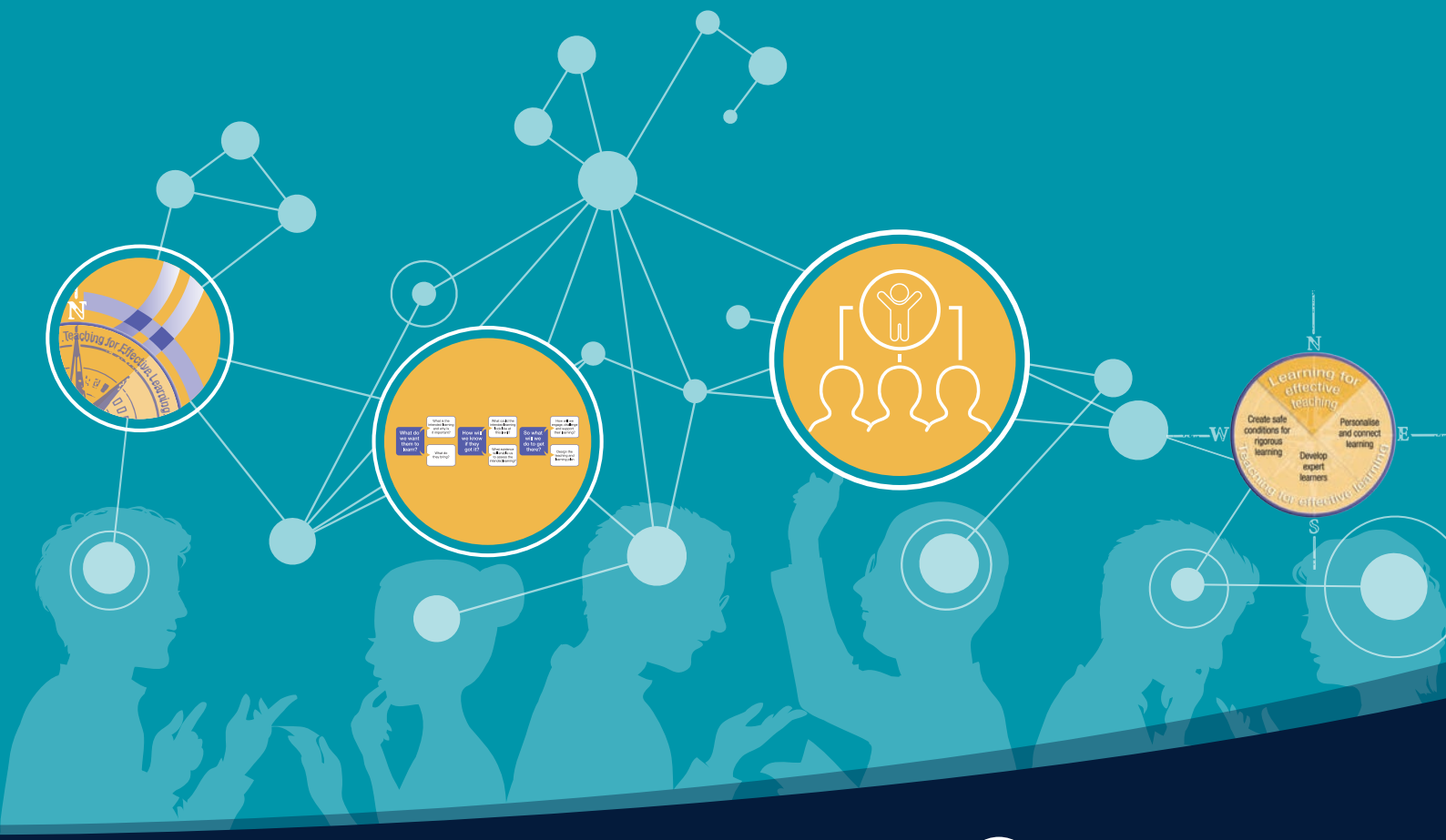
Version 2.1

Bringing together formative assessment and Learning Design

A support resource for designing teaching and learning from reception to year 12



www.education.sa.gov.au/ldam

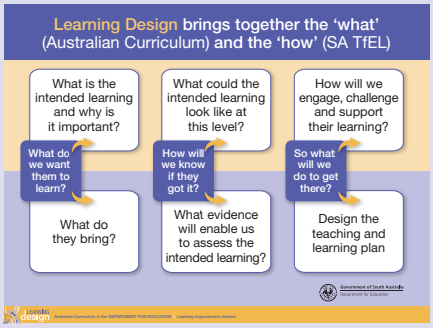
Government of South Australia
Department for Education

