



Teacher Prompt Matrix

AI Prompts Across Grades, Subjects & Pedagogical Themes

Humain AI Literacy Mission (HAILM)

About this prompting framework

Every prompt in this matrix is a single, ready-to-use paragraph that weaves together five structured elements: Persona (the expert role the AI adopts), Objectives (the specific task to generate), Context (a named Indian state, board, grade, class size, home language, and available resources), Audience (the specific teacher's background and needs), and Boundary (hard limits on what the output must not do or assume). This five-element model is intentionally simple and teacher-friendly.

Extending these prompts

These prompts can be further refined using other established prompting frameworks:

- CIDI (Challenge, Input, Data, Intended Output) — for data-rich tasks and assessment design
- CRAFT (Context, Role, Action, Format, Target) — when output format and length matter
- CO-STAR (Context, Objective, Style, Tone, Audience, Response) — for nuanced communication
- RTF (Role, Task, Format) — a lightweight 3-element model for quick daily prompts
- RISE (Role, Instructions, Steps, Examples) — when step-by-step processes are needed

Swap in your own state, board, class size, or home language to personalise any prompt for your classroom context.

Pedagogical theme colour guide

Lesson Planning
Assessment
Differentiation (3 levels)
Discussion-based
AI-Resistant

Matrix overview — click any cell to jump to the prompt

Grade Band	Lesson Planning	Assessment	Differentiation (3 levels)	Discussion-based	AI-Resistant
Pre-primary 14 prompts	English / Language Mathematics Arts / Creative	English / Language Mathematics General / Cross-curr...	English / Language Mathematics General / Cross-curr...	English / Language Mathematics	English / Language Mathematics Arts / Creative
Primary 18 prompts	English / Language Mathematics Science Social Studies / EVS	English / Language Mathematics Science	English / Language Mathematics Science Social Studies / EVS	English / Language Mathematics Science	English / Language Mathematics Science Social Studies / EVS
Junior 19 prompts	English / Language Mathematics Science Social Studies	English / Language Mathematics Science	English / Language Mathematics Science	English / Language Mathematics Science Social Studies	English / Language Mathematics Science Social Studies Arts / Creative
Senior 23 prompts	English / Language Mathematics Science Social Studies	English / Language Mathematics Science Social Studies General / Cross-curr...	English / Language Mathematics Science Social Studies General / Cross-curr...	English / Language Mathematics Science Social Studies	English / Language Mathematics Science Social Studies General / Cross-curr...

PRE-PRIMARY GRADE BAND

English / Language

Lesson Planning

You are an experienced Early Childhood Education specialist who designs joyful, play-based literacy lessons for Anganwadi and pre-primary classrooms in India. Create a 30-minute circle-time lesson plan to introduce rhyming words through movement, song, and shared reading. The setting is a government-aided pre-primary centre in rural Rajasthan with 20–25 children aged 4–6, mixed verbal ability, Hindi as home language, and limited printed resources. The teacher is a trained Anganwadi worker with basic English literacy who is comfortable with oral-led instruction. Do not include any screen-based or digital activities; all materials must be reproducible by hand or sourced from the immediate environment; output in English with key instructions also in simple Hindi.

Assessment

Act as an early childhood assessment expert who specialises in observation-based evaluation in Indian preschool settings. Suggest 3 observational checkpoints a teacher can use during a story-retelling activity to gauge listening and sequencing skills in pre-primary learners — no written output required from children. The setting is a private play-school in Pune, Maharashtra with multilingual children (Marathi, Hindi, English), a class of 18, and portfolio-based documentation. The class teacher is a trained Montessori educator who prefers documentation over testing. Avoid any checklist that requires children to read, write, or use devices; assessment must be purely observational; do not use deficit language in the descriptors.

Differentiation (3 levels)

You are a differentiated instruction coach supporting inclusive pre-primary classrooms in India. Design the same colour-and-label phonics activity at three readiness levels: Level 1 — match picture to letter card; Level 2 — trace the starting letter; Level 3 — write the starting letter independently, all on one A4 printable sheet. The classroom is a semi-urban CBSE pre-primary in Bhopal, Madhya Pradesh with 28 children — roughly 8 emergent, 14 developing, and 6 advanced in early literacy. The class teacher has limited prep time and needs all three versions on one sheet. Do not create more than 3 versions; all versions must share the same Indian animal visual theme; keep language on the worksheet at a pre-reading level.

Discussion-based

Act as an early childhood facilitator trained in dialogic reading and Socratic questioning for young children in India. Write 5 open-ended, picture-based discussion starters for a pre-primary class looking at an illustration of a busy Indian market (sabzi mandi) with vendors, buyers, and street food. The school is a government-aided KG class in Kolkata, West Bengal, where children speak Bengali at home. The teacher is a B.Ed. graduate who wants to build oral language skills and move beyond rote Q&A. Questions must be genuinely open — no single right answer; avoid questions that require prior academic knowledge; do not exceed 5 questions.

AI-Resistant

You are a play-based learning designer who creates activities rooted in embodied experience and human storytelling that no AI tool can replicate. Design a 'story bag' activity where children pull out physical objects and collaboratively build an oral story, with teacher observation as the sole documentation method. The setting is a low-resource pre-primary classroom in a tribal area of Jharkhand; children are 4–6 and speak Santali at home; objects in the bag should reflect local rural life. The facilitator is a community-based teacher with strong storytelling skills but no formal training. The activity must work without electricity, printed materials, or internet; do not suggest digital recording of any kind.

Mathematics

Lesson Planning

Act as a play-based maths curriculum designer using the Concrete-Pictorial-Abstract approach for early years numeracy in India. Plan a 20-minute hands-on lesson for pre-primary learners on sorting objects by one attribute — colour, shape, or size — using natural manipulatives (stones, leaves, seeds, locally made baskets), closing with a song to reinforce vocabulary. The classroom is an ICDS centre in rural Odisha; children are 3–5 years old;

the Anganwadi worker facilitating has a Class 10 education and attends monthly cluster training. No commercially produced manipulatives are required; the lesson must be deliverable in an open courtyard if the room is unavailable; keep verbal instructions to 2-sentence chunks.

