

AI Prompts for Subject Planning

Subject-specific AI prompts for lesson planning in ELA, Math, Science, Social Studies, and World Languages.

AI TOOLS

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English Language Arts (ELA)

Reading Comprehension Lessons

Fiction Analysis Prompt "Create a 45-minute lesson plan for [grade level] students analyzing [specific book/story]. Include:

- Pre-reading vocabulary (5 words)
- During-reading comprehension questions (3 levels)
- Post-reading discussion prompts
- Assessment rubric for [specific skill: character analysis/theme/plot]
- Differentiation for advanced and struggling readers"

Non-Fiction Text Structure "Design a lesson teaching [grade level] students to identify [text structure: cause-effect/compare-contrast/sequence]. Provide:

- Graphic organizer template

- Sample passages for practice
- Signal words anchor chart
- Exit ticket assessment
- Extension activity for early finishers"

Writing Instruction

Genre-Specific Writing "Plan a [narrative/informative/persuasive] writing unit for [grade level]. Include:

- Week-by-week breakdown (4 weeks)
- Mini-lesson topics for each day
- Student exemplars at 3 proficiency levels
- Peer review checklist
- Final assessment rubric with specific criteria"

Grammar in Context "Create engaging activities to teach [specific grammar concept] to [grade level] students. Include:

- Hook activity to introduce concept
- Interactive practice exercises
- Real-world application examples
- Common error identification practice
- Self-assessment checklist for students"

Speaking & Listening

Presentation Skills "Design a lesson sequence teaching effective presentation skills to [grade level] students. Include:

- Presentation rubric with clear criteria
- Practice activities for voice, body language, eye contact
- Peer feedback forms
- Technology integration options
- Accommodation suggestions for shy students"

Mathematics

Problem-Solving Lessons

Multi-Step Word Problems "Create a lesson for [grade level] students solving multi-step word problems involving [math concepts]. Include:

- Problem-solving strategy poster
- Worked examples with think-alouds
- Practice problems with varying difficulty
- Partner problem-solving protocol
- Error analysis activity using common mistakes"

Real-World Applications "Design activities connecting [math concept] to real-world careers and situations for [grade level]. Include:

- Career connections list
- Authentic problem scenarios
- Data collection opportunities
- Community expert interview questions
- Project-based learning culminating activity"

Conceptual Understanding

Abstract Concept Introduction "Plan a lesson introducing [specific math concept] to [grade level] students using concrete-representational-abstract progression. Include:

- Manipulative activities (concrete)
- Visual representations and diagrams
- Abstract practice problems
- Assessment checkpoints throughout
- Intervention strategies for struggling learners"

Mathematical Discourse "Create discussion prompts and sentence starters for [grade level] students to explain their mathematical thinking about [concept]. Include:

- Academic vocabulary word bank
- Sentence frames for explanations
- Number talk discussion protocol
- Peer critique guidelines
- Self-reflection questions"

Assessment & Differentiation

Formative Assessment Ideas "Generate quick formative assessment ideas for [math concept] suitable for [grade level]. Include:

- Exit ticket options (5 different formats)
- Thumbs up/down understanding checks

- Partner teaching activities
- Error identification tasks
- Self-assessment rubrics"

Science

Inquiry-Based Lessons

Scientific Method Application "Design a hands-on investigation for [grade level] students exploring [science concept]. Include:

- Testable question examples
- Materials list and safety considerations
- Data collection templates
- Analysis questions connecting to big ideas
- Extensions for different learning levels"

STEM Integration "Create a STEM challenge connecting [science concept] with engineering design for [grade level]. Include:

- Design challenge parameters
- Materials constraints
- Testing and iteration protocols
- Reflection questions on science connections
- Assessment rubric for both science and engineering practices"

Concept Development

Abstract Science Concepts "Plan a lesson sequence making [complex science concept] accessible to [grade level] students. Include:

- Analogy or metaphor to introduce concept
- Interactive demonstrations or simulations
- Vocabulary development strategies
- Common misconceptions to address
- Connection to prior knowledge"