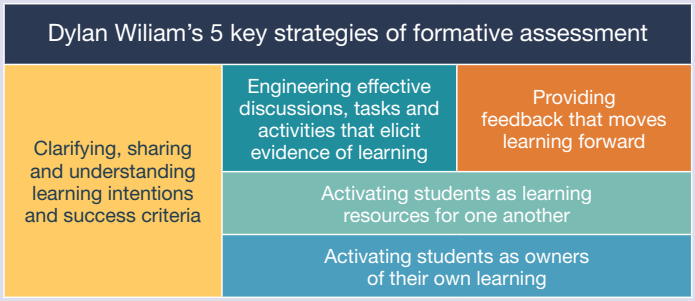
SA Learning Design

Formative assessment is at the heart of effective learning design

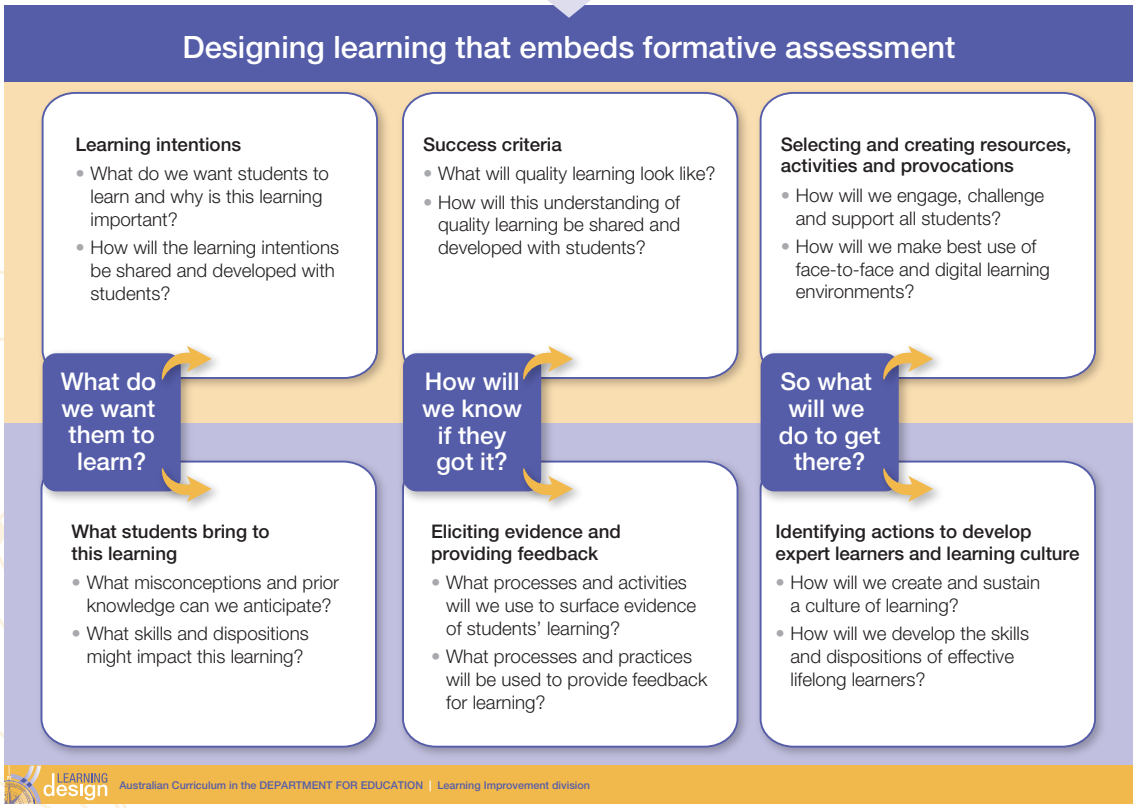
The elements of formative assessment—being clear about the intended learning, checking in with the learners and providing feedback to keep their learning moving forward—are key to designing engaging and challenging learning for students.

Illustrated below are the SA Learning Design thinking map and Dylan Wiliam's 5 key strategies of formative assessment. In the bottom diagram the renamed aspects of Learning Design highlight that formative assessment is at the heart of SA Learning Design.



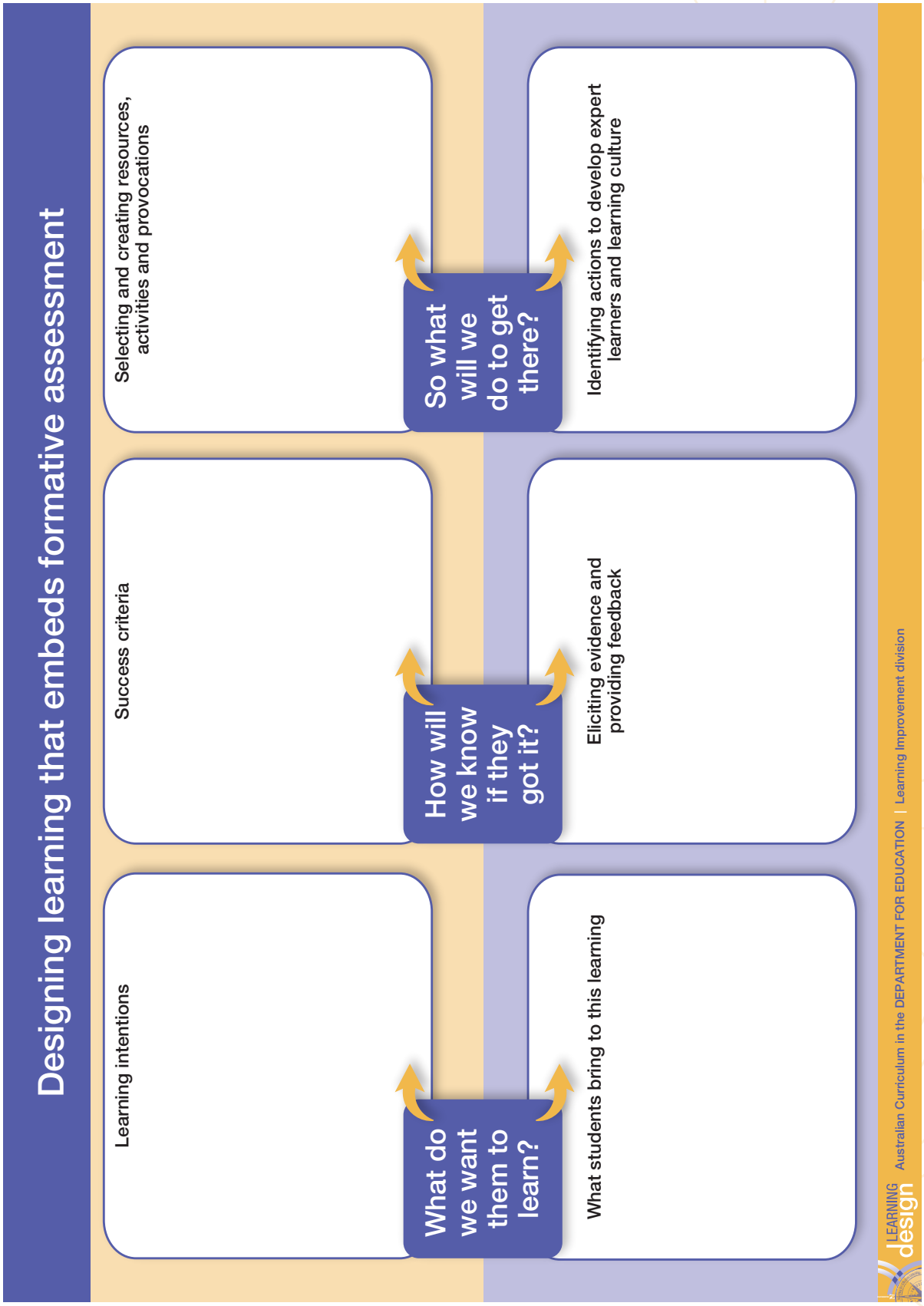


Adapted from Dylan Wiliam's 'Five key strategies' of formative assessment (Leahy et al, 2005)



The SA Learning Design thinking map is based on the 'Understanding by Design' work of Wiggins & McTighe, 2005.

