HISAR SCHOOL METACOGNITIVE LEARNING POLICY

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1. INSTITUTIONAL FRAMEWORK

The Hisar School Metacognitive Learning Policy establishes a shared, school-wide framework that supports students in managing their thinking and learning processes with increasing awareness. The policy connects Hisar's focus on Deep Thinking and Research with learning objectives, instructional design, student development, professional learning and institutional evaluation processes. Extending from preschool through high school, this framework is grounded in enabling students to acquire meaningful knowledge, think with evidence and assume developmentally appropriate responsibility for their learning decisions.

The main text defines the pedagogical expectations and responsibilities to be ensured across the school. The implementation examples in the appendices support teachers in making purpose-appropriate choices. The quality of a practice is evaluated according to the function it serves in students' thinking and learning.

1.1 Hisar School Vision and Mission

The mission of Hisar School is to create a teaching and learning environment in which every student can fulfil their potential to the highest level. Through high-quality education that supports academic excellence, critical thinking and lifelong learning, we aim to develop individuals who demonstrate integrity, resilience and social responsibility, take responsibility for their own learning and embrace the values of global citizenship. This policy represents the pedagogical expression of this institutional direction in relation to managing thinking and learning.

Responsibility for learning means more than completing assigned tasks on time. Students are expected to know what they are trying to understand, explain why they have chosen a particular method, examine evidence of their progress and change their decisions when necessary. Students develop this responsibility through adult guidance, appropriate learning conditions and an increasingly sophisticated repertoire of strategies.

Hisar's commitment to developing individuals who make meaningful contributions to the world through critical thinking and effective collaboration encompasses both the individual and social dimensions of thinking. As students justify their own views, they learn to listen to others' thinking, compare different evidence and evaluate the impact of their decisions within collaborative work. In this way, metacognitive learning creates a bridge between the school's academic expectations and its understanding of responsible participation.

1.2 Purpose and Strategic Direction

The purpose of the policy is to ensure that the metacognitive knowledge and regulation processes that support the Deep Thinking and Research approach are developed consistently across all school levels, subjects and learning environments. Deepening disciplinary knowledge, grounding thinking in evidence, managing one's own learning and using what has been learned in different contexts are addressed together. Academic standards and student ownership of the learning process are mutually reinforcing goals.

The policy's connection with the 2027-2030 strategic direction is established through the 'Learning for the Future' dimension and students' capacity to continue learning in new and changing situations. This capacity is developed by recognising the unknown, formulating researchable questions, accessing appropriate information, evaluating alternatives, making use of help and feedback, and adapting strategies. Access to technological tools alone does not account for the development of this capacity. The quality of students' decisions and the contribution those decisions make to their learning are the primary criteria.

The connection with the Hisar Student Profile is made visible through the learning behaviours of students who think deeply, inquire and create meaning. Turning curiosity into research, examining the reliability of sources, reconsidering views in light of new evidence, making connections across disciplines and explaining one's thinking process are shared directions of this policy. The Student Profile is approached as a holistic institutional goal.

The policy aims to create teaching conditions that support the following outcomes:

- Students understand the learning objectives and the cognitive processes required by the task.
- Students plan their own learning by drawing on their knowledge of tasks and strategies.
- Students monitor their understanding and progress using appropriate evidence and change their method when necessary.
- Students connect their explanations and judgements to evidence and justify changes in their thinking.
- Students use feedback to improve their work and determine their next learning decision.
- Students test what they have learned in new tasks and adapt it appropriately to the context.

1.3 Scope of the Policy

The policy covers teaching and learning processes at preschool, primary, middle and high school levels at Hisar School. Classroom work, research, laboratory and workshop experiences, arts and sports activities, clubs, social responsibility projects, academic support and digital learning environments are included within this scope. While a shared conceptual language is used across disciplines, adaptations are made in ways that are appropriate to how each field generates knowledge and evaluates evidence.

In addition to students and teachers, school administrators, learning leaders, academic departments, centres, guidance and psychological counselling services, the library, information technology, educational support staff and parents are relevant stakeholders in the policy. Each stakeholder's contribution is defined within the limits of their role and expertise and in relation to other contributions. Decisions concerning communication, environment and resources that support student learning also fall within the scope of the policy.

Shared expectations are implemented with consideration for students' developmental characteristics, prior knowledge, language and expressive opportunities, and support needs. The ability to manage one's learning is not interpreted as a fixed personality trait. A student's ability to act independently in a familiar task does not guarantee the same degree of independence in a new domain. Instructional support is therefore recalibrated according to the task and the evidence available.

The policy does not require all strategies, every category of Bloom's taxonomy or all nine Deep Thinking concepts to be used together in every lesson. Which elements are used is determined according to the learning purpose of the lesson or unit. Academic departments consider, within the overall programme of a school level and subject, the continuity of the thinking and learning opportunities offered to students. The implementation guide provides examples and tools to support these choices.

1.4 Relationship with Other Institutional Documents

The strategic plan, Student Profile and educational policies address different levels of the same institutional direction. The strategic plan sets out aims and priorities; the Student Profile describes the holistic qualities of the learner the school aims to develop; and this policy establishes the pedagogical framework for developing thinking and learning. Unit and lesson plans translate this framework into specific learning objectives and experiences.

Institutional document	Relationship to this policy	Use in practice
Hisar School Strategic Plan	Institutional aims and the direction of learning for the future	Aligning annual learning priorities and resource decisions
Hisar Student Profile	Thinking and learning characteristics to be developed in students	Establishing the shared direction of student outcomes and learning experiences

Institutional document	Relationship to this policy	Use in practice
Deep Thinking and Research K12 Learning Outcomes	Detailed developmental expectations across school levels	Connecting lesson objectives, process evidence and transitions between school levels
Instructional Supervision and Evaluation Policy	Institutional framework for observation, feedback and teacher development	Regulating the purpose and method of observations and the use of data
Information Technology Strategies Policy and Artificial Intelligence in Education Policy	Institutional framework for the use of digital tools and artificial intelligence	Aligning decisions related to tools, access, security and responsibility
Technology Roadmap	Updated tools and areas of use	Supporting the selection of digital resources that serve pedagogical purposes

This policy does not reproduce the detailed provisions contained in related documents. For interconnected matters, it states the core principle briefly and identifies the document to be consulted. When differing interpretations arise between documents in practice, school management evaluates the matter together with the relevant academic and support units.

Current versions of related documents are kept accessible within the school's shared document system. The links among the policy, learning outcomes document, guide and tools are checked during the annual review. Changing a tool in the guide does not require the main policy to be rewritten unless the shared pedagogical expectations also change. The policy's entry into force and the approval of subsequent versions are completed in accordance with the school's current policy approval process.

2. UNDERSTANDING OF LEARNING AND CONCEPTUAL FRAMEWORK AT HISAR SCHOOL

At Hisar, metacognitive learning is developed by addressing both students' thinking about meaningful content and their management of their own thinking. The cognitive strategies required to access, make sense of and use information are taught explicitly. Students also learn to evaluate why they use a particular strategy, whether it is working and when they need to make a change.

This section defines the meaning of the concepts to be used across the school. Deep Thinking and Research is Hisar's pedagogical focus. Metacognition describes the learning capacity that supports this focus. Bloom and UbD are addressed in the next section as frameworks that serve instructional design. This distinction keeps visible both the institution's distinctive understanding of learning and the functions of scientific concepts. The conceptual framework is developed and updated in connection with academic research, with contributions from university advisers.

2.1 Deep Thinking and Research

At Hisar School, deep thinking is defined as the student's ability to develop an explanation about a topic, examine the evidence on which it is based, make connections and reconsider the judgement reached. The fact that an activity takes a long time, produces many outputs or appears difficult does not in itself demonstrate depth of thinking. What matters is how the student develops their initial thinking, what reasoning they use and how they evaluate the limits of the conclusion they reach.

Research begins by clarifying a question that invites curiosity. The student determines what information is needed to answer the question; selects appropriate sources, observations or data; and examines their reliability and relevance to the question. The outcome of research may include unanswered questions and uncertainties as well as an explanation that has been reached. A student's ability to limit a judgement when sufficient evidence is not available is part of the quality of research.

Metacognitive learning supports students in consciously managing this process of thinking and research. Students evaluate what they know, what they are unsure about, whether the approach they are using is fit for purpose and what support they need. Thus, deep thinking focuses on the quality of thought; research on working with information and evidence; and metacognition on how these processes are managed by the student.

Learning experiences are designed around a question, problem, work, event or set of data that is worth thinking about. The teacher gives students opportunities to express an initial explanation through conversation, drawing, modelling, prediction or a short piece of writing. Students later return to this explanation in light of new information and perspectives they encounter. If they change their view, they explain why; if they retain it, they explain the evidence that supports it.

The nature of evidence varies by discipline. In science, the limitations of observation and experimental data are considered; in history, the author and context of a source; in mathematics, the validity of reasoning; in literature, the relationship between interpretation and the text; and in the arts, the consistency of purpose and aesthetic choices. The shared expectation is that students justify their thinking using criteria appropriate to the discipline.

The teacher provides the information and support students need to sustain their thinking. A necessary concept explanation, brief modelling, comparison question or prompt may form part of this support. The amount of support is adjusted according to evidence of the student's understanding of the task and use of the strategy. Student progress is evaluated in terms of increasingly conscious thinking decisions and the ability to select appropriate help.

2.2 Concepts of Deep Thinking

Within this policy, the Deep Thinking and Research approach is explained through nine concepts: focus and attention, exploration, memory, curiosity and inquiry, making connections, awareness, self-regulation, reflection and imagination. These concepts make it possible to consider different dimensions of thinking together. They are not used as stages to be completed in a fixed sequence or as independent student traits. Several concepts may come to the fore together within a single learning experience.

Focus and attention refer to directing mental effort towards information that is relevant to the purpose of the task. Students increasingly distinguish more clearly which details are important and what is distracting them. Teaching supports this process by making the purpose visible and managing the information load. For students who have difficulty sustaining attention, the environment, instructions and duration of the task are reviewed; attention is not attributed solely to the student's willpower.

Exploration is the student's examination of an unfamiliar situation while remaining open to different explanations. Students experiment with objects, texts, data or possible solutions and identify patterns and differences. An unexpected finding during exploration may become a new question. The teacher helps students connect what they tried with what they learned from the attempt. The freedom provided for exploration is considered together with clarity of purpose and the support required.

Memory is the student's ability to recall previous knowledge and experiences and use them in new learning. Accessible prior knowledge supports students in constructing explanations and evaluating options. Recalled information is connected to the current task; incomplete or inaccurate knowledge is revisited when necessary. Students consider which information will be useful and how they can check it. In this way, the relationship between recall and metacognitive decision-making becomes visible.

Curiosity and inquiry involve noticing a point that requires explanation and turning it into researchable questions. The quality of questioning is evaluated in terms of the question's relationship to the learning purpose and the information it can help uncover. Students learn to narrow the scope of a question, surface their assumptions and determine what they need to examine in order to answer it. The emphasis is placed not on the number of questions but on how those questions advance thinking.

Making connections is the student's ability to establish meaningful relationships among concepts, information and experiences. Relationships such as similarity and difference, cause and effect, part and whole, and structure and function are examined together with their rationale. Students question in what ways knowledge from another lesson or experience explains a new situation and in what ways it falls short. Making connections goes beyond identifying superficial similarities and includes explaining the conditions under which a relationship is valid.

Awareness is the student's ability to recognise what they know, where they are uncertain and the assumptions on which their thinking is based. The student's confidence in an explanation is considered together with the evidence they can provide. Students compare their sense of understanding with their responses to questions or their attempts to use the information. Awareness is not a stage limited to the beginning of learning; it develops throughout planning, monitoring and evaluation.

Self-regulation is the student's direction of their thinking and learning behaviours in order to achieve a learning goal. Adapting a strategy, replanning time, refocusing attention, sustaining effort and seeking appropriate help all fall within this scope. Self-regulated learning includes decisions related to motivation and behaviour as well as metacognitive regulation. Students are supported in explaining the rationale for their decisions and monitoring their effects. Independence is not equated with the removal of all support.