Assessment

You are an early numeracy specialist designing developmentally appropriate, play-based assessment tools for pre-primary classrooms in India. List 4 informal play-based indicators to observe whether a child aged 4–5 understands 'more' and 'less', observable during free play with blocks or counters. The setting is a private Montessori school in Chennai, Tamil Nadu; children have exposure to Tamil and English; assessment is portfolio-based with no formal tests. The class guide values observation and keeps a daily learning log. Indicators must be observable without interrupting play; do not include any written or verbal testing; each indicator must be a single, clearly observable behaviour.

Differentiation (3 levels)

Act as an inclusive early childhood maths educator designing tiered activities for mixed-ability pre-primary classrooms in India. Create a counting activity using a nature tray (tamarind seeds, pebbles, dried flowers) at three levels: Level 1 — count out 3 objects with adult guidance; Level 2 — count and match quantity to a numeral card (1–5); Level 3 — create their own pattern and count. The classroom is in a government primary school's pre-primary section in Amravati, Maharashtra, where the teacher manages 30 children alone. All three levels must use the same nature tray; do not require printing or laminating; each level's instruction must be explainable to a 4-year-old in one sentence.

Discussion-based

You are a Socratic facilitator who uses everyday situations to spark mathematical reasoning in young children aged 4–6 in Indian classrooms. Write a teacher script for a guided class discussion around the question 'Is this fair? Did everyone get the same?' using the distribution of biscuits at snack time as the context. The school is a CBSE KG class in Chandigarh, Punjab; children are from middle-income families; the teacher is a trained KG educator who wants structured prompts to deepen number thinking without formal instruction. The script must not exceed 10 minutes; avoid formal mathematical vocabulary; do not include any activity requiring writing; keep the tone playful and non-judgmental.

AI-Resistant

Act as a kinaesthetic learning specialist designing movement-based maths activities that cannot be completed or replicated by AI tools. Design a 'body maths' activity where children use arms, legs, clapping, and voice to explore patterns and counting with zero materials required. The class is a pre-primary section in a government school in Dehradun, Uttarakhand; sessions happen outdoors or under a tree; the community volunteer teacher works with 15–20 children of mixed ages 3–6 and is energetic. No materials, printed sheets, or technology are permitted; the activity must work in an open outdoor space; avoid any step requiring children to sit still for more than 2 minutes.

Arts / Creative

Lesson Planning

You are a process art educator designing open-ended creative experiences for early childhood classrooms in India, prioritising exploration over finished products. Write a 40-minute lesson plan for a process art session using only natural materials — mud, leaves, flowers, seeds — with a focus on sensory exploration and no predetermined final product. The setting is a forest school-inspired pre-primary in Coimbatore, Tamil Nadu; children are 4–6 with daily outdoor access; the class teacher is trained in Reggio Emilia approaches and values documentation of process through photographs and observation notes. Do not include commercially purchased art supplies; the lesson must not have a 'right way' to complete it; do not assess or grade the artwork.

AI-Resistant

Act as a community art facilitator creating collective, embodied art experiences that are irreducibly human and cannot be produced or replicated by AI. Design a collaborative handprint mural activity where each child adds a print using natural dyes (turmeric, henna, mud) to build a 'garden of hands', including a reflection circle on how individual marks form a collective whole. The class is a play-school in Nagpur, Maharashtra; 24 children aged 4–5 will create the mural for the school's annual day; the art teacher works with a helper. Use only natural, non-toxic

materials; every child's contribution must be equally visible — no mark should be more prominent than another's; do not digitise or AI-generate any part of the mural.

General / Cross-curricular

Assessment

Act as a holistic early childhood assessment designer building portfolio-based documentation for pre-primary classrooms in India. Design a one-A4-page portfolio checklist that documents child development across four domains — physical, social, language, and cognitive — using photos, anecdotes, and teacher notes rather than formal tests. The setting is a private pre-primary school in Lucknow, Uttar Pradesh; the school issues narrative progress reports twice a year; class size is 22; the teacher is new to portfolio assessment. The system must be maintainable in 10 minutes per child per week; avoid jargon; do not include any test items, scores, or grades; language must be understandable to parents who are not educators.

Differentiation (3 levels)

You are an inclusive early childhood curriculum specialist redesigning daily routines to serve three developmental levels simultaneously. Redesign a morning greeting routine (maximum 10 minutes) so it stretches and includes: children with emerging language, on-track developing children, and verbally advanced children. The classroom is an integrated pre-primary in Hyderabad, Telangana with 26 children including 4 with developmental delays; home languages include Telugu, Hindi, and Urdu; the teacher is alone for the first 30 minutes. Do not require any printed materials; all three groups must participate visibly in the same ritual — not in separate corners; the routine must be self-sustaining without constant teacher direction.

PRIMARY GRADE BAND

English / Language

Lesson Planning

You are a literacy curriculum designer building mentor-text-driven writing units for primary classrooms in Indian CBSE and state-board schools. Design a Week 1 lesson plan — 5 days at 45 minutes each — for Grade 3 on writing personal narratives, including mentor text suggestions, modelled writing, guided practice, and a peer feedback day. The school is a government primary in Jaipur, Rajasthan; children are from working-class families; English is a second language alongside Hindi; class size is 38; the teacher has a B.Ed. and 5 years' experience but is trying a writing workshop approach for the first time. Limit digital resource suggestions to one optional link; all mentor texts must be available in NCERT or state-board libraries; the plan must work without internet; do not exceed 5 lesson outlines.

Assessment

Act as a primary literacy assessment specialist designing formative tools that empower both teachers and students in Indian classrooms. Create a one-A4-page formative assessment checklist for a Grade 4 oral presentation on 'My Community', with 5 criteria, a 3-point scale, and space for student self-assessment alongside teacher rating. The school is a CBSE primary in Bengaluru, Karnataka; class has 34 students; the presentation is part of a project-based unit on local communities. The teacher wants students to assess their own presentations; some students are anxious about formal evaluations. Criteria must be written in child-friendly language at a Grades 3–4 reading level; avoid percentage scores; use descriptive language for each point on the scale.

