# Critical thinking – Assessment advice



## Assessment

Critical thinking is a department approved elective course and is not eligible for credentialing on the Record of School Achievement (RoSA).

The scheduling of assessment activities and the weightings applied should reflect the school's organisation of the course. Students should be given the opportunity to demonstrate their maximum level of achievement relative to the course performance descriptors.

## General performance descriptors

Schools may choose to use general performance descriptors to describe performance at each of 5 grade levels.

Table 1 – Performance descriptors for the A-E grade scale

|  |  |
| --- | --- |
| Grade | Performance descriptors |
| A | The student has an extensive knowledge and understanding of the content and can readily apply this knowledge. In addition, the student has achieved a very high level of competence in the processes and skills and can apply these skills to new situations. |
| B | The student has a thorough knowledge and understanding of the content and a high level of competence in the processes and skills. In addition, the student is able to apply this knowledge and these skills to most situations. |
| C | The student has a sound knowledge and understanding of the main areas of content and has achieved an adequate level of competence in the processes and skills. |
| D | The student has a basic knowledge and understanding of the content and has achieved a limited level of competence in the processes and skills. |
| E | The student has an elementary knowledge and understanding in few areas of the content and has achieved very limited competence in some of the processes and skills. |

## Areas for assessment

The areas for assessment provide a framework for structuring an assessment program and may be used for reporting student achievement. They are derived from the course content and are linked to the course outcomes.

Quality assessment practice involves designing assessment activities that enable students to demonstrate their achievements and growth across the duration of the course. Teachers can use the areas for assessment when designing an assessment activity to ensure it is assessing performance in relation to a grouping of outcomes.

In designing the assessment schedule for a course, teachers may find it useful to map each planned assessment activity to one or more of the areas for assessment. This allows teachers to ensure that assessment can occur across the year in a manageable way.

## Useful assessment strategies

In developing and selecting activities for the purpose of assessing and reporting, teachers will use a range of different approaches.

Critical thinking is a higher order skill, however the full range of Bloom’s taxonomy may be used in assessments to give opportunity for the full range of abilities and be used as an assisted tool to guide the development to higher order thinking.

Research suggests that critical thinking is best assessed with open-ended, problem-solving questions where students are required to go beyond the information given and infer reasoning through the assessment of valid evidence. Quality opportunities to demonstrate critical thinking in assessments may be found in stimulus that is inconsistent and contradictory. Such assessments highlight the emphasis of informed thinking and reasoning rather than the formulation of a single answer, as there may be many, or none.

Multiple choice questions may be used in formative assessment of critical thinking skills; however, reflection questions that require students to justify, evaluate, or assess their thinking will need to be used so that students can demonstrate their thinking in reaching their answer.

A sample rubric that links the Stage 5 General performance descriptors to the outcomes for this course is available as an additional resource. These could be used formatively and for student reflection. This integrated approach to assessment aligns with the [School Excellence Framework: Version 2 – July 2017](https://education.nsw.gov.au/teaching-and-learning/school-excellence-and-accountability/sef-evidence-guide/resources/about-sef#:~:text=School%20Excellence%20Framework%20(PDF%20291.17KB)) excellence statements on Curriculum and Assessment.

### Inquiry-based research assignments and projects

Assessment activities might include independent research tasks to investigate issues and processes, a web-based research assignment, or the development of a media portfolio.

When this strategy is used for assessment purposes, students could be assessed on their ability to:

* gather and analyse information
* research information
* communicate information.

### Presentations

Assessment activities might include prepared and impromptu oral presentations, role-plays, poster presentations, prepared digital recordings (video or audio), and displays.

When these strategies are used for assessment purposes, students could be assessed on their ability to:

* participate in scenarios
* communicate information effectively using oral and graphical forms.

### Debates

Students could prepare and conduct debates using a variety of formats (for example, Socratic). Students may also view and discuss debates. When used for assessment purposes, students could be assessed on their ability to:

* analyse arguments
* logically explain evidence to justify claims
* explain significant implications and consequences.

