Metacognitive Skills Progression

Checked by School Leader/ Key Stage Leader	Name/ Signature/ Date:
Checked by Visible Learning Coach	Name/ Signature/ Date:

Monitoring	The school is required to regularly monitor the delivery of this Vertical Skills Progression Map. The school must complete an annual review of its School Vertical Progression Map to check the implementation of curriculum documentation. Ongoing monitoring of planning, learning evidence and pupil knowledge will take place as part of good practice by subject and school leaders. Information from monitoring will be used to inform in school/ Trust CPD Subject Training.
Definition and Guidance	What does metacognition mean? The prefix 'meta' means 'about' the thing itself. So, metacognition is 'cognition about cognition', or 'thinking about one's thinking'. It is often considered to have two dimensions: metacognitive knowledge and metacognitive regulation. • **Metacognitive knowledge** includes the learner's knowledge of their own cognitive abilities (e.g. I have trouble remembering dates), the learner's knowledge of the nature of particular tasks (e.g. the ideas in this article are complex), and the learner's knowledge of different strategies including when to use these strategies (e.g. if I break telephone numbers into chunks I will remember them) (Brown, 1987; Flavell, 1979). • **Metacognitive regulation** describes how learners monitor and control their cognitive processes. For example, realising that the strategy they are using to solve a mathematical problem is not working and trying another approach (Nelson & Narens, 1990). For example, a learner might realise that a particular strategy is not achieving the results they want, so they decide to try a different strategy. Metacognition describes the processes involved when learners plan, monitor, evaluate and make changes to their own learning behaviours. The Progression Materials are divided into three key areas: Planning, Monitoring and Evaluation. Throughout learners are encouraged to self-reflect. **Reflection** is a fundamental part of the plan-monitor-evaluate process. Encouraging learners to self-question throughout the process will support this reflection.

Planning

During the **planning** phase, learners think about the learning intention and consider how they will approach the task and which strategies they will use. At this stage, it is helpful for learners to ask themselves:

'What am I being asked to do?'
'Which strategies will I use?'
'Are there any strategies that I have used before that might be useful?'

An Daras Trust: Skills Progression: Vertical Progression Map

Inquiring – identifying, exploring and organising information and ideas

Learners pose questions and identify and clarify information and ideas, and then organise and process information. They use questioning to investigate and analyse ideas and issues, make sense of, and assess information and ideas, and collect, compare, and evaluate information from a range of sources. In developing and acting with critical and creative thinking, learners:

- pose questions
- identify and clarify information and ideas
- organise and process information.

Learning Progression	EYFS	Key Stage One	Lower Key Stage Two	Upper Key Stage Two
Pose questions	pose factual and exploratory questions based on personal interests and experiences	pose questions to identify and clarify issues, and compare information in their world	pose questions to expand their knowledge about the world	pose questions to clarify and interpret information and probe further to discover causes and consequences
Identify and clarify information and ideas	identify and describe familiar information and ideas during a discussion or investigation	Identify and explore information and ideas from source materials	identify main ideas and select and clarify information from a range of sources	identify and clarify relevant information and prioritise ideas
Organise and process information	gather similar information from given sources	organise information based on similar or relevant ideas from several sources	collect, compare, and categorise facts and opinions found in a wide range of sources	analyse, condense, and combine relevant information from multiple sources

Generating ideas, possibilities and actions element

Learners create ideas and actions and consider and expand on known actions and ideas.

Learners imagine possibilities and connect ideas through considering alternatives, seeking solutions, and putting ideas into action. They explore situations and generate alternatives to guide actions and experiment with and assess options and actions when seeking solutions. In developing and acting with critical and creative thinking, learners:

An Daras Trust: Skills Progression: Vertical Progression Map

- imagine possibilities and connect ideas
- consider alternatives
- seek solutions and put ideas into action

Learning Progression	EYFS	Key Stage One	Lower Key Stage Two	Upper Key Stage Two
Imagine possibilities and connect ideas	use imagination to view or create things in new ways and connect two things that seem different Listen to an adult or peer describing the visual features of a text, diagram, picture, or multimedia	build on what they know to create ideas and possibilities in ways that are new to them develop and/or produce spoken or written texts in print or digital forms	expand on known ideas to create new and imaginative combinations	combine ideas in a variety of ways and from a range of sources to create new possibilities
Consider alternatives	suggest alternatives and creative ways to approach a given situation or task	identify and compare creative ideas to think broadly about a given situation or problem	explore situations using creative thinking strategies to propose a range of alternatives	identify situations where current approaches do not work, challenge existing ideas, and generate alternative solutions
Seek solutions and put ideas into action	predict what might happen in a situation and when putting ideas into action	investigate options and predict possible outcomes when putting ideas into action	experiment with a range of options when seeking solutions and putting ideas into action	assess and test options to identify the most effective solution and put ideas into action

Example Pupil Self-Survey Statements: Regulation of Cognition
Reference: Sections of this survey are attributed to Schraw, G. & Dennison, R.S (1994). Assessing metacognitive awareness. Contemporary Educational Psychology, 19, 460-475.