Differentiation (3 levels)

You are a differentiated instruction specialist creating tiered reading comprehension tasks for multilevel primary classrooms in India. For a Grade 2 comprehension task based on a fable, create three versions of the same 5 questions: Version 1 — picture plus single-word answer for emerging readers; Version 2 — guided sentence starters for developing readers; Version 3 — open inference questions for advanced readers. The classroom is a government primary in Varanasi, Uttar Pradesh; about one-third of the 42 students are first-generation school-goers; the teacher reads aloud to the whole class. All three versions must be based on the same fable text; do not create entirely separate worksheets — use colour-coded layering on the same page; maximum 5 questions per version; do not label versions by ability.

Discussion-based

Act as a Socratic seminar facilitator building structured discussion protocols for primary classrooms in India to develop critical thinking and oral language. Write a seminar guide for Grade 5 around the question 'Is it ever okay to tell a small lie to protect someone's feelings?', including an opening prompt, 4 probing questions, and a reflective exit ticket. The school is a CBSE primary in Ahmedabad, Gujarat; Grade 5 students are 10–11 years old from middle-class families; the class has had no prior exposure to structured discussion. The teacher is experienced in textbook instruction and wants to introduce student voice. The seminar must not exceed 25 minutes; all questions must be genuinely open-ended; do not introduce the term 'Socratic' to students — keep facilitation language natural and age-appropriate.

AI-Resistant

You are a drama-in-education practitioner designing embodied, collaborative learning experiences that cannot be completed or replicated by AI. Design a 'living newspaper' activity where Grade 4 students act out recent school news as a whole-class performance, including defined roles, a script structure, and an oral assessment rubric for collaboration and public speaking. The school is a private English-medium primary in Indore, Madhya Pradesh; students have access to a small stage; class size is 30; the English teacher has never run a drama activity. No devices, video recording, or AI-generated scripts may be used; the entire activity from script to performance must emerge from students' own ideas; assessment must be oral and observational, not written.

Mathematics

Lesson Planning

Act as a primary maths curriculum specialist using the Concrete-Pictorial-Abstract framework and real-world Indian contexts to teach number sense. Plan a 3-day lesson sequence for Grade 3 on understanding fractions using paper folding and fraction bars, with CPA progression, discussion prompts, and all word problems in Indian contexts — rotis, sarees, cricket pitches. The school is a Kendriya Vidyalaya in Patna, Bihar; Grade 3 has 40 students following the NCERT curriculum; materials available are paper, rulers, and colour pencils. Limit manipulatives to paper folding and hand-drawn fraction bars — no purchased materials; do not introduce decimal notation; include exact teacher questions at each stage.

Assessment

You are a primary maths assessment designer creating diagnostic tools that reveal both procedural fluency and conceptual understanding in Indian classrooms. Create a 10-minute diagnostic quiz for Grade 5 multiplication — 2 standard questions, 2 word problems, and 1 explain-your-thinking question — plus a marking guide that distinguishes procedural errors from conceptual misunderstandings. The school is a state-board primary in Pune, Maharashtra; Grade 5 uses the Maharashtra state syllabus; class has 35 students with gaps from pandemic-era disruptions; the teacher wants to group students for targeted practice, not assign grades. Do not exceed 5 questions; the marking guide must explicitly categorise error types; do not make the quiz feel like a test — frame it as a problem-solving warm-up.

Differentiation (3 levels)

Act as a primary maths differentiation specialist designing tiered tasks around a single real-world context for three readiness levels in one lesson. For a Grade 4 lesson on area, design three tasks — all set inside a traditional Tamil home floor plan: Task 1 — count squares on a printed grid; Task 2 — calculate area of rectangles using the formula with scaffolding; Task 3 — design an L-shaped room and calculate composite area. The classroom is a CBSE primary in Coimbatore, Tamil Nadu; class has 32 students across three readiness levels; the teacher runs groups during independent practice time. Use a single A4 sheet with colour-coded sections — do not create separate worksheets; all tasks share the same context; cognitive demand increases in task type only, not vocabulary.

Discussion-based

You are a maths talk facilitator building number sense through structured discussion protocols in Indian primary classrooms. Write a 10-minute 'number of the day' discussion protocol for Grade 3 using the number 36, with 6 prompts exploring multiple representations, patterns, and real-world connections. The school is a private primary in Surat, Gujarat; Grade 3 students are 8–9 and enjoy games; the teacher wants a repeatable warm-up routine she can run every Monday without preparation and with 40 students. The protocol must work for any 2-digit number; limit to 6 discussion prompts; require only a blackboard — no other materials; avoid abstract notation in the questions themselves.

AI-Resistant

Act as an experiential maths educator designing real-world simulations that build financial literacy through physical, in-person activity that AI cannot replicate. Design a classroom marketplace simulation for Grade 5 where students use play money to buy and sell items from Karnataka — filter coffee, jasmine garlands, local snacks — at realistic rupee prices, with a debrief on financial choices. The school is a government upper primary in Mysuru, Karnataka; 36 students; the teacher has never run a simulation before. No computers, calculators, or AI tools permitted; play money must be printable or hand-made; include setup instructions, student roles, common teacher interventions, and complete the simulation within one 45-minute period.

Science

Lesson Planning

You are a primary science curriculum specialist using the 5E inquiry model to design student-centred, hands-on lessons in Indian ecological and agricultural contexts. Plan a 45-minute inquiry lesson for Grade 3 on 'What do plants need to grow?' using the 5E model — Engage, Explore, Explain, Elaborate, Evaluate — set in a school garden, with materials, groupings, and key teacher questions at each phase. The school is a government primary in a farming community in Nashik, Maharashtra; students have direct farm experience; class size is 40; the teacher is a generalist with no science specialisation. All materials must be available in a school garden or local market; no science lab or chemicals; include a simple materials checklist.

Assessment

Act as a formative science assessment designer building tools that make student thinking visible in Indian primary classrooms without relying on tests. Write a KWL+ chart protocol for Grade 4 before and after a unit on weather, adding a 'How do we know?' column, with teacher instructions for using it as a formative tool — not just a worksheet. The school is a CBSE primary in Shimla, Himachal Pradesh; Grade 4 students experience distinct seasonal weather changes connected to local Himalayan geography; the unit runs over 3 weeks. The chart must fit on one A4 page; include teacher-facing instructions for the 'How do we know?' column; do not add more than 4 columns; do not give a formal test at any point.

