plant Landscaping

Right plant, right place: layered, repeated, hardy NCR planting.

Books: Planting: A New Perspective — Piet Oudolf & Noel Kingsbury (2013); Trees of Delhi: A Field Guide — Pradip Krishen (2006)

Water ●●●● low ●●●● med ●●●● high S full sun 6h+ · P part 3–5h · Sh shade

Ht = mature height, m N = native Delhi/Aravalli Ev evergreen · Dc deciduous yr = year

★ top pick ! caution B I A level

PLANTING LAYERS

Layer	Ht	Job	NCR picks
Canopy	10–20	Shade, loo break, frame	Neem, amaltas, pilkhan, jamun
Understorey	4–8	Flower at eye level	Kachnar, harsingar, champa
Shrub	1–4	Mass, screen, scent	Kamini, tecoma, kaner, hamelia
Grass / perennial	0.3–1.5	Matrix, movement	Fountain grass, vetiver, plumbago
Groundcover	<0.3	Covers soil, kills weeds	Ophiopogon, purple heart, phyla
Climber	on frame	Vertical green, pergola shade	Bougainvillea, madhumalti

PLANTING DESIGN RULES (OUDOLF, ADAPTED TO NCR)

Rule	How to apply	NCR example
Right plant, right place	Match sun, water, soil; favour long-lived plants needing no staking	Alkaline soil → skip ixora; hot west wall → kaner, bougainvillea
Structure before colour	Pick by form: spire, plume, umbel, daisy, globe, screen; bed must work in black & white	Grass plumes + agave rosette + round kamini
Matrix + primary + scatter	Matrix = one repeated base plant; primary = bold clumps repeated; scatter = few random accents	Vetiver matrix · plumbago clumps · cosmos scatter
Repetition	3–5 key plants repeated through site = unity	Same bougainvillea at gate, pool, parapet
Drifts & odd numbers	Long interlocking drifts, not blobs; under 10 plants use 3, 5, 7	5 tecoma as a drift along the drive
Height grading	Low front, tall back/centre; airy see-through plants may stand in front	Portulaca → plumbago → tecoma → neem
Texture contrast	Fine against bold leaves and shapes	Kamini/grass beside agave, plumeria, banana
Seasonal succession	Something peaks every month; value seedheads, bark, new leaf	Palash Feb → amaltas May → harsingar Sep → flame vine Jan
Deciduous natives (Krishen)	Delhi's best-adapted trees are mostly deciduous; bare spells are normal	Amaltas, pilkhan, mahua: flower without help

COLOUR COMBINATIONS

Scheme	Effect	NCR plants
Purple + yellow	Punchy, photogenic	Bougainvillea + tecoma/amaltas
Blue + orange	Lively	Plumbago + hamelia / flame vine
Hot: red-orange	Advances, energy	Russelia, hamelia, tecoma
Cool: blue-mauve	Recedes, calm	Jacaranda, petrea, plumbago, pink vinca
White (moon)	Glow at dusk	Mogra, kamini, harsingar, white champa
Foliage	Colour all year	Purple heart, red grass, golden duranta

LEARN IN THIS ORDER

Lvl	Learn	Do
B	ID 30 trees/shrubs by leaf	Krishen walk: Lodhi Garden, Sunder Nursery
B	Sun + water per bed	Map each bed S/P/Sh, wet/dry
I	Layers, drifts, repetition	3-layer bed, 5 key plants
I	Matrix planting	Grass-matrix trial at WeWoods
A	Planting plan	House beds at mature size, 1:100
A	Native/xeric zone	Aravali Biodiversity Park visit, copy

TREES FOR NCR

Tree	Ht	Water	Flowers / interest	Use and caution
★ Neem (<i>Azadirachta indica</i>) N Ev	15–20	●●●	Scented, Mar–Apr	Dense shade, loo windbreak
★ Amaltas (<i>Cassia fistula</i>) N Dc	10–15	●●●	Yellow chains, Apr–Jun	Showpiece, avenue
Pilkhan (<i>Ficus virens</i>) N	15–20	●●●	Copper new leaves, spring	Big shade; ! roots 5 m+ from walls
Jamun (<i>Syzygium cumini</i>)	15–25	●●●	Fruit Jun–Jul	Shade + fruit; ! stains paving
Palash (<i>Butea monosperma</i>) N Dc	8–12	●●●	Flame-orange, Feb–Mar	Native accent on bare branches
Semal (<i>Bombax ceiba</i>) N	20+	●●●	Big red, Feb–Mar	Large estates only
Kachnar (<i>Bauhinia variegata</i>)	6–10	●●●	Pink/white, Feb–Apr	Small garden, near seating
Gulmohar (<i>Delonix regia</i>)	10–12	●●●	Scarlet, May–Jun	Lawn shade; ! young plants frost-tender
Jacaranda	10–15	●●●	Blue-mauve, Apr–May	Cool colour, lawn edge
Tabebuia (yellow / pink)	8–15	●●●	Feb–Apr	Avenue colour before leaves
Harsingar (<i>Nyctanthes</i>)	3–6	●●●	Night scent, Aug–Dec	Bedrooms, verandas
Champa (<i>Plumeria</i>)	4–8	●●●	Scented, summer–monsoon	Pool deck, entrance
Khejri (<i>Prosopis cineraria</i>) N	5–10	●●●	Fixes nitrogen	Farm edges, xeric zone
Dhau (<i>Anogeissus pendula</i>) N	6–10	●●●	Red leaves in winter	Rocky slopes, Aravalli look