SA Learning Design thinking map – renamed aspects



These questions are for use by teachers when considering the learning experiences they will design for students. It is not a 'planning proforma', but more a thinking map that supports teachers' choices regarding the activities, questions, thinking, concepts, levels of challenge, etc that they engage students in.

1 | Learning intentions

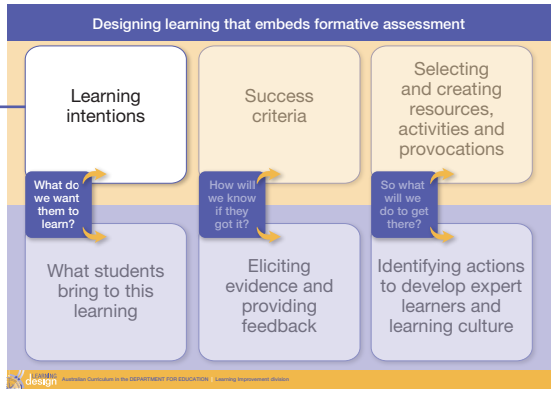
KEY QUESTIONS

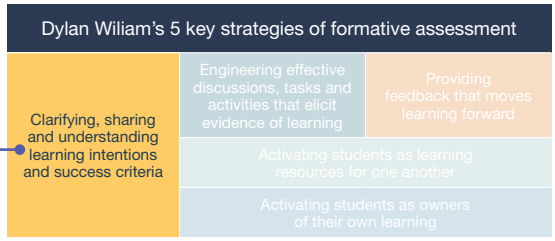
- What do we want students to learn and why is this learning important?
- How will the learning intentions be shared and developed with students?

Learning intentions describe the things we want our students to learn. (Wiliam & Leahy, 2015)

Formulating clear, explicit learning goals sets the stage for everything else. (Hiebert et al, 2007)

If teachers select the activities without a clear view of the learning that is intended, it is far less likely that the students will learn what they need to learn. (Wiliam & Leahy, 2015)





LEARNING AREA/SUBJECT PROMPTS	Notes
Identifying learning intentions • **What are the relevant Australian Curriculum/SACE references?** (From one or more learning areas.) • **What depth and breadth of understanding are we really seeking?*** – **KNOW | What do we want students to know?** What do we want them to recall, remember, recognise? – **UNDERSTAND | What do we want students to understand?** What relationships, patterns, connections, similarities and differences are important to deep understanding? What are the components of this understanding? – **DO | What do we want students to do with this understanding?** This thinking will often be informed by considering why this learning is important. What are the applications – within the discipline or across disciplines? How is this used outside of education? Why might the learning be relevant to students' lives now and in the future? • **When and how will the learning intentions will be shared and developed with students?** Would the learning be enriched if the learning intention was shared upfront, revealed part way through the activity or identified at the end of the activity? Do we need to state the learning intention, or could students be asked to identify their perceived intention of an activity?	

*** Express the learning intention independent of the learning context when applicable.** For example:

- **Intention independent of context:** Students will learn to construct and analyse questionnaire data. ✓ / ☺
- **Intention confused with context:** Students produce and analyse a questionnaire about movie-going habits. ✗ / ☹

CAPABILITY AND DISPOSITION PROMPTS	Notes
Designing to develop students' capabilities • **Which general capabilities could be developed together with this discipline focus?** Which of the General Capabilities is most suited to this topic and/or the context of the learning? Which aspect(s) of the capability will we focus on? Why is this focus important for these students? • **What depth and breadth of capability are we seeking within this learning opportunity?** What does the curriculum identify as appropriate depth for this age and stage of development? • **When and how will the capability learning intentions be shared and developed with students?** Is the same learning intention relevant for all students? Could students be supported to identify aspects of a capability relevant to the task, the learning process (eg collaborating), and to themselves?	

… knowledge, skills, and attitudes and values are not competing competencies but rather are developed interdependently. The acquisition of knowledge requires certain cognitive skills. Those skills and relevant content knowledge are not only intertwined, they also reinforce each other.
(OECD, 2019)

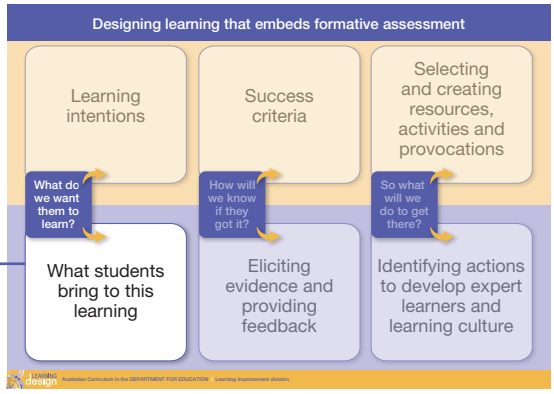
"… the teacher writes the objective on the board; the students copy the objective into their notebooks, and the objective is then ignored for the rest of the period – what has been described as a 'wallpaper objective'. This kind of tokenistic approach to the sharing of learning intentions is most definitely **not** what is intended by the strategy of **clarifying, sharing and understanding the learning intentions and success criteria**."
(Wiliam, 2011)

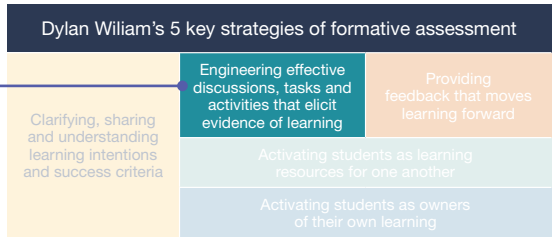
2 | What students bring to this learning

KEY QUESTIONS

- What misconceptions and prior knowledge can we anticipate?
- What skills and dispositions might impact this learning?