Reflection involves returning to an experience and examining both the outcome reached and the path taken. The student distinguishes the information that changed their thinking, the strategy that was effective and the condition that limited their progress. At the end of reflection, a decision is identified about what will be retained or changed in subsequent learning. Recounting the process from beginning to end can be a starting point for reflection; it becomes deeper when the account is connected to a learning insight.

Imagination is the student's ability to generate alternative situations, possible outcomes and original solutions on the basis of existing knowledge and experience. Students consider what might happen if conditions change, generate new possibilities and examine them using criteria appropriate to the field. Imagination and evidence-based thinking complement one another: generating a possibility and deciding

whether it is accurate or appropriate are different processes. Teaching makes the transition between these processes visible.

Across K-12, **focus** and **attention**, **curiosity** and **inquiry**, **making connections**, **awareness**, **self-regulation** and **reflection** are used as shared areas for monitoring. Exploration, memory and imagination are retained as dispositions that support the learning experience, and their relationships with these six areas are explained according to the purpose of the lesson. For example, a new question arising during exploration may provide evidence of curiosity and inquiry; checking whether recalled information is appropriate may provide evidence of awareness; and testing an alternative solution may provide evidence of reflection and regulation. These connections do not require the concepts to be used interchangeably.

Deep Thinking and Research Learning Outcomes

At Hisar School, in order to develop a shared approach to learning and thinking across K12 and to ensure vertical alignment between school levels, Deep Thinking learning outcomes have been developed within a shared framework for six of the nine concepts: focus and attention, curiosity and inquiry, making connections, awareness, self-regulation and reflection. These outcomes make it possible to address the development expected of students across different ages and subject levels as a continuum and to establish a shared language between school levels. The Deep Thinking and Research learning outcomes can be accessed here.

2.3 Cognition, Metacognition and Self-Regulation

Cognition encompasses the mental processes used in knowing, understanding and learning. Summarising a text, classifying data, solving an equation, comparing sources and constructing an original explanation are cognitive activities. Metacognition refers to a student's knowledge of their own cognitive processes and their ability to monitor, evaluate and direct those processes. The distinction is made not simply according to the name of the process, but according to what the student is evaluating and what decision they are making.

A student may produce a summary in order to identify the main idea of a text. This is a cognitive strategy. Checking whether the summary captures the main idea, evaluating whether the method is fit for purpose and, if necessary, rereading or switching to a concept map involve metacognitive regulation. Within the same activity, cognitive and metacognitive processes may follow one another or occur together.

Self-regulated learning is a broader framework. In addition to cognitive and metacognitive strategies, it includes managing motivation, effort, time, help-seeking behaviour and the learning environment. Reducing distractions and setting a study interval when a student has difficulty getting started on a task are matters of self-regulation. Checking whether the chosen method is actually supporting understanding constitutes the metacognitive dimension of this broader process. This distinction is consistent with the Education Endowment Foundation's (EEF) framework, which addresses cognition, metacognition and motivation together.

Critical thinking involves evaluating the quality of claims, reasons, evidence and inferences. A student engages in critical thinking when questioning a source's judgement, and may also engage in metacognitive evaluation when examining whether their own choice of sources is adequate and how their biases may have influenced it. Cognitive depth, critical thinking and metacognition are mutually supportive concepts, but they focus on different objects of evaluation.

Concept	Focus	Expression in the learning process
Cognition	Processing the task and content	Interpreting a text, analysing data, producing a solution

Concept	Focus	Expression in the learning process
Metacognition	Knowing and managing one's own cognitive processes	Checking understanding, selecting and adapting a strategy
Self-regulated learning	Managing thoughts, motivation and behaviours in pursuit of a learning goal	Regulating effort, time, support and learning strategies
Critical thinking	Examining the quality of claims, evidence and reasoning	Questioning assumptions and evaluating the basis of an inference
Deep thinking	Development of meaning and explanation	Making connections, developing explanations with evidence and reconsidering judgements

In collaborative learning, students support one another's thinking while managing their own learning. One student reminding a peer of the goal or helping them select a strategy can serve a co-regulatory function. When the group jointly evaluates and changes its shared goal, progress and method, socially shared regulation becomes visible. Simply being in a group is not evidence that these processes are taking place; shared decisions and participation in those decisions are examined.

Emotions, motivation, belonging and ethical responsibility are important conditions for learning. These areas are not listed as separate and universal subdimensions of metacognition. A student's awareness of an emotion when facing a difficulty is connected with evaluating the impact of that emotion on a learning decision. Naming an emotion or complying with a rule is not in itself interpreted as metacognitive competence.

2.4 Metacognitive Knowledge and Regulation Cycle

In this policy, metacognition is addressed through two main components: metacognitive knowledge and metacognitive regulation. Students use knowledge about themselves, the task and strategies while planning, monitoring and evaluating their learning. New experiences gained through the process also reshape this knowledge. There is continuous interaction between these two components (EEF).

Metacognitive knowledge is explained through three areas. Knowledge of self involves recognising one's strengths, knowledge gaps and support needs for a task. Knowledge of the task involves understanding the purpose, success criteria, required thinking processes and working conditions. Knowledge of strategies includes knowing which methods can be used, how they are applied and under what conditions they may be useful. Knowledge of self is not used to place a student into a fixed learning type.

At Hisar, the shared process language is planning; monitoring and regulating when necessary; evaluating; and adapting for subsequent learning. These processes may be visible with different emphases before, during and after a task. While monitoring, a student may clarify the purpose again; an evaluation may reveal a new information need. The cycle progresses flexibly.

Planning involves understanding the purpose of the task and selecting a route to achieve it. The student activates relevant prior knowledge, identifies gaps in knowledge, considers strategy options and evaluates time and resource needs. The level of detail in the plan is kept appropriate to the duration and complexity of the task. A student's ability to explain the plan provides more information than simply completing a template.

Monitoring involves checking understanding and progress during learning. The student examines what they understand, where they are stuck and how the method being used relates to the purpose. Comparing one's response with criteria, reconstructing an explanation or using knowledge in a small task can provide evidence of this checking. Feeling confident does not in itself mean that understanding has been verified.

Regulation is the decision to make a change as a result of monitoring. The student may reread, use a different representation, break the task into smaller steps, change the time plan or seek appropriate help.

Choosing not to change a strategy can also be a reasoned decision. Students are supported in explaining the evidence on which they continue with or change an approach.

Evaluation involves examining processes and outcomes together in relation to purposes and criteria. The student identifies what the strategy contributed to, under what conditions it was insufficient and what decision should be carried into the next piece of work. Success or difficulty is considered together with task, knowledge, strategy, effort and support conditions rather than being attributed to a single personal characteristic. Evaluation may be concentrated at the end of a task, but it can also take place during the process when necessary.

Adaptation is the testing of a decision from evaluation in new learning. Rather than applying a previous method unchanged, the student considers the demands of the new task. A strategy that worked in one context may need to be altered in another. The effect of the decision is monitored again in the next attempt. The function of reflection in learning becomes visible through this return to action.

Throughout the policy, awareness is used as a characteristic that accompanies the whole cycle; reflection as a way of making sense of and evaluating experience; and analysis as a process that may serve a cognitive or metacognitive function depending on its object. Analysis is not an alternative name for the third stage of the shared cycle. Teachers and academic departments maintain this shared terminology in materials and tools.

3. PEDAGOGICAL PRINCIPLES AND INSTRUCTIONAL DESIGN

Instructional design translates Hisar's institutional understanding of learning into the tasks students encounter. The intended understanding, the cognitive demand of the task, the strategies students will use and the evidence through which learning will be evaluated are considered together. Metacognitive learning is not limited to adding a separate activity at the end of a lesson; opportunities for students to make decisions about their own learning are embedded within the learning process.

The shared principles provide direction for all teachers. Their application may vary according to subject content and student need. When academic departments review instructional designs together, they focus first on alignment among goals, teaching and evidence rather than on the variety of methods used. The frameworks in this section form a shared language for lesson planning.

3.1 Shared Pedagogical Principles

Disciplinary knowledge and meaning-making are developed together. The concepts, language and prior knowledge needed to deepen student thinking are identified. When a student is unable to use a strategy, the teacher first examines gaps in knowledge, clarity of instructions and the cognitive load of the task. Content knowledge and knowledge of how to learn are taught together. Recall and basic procedural skills are valued as resources for more complex thinking.

Purposes and success criteria are made available for students to use. Students understand what they are trying to learn, why the task is being undertaken and which indicators they can use to evaluate their progress. Criteria do not remain solely as a teacher's scoring tool. Through age-appropriate language, examples of work and shared review, they are made usable by students in their own decisions. Criteria should not restrict student thinking by predetermining every possible form the work may take.

Making thinking visible serves the learning purpose. Students may express ideas through speech, writing, drawing, modelling, movement or digital recording. Visibility does not require students to continuously verbalise every mental step. The teacher selects moments that reveal critical decisions and changes in understanding. Limited oral expression is not interpreted as an absence of thinking; alternative ways of expression are provided.

Strategies are taught explicitly and situated in context. In addition to naming a method, the teacher models how it is applied, what purpose it serves and when it may need to be changed. Students try the strategy with guidance, discuss the results and have opportunities to use it in different tasks. Strategy instruction is carried out through the current subject content. The repertoire of practices is expanded according to learning need.

Support is adjusted according to evidence. The teacher provides assistance according to the student's understanding of the purpose, use of the strategy and ability to monitor progress. As the student takes on more responsibility, some supports are reduced. A new task or area of knowledge may require additional support. Seeking support is regarded not as a lack of independence, but as a decision to manage learning appropriately under the circumstances.

Cognitive challenge is kept at a learnable level. The task should be demanding enough to prompt thinking and accessible enough for the student to make progress with existing knowledge and the support provided. The teacher evaluates the load created by simultaneous instructions, new concepts and tools. When necessary, the presentation of the task is simplified, a step is modelled or interim goals are created. Depth of thinking is not equated with leaving a student without a way forward for an extended period.

Error, uncertainty and changes of view are handled safely. Students are encouraged to indicate what they do not understand, ask for evidence and reconsider their initial explanations. Feedback focuses on specific aspects of the student's work and strategy rather than labelling the student's personality. Classroom language allows unfinished thinking to be shared. Students are not required to make private reflections public to the whole class.

Student participation and shared thinking are developed. Students participate in strategy choices, question development and making sense of success criteria. The teacher adjusts the number and scope of choices according to students' development. In collaborative tasks, students examine shared decisions and individual contributions as well as the common product. Participation is structured so that it is not limited to the thinking of the most vocal student.

Feedback is connected to the next learning decision. Students are given time to understand feedback, use it and see the effect of the change they make. After feedback, they have opportunities to improve the work or test a new decision in a similar task. Self-assessment and peer feedback are supported by clear criteria. Rather than simply repeating the feedback received, students are asked to consider which decision they changed and why.

Inclusion and accessibility are considered from the start of the design process. Language support, visual or concrete representation, accessible materials, additional processing time and appropriate forms of communication are planned in relation to the learning objective. A student's thinking capability is not confused with reading speed, length of writing or comfort in oral expression. The teacher determines necessary adaptations together with the relevant support units. When adaptations are made, it remains clear which part of the learning purpose is being preserved.

3.2 Instructional Design with Understanding by Design

Understanding by Design is one of the frameworks used to establish alignment among intended outcomes, evidence of learning and learning experiences in curriculum and unit design. Design begins by identifying what students are expected to know, understand and be able to do. Evidence that would demonstrate this learning is then considered, and teaching and learning experiences are organised in alignment with these goals and evidence (McTighe & Wiggins, 2012).

At Hisar, the relationship between UbD and metacognitive learning is established by considering students' learning decisions at each stage of design. In intended outcomes, the strategic decision students are expected to develop is identified alongside disciplinary knowledge and understanding. At the evidence stage, appropriate process traces that make the student's decision visible are selected in addition to the final product. In the learning plan, necessary strategy instruction, guided practice, feedback and opportunities to try again are arranged.

Unit-level design does not require the same form to be completed in detail for every lesson. The teacher and academic department make the relationship among goals, evidence and experiences traceable within the existing planning system. Planning addresses in which task the metacognitive focus will be taught explicitly, in which tasks it will be used with support and in which task it will be used more independently. Adaptations made by the teacher during implementation are justified with evidence of student learning.

