



Department
for Education

Early Career Framework

January 2019

Acknowledgements

The Early Career Framework was developed in consultation with the following members of an Expert Advisory Group and in collaboration with a wide range of teachers, school leaders, academics and experts:

Roger Pope (Chair)	Education South West
Becky Francis	UCL Institute of Education
Marie Hamer	Ambition School Leadership and Institute for Teaching
Jon Hutchinson	Reach Academy Feltham
Stuart Lock	Advantage Schools
Reuben Moore	Teach First
Cat Scutt	Chartered College of Teaching

A wider advisory group made up of the following members provided further support and challenge:

Lucy Blewett	Primary Advantage
Sam Freedman	Ark Education Partnerships Group
Stephen Munday	Teaching Schools Council, The Cam Academy Trust
Hannah Nemko	Dame Alice Owen's School
Hamid Patel	Star Academies
Emma Rennison	Outwood Grange Academies Trust
Caroline Spalding	The Bemrose School
Andrew Warren	Teaching Schools Council ¹
David Weston	Teacher Development Trust

The content of the framework and its underpinning evidence has been independently assessed and endorsed by the Education Endowment Foundation (EEF).



¹ As of 7 January 2019, Andrew Warren started a new role as West Midlands Regional School Commissioner, and is no longer a member of the advisory group.

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Introduction

Transforming the support and development offer for teachers at the start of their career

Teachers are the foundation of the education system – there are no great schools without great teachers. Teachers deserve high quality support throughout their careers, particularly in those first years of teaching when the learning curve is steepest. Just as with other esteemed professions like medicine and law, teachers in the first years of their career require high quality, structured support in order to begin the journey towards becoming an expert. During induction, it is essential that early career teachers are able to develop the knowledge, practices and working habits that set them up for a fulfilling and successful career in teaching.

However, too often, new teachers have not enjoyed the support they need to thrive, nor have they had adequate time to devote to their professional development. The Early Career Framework (ECF) underpins an entitlement to a fully-funded, two-year package of structured training and support for early career teachers linked to the best available research evidence. The package of reforms will ensure new teachers have dedicated time set aside to focus on their development.

Our vision is for the ECF to build on high-quality Initial Teacher Training (ITT) and become the cornerstone of a successful career in teaching.

Development of the Early Career Framework

In collaboration with an Expert Advisory Group, the Department for Education consulted extensively with the sector to design the ECF. This has included invaluable input from teachers, school leaders, academics and experts.

The Education Endowment Foundation has independently reviewed the framework to ensure it draws on the best available evidence and that this evidence has been interpreted with fidelity.

The ECF sets out two types of content. Within each area, key evidence statements (“Learn that...”) have been drawn from current high-quality evidence from the UK and overseas. This evidence includes high-quality reviews and syntheses, including meta-analyses and rigorous individual studies. In addition, the ECF provides practical guidance on the skills that early career teachers should be supported to develop. Practice statements (“Learn how to...”) draw on both the best available educational research and on additional guidance from the Expert Advisory Group and other sector representatives.

The ECF has been designed around how to support all pupils to succeed and seeks to widen access for all. This includes those pupils identified within the four areas of need set out in the Special Educational Needs and Disability (SEND) code of practice, and children in need of help and protection as identified in the Children in Need Review.

References for evidence underpinning each section are provided at the end of the ECF. In each reference section, a small number of further reading items have been recommended. These recommendations have been made on the basis of application (for example, taking into account the extent to which the source includes clear discussion of classroom practice) and accessibility (including whether the source is in the public domain).

The ECF has been endorsed by a wide range of sector bodies including unions, teacher training providers, university researchers, headteacher groups and special educational needs and disability experts. The Chartered College of Teaching, the recently established professional body for teachers, strongly supports the Early Career Framework, and, as with the professional bodies of other esteemed professions, will continue to support the entitlement for structured support for all early career teachers.

The Early Career Framework builds on Initial Teacher Training and provides a platform for future development

The content of the ECF builds on and complements ITT. The ECF underpins what all early career teachers should be entitled to learn about and learn how to do based on expert guidance and the best available research evidence. As is the case for other professions, areas covered in initial training will be covered in greater depth as part of induction as teachers continue on their journey to becoming experts.