FLOWERING SHRUBS

Shrub	Ht	Sun	Water	Flowers	Use and caution
★ Bougainvillea	1–3 (8 as climber)	S	●●●	Spring + autumn flush	Mass colour, thorny barrier; flowers when dry
★ Tecoma (<i>Tecoma stans</i>)	3–5	S	●●●	Most of yr	Yellow bells, informal screen
Kaner (<i>Nerium oleander</i>)	2–4	S	●●●	Mar–Oct	Toughest shrub; ! all parts poisonous
Hamelia (firebush)	1.5–3	S–P	●●●	Most of yr	Orange-red, birds
Plumbago (<i>P. auriculata</i>)	1–2	S–P	●●●	Mar–Nov	Sky-blue mounds, cool tone
Russelia (firecracker)	1–1.5	S	●●●	Most of yr	Red fountain over banks, walls

SPACING (PLANT AT MATURE SPREAD)

Plant	Gap	Note
Big shade tree	8–10 m	3–5 m+ from walls, septic
Small tree	4–6 m	Kachnar, champa, harsingar
Shrub mass	1–1.5 m	Gaps → annuals, not more shrubs
Clipped hedge	30–45 cm	2 staggered rows = dense
Grass clump	45–60 cm	3–5 per m ²
Groundcover	15–25 cm	16–25 per m ²

SEASONAL SUCCESSION CALENDAR

Months	Trees	Shrubs & climbers	Beds
Dec–Feb	Semal buds, kachnar	Flame vine, bougainvillea	Winter annuals
Feb–Mar	Palash, semal, tabebuia	Petrea, karonda	Winter annuals peak
Apr–Jun	Amaltas, gulmohar, jacaranda	Mogra, plumbago, tecoma	Portulaca, zinnia
Jul–Sep	Champa, jamun fruit	Madhumalti, kamini, hibiscus	Balsam, celosia
Oct–Nov	Harsingar, cork tree	Bougainvillea flush	Sow winter annuals

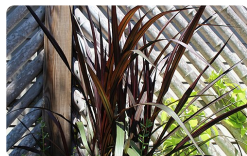
PICTURES



Bougainvillea hedge



Amaltas in bloom



Purple napier grass

Shrub	Ht	Sun	Water	Flowers	Use and caution
Hibiscus (gudhal)	2–3	S	●●●	Most of yr	 mealybug
Mogra (Jasminum sambac)	1–2	S	●●●	Apr–Jul	Scent at seating
Raat ki rani (Cestrum nocturnum)	2–3	S–P	●●●	Summer–monsoon nights	 near rooms, not beside beds

HEDGES & SCREENS

Plant	Kept Ht	Water	Use
 Kamini (Murraya)	0.6–2	●●●	Fine formal hedge, scent
Duranta (golden)	0.5–1.5	●●●	Tough colour hedge
Karonda (Carissa)	1.5–3	●●●	Thorny boundary + fruit
Bougainvillea	1–3	●●●	Thorny security barrier
Tecoma stans	2–4	●●●	Flowering informal screen
Putranjiva	6–12	●●●	Tall evergreen wall, dust
Ashoka (Polyalthia)	8–12	●●●	Columnar, narrow strips

CLIMBERS

Climber	Water	Flowers	Note
 Bougainvillea	●●●	Spring, autumn	Arches, walls; tie in
Madhumalti	●●●	Mar–Oct	Evening scent, pergola
Flame vine (Pyrostegia)	●●●	Dec–Feb	Orange sheet on fences
Petrea (sandpaper vine)	●●●	Feb–Apr	Purple sprays; slow
Chameli (jasmine)	●●●	Apr–Sep	Scent on trellis
Blue trumpet (Thunbergia)	●●●	Most of yr	 smothers; prune hard
Creeping fig (Ficus pumila)	●●●	Foliage	Self-clings;  roots in plaster

SEASONAL ANNUALS (HEIGHTS IN CM)

Season	Sow → bloom	Sun	Plants (ht)
Winter	Seed Sep–Oct, plant Oct–Nov → Dec–Mar	S	Petunia 25 · calendula 40 · pansy 15 · dianthus 25 · alyssum 10 · marigold 30–90 · sweet pea (climber) · nasturtium 30 · phlox 30
Summer	Seed Feb–Mar → Apr–Jul	S	Zinnia 30–90 · portulaca 10 · gomphrena 40 · cosmos 60–120 · sunflower 100–200 · vinca 40
Monsoon	Seed late Jun–Jul → Aug–Oct	S–P	Balsam 40 · cockscomb (celosia) 30–60 · marigold · coleus (P)