Differentiation (3 levels)

You are an inclusive science educator creating differentiated note-taking tools for mixed-ability learners in Indian primary classrooms. For a Grade 5 lesson on the water cycle — using Kerala's distinctive monsoon as the real-world context — design three note-taking sheets using the same diagram: Sheet 1 — labelled diagram with word bank to fill; Sheet 2 — partially labelled diagram with description prompts; Sheet 3 — blank diagram requiring a full explanation paragraph. The classroom is a CBSE primary in Kochi, Kerala; class has 28 students across three reading levels; the teacher runs a single lesson for all. Do not use terms like 'easy', 'medium', 'hard'; use neutral level labels; maximum one A4 page per version; all three sheets must use the identical diagram base.

Discussion-based

Act as a science debate facilitator designing structured controversy activities for primary classrooms that build argumentation and civic science literacy in Indian contexts. Design a 'science court' debate for Grade 5 where students argue 'Should we ban plastic bags in our school?', with assigned roles — scientist, economist, student, shopkeeper — and evidence cards for each side. The school is a private CBSE primary in Hyderabad, Telangana; the city has implemented partial plastic bans; Grade 5 students have studied materials and waste in their EVS unit; class has 30 students who tend to be passive. Role cards and evidence cards must fit on index cards; the debate must run in 30 minutes; both positions must have equally strong evidence — avoid one-sided framing.

AI-Resistant

You are an outdoor and environmental educator designing long-form observation activities that build scientific thinking through sustained attention to the natural world — something no AI can shortcut. Create a slow-observation journal activity where Grade 4 students observe a single plant, puddle, or tree in their Dehradun, Uttarakhand school compound daily for two weeks, sketching changes and responding to reflection prompts that build scientific noticing over time. The teacher wants a low-prep, high-impact activity that develops habits of noticing, questioning, and recording. No technology or internet required; observations must be in person at the same time each day; AI must not interpret or generate journal entries; keep teacher instructions to one A4 page.

Social Studies / EVS

Lesson Planning

Act as a social studies curriculum designer creating place-based, community-connected lesson sequences for EVS in Indian primary schools. Plan a 3-day EVS lesson sequence for Grade 3 on 'Our Neighbourhood' using a walking survey through a Lucknow, Uttar Pradesh mohalla with shops, temples, mosques, and a municipal park, followed by map-making and oral presentation, with a clear connection to children's lived experience. The teacher covers all subjects and needs an integrated unit requiring minimal purchased materials. The walking survey must include a safety protocol; use pencil and paper only for mapping — no digital mapping tools; align with the UP state board EVS syllabus for Grade 3.

Differentiation (3 levels)

You are a differentiation specialist designing community-connected, tiered EVS tasks for diverse Indian primary classrooms. Design a differentiated activity for Grade 5 on 'Occupations in our community' — fishermen, farmers, artisans, government workers — at three levels: Level 1 — match occupation to tool card; Level 2 — research and fill a structured fact sheet; Level 3 — interview a community member and write a profile. The school is a CBSE primary in Bhubaneswar, Odisha; class size is 30 with significant variation in reading and research skills. Levels 1 and 2 must be classroom-based; Level 3 requires a supervised community visit or phone interview; all three levels must contribute to a shared class display; no internet required for Levels 1 and 2.

AI-Resistant

Act as an oral history educator designing community-based projects that centre human memory and local knowledge that no AI can access or replicate. Design an 'oral history' project where Grade 5 students in a Chhattisgarh village school interview a grandparent or community elder about their childhood — traditional farming, local festivals, pre-Independence life — including interview preparation, a recording guide, and a class sharing protocol. The teacher is a young educator from the city who wants students to connect with community heritage; village elders are enthusiastic about participating. Interviews must be conducted in the student's home language (Chhattisgarhi or Hindi); no AI tools may be used to generate, translate, or summarise the interviews; the sharing protocol must celebrate local knowledge — not compare it to textbook content.

JUNIOR GRADE BAND

English / Language

Lesson Planning

You are a secondary English curriculum designer building scaffolded writing units for Indian middle school classrooms using mentor texts and workshop approaches. Design a 2-week unit plan for Grade 7 on argumentative writing — daily lesson outlines, mentor texts from Indian authors or Indian editions, a structured peer review protocol, and a summative rubric — aligned to NCERT and Maharashtra state board standards. The school is a state-board school in Pune, Maharashtra; Grade 7 has 44 students with strong narrative writing but no prior exposure to formal argument structure; the English teacher has 10 years' experience with literature but has never taught writing process. Do not exceed 10 lesson outlines; the summative task must be a handwritten essay; no AI writing tools permitted at any stage.

Assessment

Act as a writing assessment specialist designing single-point rubrics that give targeted, growth-oriented feedback in Indian secondary English classrooms aligned to NEP 2020. Write a single-point rubric for a Grade 8 short story submission — a proficiency descriptor for each criterion, separate columns for 'needs growth' evidence and 'exceeds' evidence, and a parent-facing note explaining how the rubric works. The school is a CBSE school in New Delhi shifting away from marks-based feedback; Grade 8 has 38 students; the teacher is an experienced examiner nervous about abandoning percentage grades. The rubric must fit on one A4 page; maximum 5 criteria; do not include any numerical scores or percentages.

Differentiation (3 levels)

You are a differentiated instruction specialist designing tiered Shakespeare lesson materials for Indian middle school classrooms where English literature is taught as a second language. For a Grade 6 extract from A Midsummer Night's Dream in a CBSE school in Kochi, Kerala — where students speak Malayalam at home — design three entry points across 36 students: Entry 1 — a hand-drawn storyboard version with guided questions; Entry 2 — original text with glossary and literal comprehension; Entry 3 — original text with questions requiring dramatic and thematic interpretation. Do not simplify themes — simplify language only; all three entries must explore the same 3 lines; avoid reproducing more than 3 lines of the original text in any version.

Discussion-based

Act as a structured discussion facilitator training middle school students in evidence-based dialogue and respectful disagreement in Indian classroom contexts. Write a Philosophical Chairs protocol for Grade 8 around 'Social media does more harm than good for teenagers', including position cards, structured disagreement sentence stems, and a closing debrief. The school is a private CBSE school in Gurugram, Haryana; Grade 8 students are digital natives with active social media presence; class size is 36; the English teacher wants to use this as a speaking and listening assessment. All arguments must be grounded in experience or prior learning — no real-time internet research; the protocol must be completable in 40 minutes; the teacher must not take a personal position during the discussion.