The ECF has been designed to support early career teacher development in 5 core areas – behaviour management, pedagogy, curriculum, assessment and professional behaviours. In order to ensure congruence with the 8 Teachers' Standards, the content of the framework is presented in 8 sections. In developing the framework, behaviour management was thought to be encompassed by High Expectations and Managing Behaviour (S1 and S7); pedagogy was thought to be encompassed by How Pupils Learn, Classroom Practice and Adaptive Teaching (S2, S4, S5); and curriculum, assessment and professional behaviours were thought to be encompassed by S3, S6 and S8 respectively.

While the ECF is presented around the Teachers' Standards for clarity, **the ECF is not, and should not be used, as an assessment framework.** Early career teachers will not be expected to collect evidence against the ECF, and they will continue to be assessed against the Teachers' Standards only. The ECF will underpin an entitlement to training and support for early career teachers and should not be seen as an additional assessment tool.

Part Two of the Teachers' Standards defines the behaviour and attitudes which set the required standard for conduct throughout a teacher's career. These standards must always be met and stand alongside the ECF so are not explicitly referenced within the framework.

Implementing the Framework

We recognise that in order for the ECF to have a positive impact on early career teachers, it must be firmly and exclusively about an entitlement to additional support and training. We are committed to meeting the significant investment needed to ensure the ECF delivers on its promise.

Therefore, for national roll-out, we have committed to:

- Funding and guaranteeing 5% off-timetable in the second year of teaching for all early career teachers; early career teachers will continue to have a 10% timetable reduction in their first year of induction.
- Creating high quality, freely available ECF curricula and training materials;
- Establishing full, high quality ECF training programmes;
- Funding time for mentors to support early career teachers; and
- Fully funded mentor training.

By the time the new system is fully in place, we anticipate investing at least an additional £130 million every year to support ECF delivery in full.

Further detail on the role of the ECF in the delivery of a strengthened induction will be published as part of the updated statutory guidance in due course. Once the new statutory guidance takes effect and the ECF is fully rolled out, the ECF will underpin an entitlement to a two year programme of structured training and development. Schools will not be expected to use the framework before this statutory guidance is in place.

Early roll-out

We are committed to continuing our work with the sector on the implementation of the ECF. We want to ensure that schools have the support they need to deliver this training entitlement for early career teachers. Our plans for an early roll-out in the North East, Bradford, Doncaster and Greater Manchester from September 2020 as part of the £42 million Teacher Development Premium will give us the opportunity to understand how best to support teachers and schools with implementation of the framework, including continuing to monitor workload considerations. This early roll-out phase will help us to build our evidence on how to roll out the framework nationally in September 2021 and ensure it meets the needs of early career teachers and enables them to enjoy a successful start in the profession.

Updating the Early Career Framework

The ECF will be kept under review as the evidence base evolves. As in any profession, the evidence base is not static and research insights develop and progress.



Department
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Education
Endowment
Foundation

Early Career Framework

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High Expectations (Standard 1 – Set high expectations)

Learn that...	Learn how to...
<ol style="list-style-type: none"> 1. Teachers have the ability to affect and improve the wellbeing, motivation and behaviour of their pupils. 2. Teachers are key role models, who can influence the attitudes, values and behaviours of their pupils. 3. Teacher expectations can affect pupil outcomes; setting goals that challenge and stretch pupils is essential. 4. Setting clear expectations can help communicate shared values that improve classroom and school culture. 5. A culture of mutual trust and respect supports effective relationships. 6. High-quality teaching has a long-term positive effect on pupils' life chances, particularly for children from disadvantaged backgrounds. 	<p>Communicate a belief in the academic potential of all pupils, by:</p> <ul style="list-style-type: none"> • <i>Using intentional and consistent language that promotes challenge and aspiration.</i> • <i>Setting tasks that stretch pupils, but which are achievable, within a challenging curriculum.</i> • <i>Creating a positive environment where making mistakes and learning from them and the need for effort and perseverance are part of the daily routine.</i> • <i>Seeking opportunities to engage parents and carers in the education of their children (e.g. proactively highlighting successes).</i> <p>Demonstrate consistently high behavioural expectations, by:</p> <ul style="list-style-type: none"> • <i>Creating a culture of respect and trust in the classroom that supports all pupils to succeed (e.g. by modelling the types of courteous behaviour expected of pupils).</i> • <i>Teaching and rigorously maintaining clear behavioural expectations (e.g. for contributions, volume level and concentration).</i>

- | | |
|--|---|
| | <ul style="list-style-type: none">• <i>Applying rules, sanctions and rewards in line with school policy, escalating behaviour incidents as appropriate.</i>• <i>Acknowledging and praising pupil effort and emphasising progress being made.</i> |
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Notes

Learn that... statements are informed by the best available educational research; references and further reading are provided below.