If I had to reduce all of educational psychology to just one principle I would say this: The most important single factor influencing learning is what the learner already knows. Ascertain this and teach … accordingly. (Ausubel, 1968)





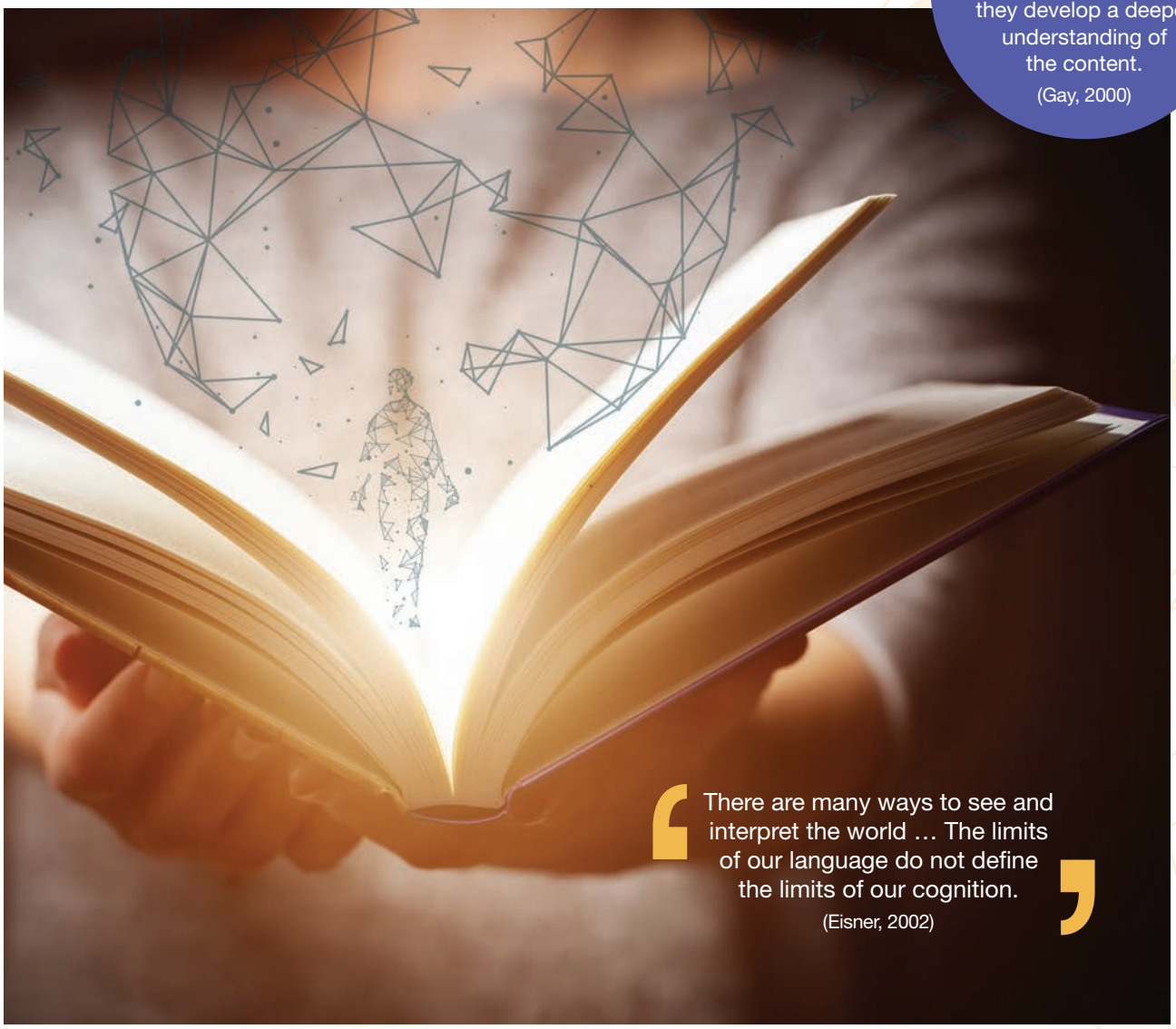
LEARNING AREA/SUBJECT PROMPTS	Notes
Anticipating students' understanding and experiences • **What relevant learning is in previous year levels of curriculum?** What does our collective experience suggest students will understand, recall, and be able to do? • **What relevant learning might have occurred in other learning areas or outside of school?** What prior life experiences might enable students to connect with this learning? • **What misconceptions are associated with this learning?** What does our collective experience suggest are the common misconceptions? What resources could we use to find out the misconceptions? • **What is difficult to master with this learning?** What does our experience suggest students find challenging about this learning? • **How do students respond to this learning?** What does our experience suggest students enjoy/value/dislike/fear about this learning? Is this learning impacted by stereotypes, cultural identity, biases etc? What might we do to improve equity of access to this learning?	

When we anticipate students' prior learning, common misconceptions and challenges, we can intentionally design experiences to:

- check for misconceptions/understanding (aspect 4 of Learning Design), and
- build new understanding that is connected to prior knowledge (aspect 5 of Learning Design).

CAPABILITY AND DISPOSITION PROMPTS	Notes
Anticipating students' capabilities • **What can we anticipate students will bring to this learning?** What value might students attribute to this capability focus? What other contexts might students have already used and developed this capability in? What language might students have to discuss, plan, monitor and reflect on the development of this capability? • **What misconceptions are associated with this learning?** What misconceptions about this capability are relevant in this context, eg, might students perceive this subject is not a creative subject, has no relevance to ethical understanding or no need for numeracy? • **How do students respond to this learning?** Is this learning impacted by stereotypes, cultural identity, biases etc? What might we do to improve equity of access to this learning?	