PLANT RECIPES THAT WORK

Recipe	Where	Back / frame	Middle	Front / ground
 Hot welcome	Gate, arrival drive	Amaltas or tabebuia	Magenta bougainvillea + tecoma drift	Portulaca, purple heart
 Moon garden	Rooms, dinner lawn	Harsingar, white champa	Kamini hedge, mogra	White vinca, ophiopogon
Gravel xeric bed	Hot south/west strips	Khejri or champa	Agave, aloe, kaner, crown of thorns	Gravel + portulaca + fountain grass
Grass meadow (matrix)	Open farm field	Palash dotted	Primary: plumbago, russelia clumps	Matrix vetiver; scatter cosmos
Cool shade court	Under neem/jamun, north wall	Existing canopy	Asparagus fern, hamelia (P)	Ophiopogon, chlorophytum, monsoon caladium
Loo windbreak	West/north-west edge	Neem + putranjiva, 2 rows	Tecoma, duranta	Thorny karonda/bougainvillea outer
Aravalli corner	Rocky slope (WeWoods)	Dhau, khejri	Kair, karonda	Spear grass, vetiver, boulders

XERISCAPE PALETTE (NO WATER AFTER YR 2)

Layer	Plants
Trees	Khejri, dhau, palash, ber, desi babool N
Shrubs	Kaner, bougainvillea, tecoma, kair N, karonda
Accents	Agave, aloe, crown of thorns
Grass	Vetiver, spear grass, fountain grass
Ground	Portulaca, purple heart, phyla, gravel mulch
Signs	Silver, hairy, narrow or succulent leaves = drought-adapted

PLANTING & AFTER-CARE

Step	Do
1 When	Feb–Mar or Jul–Aug; never May–Jun
2 Pit	Tree 1 m cube, shrub 45–60 cm; break kankar
3 Backfill	Site soil + 1/3 compost + handful neem cake
4 Set	Root ball level with ground; tease circling roots
5 Water	Ring basin, soak same day
6 Stake + mulch	Loose ties; mulch 5–8 cm, off the stem
7 Yr 1–2	Deep weekly; twice weekly May; stop in rain
8 Prune	After flowering; hedges 3–4× a yr
9 Feed	Compost Feb + Sep; none May–Jun

ORNAMENTAL GRASSES

Grass	Ht	Water	Note
 Vetiver / khus N	1.5	●●●	Slopes, swales; scented roots
Fountain grass (red)	0.9–1.2	●●●	Plumes; cut back Feb
Purple napier	1.5–2	●●●	Bold screen, see photo
Lemongrass	1–1.5	●●●	Aromatic edge, kitchen
Sarkanda / munj N	2–4	●●●	Native giant, autumn plumes
Spear grass (Heteropogon) N	0.5–1	●●●	Aravalli meadow;  sticky seeds

GROUNDCOVERS (SUN)

Plant	Sun	Water	Note
Portulaca	S	●●●	Summer colour, hot strips
Purple heart (Tradescantia pallida)	S–P	●●●	Purple foliage contrast
Phyla / lippia (Phyla nodiflora) N	S	●●●	Walkable lawn substitute
Vinca (Catharanthus)	S	●●●	Pink/white all summer; self-seeds
Alternanthera	S–P	●●●	Clipped red/green edging
Rain lily (Zephyranthes)	S–P	●●●	Flowers after rain

SHADE GARDEN (UNDER TREES, NORTH WALLS)

Plant	Water	Note
 Ophiopogon (mondo)	●●●	Where lawn fails
Asparagus fern (Sprengerii)	●●●	Arching, very tough
Chlorophytum	●●●	Edging, quick spread
Rhoeo (Tradescantia spathacea)	●●●	Purple-backed rosettes
Caladium, coleus	●●●	Monsoon colour only
Pothos, syngonium	●●●	 frost-burnt in Jan

AVOID

Plant / habit	Why
 Vilayati kikar (Prosopis juliflora)	Invader of Ridge and Aravallis
 Lantana camara, subabul (Leucaena)	Ridge invaders; crowd out natives
 Parthenium (gajar ghas)	Weed; allergy
 Wedelia (Sphagneticola)	Sold as groundcover; global top-100 invader
 Conocarpus	Banned Gujarat, Telangana; pollen, roots
Ixora, gardenia, azalea	Acid-lovers; yellow in alkaline soil
Saptaparni near rooms	Heavy scent Oct–Dec
Ficus <5 m from walls	Roots crack foundations
Nursery-size spacing	Crowded, sick by yr 3
Thirsty exotics in full sun	Big lawn, hibiscus rows, areca palm

START KIT

Item	₹
Trees of Delhi (Krishen)	800–1,500
Soil test pH / EC	50–2,000
Spade, fork, khurpi, rake	1,500–4,000
Secateurs + loppers	500–3,000
Vermicompost per kg	8–20
Neem cake per kg	80–200