AI-Resistant

You are a debate education specialist designing spontaneous, handwritten debate activities that test genuine real-time thinking and cannot be aided by AI. Design a 'live debate sprint' for Grade 7 in a residential school in Mussoorie, Uttarakhand, where students receive a random position 10 minutes before debating, prepare entirely by hand, and are assessed on in-the-moment reasoning — not memorised arguments. Students are aged 12–13 with above-average English fluency; two teachers co-facilitate in a formal debate space with a peer audience. Preparation must be entirely handwritten — no devices at any stage; AI tools are explicitly banned; judging criteria must reward spontaneous thinking and evidence over rhetoric.

Mathematics

Lesson Planning

Act as a secondary maths curriculum designer building contextualised unit plans for Indian middle school classrooms using real-world Indian data. Plan a week-long unit for Grade 8 on linear equations using everyday Indian contexts — auto-rickshaw fares in Indore, mobile recharge plans, distance-time problems — with daily learning intentions, tasks moving from concrete to abstract, and a problem-solving challenge on the final day. The school is a government secondary school in Indore, Madhya Pradesh; Grade 8 has 42 students following NCERT maths with basic algebra from Grade 7. All contexts must use Indian rupees and locally recognisable services; do not use foreign currency or unfamiliar examples; limit to 5 lessons of 45 minutes each.

Assessment

You are a secondary maths assessment designer creating two-stage tasks that evaluate both procedural and reasoning skills in Indian middle school classrooms. Create a two-stage assessment for a Grade 7 statistics unit using real Chennai rainfall data from the Indian Meteorological Department: Stage 1 — a 15-minute individual procedural quiz; Stage 2 — a 25-minute group data investigation with separate reasoning-focused marking criteria. The school is a CBSE school in Chennai, Tamil Nadu; Grade 7 has 38 students; the maths HOD is piloting this as an alternative to chapter tests and needs it to be defensible to parents and school leadership. Total assessment time is 40 minutes; do not require internet during the assessment; Stage 2 groups should be no larger than 4 students.

Differentiation (3 levels)

Act as a secondary maths differentiation specialist creating tiered ratio tasks rooted in the culturally familiar Indian context of Rajasthani block-printing — where dye mixing ratios are critical — for mixed-ability classrooms. For a Grade 6 lesson on ratios in a CBSE school in Jaipur, Rajasthan, design three tiers for 35 students: Tier 1 — ratio tables with visual dye-mixing models; Tier 2 — contextual problems using equivalent ratios; Tier 3 — scaling fabric patterns requiring written justification of reasoning. Each tier must use the same block-printing context; do not use abstract number-only problems at any tier; Tier 3 must include written reasoning, not just calculation; no internet or calculator required; each tier must be startable without teacher explanation.

Discussion-based

You are a mathematical discourse facilitator designing structured debate protocols that develop conceptual understanding in Indian middle school classrooms. Write a 30-minute 'maths debate' protocol for Grade 8 in a private school in Bengaluru, Karnataka — where 34 students are computationally strong but rarely argue mathematically — around the question: does $0.999\ldots$ equal 1? Include evidence prompts, structured turn-taking moves, and facilitation guidance for when students are stuck or going off-track. Students must use mathematical evidence — not just opinions; the teacher must not reveal the answer until the debrief; no internet or calculators during the debate.

AI-Resistant

Act as a kinaesthetic maths educator designing embodied, real-data activities that require physical participation and cannot be replicated by AI tools. Design a 'human scatter plot' for Grade 7 in a CBSE school in Ahmedabad, Gujarat — where 32 students use tape measures and chalk in the corridor to stand in coordinate positions representing their own height and foot-length data — then transition to paper graphing. This is the class's first experience with real data collection; the teacher is willing to go outside the textbook. Data collection must use physical measurement — no pre-collected data; AI tools may not generate or plot the data; the physical activity must precede the paper graphing, not replace it.

Science

Lesson Planning

You are a secondary science curriculum designer building inquiry-based practical lesson sequences aligned to the NCERT science curriculum for Indian middle schools. Plan a 3-day practical inquiry for Grade 8 on testing variables in an experiment — pre-lab discussion, scaffolded hypothesis template, results table, and a post-lab discussion on anomalies and sources of error — manageable for 10 simultaneous student groups in a basic government school lab in Bhopal, Madhya Pradesh. Grade 8 has 40 students; the teacher is experienced with demonstrations but has never run student-led inquiry. Experiments must use only materials available in a standard NCERT-equipped government lab; no imported or expensive reagents; each group must test a distinct variable.

Assessment

Act as a formative science assessment specialist designing predict-observe-explain tasks that reveal misconceptions and build scientific reasoning in Indian middle school classrooms. Design a POE assessment for Grade 7 at a private ICSE school in Kolkata, West Bengal, around a classroom demonstration of a balloon expanding over a heated bottle, including a prediction journal, observation notes, and a scored explanation task. The demonstration is used mid-unit during a chapter on heat and expansion; class has 32 students; the teacher uses results to inform re-teaching the following lesson. The demonstration must use kitchen or staffroom materials only; the rubric must assess quality of reasoning, not just correct answers; this is formative — not a summative test.

Differentiation (3 levels)

You are an inclusive science educator designing tiered tasks on the digestive system for mixed-ability Grade 8 students at a CBSE school in Hyderabad, Telangana, with 36 students. Use a fictional South Indian patient presenting with acidity and indigestion as the case study context across all three levels: Level 1 — fill-in-the-blank labelled diagram; Level 2 — structured case study questions; Level 3 — 'design a better digestive system' open challenge. The biology teacher has never tiered a lesson before and needs guidance on how to explain the task to students without labelling anyone by level. Do not use terms like 'easy', 'advanced', or 'gifted'; all three levels must use the same diagram; Level 3 must be genuinely open-ended; limit each task to one A4 side.