When students are able to use their own cultural information and experiences to connect with academic lessons, they develop a deeper understanding of the content.
(Gay, 2000)

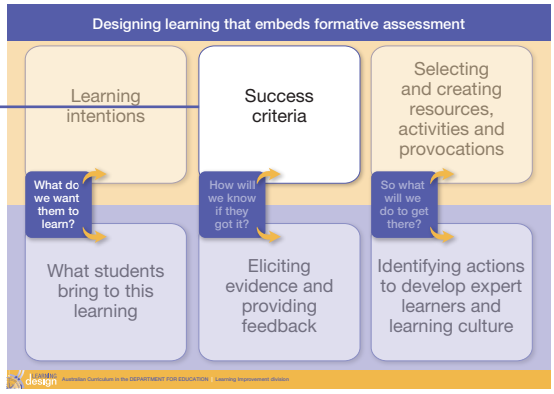


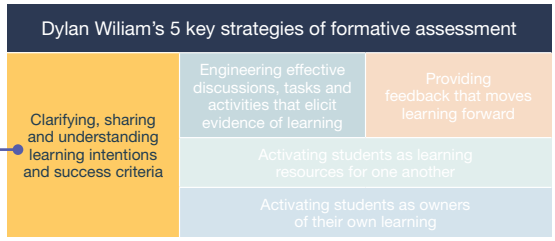
3 | Success criteria

KEY QUESTIONS

- What will quality learning look like?
- How will this understanding of quality learning be shared and developed with students?

The learning intention of a lesson or series of lessons tells students what they should know, understand and be able to do, and the success criteria help teachers to decide whether their students have in fact achieved the learning intention. Importantly, the success criteria also answer the same question from the point of view of the student – *How will I know whether I've achieved the learning intention?* (ESA, 2008)





LEARNING AREA/SUBJECT PROMPTS	Notes
Clarifying success criteria • **What are the relevant Australian Curriculum/SACE references?** (From one or more learning areas.) • **What does progression towards mastery of the learning intention look like?** What are the observable steps from novice to mastery? • **What artefacts will best communicate the success criteria?** Is a rubric, written exemplars, physical demonstration, video etc most appropriate in this context? – If using a rubric: Does the rubric make levels of performance explicit for students? Is the language appropriate for students? Does the rubric reflect the breadth we intend for students to know, understand and do? How many levels are needed to describe the progression of performance in this context? Does/should the rubric reflect the degree of independence involved in achieving the success criteria? • **What modes and contexts might we use to collect evidence of this learning?** How could this summative assessment evidence comprise of a range of modes? Is written evidence required? Could students produce an artefact with a real audience? Could video/audio evidence be utilised, eg producing a video with the purpose of teaching other students a skill? • **How will students know what quality learning looks like?** How will we actively engage students in understanding the rubric, exemplars, demonstration etc? Could students be involved in the creation of the rubric – while still ensuring that it reflects the teachers' expectations of quality and progression of learning?	

When learning intentions and success criteria highlight the important dimensions of quality, students are more likely to pay attention to the aspects of work that matter, and therefore improve the quality of their work.
(Wiliam & Leahy, 2015)

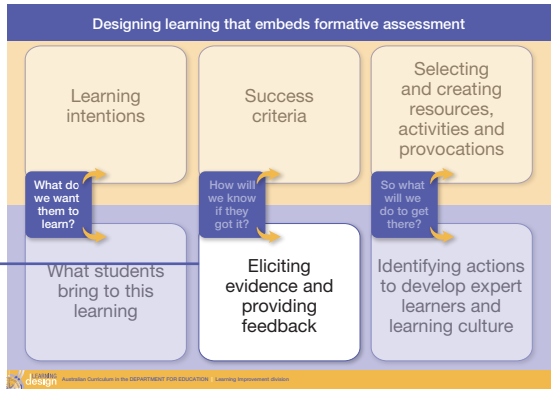
CAPABILITY AND DISPOSITION PROMPTS	Notes
Tracking and evidencing the development of capabilities • **What are the curriculum references?** What other frames of reference do we have for capabilities? • **What does development look like?** How can we support students to develop an understanding of the breadth, strength and depth of a capability? – Breadth: the range of contexts across which the student demonstrates the capability. – Strength: the level of independence demonstrated by students in terms of their need for teacher prompts or scaffolding, or their need for favourable conditions. – Depth: the level of sophistication and the extent to which the application was appropriate to the occasion. (Adapted from Lucas, Claxton & Spencer, 2013)	

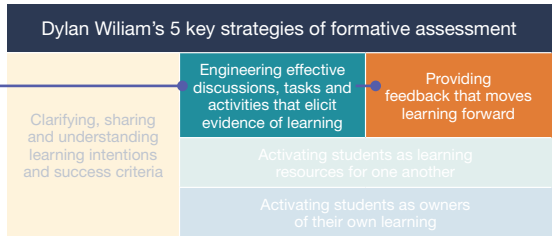
4 | Eliciting evidence and providing feedback

KEY QUESTIONS

- What processes and activities will we use to surface evidence of students' learning?
- What processes and practices will be used to provide feedback for learning?

When we make thinking visible, we get not only a window into what students understand, but also how they understand it. Uncovering students' thinking gives us evidence of students' insights as well as their misconceptions. We need to make thinking visible because it provides us with the information we as teachers need to plan opportunities that will take students' learning to the next level. (Richart, Church & Morrison, 2011)





LEARNING AREA/SUBJECT PROMPTS	Notes
Designing to 'check-in and respond' to the learning area focus • **What questions/provocations could be used with 'all-student response systems' to surface evidence of learning?** What hinge questions can we find/design to surface evidence of understanding and possible misconceptions? Which 'all-student response system' would be most appropriate for each question: finger-voting (1–5 fingers for 5 possible options), A,B,C,D cards, mini whiteboards (draw or write your own idea), exit passes? How will we respond to each of the misconceptions the hinge question is designed to reveal? • **How will we promote dialogue between students so that we can hear their thinking and reasoning?** How will we monitor and improve teacher wait-time? How will we ensure all students expect to be actively involved in the conversation at any time? What vocabulary (academic language and learning area specific language) will be useful for students' dialogue in this learning? How will this identified vocabulary be intentionally developed? • **What will comprise summative assessment evidence?** Will there be a single summative task for this learning intention, or will students build a portfolio of evidence? How will we ensure students have appropriate skills in the genre of this assessment? • **How will feedback for learning be provided?** How can we make feedback 'detective work' for students? Does all work need to be marked by the teacher to provide useful feedback for students? When will we use descriptive comments rather than grades? • **Who will provide feedback for learning?** How will we integrate opportunities for self-assessment and peer assessment? How will we ensure the peer assessment is of a high quality? Is it possible for other members of the community to provide feedback, eg industry partners, a public audience, younger/older students or students from other schools (via digital networks)?	