Design stage	Teacher's key decision	Metacognitive connection
Intended outcomes	What knowledge and understanding will students develop, and in what context will they use it?	What will students know about the task, strategies and themselves in order to make decisions?
Evidence of learning	How will we know that learning has occurred?	In which process trace will strategy selection, monitoring and a decision to change be visible?
Learning experiences	What teaching, practice and feedback are needed?	How will modelling, supported practice and independent use be sequenced?

Considering evidence of learning before completing the design prevents assessment from being confined to the end of the task. When designing a research task, the teacher determines at what stage the student's rationale for source selection will be visible; when designing a writing task, the teacher determines how the decision between a draft and revision will be examined. These choices are made not to increase measurement, but to obtain enough evidence to make decisions about learning.

UbD is not used synonymously with Design Thinking in this policy. Design-oriented problem-solving activities may be selected as a learning experience; UbD, however, structures the instructional design relationship among goals, evidence and experiences. Academic departments may evaluate other design tools they use within the same alignment between goals and evidence.

3.3 Structuring Learning Objectives with Bloom's Taxonomy

Bloom's Taxonomy is one of the core pedagogical frameworks used at Hisar to clarify the cognitive demand of teaching and learning objectives. The policy is based on the cognitive process and knowledge dimensions of the revised taxonomy. The cognitive process dimension includes remembering, understanding, applying, analysing, evaluating and creating; the knowledge dimension includes factual, conceptual, procedural and metacognitive knowledge.

These two dimensions help teachers consider together what knowledge students are expected to work with and what process they are expected to perform on that knowledge. The verb in an objective alone does not fully explain the cognitive nature of a task. The same verb may involve different demands with different types of knowledge and task conditions. The teacher states the objective together with the content students will work on and the expected evidence of learning.

Bloom's cognitive process categories are not stages of the metacognitive cycle. Analysing an argument is a cognitive process carried out on content. Choosing how to conduct that analysis, checking whether sufficient understanding has been achieved and changing the approach involve metacognitive regulation. Metacognitive knowledge is included within the knowledge dimension of the taxonomy; its status as a learning objective and the student's regulation of the learning process are separate but related matters.

Element examined in instructional design	Question to ask	Expected clarity
Knowledge	What factual, conceptual, procedural or strategic knowledge is the student working with?	Identifying the content and necessary prior knowledge

Element examined in instructional design	Question to ask	Expected clarity
Cognitive process	What will the student do with this knowledge?	Clarifying whether the task requires remembering, understanding, applying, analysing, evaluating or creating
Metacognitive process	How will the student manage their learning?	Providing opportunities for strategy selection, checking understanding and making changes when necessary
Evidence of learning	How will we know that these processes have occurred?	Aligning product and decision traces appropriately with the purpose

The taxonomy is not used as a rigid lesson sequence or as age-based stages. At different school levels, students can work on tasks requiring analysis, evaluation and creation when provided with appropriate content and support. Remembering and understanding also remain important at all levels. Lessons are not expected to complete every category in sequence or necessarily culminate in creation. The revised framework includes overlaps among categories, and instructional decisions are based on the nature of the task.

Hisar's focus on deep thinking requires students to have opportunities, in appropriate tasks, to explain, make connections, evaluate and produce original work. This direction does not devalue foundational knowledge and processes. Academic departments examine the balance of cognitive opportunities across the whole unit and term. If the thinking processes through which an apparently complex product was created can be explained, the quality of the design can be evaluated more reliably.

The thinking process required by a task is explained to students in age-appropriate language. With younger students, a shared language can be established through comparing, explaining or giving a reason for a choice. At later school levels, students may name different cognitive demands of tasks and connect their strategy choices to them. Memorising taxonomy terminology is not used as a separate measure of success in metacognitive development. Detailed Bloom implementation examples are provided in Appendix B.

4. STUDENT OUTCOMES AND K12 DEVELOPMENTAL CONTINUITY

At Hisar, student development is monitored through students' increasingly conscious learning decisions and their ability to use those decisions in different tasks. Shared concepts are maintained across school levels; the scope of tasks, the language used, the expected level of detail in explanations and the support provided change in developmentally appropriate ways. What a student learned from a previous experience and how they carry it into the next experience are made visible.

K-12 continuity does not mean that particular skills belong to only one school level. Planning, monitoring, regulation and evaluation occur at every level. Progress is seen in clearer understanding of purpose, a broader range of strategy options, more accurate interpretation of evidence and increasingly independent justification of decisions. Students' cognitive and emotional support needs are considered throughout this process.

4.1 The Learner We Aim to Develop at Hisar School

The policy connects the Hisar Student Profile's orientation towards a learner who thinks deeply, inquires and creates meaning with observable learning behaviours. As students use their knowledge, they learn to justify their thinking, recognise uncertainty and determine the direction of their learning. Academic achievement, the thinking process and engagement in learning are considered together; none is used as the sole indicator of another.

A student who takes ownership of learning seeks to understand the purpose of the task and participates in identifying the next learning goal. They make sense of the teacher's guidance, make use of appropriate support and monitor the effect of the decision they make. Taking responsibility for learning is not measured by working alone or never asking for help. Being able to clarify a request for help and take the next step independently after receiving support are indicators of development.

An inquiring student clarifies their curiosity and turns towards the information needed to investigate a question. They evaluate the source of a claim, the evidence on which it rests and the conditions under which it is valid. They examine different explanations rather than limiting themselves to information that supports their own view. They seek to explain how certain their conclusion is and what new information might change their thinking.

A student who makes thinking visible shares important decisions as well as the outcome of an explanation. They express why they selected a strategy, where they encountered difficulty, how they checked their understanding and what change they made. This expression may be oral, written, visual or concrete according to age and need. Visibility serves to help students receive feedback on their learning and see their own progress.

A student who regulates learning connects strategies with purposes and conditions. When they recognise that their understanding is limited, they may stop, try another approach or ask for help. They review their goal, time and effort realistically. They consider the causes of success or difficulty together with task, knowledge, strategy and support conditions. In this way, they form usable decisions for the next attempt.

A student who makes connections and transfers learning compares learned knowledge and strategies with the demands of a new task. They recognise differences as well as similarities. They evaluate why a method worked in the previous context and which aspects need to change in the new situation. Transfer may range from applying the same process to a different example to developing a new use in a more distant context; the necessary bridges are made explicit in teaching.

A student who learns with others compares their own thinking with that of others. They participate in understanding the shared goal, monitoring the group's progress and discussing the rationale for decisions. They use peer feedback and evaluate their own contribution. They recognise that the quality of the group product and their individual learning are not the same thing. At both levels, they are supported in explaining what they learned and what their next contribution will be.

These outcomes are not used to place students into fixed categories. The same student may require different levels of support in different tasks. The teacher considers development over time together with task-dependent variation. Evaluation of the outcomes serves not to label the student, but to help them understand their own development and identify the next learning decision.

4.2 Developmental Progression Across School Levels

The shared developmental progression across school levels is monitored along five axes: awareness of purpose and task, strategy selection and rationale, alignment of monitoring judgements with evidence, quality of regulation decisions, and adaptation to different contexts. The type and amount of support provided to the student are recorded when interpreting these axes. The same behaviour occurring with intensive guidance or as the student's own decision provides different information about learning.

School level	Developmental focus in learning decisions	Nature of instructional support
Preschool	Stating a concrete purpose, noticing the outcome of an attempt, being able to try another way	Modelling within play, visual and concrete support, brief conversations
Primary School	Selecting a strategy from limited options, checking with simple criteria, explaining the choice	Explicit strategy instruction, shared practice, appropriate reminders
Middle School	Comparing strategies, distinguishing the cause of difficulty, changing the plan according to evidence	Support that varies according to the task, comparative review, and progressively greater student decision-making
High School	Managing complex tasks, evaluating uncertainty, justifying decisions and adapting them to context	Expert support when needed, space for independent decision-making, in-depth feedback

These descriptors are indicators that explain the policy's shared developmental logic. They do not replace detailed grade-level learning outcomes and do not create rigid age thresholds for students. Academic departments use this framework together with the relevant targets in the Deep Thinking and Research K12 Learning Outcomes document.

Preschool

In preschool, metacognitive development is supported through play, exploration, movement, language and concrete experiences. Children begin to state simply what they want to do, observe the result of an attempt and recognise that they can try a different way to achieve their aim. The teacher directs the child's attention to an important decision and helps the child notice their own choice through a brief model or question.

Planning may be visible in arranging a play setting, choosing pieces for a structure or deciding what to do first. Monitoring relates to the child noticing whether the approach they tried is working. Regulation may appear when the child changes a piece, tries another method or asks for specific help. Evaluation involves making an age-appropriate connection between the result of the attempt and the original aim.

The teacher does more than describe the child's action; attention is drawn to the relationship between the outcome and the choice. The child is helped to notice what they did, why they chose that approach and how the choice affected the result. The child's response, drawing or change in action are considered together. Expressions of preference and emotion are valuable for understanding the learning experience, but saying that an activity was enjoyable is not used as the sole evidence that the child evaluated whether a strategy worked.

At this stage, lengthy written reflection and abstract strategy names are not expected. Brief conversations, revisiting a photograph, demonstrating with objects or trying again may be used. The teacher also notices changes initiated spontaneously by the child. Evidence of learning outcomes is selected within natural learning; continuous questioning that interrupts the child's play is avoided.

Primary School

In primary school, students are supported in explaining the purpose of tasks, recognising appropriate strategy options and checking their own progress using simple criteria. The teacher explicitly demonstrates how strategies are used and in which tasks they may be helpful. Students first make choices from a limited range of options, then learn to justify and, when necessary, change those choices.

When solving a problem, understanding a text or conducting a short investigation, the relationship between purpose and method is made visible. A distinction is made between completing a procedure and demonstrating understanding of it. Students may test their own explanation with an example, check a solution using another method or identify what they do not understand. Simple visual reminders and checking questions support these decisions.

In self-assessment, students are expected to compare their work with a clear criterion and identify a next step. They learn to connect what they see as a strength and what they need to improve with evidence. The teacher helps students make a connection between their own judgement and what their work actually shows. Self-assessment is not reduced to giving oneself a general score.

The level of support is adjusted according to students' literacy, language and disciplinary knowledge. Students may also use oral or visual forms of reflection. While a shared language of thinking is developed across subjects, the way a strategy is applied varies according to the nature of the subject. Across primary school, the aim is for students to participate increasingly in learning decisions and to select the support they use with growing awareness.

Middle School

As tasks become longer and more complex in middle school, students are supported in breaking plans into stages, organising resources and reviewing progress at intervals. Students can compare the possibilities and limitations of more than one strategy. The teacher ensures that strategy choice is based not only on personal preference but also on the thinking required by the task.

Monitoring involves distinguishing the source of difficulty more clearly. The issue may relate to a knowledge gap, misunderstanding of the task, an unsuitable strategy, time planning or attention. Students learn to compare these possibilities with evidence and select an appropriate response. Help-seeking is developed as a behaviour through which students explain what they have tried and where they need support.

In research and collaborative tasks, students' rationales for selecting sources, group decisions and changes of view are examined. Students retain responsibility for their own learning in shared work and check their own understanding while listening to peers' thinking. Feedback sessions are connected to revisiting a concrete part of the work and implementing the decision that follows.

At this level, some supports used for planning, monitoring and evaluation may be reduced, although new content may require renewed modelling. The independence offered to students should be aligned with their knowledge and experience. Academic departments compare the language of strategies used in different subjects and make common elements visible. Students are encouraged to test a method that worked in one subject under the conditions of another.

High School

In high school, students are supported in managing more independently complex, long-term tasks that require multiple information sources. Students narrow a research question, identify the information and method required, set interim goals and justify decisions with evidence. The teacher provides feedback at points requiring expertise while preserving the student's responsibility for thinking.

Students learn to examine in greater detail the limits of their own understanding and of the evidence they use. They evaluate alternative explanations, identify which assumption affects the outcome and change the direction of their work when necessary. They compare confidence in their performance with the evidence of

learning they can demonstrate. High-quality reflection addresses not only the outcome but also the rationale for decisions and the possible consequences of alternatives.