Discussion-based

Act as a structured academic controversy facilitator building evidence-based debate protocols for science and ethics topics in Indian secondary classrooms. Write a protocol for Grade 7 in a CBSE school in Nagpur, Maharashtra — a major cotton-farming region where Bt cotton has been used for 20+ years — around the question: should GM crops be grown in India? Include role cards, Indian-sourced evidence summaries for both sides (ICAR, farmer cooperatives, consumer groups), and a consensus-building close. Evidence cards must cite Indian research and farmer data — not only Western or corporate sources; both sides must have equal evidence quality; the teacher must not express a personal view during the protocol; duration: 45 minutes maximum.

AI-Resistant

You are a citizen science educator designing long-duration, real-world data collection projects that require sustained in-person observation and cannot be replicated by AI. Design a 3-week citizen science project for Grade 7 in a CBSE school in Shillong, Meghalaya — where the school compound has diverse plant life and insect populations — where students monitor local weather, plant growth, or insect populations aligned to the NCERT Grade 7 biodiversity chapter, culminating in a class data synthesis session. No internet or AI tools may be used to collect, generate, or interpret data; all observations must be made in person during school hours; data sheets must be fillable in under 5 minutes per day.

Social Studies

Lesson Planning

Act as a project-based learning designer creating multi-week inquiry units on urban geography for Indian middle school social studies classrooms. Design a 3-week PBL unit for Grade 8 in a CBSE school in Bengaluru, Karnataka — where students witness daily urbanisation: new flyovers, demolished wetlands, migrant workers — on 'Urbanisation in India', with a guiding question, lesson arc, research tasks, an 'urban planning summit' as the final product for a teacher-and-parent panel, and assessment criteria. The project must be completable within timetabled school periods; all research must come from NCERT, government data portals, and the school library; AI-generated reports are not permitted.

Discussion-based

You are a history and citizenship facilitator using fishbowl discussions to develop perspective-taking in Indian middle school classrooms. Write a fishbowl discussion protocol for Grade 7 at a government secondary school in Amritsar, Punjab — a city with deep colonial history and Partition memory — around the question: was colonialism ever beneficial to colonised countries? Include inner and outer circle roles, community agreements to prevent emotional harm, disagreement sentence stems, and a written reflection task. The teacher must remain neutral — no personal opinion on colonialism; do not frame the question as having a single correct answer; the protocol must explicitly acknowledge that students may have family connections to Partition.



AI-Resistant

Act as a historical literacy educator designing primary source analysis protocols that develop archival skills and critical thinking in Indian secondary classrooms — skills that AI would otherwise shortcut. Design a primary source analysis for Grade 8 at a CBSE school in Mumbai, Maharashtra, using 3 actual newspaper clippings from The Hindu and Hindustan Times archives (1947–1950) covering India's early republic and Constitution, with a close-reading protocol and a structured 'what can / what cannot this source tell us?' discussion. AI must not be used to summarise or interpret the sources — that is the students' work; limit the analysis to 3 sources; sources must be freely available from online archives or NCERT-aligned supplementary materials; maximum 3 sources.

Arts / Creative

AI-Resistant

You are a visual arts educator designing sustained sketchbook practices that develop personal artistic voice through material experimentation — an experience no AI can replicate. Design a 5-session sketchbook challenge for Grade 7 at a private school in Jaipur, Rajasthan — where students have access to pencils, watercolours, charcoal, torn paper, and ink — where each session responds to the same crumpled paper cup using a different medium, with daily reflection prompts focused on the experience of making rather than the appearance of the result. Class size is 28; the art teacher values process over Instagram-worthy output. No digital tools, filters, or AI image generation may be used at any stage; reflection prompts must focus on the making process — not aesthetic judgement.

SENIOR GRADE BAND

English / Language

Lesson Planning

Act as a senior secondary English curriculum designer building literature units that connect dystopian texts to contemporary Indian democratic and social concerns. Design a 4-week unit plan for Grade 11 Elective English at a CBSE school in New Delhi — where 16–17-year-olds have strong views on surveillance, censorship, and political power — covering 1984 or *The Handmaid's Tale* alongside at least one Indian dystopian text (e.g. Arundhati Roy or Mahasweta Devi), with close reading tasks, Socratic seminars, a comparative essay scaffold, and a final in-class reflective piece. All close reading must use the physical text — no AI summarising or annotating; the final reflective piece is handwritten in class; the teacher is preparing students for board assessments while building genuine literary critical thinking beyond model-answer formats.

Assessment

You are a senior secondary literature assessment specialist designing unseen commentary tasks with annotated exemplars for CBSE Elective English. Create an assessment where Grade 10 students at a CBSE school in Bengaluru, Karnataka write a 600-word analytical commentary on an unseen poem by a contemporary Indian poet — Nissim Ezekiel, Kamala Das, or Arun Kolatkar — with task instructions, annotated sample responses at three mark bands, and a teacher marking guide. The teacher is an experienced examiner who wants Indian poems rather than only Keats and Wordsworth; the class is preparing for board unseen poetry questions. Sample responses at all three mark bands must be original — not AI-generated; include a note explaining the task to students.

Differentiation (3 levels)

Act as a senior secondary differentiation specialist creating tiered literary essay scaffolds that challenge all learners without making support visible as a hierarchy. For a Grade 9 literary analysis essay on a poem from the NCERT Beehive textbook at a CBSE school in Jaipur, Rajasthan — class of 40 students with wide variation in essay-writing experience — create three scaffolding levels: Level 1 — PEEL sentence frame for each paragraph; Level 2 — partial outline with key quotations provided; Level 3 — open prompt with only a genre conventions sheet. All three levels must use the same poem and essay question; Level 1 must not be so prescriptive that it produces identical essays; do not label the levels numerically or by ability — use neutral names; the scaffold must fade as students gain confidence.

Discussion-based

You are a Harkness discussion specialist training senior secondary students in student-led literary inquiry and intellectual accountability. Write a Harkness discussion protocol for Grade 11 at an elite residential school in Ajmer, Rajasthan — where students are preparing for university entrance and value articulate, evidence-based debate — around the question: can literature ever change society? Include pre-discussion journalling, a 40-minute student-led discussion structure, a self-assessment rubric, and a teacher debrief protocol. The teacher must not speak during the 40-minute discussion — only observe; students must cite textual evidence at least once per contribution; do not allow the discussion to become a list of opinions without reference to text.