Feedback should be a medical not a post-mortem.
(Reeves, 2008)

Wait-time: A technique to support teachers to elicit evidence of understanding

When teachers wait for student responses, more students participate in answering, responses are longer and more confident, and students comment, respond to and thus build upon each other's answers.

(Adapted from the research of Budd Rowe, 1986)

CAPABILITY AND DISPOSITION PROMPTS	Notes
Designing to 'check-in and respond' to the capabilities focus • **How will we surface evidence of capabilities?** What processes and practices will enable teachers and students to track and monitor the development of their capabilities? • **Who will provide feedback for learning?** How will we integrate opportunities for self-assessment and peer assessment of capabilities? How will we ensure the peer assessment is of a high quality? Is it possible for other members of the community to provide feedback, eg, industry partners, a public audience, younger/older students or students from other schools (via digital networks)?	

Teachers need to see assessment data as saying something about them, what they are doing and what they need to do. Our eventual success depends on our ferreting out student responses and adjusting our performance, not just theirs, in light of results.

(Wiggins, 1998)

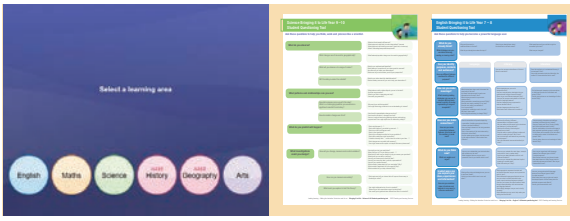
If there's a single principle teachers need to digest about classroom feedback, it's this: *The only thing that matters is what students do with it.* No matter how well the feedback is designed, if students do not use the feedback to move their own learning forward, it's a waste of time.

(Wiliam, 2014)

'What makes you say that?': A question to support teachers to elicit evidence of understanding

This simple yet powerful question is a perfect example of the kind of question that can facilitate and clarify the learner's own thinking. In using facilitative questions the teacher's goal is to try and understand students' thinking, to get inside their heads and make their thinking visible … it is switching the paradigm of teaching from trying to transmit what is in our heads to our students and toward trying to get what is in students' heads into our own so that we can provide responsive instruction that will advance learning.

(Richart, Church & Morrison, 2011)



The BitL tool – Bringing it to life

A process tool that demonstrates how we can bring together what we want students to learn and how we want them to learn it – to engage our students in deep learning.

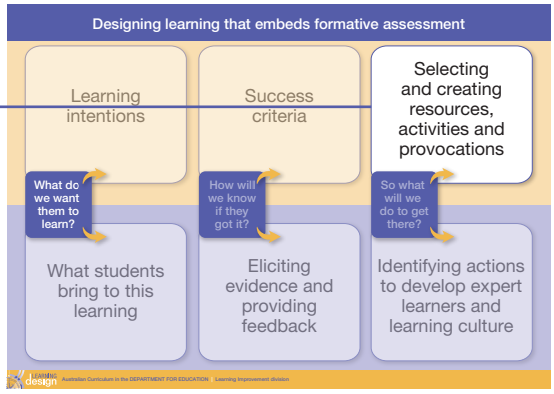
Available at: https://acleadersresource.sa.edu.au/

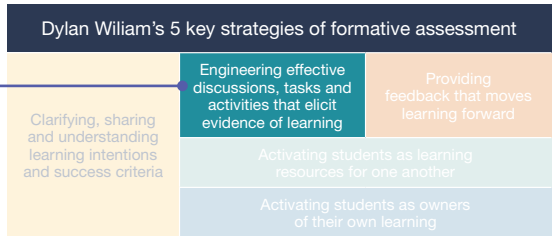
5 | Selecting and creating resources, activities and provocations

KEY QUESTIONS

- How will we engage, challenge and support all students?
- How will we make best use of face-to-face and digital learning environments?

Learning tasks should be designed to facilitate student dialogue and cause thinking. Design features of tasks that can cause thinking include: making comparisons, predicting, evaluating, identifying a need/defining a problem, generating different solutions to a problem, identifying and correcting mistakes, adapting, justifying, categorising and elaborating. (Adapted from *Inside the Black Box* series, Wiliam et al, 2013–2014)