Transfer is planned explicitly across different tasks and disciplines. Students evaluate why a strategy may be appropriate in a new context and which aspects need to change. Trying it in the new situation allows the previous decision to be tested again. Teachers do not leave transfer as an outcome expected to occur automatically; they create opportunities for comparison, justification and application.

When a high school student uses technological tools or artificial intelligence, responsibility for decision-making remains visible. The student should be able to explain the purpose of the support received, how it was verified and its effect on their learning. Independence is not synonymous with working without tools; what matters is being able to distinguish which thinking process the student must carry out personally in relation to the learning objective. These boundaries of the task are explained in advance by the teacher.

4.3 Mapping Shared Development Areas and Learning Outcomes

The six shared development areas provide a common language for discussing continuity of learning across school levels. Each area is considered together with cognitive content, metacognitive decision-making and context-specific support. A student product may relate to more than one area. Rather than artificially inflating student performance by scoring the same evidence multiple times, the interpretation supported by the evidence is made explicit.

Shared development area	Developmental focus at policy level	Nature of appropriate evidence
Focus and attention	Developing the ability to select relevant information and decide to return to the task when attention is distracted	An action or explanation showing why the student changed their focus
Curiosity and inquiry	Clarifying the question and determining a research direction appropriate to the information need	Development of the question; rationale for selecting a source or method
Making connections	Explaining the nature of the connection and the conditions under which it is valid	An explanation showing the limits of a comparison, model or connection
Awareness	Distinguishing with evidence what is known, unknown and uncertain	Comparing self-judgement with demonstrated understanding Comparing the student's evaluation of their own learning with the understanding they demonstrate
Self-regulation	Managing decisions about strategy, effort, time and support according to purpose	The plan, change made during the process and rationale for the change
Reflection	Deriving a usable decision from experience for subsequent learning	A connection between evaluation of the process and the decision made in the next attempt

When mapping detailed K12 learning outcomes to lesson and unit objectives, academic departments consider three questions together: What development will the student demonstrate? In what content will the student experience this development? With what evidence will it be evaluated? The current title or code of the learning outcome used in the mapping is preserved. Learning outcome codes and updates are

maintained through the governance process of the relevant outcomes document. Appendix A provides the mapping format and explanatory examples of development.

Addressing the same learning outcomes in more than one subject within the same year can help students see how strategies are used in different contexts. To support this, teachers preserve shared concepts while explaining discipline-specific applications. When a method used in one subject is to be transferred to another, students are given opportunities to examine the similar and different demands of the two tasks. A shared language does not mean using the same activities in every subject.

At transitions between school levels, students' current learning strategies, the supports they use and their next developmental goals are shared in appropriate ways. The information should support new instructional decisions rather than define the student with a permanent competence label. The student's own evaluation is also included in the transition process. The teacher at the new level uses previous information as a starting point and observes again within the context of their own tasks.

Developmental monitoring and academic assessment are interpreted together. If a student can explain a strategy accurately but struggles with the content, the necessary disciplinary knowledge support is planned. If the product appears successful but the student cannot explain their decisions, process evidence and the support received are examined. Interpretations conclude with a concrete next step for the student's learning. The detailed operation of monitoring is set out in Section 7.

5. PRINCIPLES FOR PRACTICE IN TEACHING AND LEARNING

At Hisar, metacognitive learning practices are learning experiences in which shared pedagogical principles meet subject content and student needs. The teacher teaches cognitive strategies appropriate to the purpose of the task and supports students' decisions to select, monitor and evaluate those strategies. When planning implementation, it is clarified which decisions students will make themselves and at which points they may need guidance.

The expectations defined in this section are realised across the lesson and unit as a whole. Teachers should be able to explain how a chosen practice serves the learning purpose and demonstrate sufficient evidence of student thinking. The tools in the guide are used to facilitate these decisions.

5.1 Strategy Instruction and Gradual Independence

For students to use effective learning strategies, those strategies need to be taught explicitly. The teacher first identifies the thinking process required by the task and the necessary prior knowledge. Existing student strategies are made visible, and a new strategy is explained when needed. The purpose of the strategy, how it is applied and the conditions under which it may be appropriate are considered together. Knowing the name of a method and being able to use it appropriately for a purpose are evaluated separately.

During modelling, the teacher makes critical thinking decisions visible. The teacher explains why a particular piece of information was selected, where uncertainty arose, how understanding was checked and why another path was chosen. Modelling is not limited to presenting a flawless, uninterrupted solution. Recognising an appropriate difficulty and making a decision in response to it also provides students with an example of learning.

Students' understanding of the strategy is checked before moving to guided practice. Students may explain the basic steps of the method in their own words, state its purpose or demonstrate a step concretely. This check does not mean that the strategy has been fully internalised. As students use and evaluate the method across different tasks, they develop more flexible and conscious strategic knowledge.

Guided practice is the stage at which students begin to make thinking decisions themselves. The teacher provides, when necessary, a brief question, visual reminder, example or feedback. Assistance should enable progress without unnecessarily taking over thinking that the student can do. The teacher monitors which decisions the student makes with support and which are made independently.

The transition to independent practice is based on evidence that the student can use the strategy. If the student needs more support in a different task, this is not interpreted as a learning failure. Prior knowledge,

task complexity and the suitability of the strategy for the new situation are reassessed. Reintroducing necessary support does not conflict with transferring responsibility for learning to the student.

At the end of strategy instruction, the student evaluates the method used. The student identifies which part worked, under what conditions it was insufficient and what should be retained or changed in the next task. The teacher provides an opportunity for this conclusion to be tested in subsequent work. In this way, reflection moves beyond completing a form and becomes part of the learning decision.

EEF's seven-step model is used as one of the frameworks that supports this instructional logic. Details of the model and sample questions are provided in Appendix B. The steps do not have to be completed within a single lesson; depending on the strategy and student need, they may extend across several lessons. Unlike the student's planning, monitoring and evaluation cycle, the model explains how the teacher organises support (EEF, n.d.-b).

Materials are also designed to support gradual independence. Strategy cards, concept maps, note-taking templates and learning journals may facilitate student decision-making. Students learn to select these tools according to purpose and modify them when necessary. Completing every box in a template is not the sole indicator of conscious strategy use. If a tool does not meet the student's need, it is adapted or set aside.

5.2 Deep Thinking and Research In and Beyond the Classroom

Research, academic language, reading, writing, discussion, questioning and collaborative work are key areas of learning through which student thinking can be developed. The teacher determines which cognitive process is being targeted in each area and which metacognitive decision is to be supported. Because the same tool can be used for different purposes, its learning function is kept explicit.

The Deep Thinking and Research approach is also used in extracurricular activities. Clubs, projects, workshops, library work, student research and different settings for production and sharing allow students to use thinking and research skills developed in lessons in different contexts.

Research and working with evidence

Research is a core element of Hisar's pedagogical focus. Students learn to identify an information need, formulate a researchable question, select appropriate sources or data and evaluate the conclusions reached. The teacher models the relationship between the purpose of the research, the method and the evidence. The distinction among observation, interpretation, assumption and inference is addressed in age- and discipline-appropriate ways.

In research tasks, the quality of sources and their relationship to the question are evaluated alongside the number of sources. Students select sources by examining the author, purpose, context and evidence provided. Different sources repeating the same claim are not automatically treated as independent verification. When necessary, students are directed to the original source, primary data or a different perspective. The scope of this expectation is adjusted according to school level.

The metacognitive dimension of research becomes visible when students review their question and method during the process. Students evaluate whether the search strategy is producing sufficient information, whether there is a data gap and what the scope of the conclusion should be. Decisions to continue the work, narrow the question, seek additional sources or change the method are justified. The quality of these decisions, as well as the research outcome, becomes a subject of feedback.

Academic language and conceptual knowledge

Academic language is explicitly supported so that students can explain their thinking, understand the language of tasks and make connections among concepts. The teacher addresses a concept's definition, examples, boundaries and relationship to other concepts together. Concept maps and visual representations can help students organise their knowledge. The cognitive function of these activities is connected to questions that help students check their own understanding.

When a student cannot use a term correctly, the source of the difficulty is examined. Not understanding the concept, not recalling the term and having difficulty expressing an idea in the language of instruction

require different forms of support. Students are given opportunities to demonstrate understanding through drawing, examples, comparison or explanation in their own words. Development of academic language should increase the visibility of thinking without creating an unnecessary barrier to expression.

Reading and monitoring comprehension

In reading instruction, students are supported in understanding the purpose and structure of a text, using relevant prior knowledge and checking comprehension. When necessary, the teacher models strategies such as rereading, summarising, generating questions, identifying key concepts or making connections across texts. Strategy selection is related to the type of text and the purpose for reading.

Marking a text or taking notes is not sufficient evidence that a student is monitoring comprehension. The student should be able to explain what a mark indicates, which point was not understood or which question is guiding further reading. The teacher gives students opportunities to return to a section they did not understand and evaluate the usefulness of the method selected. Dialoguing with the text and the 'Critical Note-Taking Guide' are among the tools that may be used for this purpose.

Critical reading includes examining the quality of claims, assumptions and evidence as well as understanding what a text says. Students compare their initial interpretation with evidence in the text. Where an alternative reading is possible, they evaluate which interpretation can be defended and on what grounds. Checking one's own interpretation creates a connection between cognitive examination and metacognitive awareness.

Writing and developing thinking

Writing is a process through which students form, organise and review their thinking. Students make decisions about the purpose, audience and form of the writing; establish relationships among ideas and select the evidence they use. The teacher teaches drafting and revision processes. The quality of the writing is considered together with the decisions through which the student moves from the first attempt to the final product.

Revision is not limited to correcting spelling and grammar. The student evaluates the originality of their perspective, the coherence of the explanation, the sufficiency of the evidence and clarity for the intended audience. Students are supported in explaining what change they made as a result of feedback. Rather than making all corrections on behalf of the student, the teacher provides feedback that enables the student to make an appropriate decision. Tools such as RAFT (Role-Audience-Format-Topic) and reviewing as a writer are exemplified in the guide.

Discussion and questioning

Discussion environments allow students to develop reasoned views, listen to contrasting explanations and reconsider their own thinking. The teacher makes the relationship among claim, evidence and reasoning visible. What matters is not only the speaking order of participants but also how they connect ideas and evaluate different views. At the end of a discussion, students consider what changed in their thinking or why a view was retained.

Questioning is used to identify learning needs and advance thinking. Closed and open-ended questions both have value depending on purpose. The fact that a question has one answer does not by itself make it cognitively simple, and the fact that it has many answers does not necessarily mean that it requires deep thinking. The teacher evaluates what information, explanation or reasoning the question requires. Students participate in examining whether their own questions are fit for purpose.

The steps of a discussion technique are not automatically equated with stages of the metacognitive cycle. Decision points that enable students to check their purpose, understanding and strategy are designed separately. To prevent discussion from becoming merely a sequence of opinions, the teacher emphasises evidence, connections and reconsideration.

Collaborative learning

In collaborative learning, students participate in understanding the shared purpose, determining how the work will be carried out and monitoring progress together. Division of tasks and shared thinking are

separate but related processes. Students completing only their own part may not demonstrate that the group has developed shared understanding. The teacher creates opportunities for group members to understand one another's thinking and justify shared decisions.

Within a group, evidence of individual and shared learning is used together. A student's own contribution, what they learned from peers and why the group changed its method may be evaluated. The quality of the group product is not interpreted as evidence that all members learned at the same level. Written, visual or small-group forms of expression are provided for students who participate quietly. The teacher considers equitable participation together with responsibility for thinking.

Extracurricular activities and real-life contexts

Clubs, workshops, long-term projects and social responsibility activities allow students to use learning decisions in different contexts. Students identify their aims and responsibilities, plan the use of resources and time, and evaluate difficulties encountered during the process. At the end of the activity, how decisions were made and what learning was drawn from the experience are examined alongside the final product.

Real-life problems may involve more than one valid option and the needs of different stakeholders. As students evaluate the impact of a decision, they connect information, evidence and responsibility. In social responsibility work, students are supported in reviewing their own assumptions and perspectives. Reflection is not limited to an emotional account of the experience; it is connected to the next action and learning decision.

