



Mindgle's Cognitive Architecture for Epistemic Prompting

For Mindgle, prompts should not be random. They should follow the **cognitive architecture of knowledge construction**. Each prompt should deliberately move the learner from **information → understanding → explanation → knowledge claim**.

Here is a **Mindgle AI Prompt Library** for **Unit 2**.

Unit 2: AI Prompt Orchestration (Knowledge Construction)

2.1 The Journey from a Refined Inquiry Question to an Initial Knowledge Claim

Goal

Understand how a question becomes knowledge.

Prompts

- What is currently known about my Refined Inquiry Question?
- Why is this inquiry important?
- What kinds of knowledge already exist about this inquiry?
- What do experts generally agree upon?
- What do they disagree about?
- What kind of explanation am I ultimately trying to construct?
- What information do I still need before forming a knowledge claim?



2.2 Activating AI for Systematic Investigation

Goal

Use AI deliberately rather than conversationally.

Prompts

- Help me investigate this inquiry systematically.
- Break this investigation into logical stages.
- What questions should I investigate first?
- What follow-up questions will deepen my understanding?
- What important aspects might I overlook?
- What prompts should I ask next?
- Guide me without giving me the final conclusion.

2.3 Building Foundational Understanding

Goal

Understand what is already known.

Prompts

- What is currently known about this inquiry?
- What background knowledge should I understand first?



- What are the key terms?
- What are the major ideas surrounding this inquiry?
- What existing explanations already exist?
- What important facts should every beginner know?
- Explain this as if I am learning it for the first time.

2.4 Establishing the Conceptual Foundation

Goal

Find the ideas that explain the inquiry.

Prompts

- What concepts explain this inquiry?
- Which theories are most relevant?
- Which models help explain this phenomenon?
- What principles govern this issue?
- Which concepts appear repeatedly across different explanations?
- Which discipline explains this inquiry best?
- Define each concept in simple language.

2.5 Gathering and Evaluating Evidence



Goal

Build evidence rather than opinions.

Prompts

- What evidence supports different explanations?
- What evidence contradicts these explanations?
- Which studies are most reliable?
- Which evidence is strongest?
- Which evidence is weakest?
- How credible are these sources?
- Is this evidence empirical, anecdotal, theoretical or opinion-based?
- What evidence would strengthen this explanation?
- What evidence is still missing?

2.6 Exploring Real-World Contexts

Goal

Connect knowledge with reality.

Prompts

- Show real-world examples.
- Find relevant case studies.



- How has this idea been applied in practice?
- Which industries or professions deal with this issue?
- How does this appear in everyday life?
- How is this explained in different countries?
- What lessons can be learned from real situations?

2.7 Auditing Assumptions

Goal

Expose hidden thinking.

Prompts

- What assumptions am I making?
- Which assumptions are hidden?
- Which assumptions lack evidence?
- How might my background influence my thinking?
- What prior beliefs should I question?
- What cognitive biases could affect my judgement?
- What would someone with the opposite view assume?
- Which assumptions should be tested?



2.8 Investigating Contradictions and Uncertainty

Goal

Learn from disagreement.

Prompts

- Where do experts disagree?
- What contradictions exist?
- Which findings conflict?
- Why do these contradictions exist?
- What uncertainties remain?
- What questions are still unanswered?
- What are the limitations of current knowledge?
- How might future evidence change current understanding?

2.9 Exploring Alternative Explanations

Goal

Avoid the first-answer trap.

Prompts

- What alternative explanations exist?
- What competing hypotheses should I consider?



- What else could explain this?
- Under what conditions would this explanation fail?
- Which explanation explains the evidence best?
- Compare these explanations objectively.
- Which explanation has stronger evidence?
- What explanation have I not considered?

2.10 Integrating Multiple Perspectives

Goal

See the inquiry through different lenses.

Prompts

- Which stakeholders are involved?
- How would different stakeholders explain this?
- How would different cultures interpret this?
- How would different disciplines explain this?
- What ethical issues arise?
- What perspectives are missing?
- Whose voices are unheard?
- How does systems thinking explain this issue?



- How do these perspectives complement or contradict one another?

2.11 Judging the Strength of Knowledge

Goal

Evaluate explanations.

Prompts

- Which explanation is most plausible?
- Why is it more convincing?
- Rank these explanations from strongest to weakest.
- Which evidence deserves the greatest weight?
- What makes one explanation stronger than another?
- How confident should I be in this explanation?
- What prevents absolute certainty?
- Which explanation has the fewest weaknesses?

2.12 Synthesising Knowledge

Goal

Transform information into understanding.

Prompts



- Connect these concepts into one explanation.
- How do these ideas relate to one another?
- Which evidence supports which concept?
- Identify patterns across the evidence.
- Combine these perspectives into one coherent understanding.
- Organise this information logically.
- Help me move from facts to understanding.
- Construct one evidence-based explanation.

2.13 Constructing the Initial Knowledge Claim (IKC)

Goal

Write the learner's first explanation.

Prompts

- Help me write my Initial Knowledge Claim.
- Does my claim answer the Refined Inquiry Question?
- Is my explanation supported by sufficient evidence?
- Which concepts should be included?
- Have I acknowledged alternative explanations?
- Have I recognised limitations?



- Is my reasoning logical?
- Is my claim evidence-informed rather than opinion-based?
- How can I strengthen this IKC?

2.14 Reflection: How Has My Thinking Changed?

Goal

Reflect before refining.

Prompts

- How has my understanding changed?
- Which assumptions changed during my investigation?
- What surprised me?
- What evidence influenced my thinking most?
- Which questions remain unanswered?
- Where are my knowledge gaps?
- What should I investigate next?
- What evidence would strengthen my knowledge claim?
- Which parts of my explanation need refinement?

Mindgle Meta-Prompts (Ask Throughout Unit 2)



These are the "golden prompts" that learners should repeatedly use across every investigation:

Understanding

- What am I missing?
- What am I overlooking?
- What should I understand before moving on?

Evidence

- How do we know this?
- What evidence supports this?
- What evidence challenges this?

Thinking

- What assumptions am I making?
- What biases could affect this explanation?
- What alternative explanations exist?

Perspectives

- Who agrees?
- Who disagrees?
- Whose voice is missing?
- How would another discipline explain this?



Judgement

- Which explanation is strongest?
- Why is it stronger?
- How confident should I be?
- What uncertainties remain?

Reflection

- Has my thinking changed?
- What would change my mind?
- What still needs investigation?
- Is my knowledge claim robust enough?

This sequence forms the **Mindgle AI Prompt Orchestration Ladder**:

**RIQ → Background Knowledge → Concepts → Evidence → Context → Assumptions →
Contradictions → Alternatives → Perspectives → Judgement → Synthesis → IKC →
Reflection → Knowledge Refinement**