



# Rubric for Assessing Thinking, Problem-Solving and Decision-Making

Based on the progression maps in Thinking Skills and Personal Capabilities for Key Stage 3

## Pointers for progression by the end of Key Stage 3

Even from an early stage, pupils should begin to engage with a range of different kinds of age-appropriate thinking. As pupils progress<sup>1</sup>, they will begin to work on more challenging tasks that draw on wider perspectives and a deeper knowledge base. In the early stages, the focus is on developing pupils' attention, concentration and memory, so that they can build up their pattern-making abilities and solve problems in specific situations. As they progress, they will be able to deal with more dimensions of information at the same time. They will also extend their range of thinking skills to become better at analysing their explanations and justifications. In the longer run, pupils should be able to engage with a variety of thinking patterns, deal with a range of evidence, and see problems from multiple perspectives and from a more systemic point of view. As they progress, pupils will be able to adopt a metacognitive perspective and will become more adept at managing their own learning and at seeing and making connections.

<sup>1</sup>NOTE: When referring to this rubric, please remember that many pupils are likely to progress in Thinking Skills and Personal Capabilities in a non-linear fashion. This means that for any of the statements, a pupil might perform well on one occasion, but not consistently when doing something similar in another context. For example, a pupil might confidently ask questions around a topic they feel comfortable with, but need prompting when a new area is the focus. The purpose of assessment here is diagnostic: by building a picture of a pupil's performance over time you will get a sense of where they are confident and where they still need support. By sharing rubrics with pupils and involving them in setting their own success criteria you can lead them to set their own priorities for learning, recognising where their strengths and weaknesses are, and in which areas of their work.

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Pointers for progression	Novice (N)	Apprentice (A)	Practitioner (P)	Expert (E)
<p><b>Generate deep interpretations and new ideas through comparing and classifying (patterns and relationships).</b></p> <p>Pupils discover how to:</p> <ul style="list-style-type: none"> <li>sequence, order, classify, and make comparisons.</li> </ul>	<p>Can follow explanations of how items or factors under consideration are similar, connected or comparable.</p>	<p>Can make suggestions about ways items or factors might be compared; can sift and sort these items into groups using several possible criteria.</p>	<p>Can generate ideas for alternative ways to group and sort items or factors. Can speculate and explore possibilities to arrive at new insights.</p>	<p>Can discriminate finely grained distinctions when grouping, sorting and filtering similar items or factors.</p> <p>Use their observations to extrapolate further possibilities, searching for meaning.</p>
<p><b>Pose questions about the reliability of evidence and the consequences for reaching conclusions (bias, reliability of evidence, corroboration).</b></p> <p>Pupils discover how to:</p> <ul style="list-style-type: none"> <li>make predictions, examine evidence, and distinguish fact from opinion.</li> </ul>	<p>When prompted, can recognise where assumptions have been made or there is room for doubt.</p>	<p>Approach evidence with appropriate scepticism, questioning assumptions and probing evidence to establish value or reliability.</p>	<p>Anticipate likely outcomes based on observations. Suggest what might be reasonable grounds for crediting a statement or position, and challenge unsupported assumptions.</p>	<p>Propose criteria for making judgements about evidence before developing conclusions, questioning their own and others' assumptions and searching for corroborative evidence.</p>
<p><b>Develop an argument and decide to what extent conclusions support a prediction or an idea. Spot biases and errors in arguments (argument, causal reasoning, probabilistic reasoning).</b></p> <p>Pupils discover how to:</p> <ul style="list-style-type: none"> <li>make links between cause and effect.</li> </ul>	<p>Make connections between what they have seen and what is likely to happen next, suggesting possible reasons for their observations.</p>	<p>Say why they believe that a particular outcome is likely to follow from one situation or set of evidence, supporting their assumptions with reasons based on observation.</p>	<p>Based on observations and evidence, interpret material to explain why one outcome is more likely than another.</p> <p>Develop an argument showing how their interpretation is reasonable and free from error.</p>	<p>Extrapolate from one set of instances to another, relating cause and effect with arguments for and against particular interpretations.</p> <p>Make their case, saying what steps have been taken to make the conclusions objective.</p>