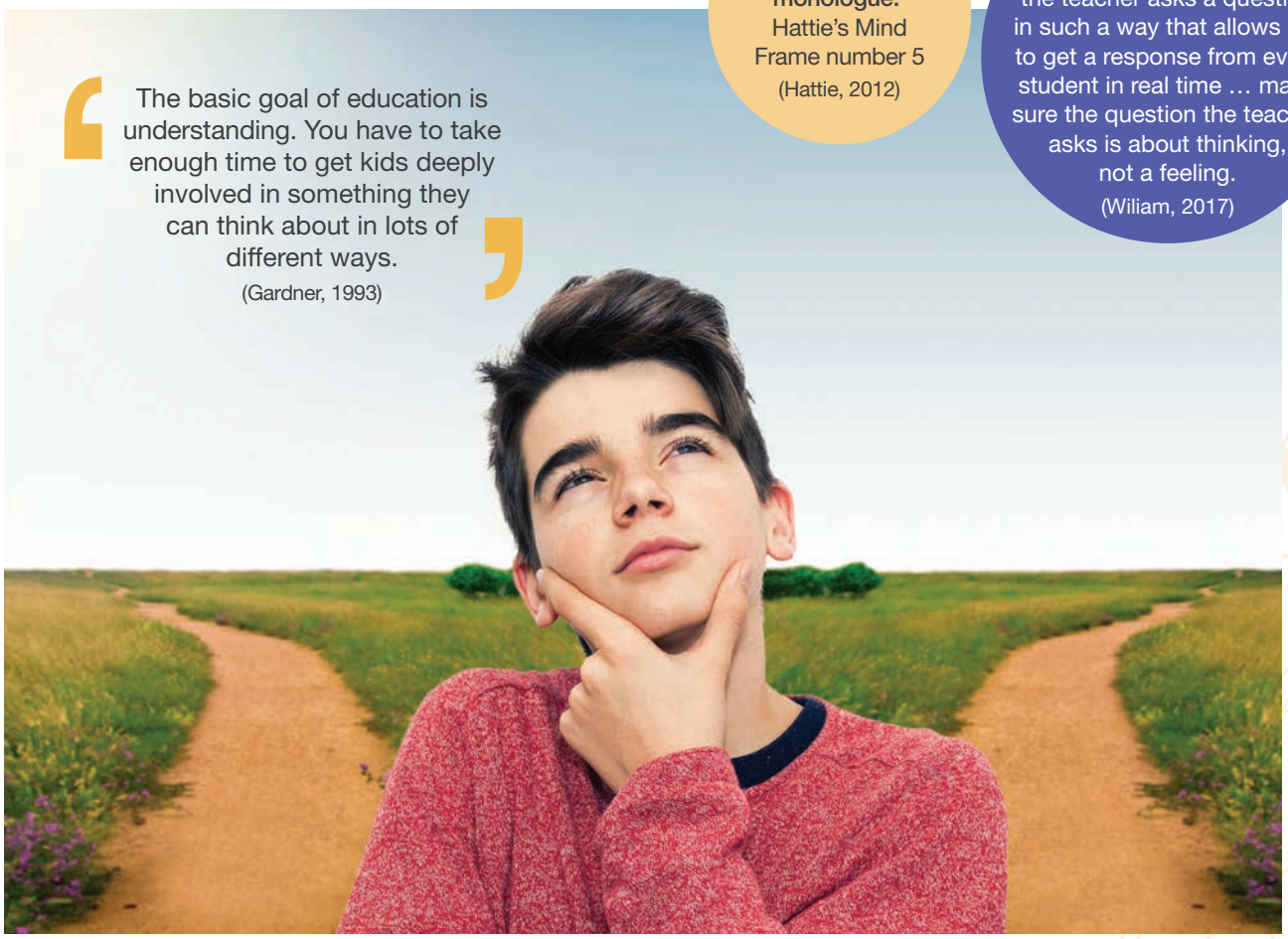
LEARNING AREA/SUBJECT PROMPTS	Notes
Creating and selecting resources to achieve the learning intention • **How will we create *the need and the will* for the intended learning?** – Can we create a provocative statement or question that 'hooks students in' through inviting their opinion (drawing on life experiences, intuition or estimation)? – Can we share a visual representation (object, photograph, video or demonstration) and ask students what they notice, what they wonder and what questions they have? • **Which techniques from Transforming tasks (see page 13) could we use to review and refine activities that we already use?** For example, could we reframe a question through providing an answer and asking students for the reasoning needed to get to that answer? Could we remove some or all of the steps and challenge students to design an approach? Could students be presented with a problem and challenged to identify the necessary information? • **Do the tasks/activities I have selected require 'productive struggle' to achieve success?** Will the activities challenge and support all students to 'have a go', review, adapt and 'have another go'? • **Which aspects of the learning require instruction, explanation or modelling before students have a go themselves?** If it can be reasoned it can be constructed, if it can't be reasoned it should be instructed. Ask yourself; Could students be supported to reason this new understanding through building on existing knowledge? (eg if they know the formula for the area of a rectangle they can be supported to reason the formula for the area of a triangle). When explicit instruction is needed; Does the instruction need to be face-to-face with the teacher or could digital instruction be used? Which digital resources could be used to provide instruction? Do we need to create new digital resources to support instruction/explanations? Could students create some of these digital resources? • **What will be needed to ensure all learners achieve the intended learning?** What approaches will enable all students to achieve mastery reflected in the success criteria? How will the learning be differentiated – does the task have a range of entry and exit levels? Can tools be provided to enable all students to access the same task? How will 'grapple' be experienced by all students? How might we make use of the digital environment to support and challenge mastery?	

Understanding is developed when key skills are reiterated, explored and rethought. These key ideas and skills need to have value beyond the classroom and to be linked to real world issues, so that students are engaged in processes of inquiry and problem solving that have some meaning to their own lives and to the issues facing contemporary society.
(Wiggins & McTighe, 2004)

CAPABILITY AND DISPOSITION PROMPTS	Notes
Identifying resources with potential to develop students' capabilities • **How does the task or activity contribute to the development of students' capabilities?** Does the task/activity require students to innovate, plan, take action, monitor progress, analyse, reflect, amend, evaluate, explore different perspectives, collaborate, communicate, influence, etc? • **Could students work in digital environments for some of the learning/assessment activities?** What online collaboration environments could be used to develop capabilities? How might digital literacy be intentionally developed? Is there an opportunity for students to be contributors to digital environments?	

'I teach through dialogue not monologue.'
Hattie's Mind Frame number 5
(Hattie, 2012)

The idea of an all-student response system is very simple: the teacher asks a question in such a way that allows her to get a response from every student in real time … make sure the question the teacher asks is about thinking, not a feeling.
(Wiliam, 2017)

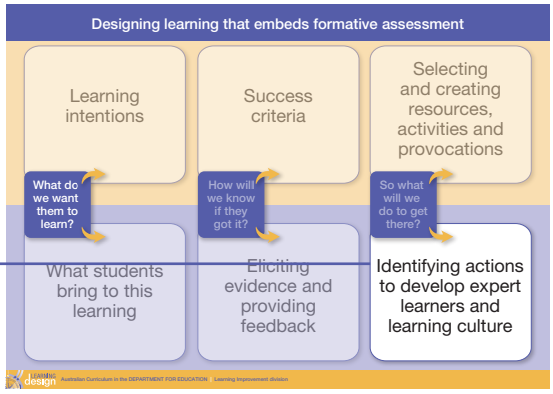


Transforming tasks

Learning about ways to increase the intellectual demand for higher order thinking in our task design.

Available at: https://acleadersresource.sa.edu.au/

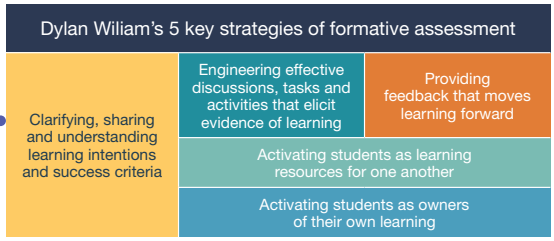
6 | Identifying actions to develop expert learners and learning culture



KEY QUESTIONS

- How will we create and sustain a culture of learning?
- How will we develop the skills and dispositions of effective lifelong learners?