The relationship between extracurricular work and the academic programme is established among the relevant teachers and centres. Students' use of a strategy developed at school in a different setting, or their transfer of an approach learned in a new setting back into a lesson, is made visible. The scope of implementation is planned according to the student's age, experience and required support. Appendix B provides examples from different disciplines and school levels.

5.3 Assessment and Feedback that Support Learning

Assessment and evaluation are used to make students' current understanding visible and support the next learning decision. Students participate in examining their own work by understanding the learning purpose and success criteria. The teacher adjusts explanation, modelling, practice time or support according to the evidence obtained. Assessment serves different functions at the beginning, during and at the end of the learning experience.

Success criteria should distinguish appropriate aspects of the learning process from disciplinary knowledge and product quality. For example, in a research task, the relationship between an explanation and evidence and the student's justification of the research method are different criteria. The teacher evaluates them without conflating them. Not every process needs to be scored separately in every task; a limited number of criteria appropriate to the task's focus are selected.

To support students in evaluating their own learning, examples of work and criteria may be reviewed together. Students explain which aspect of a piece of work is strong and what evidence led them to that conclusion. They use the same criteria when evaluating their own work. Differences between students' evaluation of their own learning and teacher observations or evidence from student work are treated not as errors but as learning opportunities that help students evaluate their learning more accurately.

Feedback should be specific, understandable and usable. Students are shown which part of their work serves the purpose, where improvement is needed and what they might examine next. Rather than producing the entire solution on behalf of the student, feedback opens an appropriate space for decision-making. Opportunities are planned for students to revise the work or test the feedback in a similar task.

Self-assessment enables students to examine their strategy choices and evidence of learning. Students evaluate what they aimed to do, what they did and how the outcome relates to that purpose. They are guided to distinguish the source of difficulty and form a decision about the next step. Recognising that

students may not remember the whole process accurately, the teacher makes use of concrete traces such as a draft, product, brief note or observation made during the task.

Peer feedback is structured around shared criteria and respectful communication. By reviewing a peer's work, a student may identify a strength and an area for development; however, the owner of the work decides when the work is complete. Suggestions from peers may be discussed and may be rejected with justification. The teacher prevents feedback from becoming judgement about students' personalities or general ability.

Process evidence is selected in a limited and purpose-appropriate way. A section of a draft, a brief explanation of a strategy change, a comparison of two attempts or a short conversation with the student may be sufficient. Expectations for continuous and detailed record-keeping should not unnecessarily restrict the student's workflow or the teacher's instructional time. If the same document can serve both learning and monitoring purposes, duplicate records are not created.

The final product and the process are interpreted together. A high-quality product may not show that the student carried out every thinking process independently. Conversely, an incomplete product does not mean that the student failed to recognise difficulty or make an appropriate adjustment. The teacher examines disciplinary knowledge, support received, task conditions and process decisions together. This distinction is kept particularly clear in group work and tasks involving artificial intelligence support.

The purpose of this policy is not to turn metacognitive development into a single general score used to rank all students. Process criteria that contribute to academic grading are determined in alignment with the school's relevant assessment system and are made understandable to students in advance. The content of a student's private reflection, the level of detail in personal disclosure or comfort in self-expression should not be used as success criteria.

5.4 Technology and Generative Artificial Intelligence

At Hisar, technology is used to make student thinking visible, revisit the learning process, receive feedback and evaluate strategy decisions. Selection of a digital tool begins with the learning objective and the student's need. The tool should facilitate a specific function of the task; the additional load and access conditions created by its use should also be considered. Research and collaboration are pedagogical areas independent of technology; digital environments offer different possibilities within these areas.

Tool selection and developmental appropriateness

Before using a digital tool, the teacher identifies which learning decision the tool will support. Visualisation, collaborative production, feedback or access to resources may be among these contributions. If the same purpose can be met in a more accessible way, alternatives are considered. The technical skill a student needs in order to work with the tool is considered together with the lesson objective; use of a new tool should not overshadow the central thinking purpose.

Age appropriateness, mode of access, account use and data conditions of tools are evaluated in accordance with relevant institutional policies. In preschool and the early years, options such as teacher-mediated demonstration or shared use may be selected according to the learning purpose. Individual student account use is not assumed automatically. Equivalent learning opportunities are arranged for students with different access or support needs.

The Technology Roadmap, updated by the Hisar School Information Technology Strategies Center, helps teachers evaluate tool options. The inclusion of a tool in the roadmap does not mean that it should be used in every task. The teacher identifies the pedagogical rationale and checks technical and institutional conditions of use together with the relevant units. Changing lists of tools are maintained in the implementation guide and the roadmap.

Digital portfolios, feedback and learning analytics

Digital portfolios can bring together a student's drafts, feedback, revisions and reflections. The student explains why selected work has been included in the portfolio. In addition to collecting products, the portfolio serves to examine change in learning. Students may return to earlier work to evaluate strategy

decisions and development. The teacher limits the scope of the portfolio in ways that are consistent with purpose and workload.

Interaction and feedback tools can help students see and compare different ideas. The number of visible responses or frequency of participation in a digital environment is not a direct measure of depth of thinking. The teacher considers the content and rationale of the response and the subsequent change. When using peer feedback, students are guided to explain which view affected their own thinking and why.

Learning analytics may provide additional information for examining student progress or patterns of work. Correct-response rates, time spent working or activity-completion data are not used as direct equivalents of metacognitive competence. These indicators are interpreted together with performance on the task, student explanation and teacher observation. Students participate in understanding what the data shows and what it does not show; algorithmic recommendations do not replace professional instructional judgement.

Using learning analytics to support a student's own decision-making and using them to monitor implementation at school level are different purposes. Purpose, access and sharing boundaries are kept clear. Student data is used only to the extent necessary for the task; access to personal reflections and sensitive information is limited in accordance with relevant institutional arrangements. Where possible, aggregated or de-identified examples are used in institutional review.

Learning decisions with generative artificial intelligence

Generative artificial intelligence can help students examine different explanations, test arguments, develop questions or receive feedback. The pedagogical decision begins with which thinking process the student is intended to learn in the task, before deciding whether the tool should be used. At the start of the task, students are told what support is appropriate and which process they are expected to carry out themselves.

Before seeking support from artificial intelligence, students identify their purpose and current thinking as far as possible. They consider why support is needed and what type of help would advance their learning. Asking for a direct answer, seeking a hint, examining a counterargument or questioning an explanation may lead to different learning outcomes, so the teacher selects an appropriate form of interaction for the task. Tool use is not assumed to be necessary in every task, and different AI tools may be used when appropriate.

Artificial intelligence output is not given the same status as a reliable source. Students are guided to examine the accuracy, consistency, sources and relevance of an output to the question. Sources provided by the tool are checked appropriately to determine whether they actually exist and whether they support the claim. Liking an output or finding it fluent does not replace verification. Verification expectations are structured by the teacher according to the age group and task level.

When working with artificial intelligence, rather than relying on the output of a single tool, the same prompt may, where appropriate, be tried in different AI tools and the resulting outputs compared. Students are guided to examine similarities, differences, omissions and contradictions among the responses produced by different tools to the same question. The purpose of this comparison is not to determine which tool is 'better', but to recognise that AI outputs can vary and to develop the habit of not accepting any output as automatically correct.

Students relate the decision to use or reject a suggestion to their own understanding and the criteria of the task. They can explain how the tool's suggestion affected their thinking, what they changed and why they accepted it. Revising a prompt alone is not evidence of metacognitive development. The metacognitive function becomes visible in the student's decision as they evaluate their need and strategy.

Working with AI is a specific application area of the shared metacognitive cycle. Defining the purpose and articulating the need for support are associated with planning; examining and verifying a response with monitoring; changing the prompt or learning pathway with regulation; and evaluating the contribution of the experience to learning with reflection and subsequent adaptation. A separate and competing metacognitive model is not created.

The student's own contribution and the support received are made appropriately visible. Depending on the task, the student's initial thinking, a significant tool output, the student's evaluation, and the final change may be examined together. An unlimited record of every interaction is not required. The teacher determines the evidence sufficient to evaluate the learning objective. When necessary, the quality of a product created

with tool support and the student's independent understanding are assessed through different tasks or conversations.

Ethical responsibility and institutional alignment

Citing sources in digital environments, respecting the work of others, verifying reliable information, communicating respectfully, and protecting personal data are among the responsibilities of the learning process. This policy explains how these responsibilities relate to students' deliberate decisions. Detailed rules are applied in accordance with the Hisar School Information Technology Strategies Policy and Artificial Intelligence in Education Policy.

Before students transfer their own work or personal information to a tool, they are informed in an age-appropriate manner about the relevant terms of use. Teachers do not design tasks that require students to share their own or others' private information unnecessarily. When there is uncertainty about conditions of use, guidance is sought from the relevant unit. The learning purpose is considered together with the institutional framework for security and responsibility.

The continued use of technology and AI applications is regularly evaluated in terms of their contribution to student thinking, accessibility, and feasibility. Student and teacher feedback is considered together with evidence from tasks. Decisions to change a tool, adapt how it is used, or not use it for a particular task are based on the learning objective. Relevant changes inform updates to the implementation guide and technology roadmap.

6. IMPLEMENTATION RESPONSIBILITIES AND PROFESSIONAL LEARNING

The development of metacognitive learning across the school depends on creating consistent learning opportunities for students and appropriate support conditions for staff. Implementation of the policy is not left solely to the efforts of individual teachers. School leadership, academic units, centers, and support services contribute to the shared pedagogical focus within their respective roles. Students and parents learn the purpose of this framework and the contribution expected of them in ways appropriate to their age and role.

In this section, roles are defined according to functions within the existing institutional structure. School leadership determines, within the current distribution of responsibilities, the role responsible for coordinating the policy and the working arrangements among units. Authority related to policy approval, staff evaluation, and data use is exercised in conjunction with the school's relevant institutional regulations.

6.1 Roles and Responsibilities

Students

Students are guided to understand learning objectives, participate in strategy choices, monitor their understanding, and use feedback on their work. In developmentally appropriate ways, they explain their own learning decisions, identify where they are experiencing difficulty, and seek appropriate help. The teacher provides the language, examples, and experiences necessary for students to demonstrate these behaviors.

In research and collaborative work, students participate in evaluating the quality of sources, their own contributions, and shared decisions. When using digital tools and AI, they make their purposes, the support they received, and their own decisions appropriately visible. Self-assessment is used to identify the next learning goal. Student responsibility does not mean carrying the full burden of a difficulty they cannot resolve independently; teaching and support conditions remain the responsibility of adults.

Teachers

Teachers design learning experiences by considering subject knowledge, the learning objective, cognitive demand, and the metacognitive focus together. They explicitly teach necessary strategies, model critical

decisions, and adjust support according to student performance. They explain success criteria in language students can understand and use feedback to develop students' next decisions. They make appropriate adaptations for students' different language, expression, and learning needs.

Teachers collect sufficient and purposeful evidence that makes student thinking visible. They evaluate the student product together with decisions made during the process and the support received. They maintain the distinction between a student using a technique and being able to make a strategic decision. Where the same evidence can serve both learning support and institutional monitoring, unnecessary duplication of records is reduced.

Teachers regularly examine their own instructional decisions. They compare intended learning with the evidence obtained, evaluate the effect of the support they provided on student thinking, and identify changes for subsequent practice. They participate in peer feedback and professional learning and share examples of practice together with their context and limitations. These activities are kept consistent with processes under the **Hisar School Instructional Supervision and Evaluation Policy**.

School leaders and learning leaders

School leaders support the policy being understood and implemented as a shared approach to learning. They consider the time and resources teachers need for collaborative planning, student work review, and professional learning. They monitor opportunities for implementation across divisions and subjects and consider difficulties together with institutional conditions rather than interpreting them solely as shortcomings in individual practice.

Department heads and learning leaders facilitate the integration of the shared conceptual language into lesson and unit plans. They guide the mapping of outcomes, review of instructional examples, and joint interpretation of learning evidence. Through mentoring, coaching, and feedback, they support teachers in setting and monitoring development goals. They strengthen information sharing at transitions between divisions and connections across subjects.