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Pointers for progression	Novice (N)	Apprentice (A)	Practitioner (P)	Expert (E)
<p><b>Draw generalisations and recognise their limitations (reaching conclusions).</b></p> <p>Pupils discover how to:</p> <ul style="list-style-type: none"> <li>justify methods, opinions and conclusions.</li> </ul>	<p>Consider issues, events or problems from their own perspective.</p> <p>When prompted, sum up what they have seen or discussed.</p>	<p>Begin to explore issues, events or problems from different perspectives.</p> <p>Give an overview, recognising where detail might have been lost by summing-up.</p>	<p>Can explore issues, events or problems from different perspectives.</p> <p>Explain what has been done and what conclusions can be drawn, acknowledging where uncertainties exist.</p>	<p>Thoroughly explore issues, events or problems from multiple perspectives, taking account of various opinions and positions.</p> <p>Tie together the various strands of an issue, drawing out the most important features and saying why these should be treated as significant.</p>
<p><b>Analyse a range of viewpoints (multiple perspectives).</b></p> <p>Pupils discover how to:</p> <ul style="list-style-type: none"> <li>generate possible solutions, try out alternative approaches, and evaluate outcomes.</li> </ul>	<p>Begin to make connections between their own ideas and experiences and those of others.</p> <p>When prompted, suggest a course of action in response to a problem, issue or event.</p>	<p>Ask others about what they think, or about what worked well and what could be improved.</p> <p>Suggest a course of action in response to a problem, issue or event.</p>	<p>Take account of ideas and experiences from a range of situations and circumstances in insightful ways.</p> <p>Choose a suitable response to a problem, issue or event from several possible courses of action.</p>	<p>Find, investigate and acknowledge ideas and experiences from a range of situations and circumstances in ways that are inventive and/or inclusive.</p> <p>Simultaneously or successively, implement several possible courses of action to address a problem, issue or event, evaluating the relative merits of the various outcomes.</p>
<p><b>Be able to examine the pros and cons of a situation, predict likely consequences and evaluate the outcomes from a range of perspectives (decision-making).</b></p> <p>Pupils discover how to:</p> <ul style="list-style-type: none"> <li>examine options and weigh up pros and cons.</li> </ul>	<p>Can list some advantages and disadvantages to a proposed course of action when prompted.</p> <p>Need support to identify how to make things work better when processes are not working.</p>	<p>Can list advantages and disadvantages of a proposed course of action.</p> <p>Can suggest possible ways to advance the situation when processes are not working, considering what is likely to be useful.</p>	<p>Can anticipate the pros and cons of a proposed course of action.</p> <p>Can weigh up options, anticipating possibilities and adapting their ideas and actions as circumstances change.</p>	<p>Can anticipate the pros and cons of a proposed course of action, weighing the expected impact of each before deciding on the best way forward.</p> <p>Make allowances for unforeseen events that might cause difficulties, and make decisions appropriate to the situation in order to keep on track.</p>

# Rubric for Assessing Thinking, Problem-Solving, and Decision-Making

Pointers for progression	Novice (N)	Apprentice (A)	Practitioner (P)	Expert (E)
<p><b>Be able to engage with a range of problem-solving methods and to evaluate solutions (problem-solving).</b></p> <p>Pupils discover how to:</p> <ul style="list-style-type: none"> <li>use different types of questions.</li> </ul>	<p>When prompted, can use an already familiar approach to tackle a problem. Ask questions to work towards a solution.</p>	<p>Can use a familiar approach to tackle a problem. Ask pertinent questions to inform decisions.</p>	<p>Attempt an alternative approach if difficulties arise when tackling a problem. Use probing questions to get to the root of the issue.</p>	<p>Can bring several alternatives to bear when searching for a solution, experimenting and asking questions to decide which approach to apply and later to judge what worked well and what could be improved.</p>
<p><b>Refine and modify methods and ideas in new situations and in a range of contexts. Apply understanding and make connections across the curriculum (see the bigger picture, reformulate and transfer both knowledge and skills across the curriculum).</b></p> <p>Pupils discover how to:</p> <ul style="list-style-type: none"> <li>make connections between learning in different contexts.</li> </ul>	<p>Make a plan (with support) that uses a familiar approach but applies it to a new problem or issue.</p>	<p>Draw up a plan of action which reuses a familiar way of working with some adaptations and modifications to tackle a new problem or issue.</p>	<p>Combine several approaches from familiar ways of working to plan an investigation in a new context or topic. Give reasons why particular steps will be useful in achieving the intended outcome.</p>	<p>Recognise when existing knowledge or skills will be useful in tackling a new topic or activity, making connections between previous experiences in other areas that they can use to plan a practical way forward.</p>