Learn how to... statements are drawn from the wider evidence base including both academic research and additional guidance from expert practitioners.

How Pupils Learn (Standard 2 – Promote good progress)

Learn that...	Learn how to...
<ol style="list-style-type: none"> 1. Learning involves a lasting change in pupils' capabilities or understanding. 2. Prior knowledge plays an important role in how pupils learn; committing some key facts to their long-term memory is likely to help pupils learn more complex ideas. 3. An important factor in learning is memory, which can be thought of as comprising two elements: working memory and long-term memory. 4. Working memory is where information that is being actively processed is held, but its capacity is limited and can be overloaded. 5. Long-term memory can be considered as a store of knowledge that changes as pupils learn by integrating new ideas with existing knowledge. 6. Where prior knowledge is weak, pupils are more likely to develop misconceptions, particularly if new ideas are introduced too quickly. 	<p>Avoid overloading working memory, by:</p> <ul style="list-style-type: none"> • <i>Taking into account pupils' prior knowledge when planning how much new information to introduce.</i> • <i>Breaking complex material into smaller steps (e.g. using partially completed examples to focus pupils on the specific steps).</i> • <i>Reducing distractions that take attention away from what is being taught (e.g. keeping the complexity of a task to a minimum, so that attention is focused on the content).</i> <p>Build on pupils' prior knowledge, by:</p> <ul style="list-style-type: none"> • <i>Identifying possible misconceptions and planning how to prevent these forming.</i> • <i>Linking what pupils already know to what is being taught (e.g. explaining how new content builds on what is already known).</i> • <i>Sequencing lessons so that pupils secure foundational knowledge before encountering more complex content.</i> • <i>Encouraging pupils to share emerging understanding and points of confusion so that misconceptions can be addressed.</i> <p>Increase likelihood of material being retained, by:</p> <ul style="list-style-type: none"> • <i>Balancing exposition, repetition, practice and retrieval of critical knowledge and skills.</i>

7. Regular purposeful practice of what has previously been taught can help consolidate material and help pupils remember what they have learned.
8. Requiring pupils to retrieve information from memory, and spacing practice so that pupils revisit ideas after a gap are also likely to strengthen recall.
9. Worked examples that take pupils through each step of a new process are also likely to support pupils to learn.

- *Planning regular review and practice of key ideas and concepts over time.*
- *Designing practice, generation and retrieval tasks that provide just enough support so that pupils experience a high success rate when attempting challenging work.*
- *Increasing challenge with practice and retrieval as knowledge becomes more secure (e.g. by removing scaffolding, lengthening spacing or introducing interacting elements).*

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Subject and Curriculum (Standard 3 – Demonstrate good subject and curriculum knowledge)

Learn that...	Learn how to...
<ol style="list-style-type: none"> 1. A school's curriculum enables it to set out its vision for the knowledge, skills and values that its pupils will learn, encompassing the national curriculum within a coherent wider vision for successful learning. 2. Secure subject knowledge helps teachers to motivate pupils and teach effectively. 3. Ensuring pupils master foundational concepts and knowledge before moving on is likely to build pupils' confidence and help them succeed. 4. Anticipating common misconceptions within particular subjects is also an important aspect of curricular knowledge; working closely with colleagues to develop an understanding of likely misconceptions is valuable. 5. Explicitly teaching pupils the knowledge and skills they need to succeed within particular subject areas is beneficial. 6. In order for pupils to think critically, they must have a secure understanding of knowledge 	<p>Deliver a carefully sequenced and coherent curriculum, by:</p> <ul style="list-style-type: none"> • <i>Identifying essential concepts, knowledge, skills and principles of the subject and providing opportunity for all pupils to learn and master these critical components.</i> • <i>Ensuring pupils' thinking is focused on key ideas within the subject.</i> • <i>Working with experienced colleagues to accumulate and refine a collection of powerful analogies, illustrations, examples, explanations and demonstrations.</i> • <i>Using resources and materials aligned with the school curriculum (e.g. textbooks or shared resources designed by experienced colleagues that carefully sequence content).</i> • <i>Being aware of common misconceptions and discussing with experienced colleagues how to help pupils master important concepts.</i> <p>Support pupils to build increasingly complex mental models, by:</p> <ul style="list-style-type: none"> • <i>Discussing curriculum design with experienced colleagues and balancing exposition, repetition, practice of critical skills and knowledge.</i> • <i>Revisiting the big ideas of the subject over time and teaching key concepts through a range of examples.</i> • <i>Drawing explicit links between new content and the core concepts and principles in the subject.</i>

within the subject area they are being asked to think critically about.