Leaders and learning leaders also make evidence and their evaluations visible in their own decision-making processes. At an appropriate level, they share with staff why a priority was selected, what implementation showed, and what change is needed. They support a working environment that is open to learning from mistakes and in which professional questions can be discussed safely. They monitor how feedback collected about the policy is reflected in subsequent decisions.

Academic units and centers

Academic units and centers contribute to the implementation of the Deep Thinking and Research approach across different disciplines and learning environments. Together with teachers, they develop learning experiences, resources, and support materials. They design work that connects students' processes of research, production, collaboration, and reflection. When examples are shared, they make the pedagogical purpose and evidence of student learning visible alongside the tool used.

The specialist contribution of centers is coordinated with the planning and evaluation of classroom teaching. The Information Technology Strategies Center supports alignment between pedagogical choices involving digital tools and AI and the technical and institutional conditions of use. Other centers contribute resources, experience, and professional learning within their areas of responsibility. The division of responsibilities among units is determined according to the purpose of the project and existing institutional responsibilities.

Parents and educational support units

Parents are encouraged to communicate in ways that support students' responsibility for learning, curiosity, and appropriate help-seeking. Rather than completing students' work for them or monitoring every step, they can help students express their purpose and the support they need. The school provides parents with age-appropriate examples and explains learning language that can be used at home. Parents are not expected to assume teachers' professional responsibilities.

Guidance and psychological counseling services provide expertise on emotions, motivation, belonging, and support needs that affect students' engagement in learning. Together with teachers, they support students

in seeking help, coping with difficulty, and developing appropriate learning behaviors. A difficulty experienced by a student is not explained solely as a lack of metacognition. Necessary assessment and support are provided within the relevant area of expertise.

The library, information technology, and other educational support units facilitate students' access to information, resources, and appropriate learning environments. Library services contribute to research and source-evaluation processes, while information technology services contribute to safe and accessible conditions for digital use. Educational support staff support student learning through consistent communication and appropriate environmental arrangements within the boundaries of their roles. Information about students is shared only as required by the relevant duty and need.

6.2 Professional Learning

Professional learning is organized to enable teachers to develop a shared understanding of metacognition and use this understanding in their teaching. The work begins with an instructional need and continues with trying the learned approach in the classroom, examining student evidence, and improving practice. Participating in a workshop or preparing a material is not, by itself, evidence that professional learning has influenced the student experience.

School-wide priorities are considered together with department and teacher needs. Shared conceptual language, strategy modeling, developing the accuracy of students' monitoring judgments, use of feedback, K-12 continuity, and learning decisions involving AI may serve as professional learning focuses. Lesson observations, student work, teacher self-assessments, and relevant research are used in selecting the focus. The scope of the work is kept at a level that teachers can implement and examine.

Metacognitive teaching workshops, open classroom practices, peer observations, student work reviews, action research, and learning communities may be used for different needs. Learning walks are intended for brief observation and professional dialogue around a shared focus and are not converted into individual performance ratings. The purpose and use of data from other types of observation are explained within the Instructional Supervision and Evaluation Policy.

Feedback conversations consider the teacher's intention, practice, and evidence of student learning together. The teacher evaluates why a particular decision was made, how students responded, and what should change in subsequent practice. The observer distinguishes observed behavior from interpretation. A limited and actionable focus is identified for the next attempt, and the effect of that decision is examined at the subsequent meeting.

Teacher self-assessment serves to examine the contribution of a development goal and the strategy used to student learning. Teachers connect their strengths and difficulties to concrete evidence. They carry decisions drawn from professional learning experiences into subsequent instructional planning. Appropriate support is arranged so that new staff become familiar with shared concepts, related documents, and institutional expectations for implementation.

6.3 Implementation Plan and Institutional Support

School leadership and academic leaders establish a feasible working structure for each academic year. This structure identifies the priority development focus, responsible roles, professional learning needs, existing evidence to be used, and review points. Unit needs may differ; while shared expectations are maintained, the pace of implementation and support are adjusted accordingly.

The implementation plan is integrated with teachers' existing planning and assessment processes. The learning value and workload of any proposal requiring a new record or meeting are considered together. Where the same data will be used for different purposes, its purpose and access boundaries are clarified. If a lack of time, materials, or expertise limits an implementation, this is documented and linked to the relevant management decision.

Decision or process	Responsible function	Contributors	Traceable outcome
Identifying the annual shared focus	School leadership and academic leadership	Teachers, centers, and student feedback	Priority, rationale, and work schedule
Lesson and outcome mapping	Relevant academic unit	Subject teachers and division representatives	Connection among objective, task, and evidence
Developing instructional support	Teacher and learning leader	Relevant support units	Adaptation to be implemented and follow-up time
Updating the guide and tools	Coordination role designated by leadership	Relevant teachers and specialists	Updated tool and explanation of use
Policy revision	School leadership's current approval process	Academic leaders and relevant stakeholders	Reasoned decision, version, and communication

The assignment of responsibilities to individuals and approval authority is finalized in alignment with the school's existing role descriptions. The role coordinating the policy ensures follow-up of decisions and consistency among related documents. Implementation difficulties across units are brought into joint review. Instructional support needed for an issue that directly affects student learning may be planned without waiting for the annual policy revision.

Examples used to scale implementation are shared with their contexts. It is explained which students were involved, what content was addressed, what support was provided, and what learning evidence was used. When another unit uses an example, it adapts it to its own context. In this way, institutional sharing serves to build understanding of instructional decisions and learning conditions rather than simply copying the same activity.

7. MONITORING, EVALUATION AND CONTINUOUS IMPROVEMENT

Monitoring and evaluation are conducted to understand the development of students' ability to manage their thinking and learning and to improve instructional conditions. Whether the policy has been implemented and whether the intended learning has occurred are examined separately. The school treats student development, the quality of instructional practice, and institutional feasibility as three interconnected levels of evaluation.

For each evaluation, the purpose, evidence to be used, interpretation criteria, responsible role, and subsequent decision are clarified. Evidence collection is limited to what is needed to support the decision. Quantitative indicators are considered together with qualitative information from student work, observations, and interviews. The conditions under which the data were obtained and the interpretations they can support are specified.

7.1 Monitoring Student Development

Student development is monitored through the shared outcomes in Section 4 and the relevant K12 outcomes. The student's understanding of the purpose, strategy selection and justification, checking of understanding, identification of difficulty, regulation, and carrying a decision into subsequent learning are examined. These processes are evaluated within appropriate subject knowledge and authentic learning

tasks. The relationship between being able to describe a strategy and being able to use it is taken into account.

Teachers monitor development through the same student's work over time and performance across different tasks. Comparisons take into account the cognitive demand of the task, the student's prior knowledge, and the support received. Seeking more help on a more complex task does not automatically indicate regression. Recognizing the demands of a new task and selecting appropriate support can provide valuable information about development.

Process evidence includes traces of decisions that emerge during a task. An initial plan, a brief explanation of thinking, a draft and revision, a rationale for source selection, a moment of help-seeking, or a comparison of two solutions may be used. The process described by the student at the end of the task is considered together with these traces. Self-assessment is an important source, but is not treated as a measure that independently verifies the entire learning process.

The accuracy of a student's judgment about their own understanding is also addressed developmentally. The student may indicate how prepared they believe they are and test this through a task. The relationship between the outcome and the initial judgment helps the student understand what information needs to be checked more carefully. The purpose is not to decrease or increase the student's confidence, but to connect that confidence with appropriate evidence. The comparison is made in an age-appropriate and developmental manner.

Process monitored	Possible evidence	Interpretive question
Planning	Explanation of purpose and method at the beginning of the task	Does the student relate their choice to the demands of the task?
Monitoring	Check for understanding, annotation, brief conversation, or trial	What evidence does the student use to check their progress?
Regulation	Change in method, time, or support decision	Is the change related to the identified difficulty?
Evaluation	Criteria-based explanation of the product and process	Can the student evaluate the outcome and the pathway together?
Adaptation and transfer	Decision or strategy used in a subsequent task	Does the student adapt their previous conclusion to the conditions of the new task?

Rubrics and descriptors used for shared areas of development should clearly show student behavior and the support provided. Broad competency inferences are not drawn from general personality statements, solely positive adjectives, or a single behavior. Academic units jointly review rubrics using sample work. Different interpretations of the same evidence are discussed to improve the clarity of the criteria.

The form of student reflection is adapted to developmental and access needs. A written journal, short audio recording, drawing, conversation with a teacher, or concrete re-attempt may be used. The length of writing, visual quality of a presentation, or fluency of speech is not treated as a substitute indicator for the intended metacognitive process. The focus is on which thinking decision the student makes visible.

Findings about student development are shared with the student in clear language. Strengths, the process to be developed, and the next step are made concrete. In end-of-term self-assessments, students are supported in explaining their progress using evidence selected from their previous work. Information shared with parents also serves to help them understand the student's learning decisions and appropriate support needs. Rather than comparisons among students, progress and needs within the student's own learning are emphasized.

7.2 Quality of Implementation and Policy Effectiveness

The quality of teaching is examined through the opportunities and supports provided for students to develop metacognitive decisions. Lesson designs, lesson observations, student products, and student explanations are considered together. Seeing a technique during an observation is not sufficient evidence that the student is using it meaningfully. Observation should connect the teacher's action with the student's learning response. This relationship is monitored through evidence observable over time, such as students justifying strategy choices, evaluating the strategy used, and changing it when necessary.

Reviewing instructional practices

Lesson observations may examine the learning purpose, cognitive demand, strategy instruction, visibility of thinking, opportunities for student monitoring, use of feedback, and appropriateness of support. The observation focus is determined in advance, and the tool used is kept aligned with the current Instructional Supervision and Evaluation Policy. The observer records what is seen or heard separately from their interpretation. The teacher's explanation and student work contribute to interpretation.

Student work reviews include examples from different learning profiles and achievement levels. Examining only the strongest products does not provide sufficient information about accessibility of implementation and support needs. The initial attempt, changes during the process, and final work may be considered together. Teachers make cautious inferences about which instructional decision worked for which student and plan the next attempt.

The effectiveness of professional learning sessions is examined through what changes in practice, alongside teacher participation. For example, after a modeling workshop, consideration may be given to which decision the teacher makes visible differently and how students respond in their strategy use. Findings are not generalized from a single implementation; similar examples and contexts are compared. Necessary additional support or a new learning focus is identified.

Evaluating institutional feasibility

School-level evaluation examines the extent to which the policy is understandable, feasible, and sustainable across different divisions and subjects. Students' access to learning opportunities, shared conceptual language, outcome mapping, professional learning support, resources, and workload are taken into account. Where implementation remains limited, the reasons are investigated. An instructional difficulty and a lack of time, materials, or coordination may require different decisions.

Institutional indicators are selected so as not to confuse the number of activities undertaken with the intended development. The number of professional learning sessions indicates implementation input; alignment of objectives and process evidence in sample units indicates implementation quality; and development in students' strategy decisions helps illuminate learning outcomes. None of these indicators alone explains the overall effectiveness of the policy.

Evaluation level	Possible institutional indicator	Information to be considered together
Implementation conditions	Opportunities for collaborative planning and professional learning	Teacher needs, time, and access to resources
Implementation quality	Alignment of objective, strategy, and evidence in reviewed units	Lesson observations and student explanations
Student development	Patterns of change observed through shared descriptors	Task, support, and prior-performance conditions
Inclusion	Learning and expression opportunities appropriate to different needs	Student participation, adaptations, and feedback

Evaluation level	Possible institutional indicator	Information to be considered together
Sustainability	Follow-up of decisions and currency of related documents	Workload, ease of use, and subsequent practices

When quantitative data are used, the scope and denominator are clearly specified. Findings from units reviewed as a sample are not presented as precise percentages for implementation across the whole school. When different periods are compared, the comparability of samples and criteria is checked. Changes in student development are interpreted together with other learning conditions rather than being attributed directly to a single policy or tool.

Student and teacher perspectives help to understand the experienced aspects of implementation. Parent feedback may provide additional information about responsibility for learning at home and support needs. Perspectives do not replace behavioral and product evidence; points at which different sources support or differ from one another are examined. Differences are used to generate a new question and a focus for subsequent review.