People are used to focusing on two dimensions [of education]: Content and Assessment. If two dimensions define a plane, we should perhaps call this a discourse about 'flat education'. But [there is] a third dimension – the skills of and attitudes towards learning students are cultivating *by the way they are taught and assessed.* (Adapted from Claxton, 2012)



INTENTIONAL DEVELOPMENT OF EXPERT LEARNERS AND LEARNING CULTURE	Notes
Creating the conditions for effective learning • **How will we enable students to direct, monitor and review their learning?** How will we enable students to identify future personal learning intentions? How can we create time for students to monitor and reflect on their progress so that we intentionally build this habit in students? What strategies/processes will we explicitly teach to develop students' capacity to plan, monitor and/or review learning? • **How will the thought processes of an effective learner be modelled?** Which teaching opportunities facilitate modelling of metacognitive thinking, eg 'What do I know about solving problems like this?' 'How have I approached a question like this before?' How might you use students to model and share effective thinking processes? • **How will we create safe conditions for challenging learning?** When and how can we respectfully use mistakes as quality opportunities for learning? What opportunities are there to develop students' understanding of the process of learning, including the role of 'failure'? What language will we intentionally use to reinforce a safe learning culture? What classroom processes and practices will be used to create a community of learners? • **Do all students need to do all of the tasks or could there be a learning menu?** Could we provide students with different paths to mastery, through identifying multiple learning experiences that target the same learning intention? How would a digital learning space enable use of a learning menu?	

A common misconception is that metacognition is only developed effectively in mature young adults and not young children. We know from research, however, that children as young as three have been able to engage in a wide range of metacognitive and self-regulatory behaviours, such as setting themselves goals and checking their understanding.
(EEF, 2018)

Notes

It is impossible to be metacognitive without having different cognitive strategies to hand.
(EEF, 2018)

As trends such as globalisation and advances in artificial intelligence change the demands of the labour market and the skills needed for workers to succeed, people need to rely even more on their uniquely (so far) human capacity for creativity, responsibility and the ability to 'learn to learn' throughout their life.
(OECD, 2019)

Teachers can explicitly teach [planning, monitoring and evaluating] by prompting pupils with examples of the things they should be considering at each stage of a learning task. Effective teacher questioning while modelling [a specific aspect of learning] can aid the development of metacognitive reflection. For example, during the planning phase of a task the teacher can activate prior knowledge through posing questions such as:
'What resources do I need?'
'Have I done … before and was it successful?'
'What have I learned from the examples we looked at earlier?' …
(Adapted from EEF, 2018)

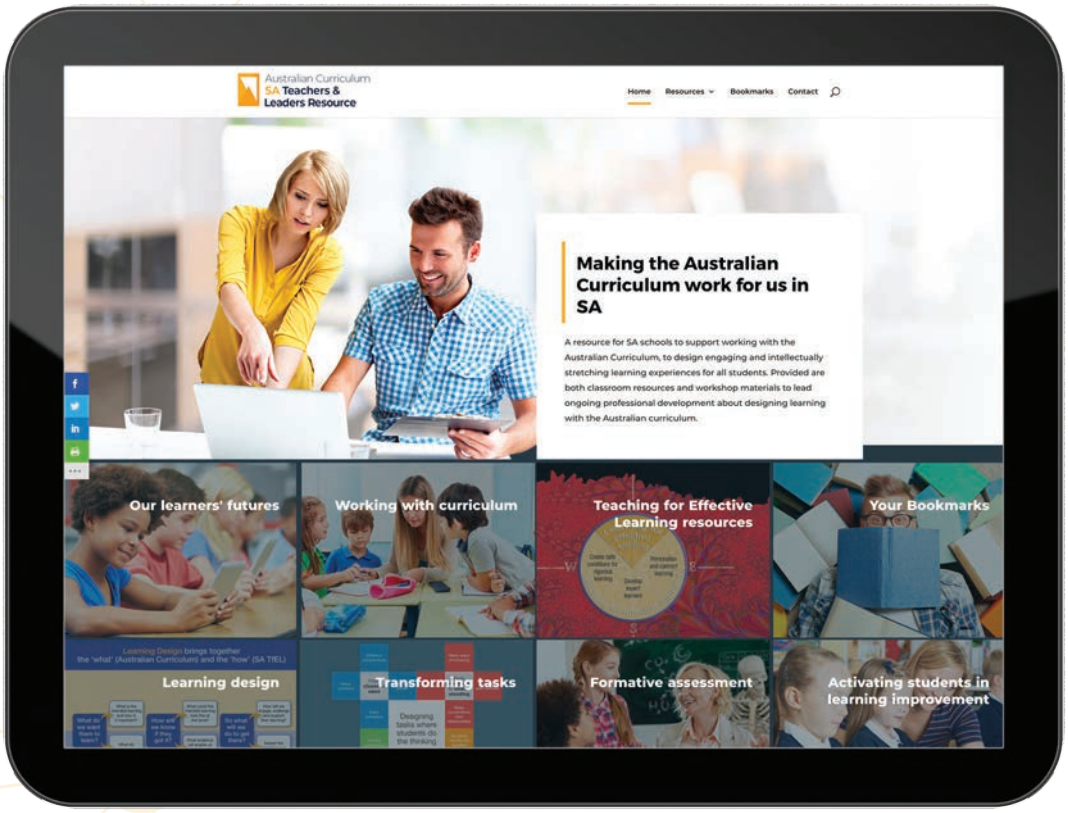
METACOGNITION AND SELF-REGULATED LEARNING
Guidance Report

Education Endowment Foundation
http://TLinSA.2.vu/EEFMetacogSRLrng

Australian Curriculum SA Teachers & Leaders Resource

A resource for schools to support working with the Australian Curriculum and the Teaching for Effective Learning (TfEL) Framework, to design engaging and intellectually stretching learning experiences for all students. Provided are a range of stimulus and workshop materials to lead ongoing professional development.

Access the resource at: http://www.acleadersresource.sa.edu.au/



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Notes

This R–12 resource supports the design of teaching and learning by bringing together:

- Curriculum (Australian Curriculum and SACE)
- Teaching for Effective Learning (TfEL), and
- Dylan Wiliam's five key strategies of formative assessment.

It has been developed in consultation with over 250 South Australian teachers and leaders through the Secondary Years LDAM Professional Learning Program (2019).

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