7. In all subject areas, pupils learn new ideas by linking those ideas to existing knowledge, organising this knowledge into increasingly complex mental models (or “schemata”); carefully sequencing teaching to facilitate this process is important.
8. Pupils are likely to struggle to transfer what has been learnt in one discipline to a new or unfamiliar context.
9. To access the curriculum, early literacy provides fundamental knowledge; reading comprises two elements: word reading and language comprehension; systematic synthetic phonics is the most effective approach for teaching pupils to decode.
10. Every teacher can improve pupils’ literacy, including by explicitly teaching reading, writing and oral language skills specific to individual disciplines.

Develop fluency, by:

- *Providing tasks that support pupils to learn key ideas securely (e.g. quizzing pupils so they develop fluency with times tables).*
- *Using retrieval and spaced practice to build automatic recall of key knowledge.*

Help pupils apply knowledge and skills to other contexts, by:

- *Ensuring pupils have relevant domain-specific knowledge, especially when being asked to think critically within a subject.*
- *Interleaving concrete and abstract examples, slowly withdrawing concrete examples and drawing attention to the underlying structure of problems.*

Develop pupils’ literacy, by:

- *Demonstrating a clear understanding of systematic synthetic phonics, particularly if teaching early reading and spelling.*
- *Supporting younger pupils to become fluent readers and to write fluently and legibly.*
- *Teaching unfamiliar vocabulary explicitly and planning for pupils to be repeatedly exposed to high-utility and high-frequency vocabulary in what is taught.*
- *Modelling reading comprehension by asking questions, making predictions, and summarising when reading.*
- *Promoting reading for pleasure (e.g. by using a range of whole class reading approaches and regularly reading high-quality texts to children).*
- *Modelling and requiring high-quality oral language, recognising that spoken language underpins the development of reading and writing*

(e.g. requiring pupils to respond to questions in full sentences, making use of relevant technical vocabulary).

- *Teaching different forms of writing by modelling planning, drafting and editing.*

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Classroom Practice (Standard 4 – Plan and teach well structured lessons)

Learn that...	Learn how to...
<ol style="list-style-type: none"> 1. Effective teaching can transform pupils' knowledge, capabilities and beliefs about learning. 2. Effective teachers introduce new material in steps, explicitly linking new ideas to what has been previously studied and learned. 3. Modelling helps pupils understand new processes and ideas; good models make abstract ideas concrete and accessible. 4. Guides, scaffolds and worked examples can help pupils apply new ideas, but should be gradually removed as pupil expertise increases. 5. Explicitly teaching pupils metacognitive strategies linked to subject knowledge, including how to plan, monitor and evaluate, supports independence and academic success. 6. Questioning is an essential tool for teachers; questions can be used for many purposes, including to check pupils' prior knowledge, assess understanding and break down problems. 	<p>Plan effective lessons, by:</p> <ul style="list-style-type: none"> • <i>Using modelling, explanations and scaffolds, acknowledging that novices need more structure early in a domain.</i> • <i>Enabling critical thinking and problem solving by first teaching the necessary foundational content knowledge.</i> • <i>Removing scaffolding only when pupils are achieving a high degree of success in applying previously taught material.</i> • <i>Providing sufficient opportunity for pupils to consolidate and practise applying new knowledge and skills.</i> • <i>Breaking tasks down into constituent components when first setting up independent practice (e.g. using tasks that scaffold pupils through meta-cognitive and procedural processes).</i> <p>Make good use of expositions, by:</p> <ul style="list-style-type: none"> • <i>Starting expositions at the point of current pupil understanding.</i> • <i>Combining a verbal explanation with a relevant graphical representation of the same concept or process, where appropriate.</i> • <i>Using concrete representation of abstract ideas (e.g. making use of analogies, metaphors, examples and non-examples).</i> <p>Model effectively, by:</p> <ul style="list-style-type: none"> • <i>Narrating thought processes when modelling to make explicit how experts think (e.g. asking questions aloud that pupils should consider</i>