7.3 Updating the Policy

The policy is reviewed systematically each year. The review considers K12 outcome-based monitoring results, instructional supervision data, student products and process evidence, student and teacher feedback, parent perspectives, and the extent to which professional learning is reflected in practice. Strategic directions, student needs, and relevant pedagogical developments are also included in the evaluation.

Instructional adaptations and necessary guide revisions are made during the year. The annual review connects these experiences with shared institutional decisions. Changes affecting core expectations, roles, or monitoring arrangements are incorporated into policy revision with their rationale.

Time or stage	Key action	Expected output
Beginning of the academic year	Review of previous findings and priorities	Shared focus, responsible roles, and work schedule
During the unit and term	Review of student evidence and instructional decisions	Instructional adaptation and necessary support
End of term	Evaluation of development patterns and implementation difficulties	Learning and support decisions for the next term
Annual review	Joint review of unit findings and strategic connections	Reasoned decision at the guide, implementation, or policy level
Following revision	Arranging approval, versioning, communication, and implementation support	Current document and next monitoring date

Decisions are distinguished at the instructional, guide, and policy levels. An instructional decision changes a task or support; a guide decision changes tools and examples; a policy decision changes shared principles, expectations, responsibilities, and the monitoring structure. The annual review does not require the policy to be changed every year.

Revision proposals are justified by need and evidence; their contribution to learning, feasibility, workload, and alignment with other documents are evaluated. School leadership, academic leaders, and relevant staff

participate in the process; student feedback and, where needed, specialist support are used. Approval is completed through the school's current policy approval process.

The current version identifies amended provisions, effective-date information, and related documents. Previous versions are retained, and stakeholders are directed to the current document. Necessary explanation and professional support are provided to ensure new expectations are understood and implemented.

In the next monitoring cycle, the responsible role evaluates implementation of the decision and what it shows in relation to student learning. If the expected contribution is not observed, implementation conditions and initial assumptions are re-examined and the next decision is identified.

Appendix A. K12 Development and Outcome Mapping Framework

This appendix facilitates the use of the developmental logic in the main policy in subject and division-level work. The related Deep Thinking and Research K12 Outcomes document is the reference source for detailed institutional outcomes. The examples below are not to be used as reproductions of official outcomes or as a new list of outcomes; they are explanatory descriptors connecting shared areas of development with observation and instructional decisions.

A.1 Progression of Shared Areas Across Divisions

Area	Preschool	Primary School	Middle School	High School
Focus and attention	Returns, with adult support, to a detail relevant to the purpose.	Selects relevant information; uses a reminder to refocus attention.	Identifies a condition affecting attention; adjusts the working arrangement.	Justifies decisions about attention and effort in a complex task.
Curiosity and inquiry	Asks about a situation of interest; participates in an attempt or exploration.	Clarifies the question; identifies the information needed.	Changes the scope of the question and the research pathway in response to evidence.	Formulates a researchable question; evaluates assumptions and limitations of the method.
Making connections	Shows a concrete similarity or difference.	Makes a connection between concepts and explains why.	Compares the conditions under which a relationship is valid.	Makes connections across disciplines; justifies the limitations of transfer.
Awareness	Shows what they can do or where they need help.	Checks understanding with an example.	Compares self-judgment with evidence of performance.	Evaluates the limits of their knowledge and evidence in detail.
Self-regulation	Chooses another approach after an unsuccessful attempt.	Chooses among a limited set of strategies; asks for help when needed.	Changes the plan and method according to the cause of the difficulty.	Manages strategy, time, and support decisions in a complex task.

Area	Preschool	Primary School	Middle School	High School
Reflection	Relates the outcome of an attempt to its purpose.	Identifies what worked and explains the next decision.	Evaluates the strategy and outcome together; plans a new attempt.	Carries a decision into subsequent learning by evaluating alternatives and context.

The student's prior knowledge, language and means of expression, task complexity, and support received are considered in every observation. Observing a behavior in one cell does not mean the student can use that area independently across all tasks. The teacher records the conditions under which the behavior occurs.

A.2 Mapping Outcomes, Tasks, and Evidence

In mapping, the relevant outcome is first selected from the related outcomes document. The current wording or code of the outcome is retained. The content objective of the lesson, the cognitive process the student will perform, and the metacognitive decision to be supported are then identified. Finally, the task and process evidence through which this decision can be observed are selected. A single task is not expanded in an attempt to measure every area of development.

Mapping element	Information to record
Related outcome	Current wording or code in the institutional document
Subject and content	Unit, topic, and required prior knowledge
Cognitive objective	The process the student will perform on the content
Metacognitive focus	Decision to select a strategy, monitor, regulate, or evaluate
Learning task	Meaningful work in which the student will make this decision
Evidence	Plan, explanation, draft, observation, or subsequent attempt
Support	Type of modeling, reminder, or assistance
Next step	Decision for teaching or the student based on evidence

Illustrative mapping example: In a Middle School task comparing two historical sources' accounts of the same event, the cognitive objective is to analyze the purposes and perspectives of the sources. The metacognitive focus is for the student to evaluate whether the initial source selection is sufficient and decide whether additional evidence is needed. The rationale for the initial source selection and the subsequent explanation of a change can together constitute evidence. The relevant institutional outcome is selected by the academic unit from the related document and added to the mapping.

A.3 Use at Transitions Between Divisions

Information shared during transitions between divisions may include a strong example of the student's work, the strategy used, the support needed, and the next development focus. Students are encouraged to include in this sharing a piece of work they have selected and their explanation of it. The teacher in the new division considers previous evidence together with the demands of their own subject. The student's performance in a different task is observed again.

While the names of the shared areas are retained, academic units examine the consistency of criteria and examples across divisions. This vertical continuity supports students in encountering a shared approach to learning across divisions and teachers in following student development through a shared language. Reviewing work from different ages together helps clarify how expectations progress. This review is not used to expect younger students to express themselves in the manner of older students or to evaluate development solely through written products.

Appendix B. Metacognitive Learning Implementation Guide

This guide provides a repertoire to support implementation of the expectations in the main policy across different subjects and divisions. The examples are not mandatory lesson scenarios. After identifying the learning purpose and student need, the teacher selects an appropriate strategy or tool. The metacognitive function of the selected tool becomes visible through the decisions students make about their own learning.

B.1 Seven-Step Strategy Instruction

The EEF-informed seven-step framework structures the transition from teacher support toward increasingly independent student use of strategies. It is neither a lesson-plan template nor a seven-component definition of metacognition. It may be completed within one lesson or spread across several lessons. Teachers may return to certain steps according to students' understanding and use of the strategy.

1 Activate prior knowledge. Students' knowledge of the content and possible strategies is made visible. The teacher may ask, “What do we already know that is relevant to this task?” or “What approach worked for you in a similar task?” The aim is for students to connect the new task with previous experience and notice any necessary gaps in knowledge.

2 Explicitly teach the strategy. The teacher explains the purpose of the selected strategy and how it is applied. When it is useful and where it may be limited are discussed. Students are guided to develop a task-related answer to the question, “Why are we using this method?” When more than one method is available, a limited and understandable set of choices is initially provided.

3 Model the strategy. The teacher makes important thinking decisions visible through think-aloud modeling. For example, by saying, “These two pieces of information conflict; before reaching a conclusion, I will check the source again,” the teacher can model both noticing and a regulation decision. Modeling directs students' attention to the targeted strategic decision rather than to every procedural detail.

4 Check understanding of the strategy. The student explains the essential steps of the method in their own words or demonstrates one step. The question, “When would you use this method?” helps examine whether the student understands the conditions for its use. This check does not mean the strategy has been fully internalized; it allows misunderstandings to be identified before practice.

5 Guided practice. The student tries the strategy while the teacher provides limited support where needed. Questions such as “What do you need to check at this point?” or “What evidence shows that the approach you chose is working?” may be used. Assistance supports the student's decision; the teacher does not complete on the student's behalf a thinking process the student can undertake.

6 Independent practice. The student uses the strategy with less external guidance. The teacher remains available when needed and monitors which decisions the student makes independently. If support is needed in a new task, guided practice may be revisited. Independence is evaluated in terms of being able to relate the method to the purpose and select appropriate help.

7 Structured reflection. The student evaluates how the method contributed to learning and what should change in the next task. Questions such as “Which part worked?”, “What makes you say that?”, and “What will you keep the same and what will you change in a new task?” may be used. The resulting decision is tested in subsequent learning. The EEF's description of the model serves as a reference for strategy instruction and the gradual transfer of responsibility (EEF, n.d.-b).

B.2 Strategies That Can Be Used in Lessons

Thinking routines. Routines such as See, Think, Wonder can help distinguish observation from interpretation and generate new questions. Claim, Evidence, Reasoning makes the rationale behind an explanation visible. The metacognitive connection is strengthened when, at the end of a routine, students explain which initial idea they changed or which question guided their inquiry. A routine does not replace content or the learning purpose.

Frayer model. A concept's definition, characteristics, examples, and non-examples are examined together. Students make the boundaries of the concept and misconceptions visible. To establish a metacognitive connection, students identify the example about which they were uncertain, explain how they checked their decision, and describe how they changed their explanation of the concept. Examples are selected to be accurate in terms of subject knowledge and appropriate to the student's level.

Concept mapping and graphic organizers. Students represent relationships among concepts in a map, Venn diagram, or another form of representation. The accuracy and clarity of relationships are examined before the visual layout of the map. Students can compare an initial map with a later version and explain which connection they changed and on the basis of what information. In this way, the tool serves both cognitive organization and monitoring change in learning.

Dialoguing with text and critical note-taking. Students mark points in a text that they consider important, do not understand, or want to question. They add a short question, rationale, or connection beside the mark. The teacher examines not the number of annotations but how the notes contribute to the student's next reading decision. The High School Critical Note-Taking Guide is among the tools that can support students in selecting and questioning sources and reflecting their own thinking in their notes.

Know, Want to Know, Learned (K-W-L) chart. The chart can reveal prior knowledge and information needs. For metacognitive monitoring, students are also asked what they will check during learning and under what conditions they would change their method. In the final section, they are asked to explain not only what they learned but also how they verified it and what their next question is. Completing the chart does not demonstrate that the entire metacognitive cycle has occurred automatically.

Writing planning with RAFT. The purpose of writing is clarified by identifying Role, Audience, Format, and Topic. Students consider how these choices affect expression and use of evidence. For example, when preparing a proposal for recycling at school, they may identify whom they are addressing and what evidence they need. When the writing is complete, they evaluate whether their initial choices served the purpose.

Revising like a writer. Students return to their text from the reader's perspective and check the coherence of the explanation, adequacy of evidence, and clarity. Rather than correcting every feature at once, they may focus on one selected area. Explaining the reason for a change between the initial and subsequent draft makes the thinking decision visible. The teacher may model this review using an example paragraph.

Socratic discussion. An evidence-based discussion is conducted around a text or problem. Students justify their views, examine others' explanations, and return to their own judgments. At the end of the discussion, the question “Which view influenced your thinking and why?” may be used. Frequency of speaking is distinguished from intellectual contribution; students' listening and their ability to make connections among ideas are also considered.

Thinking partners (Think-Pair-Share). The student first develops an individual idea, compares it with a partner, and then participates in the shared discussion. The metacognitive focus may be on how the student checks their own understanding when encountering the partner's explanation. In the final sharing, not only the answer but also any change in thinking and its reason are considered. The three steps of the technique are not automatically labeled as the three stages of the metacognitive cycle.

Anatomy of a question and the Question Formulation Technique (QFT). Students generate questions, discuss what information the questions may lead to, and select a question to guide inquiry. The distinction between open and closed questions is not used by itself as a measure of cognitive depth. Students explain why they selected a particular question and whether they needed to change it during the work. QFT is one of the protocols that can be used to structure the question-generation process.

Goal setting and monitoring. The student selects a clear, attainable, and trackable goal for a specific task or period. The goal may focus not only on the amount of work to be completed but also on the learning process to be developed. The student determines what evidence will be checked in relation to the goal and when it will be reviewed. The SMART framework for goals that are specific, measurable, achievable, relevant, and time-bound may be useful for appropriate ages and tasks, while maintaining the goal's connection to a genuine learning need.