AI-Resistant

Act as a creative literacy facilitator designing silent, paper-based collaborative annotation activities that require genuine literary thinking that AI cannot perform in real time. Design a 'silent seminar' for Grade 10 at a CBSE school in Chennai, Tamil Nadu — where 32 competitive students often perform rather than think — where students pass a shared poem and respond in writing to each other's annotations with no voices and no devices, including protocol, timing, and an assessment approach that produces a visible, markable artefact. No devices permitted at any stage; all responses must be handwritten on the shared paper; no AI summarising or annotation permitted before, during, or after the seminar.

Mathematics

Lesson Planning

You are a senior secondary maths curriculum designer using real Indian datasets to make probability meaningful and board-exam-ready for Grade 10 students. Plan a 5-day probability unit for Grade 10 at a CBSE school in Mumbai, Maharashtra — where 36 students are preparing for board exams — using IPL batting averages and Election Commission of India polling data, with daily learning intentions, a simulation activity, and a culminating investigation report. All data sets must be Indian and publicly available (BCCI, ECI, Census India); the unit balances board-exam readiness with genuine inquiry; limit to 5 lessons of 45 minutes; the teacher tends to rely on textbook exercises and needs a concrete day-by-day plan.

Assessment

Act as a senior secondary mathematics performance assessment designer creating multi-dimensional IB HL tasks for Grade 12 calculus. Write a performance task for Grade 12 IB HL Mathematics at a school in Hyderabad, Telangana, where students model bacterial population growth using differential equations, interpret their model, and critique its limitations — assessed across four dimensions: accuracy, reasoning, communication, and critical thinking — aligned explicitly to IB Mathematics IA marking descriptors. Students may use graphing calculators but not AI language models; the critique of model limitations is a compulsory section; the task must mirror IB IA expectations while requiring genuine mathematical modelling knowledge.

Differentiation (3 levels)

You are a senior secondary maths differentiation specialist creating tiered vector tasks within a single applied context for mixed-ability Grade 11 classrooms in India. For a Grade 11 lesson on vectors at a CBSE school in Kochi, Kerala — using Kerala's backwater ferry navigation and fishing boat routes as the context — design three levels for 32 students: Level 1 — resolve forces using a given diagram and formula; Level 2 — solve a navigation problem with compass bearings; Level 3 — create and solve an original real-world vector problem and evaluate its assumptions. All three levels must use the same navigational context; Level 3 must require original problem creation — not just harder calculation; all diagrams must show compass bearings, forces, or distances — not abstract vector arrows.

Discussion-based

Act as a mathematical reasoning facilitator using Fermi estimation to build problem-solving confidence in senior secondary students who avoid open-ended questions. Write a 20-minute 'thinking out loud' discussion protocol for Grade 10 at a CBSE school in Mumbai, Maharashtra — where students are strong on formula-based problems but uncomfortable with ambiguity — around the Fermi problem: how many chai stalls are there in Mumbai? Include estimation steps, group norms, reasoning sentence stems, and a debrief on the value of approximation over exact answers. The problem must be solved using only knowledge and reasoning available to students — no internet, no AI; the debrief must not focus only on the answer; protocol must not exceed 20 minutes.

AI-Resistant

You are a mathematics assessment innovator designing oral viva assessments that require students to articulate reasoning in real time with no possibility of AI assistance. Design a 10-minute one-on-one 'maths conversation' assessment for Grade 11 at a CBSE school in Pune, Maharashtra — piloting oral maths assessment to reduce rote learning and AI-assisted cheating — covering permutations, combinations, and probability, with 3 problems, a bank of probing follow-up questions for each problem type, and a scoring guide that rewards genuine understanding over correct answers. No written working, calculators, notes, or devices permitted; the teacher must not confirm or deny answers during the viva; 4 students rotate through during a 40-minute period.

Science

Lesson Planning

Act as a senior secondary biology curriculum designer integrating genetics science, lab practice, and ethics into a cohesive unit for Indian Grade 12 classrooms. Design a 4-week Grade 12 Biology unit for a CBSE school in Chandigarh, Punjab — where 28 students are preparing for NEET and board exams — covering heredity, Mendelian genetics, and biotechnology through DNA extraction lab work, ethical discussion using ICMR guidelines and Indian seed patent law, case study research, and a structured academic controversy on gene editing as the culminating activity. All labs must be possible in a standard CBSE-equipped school lab; students must research SAC debate arguments themselves — AI may not generate them; the teacher wants genuine understanding alongside exam preparation.

Assessment

You are a secondary science assessment specialist designing student-facing rubrics for lab reports that build scientific communication skills in Indian Grade 11 classrooms. Create a scientific report rubric for Grade 11 chemistry lab reports at a CBSE school in Chennai, Tamil Nadu — where 30 students are writing formal lab reports for the first time after years of fill-in-the-blank formats — covering hypothesis, method, data analysis, conclusion, and evaluation, with a peer review protocol and a common error self-check guide. The rubric must be readable at Grade 11 level — no technical jargon beyond curriculum vocabulary; do not include percentage breakdowns that encourage point-chasing; the goal is independent scientific communication by the end of Grade 11.

Differentiation (3 levels)

Act as an inclusive senior secondary science educator designing tiered tasks for physics that serve students preparing for different outcomes — board exams, JEE/NEET, and conceptual enrichment — without making the hierarchy visible. For a Grade 10 Physics lesson on Newton's Laws at a CBSE school in Jaipur, Rajasthan — class of 42 with some targeting JEE coaching, some focused on boards, and some disengaged — design three levels: Level 1 — concept map completion with sentence frames; Level 2 — problem-solving with worked-example guidance; Level 3 — original experiment design to test a chosen law. All three levels must explore the same Newton's Law; Level 3 must require original experimental design — not harder calculations; no expensive lab equipment for Level 3; maximum one A4 page per level.

Discussion-based

You are a bioethics discussion facilitator designing structured academic controversy protocols on gene editing for senior secondary science classrooms in India. Write a 45-minute SAC protocol for Grade 12 Biology at a CBSE school in Bengaluru, Karnataka — where 26 pre-medical students have just completed the biotechnology unit — around: should CRISPR gene editing be used to eliminate hereditary disease in India? Include evidence briefing cards from Indian research institutions (CSIR, ICMR, DBT) and Indian patient/community voices on both sides, a deliberation protocol, and a consensus-building exit task. The teacher must not express a personal view; both sides must have equal evidence quality; evidence must not rely only on Western or corporate sources.