Planning	I pace myself while learning in order to have enough time.
	I think about what I really need to learn before I begin a task.
Planning, goal setting, and allocating resources prior to learning	I set specific goals before I begin a task.
	I ask myself questions about the material before I begin.
	I think of several ways to solve a problem and choose the best one.
	I read instructions carefully before I begin a task.
	I organise my time to best accomplish my goals
Information Management Strategies	I slow down when I encounter important information
	I consciously focus my attention on important information
	I focus on the meaning and significance of new information.
Skills and strategy sequences	I create my own examples to make information more meaningful

used to process information more efficiently (e.g., organising)	I draw pictures or diagrams to help me understand while learning.
	I try to translate new information into my own words.
	I use the organisational structure of the text to help me learn
	I ask myself if what I'm reading is related to what I already know.
	I try to break studying down into smaller steps.
	I focus on overall meaning rather than specifics

Monitoring

During the **monitoring** phase, learners implement their plan and monitor the progress they are making towards their learning goal. Learners might decide to make changes to the strategies they are using if these are not working. As learners work through the task, it will help them to ask themselves:

'Is the strategy that I am using working?'
'Do I need to try something different?'

For example, in the context of an Art activity: Reference: EEF_Metacognition_and_self-regulated_learning.pdf

'Am I doing well?'
'Do I need any different techniques to improve my selfportrait?'
'Are all of my facial features in proportion?'
'Am I finding this challenging?'
'Is there anything I need to stop and change to improve my self-portrait?'

Reflecting on thinking and processes element

Learners need to reflect on, adjust and explain their thinking and identify the thinking behind choices, strategies and actions taken.
Learners think about thinking (metacognition), reflect on actions and processes, and transfer knowledge into new contexts to create alternatives or open possibilities. They apply knowledge gained in one context to clarify another. In developing and acting with critical and creative thinking, learners:
- think about thinking (metacognition)
- reflect on processes
- transfer knowledge into new contexts.

Learning Progression	EYFS	Key Stage One	Lower Key Stage Two	Upper Key Stage Two
Think about thinking (metacognition)	describe what they are thinking and give reasons why	describe the strategies used in given situations and tasks	reflect on, explain and check the processes used to come to conclusions	reflect on assumptions made, consider reasonable criticism, and adjust their thinking if necessary
Reflect on processes	identify the main elements of	outline the details and	identify pertinent information	identify and justify the thinking

	the steps in a thinking process	sequence in a whole task and separate it into workable parts	in an investigation and separate into smaller parts or ideas	behind choices they have made
Transfer knowledge into new contexts	connect information from one setting to another	use information from a previous experience to inform a new idea	transfer and apply information in one setting to enrich another	apply knowledge gained from one context to another unrelated context and identify new meaning

Example Pupil Self-Survey Statements: Regulation of Cognition	
Comprehension Monitoring *Assessment of one's learning or strategy use*	I ask myself periodically if I am meeting my goals
	I consider several alternatives to a problem before I answer.
	I ask myself if I have considered all options when solving a problem
	I periodically review to help me understand important relationships
	I find myself analysing the usefulness of strategies while I study.
	I find myself pausing regularly to check my comprehension.
	I ask myself questions about how well I am doing while learning something new.
Debugging Strategies *Strategies to correct comprehension and performance errors*	I ask others for help when I don't understand something.
	I change strategies when I fail to understand.
	I re-evaluate my assumptions when I get confused.
	I stop and go back over new information that is not clear.
	I stop and reread when I get confused.

Evaluation

During the **evaluation** phase, learners determine how successful the strategy they used was in helping them to achieve their learning goal. To promote evaluation, learners could consider:

'How well did I do?'
'What didn't go well?'
'What could I do differently next time?'
'What went well?'
'What other types of problem can I use this strategy for?'

For example, in the context of an Art activity: Reference: EEF_Metacognition_and_self-regulated_learning.pdf

'How did I do?'

'Did my line guide strategy work?'
'Was it the right viewpoint to choose?'
'How would I do a better self-portrait next time?'
'Are there other perspectives, viewpoints or techniques I would like to try?'

Analysing, synthesising and evaluating reasoning and procedures element

Learners need to analyse, synthesise, and evaluate the reasoning and procedures used to find solutions, evaluate, and justify results or inform courses of action. Learners identify, consider, and assess the logic and reasoning behind choices. They differentiate components of decisions made and actions taken and assess ideas, methods, and outcomes against criteria. In developing and acting with critical and creative thinking, learners:
- apply logic and reasoning
- draw conclusions and design a course of action
- evaluate procedures and outcomes

Learning Progression	EYFS	Key Stage One	Lower Key Stage Two	Upper Key Stage Two
Apply logic and reasoning	identify the thinking used to solve problems in given situations	identify reasoning used in choices or actions in specific situations	identify and apply appropriate reasoning and thinking strategies for outcomes	assess whether there is adequate reasoning and evidence to justify a claim, conclusion, or outcome
Draw conclusions and design a course of action	share their thinking about possible courses of action	identify alternative courses of action or possible conclusions when presented with information	draw on prior knowledge and use evidence when choosing a course of action or drawing a conclusion	scrutinise ideas or concepts, test conclusions and modify actions when designing a course of action
Evaluate procedures and outcomes	check whether they are satisfied with the outcome of tasks or actions	evaluate whether they have accomplished what they set out to achieve	explain and justify ideas and outcomes	evaluate the effectiveness of ideas, products, performances, methods, and courses of action against given criteria

Example Pupil Self-Survey Statements: Regulation of Cognition	
Evaluation	I know how well I did once I finish a test/ assessment.
	I ask myself if there was an easier way to do things after I finish a task.
Analysis of performance and strategy effectiveness after a learning episode	I summarise what I've learned after I finish.
	I ask myself how well I accomplish my goals once I'm finished.
	I ask myself if I have considered all options after I solve a problem.
	I ask myself if I learned as much as I could have once, I finish a task.