Error-analysis journal. The student examines where an error occurred, which knowledge or strategy it relates to, and what should change in the next attempt. The error is not used as a label for the student's

overall ability. The student tests the proposed change in a similar task and evaluates the outcome. The relationship between the new attempt and the decision matters more than the length of the journal.

Learning journal and exit ticket. Brief reflection tools can enable students to make a critical decision visible. Rather than mechanically answering the same questions every day, a question appropriate to the task focus is selected. “What did I learn?” provides information about content evaluation, whereas “How did I check that I understood?” provides information about metacognitive monitoring. The teacher uses the responses to inform support decisions for the next lesson.

B.3 Cognitive Demand with Bloom and the Metacognitive Connection

Cognitive category	Student's operation on the content	Possible metacognitive connection
Remember	Recalls the relevant concept, information, or procedure.	Decides how to check recall.
Understand	Explains, interprets, or illustrates information.	Tests whether the explanation demonstrates understanding.
Apply	Uses information or a method in a task.	Checks the method's suitability for the task and its outcome.
Analyze	Examines parts and the relationships among them.	Evaluates which relationships the method of analysis makes visible.
Evaluate	Makes a judgment according to criteria.	Questions the choice of criteria and the reliability of the judgment.
Create	Combines elements into a new idea, product, or solution.	Monitors design decisions and revises them in response to feedback.

The metacognitive connections in the table are examples that may be used in task design. The occurrence of a cognitive category does not mean that the corresponding connection occurs automatically. The knowledge dimension of the objective is identified separately. The task given to the student is defined together with the content, prior knowledge, and success criteria.

B.4 Examples Across Divisions and Disciplines

Building in Preschool. A child wants to build a bridge between two surfaces. The teacher gives the child an opportunity to say or show what they will try first. When the bridge does not hold, the child decides which piece to change. At the end of the attempt, the teacher conducts a brief conversation connecting the initial purpose with the change made. The evidence is the child's choice, re-attempt, and explanation of that choice.

Reading in Primary School. A student explains the main idea of a short text. The student checks the explanation against two details in the text. If the details do not support the main idea, the student decides to reread or change the explanation. The teacher compares the student's initial and subsequent explanations. The metacognitive focus here is on checking understanding and regulating in response to that check.

Research in Middle School. A student examines which of two explanations is better supported by experimental data. The student first determines which data to examine, then identifies information that is insufficient for making a decision. The student proposes an additional measurement or a new comparison. The teacher addresses the scientific quality of the explanation and the student's recognition of the need for evidence using separate criteria.

Source-comparison writing in High School. A student selects sources for a claim and develops a reasoned text. Following peer feedback, the student decides which source or paragraph to change. The

student explains the relationship among critical notes, drafts, and the final text. The teacher examines both the quality of the text and the student's decisions about sources and strategies.

Practice in art or sport. A student selects a specific purpose for a performance, compares the attempt with that purpose, and identifies an element to change in the next attempt. Evidence may be a movement, sound, drawing, or visual arrangement. A lengthy written explanation is not required in order to demonstrate the student's thinking. The criteria of the discipline and the support received by the student are clearly specified.

B.5 Examples of Artificial Intelligence and Digital Tools

Testing an argument. The student first develops their own claim and evidence. Within the usage boundaries set by the teacher, the student may ask AI for possible counterarguments. The student checks the accuracy of the suggestions received and justifies what to change in the original text. Learning evidence consists of the initial claim, selected feedback, verification, and the student's decision.

Progressing with a hint. The student explains where they are stuck in a problem and asks for a hint that will help them think about the next step rather than for the complete solution. The student evaluates whether the hint actually provides the support needed. The student then completes the next step independently. The teacher limits tool use according to the purpose of the task and checks the student's understanding with an appropriate follow-up task.

Source verification. The student selects claims and sources in an explanation generated by a tool for review. The student verifies that the source exists and is relevant to the claim, and reconsiders the decision to use any part that cannot be verified. Because this work requires source access and subject knowledge, it is conducted with age-appropriate guidance. Where verification is not possible, uncertainty is stated explicitly.

Digital thinking space. Students may share their initial explanations and subsequent changes on a shared board or document. Tools appearing in previous implementation examples, such as Padlet, Miro, FigJam, Mentimeter, and Slido, may be considered in light of current institutional suitability and the learning purpose. Naming a tool does not constitute a fixed preference or approval for use across all divisions; the current reference is the Technology Roadmap.

B.6 Shared Question Bank

Process	Possible questions
Planning	What am I trying to understand? What kind of thinking does this task require? What knowledge and strategy can I use?
Monitoring	How am I checking that I understand? Where am I uncertain? Is the approach I chose serving the purpose?
Regulation	What might be causing the difficulty? What do I need to change? What kind of help would move my work forward?
Evaluation	Which decision worked? What evidence shows this? What is the relationship between the outcome and the pathway I followed?
Adaptation	What will I keep in the next task? What changes in the new context? How will I test my previous conclusion?

The questions are not a checklist to be asked all at once in a conversation. The teacher selects one or more according to the focus of the task and examines the student's response in relation to concrete work. Depending on student development, the teacher may simplify the language of the questions, add visual support, or turn the question into a re-attempt.

Appendix C. Monitoring Tools and Resources

The tools in this appendix make the monitoring and evaluation processes defined in Section 7 practicable. Academic units may integrate the tools with existing planning, observation, and assessment arrangements. The selected tool should be appropriate to the question to be answered and the decision to be made. Records linked to a student's identity are maintained within the relevant institutional access and retention arrangements.

C.1 Lesson Observation and Student Work Review

Before an observation, the teacher and observer identify the lesson's learning objective and the metacognitive focus to be examined. Rather than keeping a complete record of every area during the observation, events that illuminate the selected focus are recorded. A student's wording, choice, or change to their work is noted separately from interpretation. After the lesson, evaluation is completed with the teacher's contextual explanation and appropriate student products.

Initial information: Record the division and subject, learning objective, task, observation focus, significant conditions relating to students' prior knowledge, and support provided.

Review focus	Evidence to look for	Question for the feedback conversation
Purpose and cognitive demand	Student explanation of the task and success criteria	How does the student express the learning purpose?
Strategy instruction	Modeling the rationale for the method and its use by the student	How does the student explain why they chose this method?
Opportunity for monitoring	An action or student question that checks understanding	What information did the student gain about their progress?
Regulation decision	Rereading, a different representation, an additional attempt, or seeking help	What difficulty does the decision address?
Use of feedback	A reasoned change to a draft, solution, or explanation	How did the feedback influence the student's next decision?
Support and participation	Different students' access to decision-making and expression	Whose thinking did the support facilitate, and for whom should it be adjusted?

Post-observation record: State what the evidence shows, which interpretation has not yet been verified, the teacher's explanation, the practice to be changed in the next attempt, and the time for review. The decision is kept as limited and actionable as possible. Judgments about the teacher's overall competence are not drawn from a brief observation in a single context.

A student work review may use different examples from the same task or the same student's work over time. The learning purpose and criteria are clarified first; the product and process traces are then examined. Reviewers focus on the evidence shown by the work before relying on prior impressions of the student. When interpretations differ, the additional information needed is identified.

C.2 Student Process Record and Self-Assessment

The fields below may be used for a learning journal, portfolio entry, or brief conversation. It is not necessary to complete every field in writing for every task. With younger students, the teacher may simplify the

questions and record the student's explanation as a short note. A student may also demonstrate a response through a drawing, a change to a product, or a re-attempt.

- **My purpose and initial decision:** What did I want to learn or solve? Which approach did I choose, and why?
- **What I checked:** How did I check that I understood or was making progress? What evidence did I see?
- **The decision I made:** Did I continue in the same way, or did I make a change? What was my reason?
- **Outcome and process:** Which criterion does my final work meet? How did the method I chose contribute to this?
- **My next learning:** Which decision will I keep or change in the next task?

Alongside the student record, the teacher briefly notes the conditions of the task and the support provided. If there is a discrepancy between the student's explanation and the work, this becomes a question for discussion. For example, if a student says they understood a text but their explanation remains incomplete, they jointly examine how the student could check understanding more effectively. Self-assessment is not reduced to students describing themselves with positive or negative adjectives.

In peer feedback, the student first identifies an aspect of the work related to the criteria and then offers a question or suggestion to support improvement. The student receiving the feedback explains why they used, adapted, or did not use the suggestion. The teacher prevents students from making judgments about one another's personality or general ability and keeps the conversation focused on the work and learning decisions.

C.3 Descriptors and Shared Interpretation

Descriptors help discussion of a specific process and level of support in a particular task. The example below focuses on monitoring and regulation. It is not used as a standard scoring scale representing all metacognitive development across the school. The same student may require different supports across different processes and tasks.

Observed use	Descriptor within the task	Next instructional decision
With intensive support	Checks understanding with teacher guidance and uses a model or explicit prompt to identify the difficulty and select a method.	Model the critical point to check and a possible regulation.
With partial support	Checks progress using the provided criterion or reminder, identifies the difficulty, and makes a reasoned choice among options.	Provide an opportunity to check and choose with fewer reminders.
Independent and justified	Notices the point that requires checking, tests understanding with appropriate evidence, and changes strategy or seeks help when necessary.	Examine how the student adapts the choice in a different task and its effect.

Before using one of these descriptors, the student's task-related prior knowledge, access to criteria, and support received are specified. A lasting level of development is not inferred from a single behavior. Use is examined over time and across multiple tasks. The next instructional decision is determined according to the student's current need; the descriptor is not attached to the student as a label.

In shared interpretation, teachers first review sample work independently using the same criteria and then compare their rationales. They identify which evidence was interpreted in the same way and which differently. Any point at which the criterion remains ambiguous is clarified and, if necessary, a new example

is added. The aim is not to create compulsory consensus, but to make the basis and limitations of assessment decisions visible.

C.4 Annual Evaluation and Decision Tracking

In the annual evaluation, units prepare a sufficient evidence summary for the selected priority. The summary explains the scope within which implementation was examined, what it shows about student learning, and what institutional support is needed. Student examples are shared in accordance with required confidentiality arrangements. Counts of activities are interpreted together with evidence of implementation and learning.

An evaluation record may be maintained using the following fields. The record may be a brief section within the annual report or part of a shared decision-tracking arrangement; it does not require the creation of a separate reporting system.

Record field	Information to record
Focus and scope reviewed	Question, division or unit, period, and scope of the examples reviewed
Evidence and finding	Sources used, development or difficulty observed, and limitations of the interpretation
Decision taken	Change at the instructional, guide, or policy level and its rationale
Responsible role and support	Role responsible for follow-up, contributing units, and required resources
Implementation and re-review	Period in which the decision will be implemented, review time, and evidence to be used
Follow-up outcome	Change achieved, indications regarding student learning, and subsequent decision

When a policy revision decision is made, the version record includes the section changed, rationale for the change, approval and effective-date information, and its impact on related documents. For a guide update, the purpose of the tool and what has changed are specified. If no update is required, the record notes that the review was conducted and the evidence on which the current arrangement was retained. In this way, the rationale for the decision is carried into the next evaluation.

C.5 References and Related Documents

Institutional sources

Hisar School. (2026). Metacognitive Learning Policy. August 2026, V2 working version.

Research and instructional design sources

Education Endowment Foundation. (2025). Metacognition and Self-Regulated Learning. Second edition guidance report. Guidance and implementation resources.

Education Endowment Foundation. (n.d.-a). The Metacognitive Process. Practitioner tool. Metacognitive process tool.

Education Endowment Foundation. (n.d.-b). The Seven-Step Model. Practitioner tool. Seven-step instructional model.

Krathwohl, D. R. (2002). A Revision of Bloom's Taxonomy: An Overview. Theory Into Practice, 41(4), 212–218. Article.

McTighe, J., & Wiggins, G. (2012). Understanding by Design Framework. ASCD. Instructional design framework.

Documents to be used together in implementation

The Hisar School Strategic Plan, Hisar Student Profile, and Instructional Supervision and Evaluation Policy are used through the school's current institutional document system. The links below provide reference points for the relevant outcomes and technology documents. Version and link currency are checked as part of the annual review process.

- Deep Thinking and Research K12 Outcomes
- Technology Roadmap
- Information Technology Strategies Policy
- Artificial Intelligence in Education Policy