<p>7. High-quality classroom talk can support pupils to articulate key ideas, consolidate understanding and extend their vocabulary.</p> <p>8. Practice is an integral part of effective teaching; ensuring pupils have repeated opportunities to practise, with appropriate guidance and support, increases success.</p> <p>9. Paired and group activities can increase pupil success, but to work together effectively pupils need guidance, support and practice.</p> <p>10. How pupils are grouped is also important; care should be taken to monitor the impact of groupings on pupil attainment, behaviour and motivation.</p> <p>11. Homework can improve pupil outcomes, particularly for older pupils, but it is likely that the quality of homework and its relevance to main class teaching is more important than the amount set.</p>	<p><i>when working independently and drawing pupils' attention to links with prior knowledge).</i></p> <ul style="list-style-type: none"> • <i>Making the steps in a process memorable and ensuring pupils can recall them (e.g. naming them, developing mnemonics, or linking to memorable stories).</i> • <i>Exposing potential pitfalls and explaining how to avoid them.</i> <p>Stimulate pupil thinking and check for understanding, by:</p> <ul style="list-style-type: none"> • <i>Planning activities around what you want pupils to think hard about.</i> • <i>Including a range of types of questions in class discussions to extend and challenge pupils (e.g. by modelling new vocabulary or asking pupils to justify answers).</i> • <i>Providing appropriate wait time between question and response where more developed responses are required.</i> • <i>Considering the factors that will support effective collaborative or paired work (e.g. familiarity with routines, whether pupils have the necessary prior knowledge and how pupils are grouped).</i> • <i>Providing scaffolds for pupil talk to increase the focus and rigour of dialogue.</i>
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Adaptive Teaching (Standard 5 – Adapt teaching)

Learn that...	Learn how to...
<ol style="list-style-type: none"> 1. Pupils are likely to learn at different rates and to require different levels and types of support from teachers to succeed. 2. Seeking to understand pupils' differences, including their different levels of prior knowledge and potential barriers to learning, is an essential part of teaching. 3. Adapting teaching in a responsive way, including by providing targeted support to pupils who are struggling, is likely to increase pupil success. 4. Adaptive teaching is less likely to be valuable if it causes the teacher to artificially create distinct tasks for different groups of pupils or to set lower expectations for particular pupils. 5. Flexibly grouping pupils within a class to provide more tailored support can be effective, but care should be taken to monitor its impact on engagement and motivation, particularly for low attaining pupils. 6. There is a common misconception that pupils have distinct and identifiable learning styles. This is not supported by evidence and 	<p>Develop an understanding of different pupil needs, by:</p> <ul style="list-style-type: none"> • <i>Identifying pupils who need new content further broken down.</i> • <i>Making use of formative assessment.</i> • <i>Working closely with the Special Educational Needs Co-ordinator (SENCO) and special education professionals and the Designated Safeguarding Lead.</i> • <i>Using the SEND Code of Practice, which provides additional guidance on supporting pupils with SEND effectively.</i> <p>Provide opportunity for all pupils to experience success, by:</p> <ul style="list-style-type: none"> • <i>Adapting lessons, whilst maintaining high expectations for all, so that all pupils have the opportunity to meet expectations.</i> • <i>Balancing input of new content so that pupils master important concepts.</i> • <i>Making effective use of teaching assistants.</i> <p>Meet individual needs without creating unnecessary workload, by:</p> <ul style="list-style-type: none"> • <i>Making use of well-designed resources (e.g. textbooks).</i> • <i>Planning to connect new content with pupils' existing knowledge or providing additional pre-teaching if pupils lack critical knowledge.</i> • <i>Building in additional practice or removing unnecessary expositions.</i> • <i>Reframing questions to provide greater scaffolding or greater stretch.</i>

<p>attempting to tailor lessons to learning styles is unlikely to be beneficial.</p> <p>7. Pupils with special educational needs or disabilities are likely to require additional or adapted support; working closely with colleagues, families and pupils to understand barriers and identify effective strategies is essential.</p>	<ul style="list-style-type: none"> • <i>Considering carefully whether intervening within lessons with individuals and small groups would be more efficient and effective than planning different lessons for different groups of pupils.</i> <p>Group pupils effectively, by:</p> <ul style="list-style-type: none"> • <i>Applying high expectations to all groups, and ensuring all pupils have access to a rich curriculum.</i> • <i>Changing groups regularly, avoiding the perception that groups are fixed.</i> • <i>Ensuring that any groups based on attainment are subject specific.</i>
<p>Notes</p> <p><i>Learn that...</i> statements are informed by the best available educational research; references and further reading are provided below.</p> <p><i>Learn how to...</i> statements are drawn from a wider evidence base including both academic research and additional guidance from expert practitioners.</p>	