### Peer assessment

Critical thinking encourages the active involvement of students in the learning process. Opportunities exist for individual and collaborative work. Activities involving peer assessment might include evaluating the contributions of individuals to a group task and reflecting on a peer presentation.

### Self-reflection

Critical thinking encourages students to become self-directed learners. Opportunities exist for students to reflect on their progress towards the achievement of the course outcomes. This reflection provides the basis for improving their learning. Developing meta-cognitive skills is an ongoing process that becomes increasingly more sophisticated and self-initiated as students progress.

## Additional information

**Resource evaluation and support**: Please complete the following [feedback form](https://forms.office.com/Pages/ResponsePage.aspx?id=muagBYpBwUecJZOHJhv5kbKo2q_ZUXlHndJMnh2Wd8NUOUk0VTIzUDVVSlVFQVM5MkdOMkJGTjVKNCQlQCN0PWcu) to help us improve our resources and support.

The information below can be used to support teachers when using this assessment advice for Critical thinking.

### Rationale

Critical thinking is a form of purposeful thinking that emphasises evidence and reasoning. In today’s world, where information is readily available, critical thinking is becoming more important than remembering and recalling facts. Society values critical thinking because it is an interdisciplinary and transferable skill. It means that no matter what path or profession is pursued, critical thinking skills will always be relevant and useful.

Critical thinking skills include the ability to deconstruct, analyse, synthesise and reconstruct ideas while emphasising evidence and reasoning. Those skills are part of every toolkit for success in educational and professional arenas.

The Critical thinking course emphasises the fundamental attributes of critical thinkers and gives students a wide range of opportunities to transfer these skills across multiple disciplines. The course structure encourages students to think about thinking and transcend factual learning.

The core units introduce students to the key features of critical thinking, including how critical thinking is distinguished from other models of thinking. Students will learn about the process of argumentation and apply it to evaluate claims. Students will also gain practical research skills to collect information from various sources and evaluate their credibility.

A choice from the available options engages students in various areas of interest to reinforce the skills learnt from the core units. In addition, the options allow students and teachers to delve deeper into specific scenarios of interest. They will be guided to ask probing questions to strengthen their critical thinking skills and challenge their perceptions of the world around them.

After completing the Critical thinking elective, students will be able to apply critical thinking processes to analyse the strength and validity of information and claims. Those skills are valuable for learning in Stage 6. Critical and creative thinking is a general capability in most Stage 6 courses. By applying their critical thinking skills, students will deepen their understanding of content and skills across many disciplines.

### Aim

The course aims to engage and encourage students to develop their critical thinking skills and recognise the key aspects of a critical thinking mind. They will develop the essential skills to evaluate the vast and diverse amount of information they encounter in their daily lives. This will help them face future challenges in a continually evolving world.

### Purpose and audience

This assessment advice provides performance band descriptors which align with the A-E grading scale. It also outlines a range of assessment strategies and how they could be applied to the course. This resource is for teachers and leaders when planning for assessment and reporting of the Critical thinking course.

### When and how to use this document

Use the assessment advice to guide the development of an effective assessment schedule, formative tasks, and summative tasks which allow all students to demonstrate their achievement of course outcomes. This assessment advice should also be used when designing reporting processes for the Critical thinking course.