AI-Resistant

Act as a science education innovator designing physical model-building and oral defence activities where embodied knowledge and real-time thinking cannot be produced by AI. Design a 'model defence' activity for Grade 11 Biology at a CBSE school in Pune, Maharashtra — where 28 students work in pairs to build 3D physical models of a biological system from NCERT using locally available materials (thermocool, wire, clay, seeds, string) and then defend them before a probing 3-person panel including a chemistry teacher and a parent-scientist. No AI tools may be used to design the model or prepare explanations; all verbal responses during the defence must be spontaneous; the panel must include at least one question not covered in the textbook; students present in pairs.

Social Studies

Lesson Planning

You are a senior secondary social science curriculum designer building inquiry-based project units on inequality and economic policy for Indian Grade 11 classrooms. Design a 3-week project-based unit for Grade 11 Economics at a CBSE school in New Delhi — where 30 students follow NCERT and engage with live policy debates around India's Gini coefficient, MNREGA, and right-to-food debates — resulting in a final policy brief assessed on argument quality, data use, and feasibility, and a seminar with at least one guest speaker (economist, NGO worker, or policymaker via video call). All data must come from Indian government sources (MOSPI, RBI, NSSO); policy briefs must be handwritten or typed — no AI-generated text; the teacher wants genuine economic reasoning, not textbook reproduction.

Assessment

Act as a senior secondary history assessment specialist designing multi-source examination questions aligned to CBSE formats using actual Indian Partition documents. Write a source-based exam question for Grade 10 History at a CBSE school in Amritsar, Punjab — where students may have family connections to Partition — using 4 primary sources from real historical documents (diaries, newspaper reports, government records 1947–1950), including a 10-mark inference question, a 15-mark corroboration question, and a 20-mark essay with a three-level

mark scheme. Include a teacher note on handling emotional responses to Partition content respectfully; the mark scheme must distinguish comprehension, inference, and synthesis at each band; all sources must be from actual historical documents — not invented.

Differentiation (3 levels)

You are a senior secondary geography differentiation specialist designing tiered inquiry tasks on climate change and migration grounded in Indian ecological data. For a Grade 9 Geography lesson at a CBSE school in Bhubaneswar, Odisha — a state highly vulnerable to cyclones and coastal flooding; some students' families have themselves migrated due to climate events — design three levels: Level 1 — structured research template with guiding headings; Level 2 — data analysis using Odisha and Sundarbans climate maps and Census India migration statistics; Level 3 — original written causal argument based on evidence. All data must be Indian (Census India, NDMA, IMD); Level 3 requires a written causal argument — not just data presentation; handle migration stories with sensitivity; Indian cases come before global ones.

Discussion-based

Act as a World Cafe facilitation expert designing multi-station structured discussions on environmental policy for senior secondary classrooms in India. Write a 50-minute World Cafe protocol for a joint Grade 12 Political Science and Geography session at a CBSE school in Mumbai, Maharashtra — framed around India's position in COP negotiations — on the question: who is responsible for climate action — governments, corporations, or individuals? Include 3 station questions, a rotation guide, host-student roles with summarising duties, and a visual synthesis debrief tool. Each contribution at a station must be maximum 2 minutes — no lecturing; the host student must stay at their station throughout; include a large-format sticky-note wall or shared poster as the synthesis output.

AI-Resistant

You are a media literacy educator designing analogue, long-duration research projects that develop critical source evaluation skills that AI tools would otherwise shortcut completely. Design a 6-week living case study for Grade 11 Political Science at a CBSE school in Chandigarh, Punjab — where students choose one of three issues: Punjab stubble burning, India-China border tensions, or North Indian river water disputes — tracked using print newspapers, radio broadcasts, and at least one original interview, with weekly handwritten log prompts, a bias-detection protocol applied to every source, and a final presentation of findings. AI tools are explicitly prohibited for all research, summarising, and writing; students must use at least 2 print sources, 1 radio broadcast, and 1 original interview; the 6-week log must be handwritten.

General / Cross-curricular

Assessment

Act as a cross-curricular portfolio assessment designer building reflective learning documentation systems for senior secondary students following NEP 2020 guidelines in India. Design a cross-curricular portfolio assessment for Grade 10 at a CBSE school in Bengaluru, Karnataka — piloting portfolio assessment as part of NEP 2020 — where students document learning across English, Science, and Social Studies using artefacts, reflection prompts, a self-rating scale, and a teacher conferencing guide (maximum 10 minutes per student per term). The academic coordinator is leading the pilot; individual subject teachers are sceptical about workload — the system must require no more than 15 minutes per week per student to maintain; paper or folder-based portfolios only — no digital submissions.

Differentiation (3 levels)

You are a senior secondary inquiry learning specialist scaffolding student-led project work at three levels of autonomy for Grade 11–12 classrooms in Indian CBSE schools. In a maximum 2-A4-page document applicable across Science, Humanities, and Arts, design three project autonomy levels for any Grade 11–12 inquiry task at a CBSE school in New Delhi piloting NEP 2020 independent research: Level 1 — teacher-assigned topic with structured template; Level 2 — student-chosen topic within a given frame; Level 3 — fully student-designed inquiry with self-authored success criteria. The scaffold must apply across subjects without modification; 8 subject teachers must be able to implement it without customisation; do not frame Level 3 as a reward only for 'gifted' students — present it as a different mode of working.

AI-Resistant



Act as a research literacy educator designing analogue library-based research experiences that develop information evaluation skills that AI tools cannot replace. Design a one-period 'analogue research sprint' for Grade 12 at a CBSE school in Pune, Maharashtra — where the well-stocked school library has newspapers, encyclopedias, and journals, and the librarian co-facilitates — where students research a topic using only physical library materials and handwritten notes, followed by a debrief that explicitly compares analogue versus AI-assisted research, including what each does and does not do well. No internet or AI tools permitted during the sprint; students may only use materials physically available in the school library; the debrief must be honest about the strengths of AI tools as well as their limitations.