Assessment (Standard 6 – Make accurate and productive use of assessment)

Learn that...	Learn how to...
<ol style="list-style-type: none"> 1. Effective assessment is critical to teaching because it provides teachers with information about pupils' understanding and needs. 2. Good assessment helps teachers avoid being over-influenced by potentially misleading factors, such as how busy pupils appear. 3. Before using any assessment, teachers should be clear about the decision it will be used to support and be able to justify its use. 4. To be of value, teachers use information from assessments to inform the decisions they make; in turn, pupils must be able to act on feedback for it to have an effect. 5. High-quality feedback can be written or verbal; it is likely to be accurate and clear, encourage further effort, and provide specific guidance on how to improve. 6. Over time, feedback should support pupils to monitor and regulate their own learning. 7. Working with colleagues to identify efficient approaches to assessment is important; 	<p>Avoid common assessment pitfalls, by:</p> <ul style="list-style-type: none"> • <i>Planning formative assessment tasks linked to lesson objectives and thinking ahead about what would indicate understanding (e.g. by using hinge questions to pinpoint knowledge gaps).</i> • <i>Drawing conclusions about what pupils have learned by looking at patterns of performance over a number of assessments (e.g. appreciating that assessments draw inferences about learning from performance).</i> • <i>Choosing, where possible, externally validated materials, used in controlled conditions when required to make summative assessments.</i> <p>Check prior knowledge and understanding during lessons, by:</p> <ul style="list-style-type: none"> • <i>Using assessments to check for prior knowledge and pre-existing misconceptions.</i> • <i>Structuring tasks and questions to enable the identification of knowledge gaps and misconceptions (e.g. by using common misconceptions within multiple-choice questions).</i> • <i>Prompting pupils to elaborate when responding to questioning to check that a correct answer stems from secure understanding.</i> • <i>Monitoring pupil work during lessons, including checking for misconceptions.</i>

assessment can become onerous and have a disproportionate impact on workload.

Provide high-quality feedback, by:

- *Focusing on specific actions for pupils and providing time for pupils to respond to feedback.*
- *Appreciating that pupils' responses to feedback can vary depending on a range of social factors (e.g. the message the feedback contains or the age of the child).*
- *Scaffolding self-assessment by sharing model work with pupils, highlighting key details.*
- *Thinking carefully about how to ensure feedback is specific and helpful when using peer- or self-assessment.*

Make marking manageable and effective, by:

- *Recording data only when it is useful for improving pupil outcomes.*
- *Working with colleagues to identify efficient approaches to marking and alternative approaches to providing feedback (e.g. using whole class feedback or well supported peer- and self-assessment).*
- *Using verbal feedback during lessons in place of written feedback after lessons where possible.*
- *Understanding that written marking is only one form of feedback.*
- *Reducing the opportunity cost of marking (e.g. by using abbreviations and codes in written feedback).*
- *Prioritising the highlighting of errors related to misunderstandings, rather than careless mistakes when marking.*

Notes

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Learn how to... statements are drawn from a wider evidence base including both academic research and additional guidance from expert practitioners.

Managing Behaviour (Standard 7 – Manage behaviour effectively)

Learn that...	Learn how to...
<ol style="list-style-type: none"> 1. Establishing and reinforcing routines, including through positive reinforcement, can help create an effective learning environment. 2. A predictable and secure environment benefits all pupils, but is particularly valuable for pupils with special educational needs. 3. The ability to self-regulate one's emotions affects pupils' ability to learn, success in school and future lives. 4. Teachers can influence pupils' resilience and beliefs about their ability to succeed, by ensuring all pupils have the opportunity to experience meaningful success. 5. Building effective relationships is easier when pupils believe that their feelings will be considered and understood. 6. Pupils are motivated by intrinsic factors (related to their identity and values) and extrinsic factors (related to reward). 	<p>Develop a positive, predictable and safe environment for pupils, by:</p> <ul style="list-style-type: none"> • <i>Establishing a supportive and inclusive environment with a predictable system of reward and sanction in the classroom.</i> • <i>Working alongside colleagues as part of a wider system of behaviour management (e.g. recognising responsibilities and understanding the right to assistance and training from senior colleagues).</i> • <i>Giving manageable, specific and sequential instructions.</i> • <i>Checking pupils' understanding of instructions before a task begins.</i> • <i>Using consistent language and non-verbal signals for common classroom directions.</i> • <i>Using early and least-intrusive interventions as an initial response to low level disruption.</i> • <i>Responding quickly to any behaviour or bullying that threatens emotional safety.</i> <p>Establish effective routines and expectations, by:</p> <ul style="list-style-type: none"> • <i>Creating and explicitly teaching routines in line with the school ethos that maximise time for learning (e.g. setting and reinforcing expectations about key transition points).</i> • <i>Practising routines at the beginning of the school year.</i> • <i>Reinforcing routines (e.g. by articulating the link between time on task and success).</i>