### Assessment for learning

Possible formative assessment strategies that could be included:

* Learning intentions and success criteria assist educators to articulate the purpose of a learning task to make judgements about the quality of student learning. These help students focus on the task or activity taking place and what they are learning and provide a framework for reflection and feedback. [Online tools](https://app.education.nsw.gov.au/digital-learning-selector/LearningActivity/Card/622) can assist implementation of this formative assessment strategy.
* Eliciting evidence strategies allow teachers to determine the next steps in learning and assist teachers in evaluating the impact of teaching and learning activities. Strategies that may be added to a learning sequence to elicit evidence include all student response systems, [exit tickets](https://app.education.nsw.gov.au/digital-learning-selector/LearningActivity/Card/543), mini whiteboards (actual or [digital](https://app.education.nsw.gov.au/digital-learning-selector/LearningActivity/Card/575)), [hinge questions](https://app.education.nsw.gov.au/digital-learning-selector/LearningActivity/Card/557), [Kahoot](https://app.education.nsw.gov.au/digital-learning-selector/LearningTool/Card/621), [Socrative](https://app.education.nsw.gov.au/digital-learning-selector/LearningTool/Card/587), or quick quizzes to ensure that individual student progress can be monitored and the lesson sequence adjusted based on formative data collected.
* Feedback is designed to close the gap between current and desired performance by informing teacher and student behaviour (AITSL 2017). AITSL provides a [factsheet to support evidence-based feedback](https://www.aitsl.edu.au/teach/improve-practice/feedback#:~:text=FEEDBACK-,Factsheet,-A%20quick%20guide).
* [Peer feedback](https://app.education.nsw.gov.au/digital-learning-selector/LearningActivity/Card/549) is a structured process where students evaluate the work of their peers by providing valuable feedback in relation to learning intentions and success criteria. It can be supported by [online tools](https://app.education.nsw.gov.au/digital-learning-selector/LearningActivity/Browser?cache_id=1d29b).
* Self-regulated learning opportunities assist students in taking ownership of their own learning. A variety of strategies can be employed and some examples include reflection tasks, [Think-Pair-Share](https://app.education.nsw.gov.au/digital-learning-selector/LearningActivity/Card/645), [KWLH charts](https://app.education.nsw.gov.au/digital-learning-selector/LearningActivity/Card/562), [learning portfolios](https://app.education.nsw.gov.au/digital-learning-selector/LearningActivity/Card/583) and [learning logs](https://app.education.nsw.gov.au/digital-learning-selector/LearningActivity/Card/564).

The primary role of assessment is to establish where individuals are in their learning so that teaching can be differentiated and further learning progress can be monitored over time.

Feedback that focuses on improving tasks, processes and student self-regulation is the most effective. Students engaging with feedback can take many forms including formal, informal, formative, summative, interactive, demonstrable, visual, written, verbal and non-verbal.

[What works best update 2020](https://education.nsw.gov.au/about-us/educational-data/cese/publications/research-reports/what-works-best-2020-update) (CESE 2020a)

### Differentiation

Differentiated learning can be enabled by differentiating the teaching approach to content, process, product and the learning environment. For more information on differentiation go to [Differentiating learning](https://education.nsw.gov.au/teaching-and-learning/professional-learning/teacher-quality-and-accreditation/strong-start-great-teachers/refining-practice/differentiating-learning) and [Differentiation](https://education.nsw.gov.au/campaigns/inclusive-practice-hub/primary-school/teaching-strategies/differentiation).

When using these resources in the classroom, it is important for teachers to consider the needs of all students in their class, including:

* **Aboriginal and Torres Strait Islander students**. Targeted [strategies](https://education.nsw.gov.au/teaching-and-learning/aec/aboriginal-education-in-nsw-public-schools) can be used to achieve outcomes for Aboriginal students in K-12 and increase knowledge and understanding of Aboriginal histories and cultures. Teachers should utilise students’ Personalised Learning Pathways to support individual student needs and goals.
* **EAL/D learners**. EAL/D learners will require explicit English language support and scaffolding, informed by the [EAL/D enhanced teaching and learning cycle](https://education.nsw.gov.au/teaching-and-learning/curriculum/literacy-and-numeracy/resources-for-schools/eald/enhanced-teaching-and-learning-cycle) and the student’s phase on the [EAL/D Learning Progression](https://education.nsw.gov.au/teaching-and-learning/curriculum/multicultural-education/english-as-an-additional-language-or-dialect/planning-eald-support/english-language-proficiency). In addition, teachers can access information about [supporting EAL/D learners](https://education.nsw.gov.au/teaching-and-learning/curriculum/multicultural-education/english-as-an-additional-language-or-dialect/planning-eald-support/english-language-proficiency) and [literacy and numeracy support specific to EAL/D learners](https://education.nsw.gov.au/teaching-and-learning/curriculum/literacy-and-numeracy/resources-for-schools/eald).
* **Students with additional learning needs**. Learning adjustments enable students with disability and additional learning and support needs to access syllabus outcomes and content on the same basis as their peers. Teachers can use a range of [adjustments](https://education.nsw.gov.au/teaching-and-learning/disability-learning-and-support/personalised-support-for-learning/adjustments-to-teaching-and-learning) to ensure a personalised approach to student learning. In addition, the [Universal Design for Learning planning tool](https://education.nsw.gov.au/teaching-and-learning/learning-from-home/teaching-at-home/teaching-and-learning-resources/universal-design-for-learning) can be used to support the diverse learning needs of students using inclusive teaching and learning strategies. Subject specific curriculum considerations can be found on the [Inclusive Practice hub](https://education.nsw.gov.au/campaigns/inclusive-practice-hub/primary-school/teaching-strategies/differentiation).
* **High potential and gifted learners**. [Assessing and identifying high potential and gifted learners](https://education.nsw.gov.au/teaching-and-learning/high-potential-and-gifted-education/supporting-educators/assess-and-identify#Assessment1) will help teachers decide which students may benefit from extension and additional challenge. [Effective strategies and contributors to achievement](https://education.nsw.gov.au/teaching-and-learning/high-potential-and-gifted-education/supporting-educators/evaluate) for high potential and gifted learners help teachers to identify and target areas for growth and improvement. In addition, the [Differentiation Adjustment Tool](https://education.nsw.gov.au/teaching-and-learning/high-potential-and-gifted-education/supporting-educators/implement/differentiation-adjustment-strategies) can be used to support the specific learning needs of high potential and gifted students. The [High Potential and Gifted Education Professional Learning and Resource Hub](https://schoolsnsw.sharepoint.com/sites/HPGEHub/SitePages/Home.aspx) supports school leaders and teachers to effectively implement the High Potential and Gifted Education Policy in their unique contexts.

All students need to be challenged and engaged to develop their potential fully. A culture of high expectations needs to be supported by strategies that both challenge and support student learning needs, such as through appropriate curriculum differentiation. (CESE 2020a:6).

## About this resource

All curriculum resources are prepared through a rigorous process. Resources are periodically reviewed as part of our ongoing evaluation plan to ensure currency, relevance and effectiveness. For additional support or advice contact the Teaching and Learning Curriculum team by emailing secondaryteachingandlearning@det.nsw.edu.au.

**Alignment to system priorities and/or needs**:

This resource aligns to the School Excellence Framework elements of curriculum (curriculum provision) and effective classroom practice (lesson planning, explicit teaching).

This resource supports teachers to address [Australian Professional Teaching Standards](https://educationstandards.nsw.edu.au/wps/portal/nesa/teacher-accreditation/meeting-requirements/the-standards/proficient-teacher) 5.1.2, 5.5.2

This resource has been designed to support schools with successful implementation of new curriculum, specifically the NSW Department of Education approved elective course, Critical thinking © 2021 NSW Department of Education for and on behalf of the Crown in right of the State of New South Wales.

The resource is produced to assist schools with promoting and implementing the course for the first time. As the course may be taught by teachers from a range of key learning areas, the resource is designed to support teachers from a variety of KLA expertise.

**Department approved elective course**: Critical thinking

**Course outcomes**: CT5-1, CT5-2, CT5-3, CT5-4, CT5-5, CT5-6, CT5-7

**Author**: Curriculum Secondary Learners

**Publisher**: State of NSW, Department of Education

**Resource**: Teaching resource

**Related resources**: Further resources to support Critical thinking can be found on the Department approved elective courses webpage including course document, sample scope and sequences, assessment materials and other learning sequences.