Science Literacy "Design activities helping [grade level] students read and interpret [scientific text type: graphs/data tables/research articles]. Include:

- Reading strategy instruction
- Practice examples with guided analysis

- Question stems for different comprehension levels
- Vocabulary support for scientific terms
- Connection to current events or phenomena"

Laboratory & Investigations

Lab Safety & Procedures "Create a comprehensive lab safety lesson for [grade level] including [specific lab type]. Include:

- Safety contract template
- Equipment identification activity
- Emergency procedure practice
- Risk assessment training
- Pre-lab safety quiz questions"

Social Studies

Historical Thinking Skills

Primary Source Analysis "Design a lesson for [grade level] students analyzing primary sources from [historical period]. Include:

- Document analysis worksheet
- Historical context background information
- Perspective-taking discussion questions
- Comparison chart for multiple sources
- Creative response options (diary entry, newspaper, etc.)"

Historical Argument Construction "Create activities teaching [grade level] students to construct historical arguments about [historical question]. Include:

- Evidence evaluation criteria
- Claim-evidence-reasoning framework
- Counter-argument consideration prompts
- Peer review protocol for arguments
- Assessment rubric for historical reasoning"

Geography & Culture

Geographic Skills Development "Plan lessons teaching [specific geography skills] to [grade level] students using [region/country] as context. Include:

- Map skills practice activities
- Geographic vocabulary development
- Technology integration (Google Earth, GIS)
- Cultural connection activities
- Assessment of geographic thinking"

Cultural Understanding "Design culturally responsive lessons about [culture/civilization] for [grade level]. Include:

- Multiple perspectives on historical events
- Cultural artifact analysis activities
- Contemporary connections to historical concepts
- Community expert interview opportunities
- Respectful representation guidelines"

Civic Engagement

Government & Citizenship "Create lessons teaching [grade level] students about [government concept/civic responsibility]. Include:

- Age-appropriate civic engagement activities
- Role-playing or simulation exercises
- Current events connection opportunities
- Community problem-solving projects
- Democratic decision-making practice"

World Languages

Communicative Language Teaching

Functional Language Use "Design a [target language] lesson for [proficiency level] students focused on [real-world task: ordering food/asking directions/making appointments]. Include:

- Key vocabulary and phrases
- Interactive practice activities
- Role-play scenarios
- Cultural context information
- Assessment of communicative competence"

Grammar in Context "Create activities teaching [specific grammar point] in [target language] to [proficiency level] students. Include:

- Contextualized introduction (no translation)
- Communicative practice activities
- Meaningful output opportunities
- Error correction strategies
- Self-assessment tools for accuracy"

Cultural Integration

Cultural Competence Development "Plan lessons integrating [cultural topic] with language learning for [target language] students at [proficiency level]. Include:

- Cultural comparison activities
- Authentic materials (videos, articles, music)
- Discussion prompts about cultural differences
- Respectful inquiry guidelines
- Reflection on cultural learning"

Authentic Assessment "Design performance-based assessments for [target language] students at [proficiency level] demonstrating [language function]. Include:

- Real-world task scenarios
- Proficiency-level appropriate expectations
- Holistic scoring rubrics
- Self and peer assessment components
- Portfolio collection suggestions"

Universal Planning Prompts

Differentiation Support

Multi-Level Planning "Adapt this lesson for students performing below, at, and above grade level in [subject area]. Include specific modifications for:

- Content complexity
- Process supports
- Product options
- Assessment alternatives
- Technology integration"

Time Management

Flexible Timing "Provide 15-minute, 30-minute, and 45-minute versions of this [subject] lesson on [topic] for [grade level]. Each version should maintain essential learning objectives while adjusting depth and activities."

Assessment Integration

Standards-Based Assessment "Create formative and summative assessment options for this [subject] lesson aligned to [specific standards]. Include:

- Clear success criteria
- Multiple assessment formats
- Student self-assessment tools
- Data collection templates
- Intervention planning guides"

***AI Prompt Tip:** Always include grade level, specific topic, time constraints, and desired outcomes for the most useful responses. Be specific about your context and needs.*