7. Pupils' investment in learning is also driven by their prior experiences and perceptions of success and failure.

Build trusting relationships, by:

- *Liaising with parents, carers and colleagues to better understand pupils' individual circumstances and how they can be supported to meet high academic and behavioural expectations.*
- *Responding consistently to pupil behaviour.*

Motivate pupils, by:

- *Supporting pupils to master challenging content, which builds towards long-term goals.*
- *Providing opportunities for pupils to articulate their long-term goals and helping them to see how these are related to their success in school.*
- *Helping pupils to journey from needing extrinsic motivation to being motivated to work intrinsically.*

Notes

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Learn how to... statements are drawn from the wider evidence base including both academic research and additional guidance from expert practitioners.

Professional Behaviours (Standard 8 – Fulfil wider professional responsibilities)

Learn that...	Learn how to...
<ol style="list-style-type: none"> 1. Effective professional development is likely to be sustained over time, involve expert support or coaching and opportunities for collaboration. 2. Reflective practice, supported by feedback from and observation of experienced colleagues, professional debate, and learning from educational research, is also likely to support improvement. 3. Teachers can make valuable contributions to the wider life of the school in a broad range of ways, including by supporting and developing effective professional relationships with colleagues. 4. Building effective relationships with parents, carers and families can improve pupils' motivation, behaviour and academic success. 5. Teaching assistants (TAs) can support pupils more effectively when they are prepared for lessons by teachers, and when TAs supplement rather than replace support from teachers. 6. SENCOs, pastoral leaders, careers advisors and other specialist colleagues also have 	<p>Develop as a professional, by:</p> <ul style="list-style-type: none"> • <i>Engaging in professional development focused on developing an area of practice with clear intentions for impact on pupil outcomes, sustained over time with built-in opportunities for practice.</i> • <i>Strengthening pedagogical and subject knowledge by participating in wider networks.</i> • <i>Seeking challenge, feedback and critique from mentors and other colleagues in an open and trusting working environment.</i> • <i>Engaging critically with research and discussing evidence with colleagues.</i> • <i>Reflecting on progress made, recognising strengths and weaknesses and identifying next steps for further improvement.</i> <p>Build effective working relationships, by:</p> <ul style="list-style-type: none"> • <i>Contributing positively to the wider school culture and developing a feeling of shared responsibility for improving the lives of all pupils within the school.</i> • <i>Seeking ways to support individual colleagues and working as part of a team.</i> • <i>Communicating with parents and carers proactively and making effective use of parents' evenings to engage parents and carers in their children's schooling.</i>

<p>valuable expertise and can ensure that appropriate support is in place for pupils.</p> <p>7. Engaging in high-quality professional development can help teachers improve.</p>	<ul style="list-style-type: none"> • <i>Working closely with the SENCO and other professionals supporting pupils with additional needs, making explicit links between interventions delivered outside of lessons with classroom teaching.</i> • <i>Sharing the intended lesson outcomes with teaching assistants ahead of lessons.</i> • <i>Ensuring that support provided by teaching assistants in lessons is additional to, rather than a replacement for, support from the teacher.</i> • <i>Knowing who to contact with any safeguarding concerns.</i> <p>Manage workload and wellbeing, by:</p> <ul style="list-style-type: none"> • <i>Using and personalising systems and routines to support efficient time and task management.</i> • <i>Understanding the right to support (e.g. to deal with misbehaviour).</i> • <i>Collaborating with colleagues to share the load of planning and preparation and making use of shared resources (e.g. textbooks).</i> • <i>Protecting time for rest and recovery.</i>
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Notes

Learn that... statements are informed by the best available educational research; references and further reading are provided below.

Learn how to... statements are drawn from the wider evidence base including both academic research and additional guidance from expert practitioners.

References

High Expectations (Standard 1– Set high expectations)

[Further reading recommendations are indicated with an asterisk.]

Aronson, J. (Ed.) (2002) *Improving academic achievement: Impact of psychological factors on education*. New York: Academic Press.