**Professional Learning**: Join the [Teaching and Learning 7-12 statewide staffroom](https://education.nsw.gov.au/teaching-and-learning/curriculum/statewide-staffrooms) for information regarding professional learning opportunities.

**Universal Design for Learning Tool**: [Universal Design for Learning planning tool](https://education.nsw.gov.au/teaching-and-learning/learning-from-home/teaching-at-home/teaching-and-learning-resources/universal-design-for-learning). Support the diverse learning needs of students using inclusive teaching and learning strategies.

**Consulted with**: Aboriginal Outcomes and Partnerships, Inclusion and Wellbeing, EAL/D, and Warrawong High School

**Reviewed by**: This resource was reviewed by Curriculum Secondary Learners and by subject matter experts in schools to ensure accuracy of content.

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**Evidence Base**:

The range of assessment strategies outlined in the advice encourages a ‘variety of assessment methods each lesson to check for students’ understanding and inform what should be taught next’ (CESE 2020b:22). The assessment strategies outlined are student-centred, providing ‘students with opportunities to reflect on their progress to inform future learning goals’ (CESE 2020b:22).

The assessment advice complies with NESA’s assessment advice, outlined on NESA’s ACE website, NESA official notices and department memorandums. They:

* include statements of school procedures for allocating grades in Year 10
* set out requirements to retain student work samples to support grade allocation as required by NESA for the RoSA (NSW Department of Education 2021).

The assessment strategies outlined provide teachers important information about whether students learned what they intended. Wiliam (2013:15) claims ‘the term formative should apply not to the assessment but to the function that the evidence generated by the assessment actually serve’.

## References

**Links to third-party material and websites**

Please note that the provided (reading/viewing material/list/links/texts) are a suggestion only and implies no endorsement, by the New South Wales Department of Education, of any author, publisher, or book title. School principals and teachers are best placed to assess the suitability of resources that would complement the curriculum and reflect the needs and interests of their students.

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AITSL (Australian Institute for Teaching and School Leadership (2017) ‘[Feedback Factsheet](https://www.aitsl.edu.au/teach/improve-practice/feedback#:~:text=FEEDBACK-,Factsheet,-A%20quick%20guide)’, AITSL, accessed 7 December 2022.

NESA (NSW Education Standards Authority) (2022) ‘[Proficient Teacher: Standard descriptors](https://educationstandards.nsw.edu.au/wps/portal/nesa/teacher-accreditation/meeting-requirements/the-standards/proficient-teacher)’, The Standards, NESA website, accessed 7 December 2022.

State of New South Wales (Department of Education) (2021) ‘[COVID-19 Interim Policy Standards – 2022: Implementation document for Curriculum planning and programming, assessing and reporting to parents K-12 policy](https://education.nsw.gov.au/policy-library/policies/pd-2005-0290)’, NSW Department of Education, accessed 7 December 2022.

State of New South Wales (Department of Education) and CESE (Centre for Education Statistics and Evaluation) (2020a) ‘[What works best: 2020 update](https://education.nsw.gov.au/about-us/educational-data/cese/publications/research-reports/what-works-best-2020-update)’, CESE, NSW Department of Education, accessed 7 December 2022.

State of New South Wales (Department of Education) and CESE (Centre for Education Statistics and Evaluation) (2020b) ‘[What works best in practice](https://education.nsw.gov.au/about-us/educational-data/cese/publications/practical-guides-for-educators-/what-works-best-in-practice)’, CESE, NSW Department of Education, accessed 7 December 2022.

Wiliam D (2013) ‘[Assessment: The Bridge between Teaching and Learning](https://www.researchgate.net/publication/258423377_Assessment_The_bridge_between_teaching_and_learning)’, *Voices from the Middle*, 21(2):15ؘ–20, accessed 7 December 2022.