Bandura, A. (1986) *Social foundations of thought and action: a social cognitive theory*. Englewood Cliffs, NJ: Prentice-Hall.

Campbell Collaboration (2018) School-based interventions for reducing disciplinary school exclusion: A Systematic Review. Accessible from: <https://campbellcollaboration.org/library/reducing-school-exclusion-school-based-interventions.html>.

Chapman, R. L., Buckley, L., & Sheehan, M. (2013) School-Based Programs for Increasing Connectedness and Reducing Risk Behavior: A Systematic Review, 25(1), 95–114.

Chetty, R., Friedman, J. N., Rockoff, J. E. (2014) Measuring the Impacts of Teachers II: Teacher Value-Added and Student Outcomes in Adulthood. *American Economic Review*, 104(9), 2633–2679. <https://doi.org/10.1257/aer.104.9.2633>.

*Education Endowment Foundation (2018) Sutton Trust-Education Endowment Foundation Teaching and Learning Toolkit: Accessible from: <https://educationendowmentfoundation.org.uk/evidence-summaries/teaching-learning-toolkit> [retrieved 10 October 2018].

Hanushek, E. (1992) The Trade-off between Child Quantity and Quality. *Journal of Political Economy*, 100(4), 859–887.

*Institute of Education Sciences (2008) Reducing Behavior Problems in the Elementary School Classroom. Accessible from <https://ies.ed.gov/ncee/wwc/PracticeGuide/4>.

Johnson, S., Buckingham, M., Morris, S., Suzuki, S., Weiner, M., Hershberg, R., B. Weiner, Hershberg, R., Fremont, E., Batanova, M., Aymong, C., Hunter, C., Bowers, E., Lerner, J., & Lerner, R. (2016) Adolescents' Character Role Models: Exploring Who Young People Look Up to as Examples of How to Be a Good Person. *Research in Human Development*, 13(2), 126–141. <https://doi.org/10.1080/15427609.2016.1164552>.

- Jussim, L. & Harber, K., (2005) *Teacher Expectations and Self-Fulfilling Prophecies: Knowns and Unknowns, Resolved and Unresolved Controversies*, *Personality and Social Psychology Review* 2005, Vol. 9, No. 2, 131–1557.
- Lazowski, R. A., & Hulleman, C. S. (2016) Motivation Interventions in Education: A Meta-Analytic Review. *Review of Educational Research*, 86(2), 602–640. <https://doi.org/10.3102/0034654315617832>.
- Murdock-Perriera, L. A., & Sedlacek, Q. C. (2018) Questioning Pygmalion in the twenty-first century: the formation, transmission, and attributional influence of teacher expectancies. *Social Psychology of Education*, 21(3), 691–707. <https://doi.org/10.1007/s11218-018-9439-9>.
- *PISA (2015) PISA in Focus: Do teacher-student relations affect students' well-being at school? Accessible from: <https://doi.org/10.1787/22260919>.
- Rathmann K., Herke M., Hurrelmann K., Richter M. (2018) Perceived class climate and school-aged children's life satisfaction: The role of the learning environment in classrooms. *PLoS ONE* 13(2): e0189335. <https://doi.org/10.1371/journal.pone.0189335>.
- Rubie-Davies, C. M., Weinstein, R. S., Huang, F. L., Gregory, A., Cowan, P. A., & Cowan, C. P. (2014) Successive teacher expectation effects across the early school years. *Journal of Applied Developmental Psychology*, 35(3), 181–191. <https://doi.org/10.1016/j.appdev.2014.03.006>.
- Slater, H., Davies, N. M., & Burgess, S. (2011) Do Teachers Matter? Measuring the Variation in Teacher Effectiveness in England. *Oxford Bulletin of Economics and Statistics*, <https://doi.org/10.1111/j.1468-0084.2011.00666.x>.
- Tsiplakides, I. & Keramida, A. (2010) The relationship between teacher expectations and student achievement in the teaching of English as a foreign language. *English Language Teaching*, 3(2), P22. Retrieved from <http://files.eric.ed.gov/fulltext/EJ1081569.pdf>.
- Wubbels, T., Brekelmans, M., den Brok, P., Wijsman, L., Mainhard, T., & van Tartwijk, J. (2014) Teacher-student relationships and classroom management. In E. T. Emmer, E. Sabornie, C. Evertson, & C. Weinstein (Eds.). *Handbook of classroom management: Research, practice, and contemporary issues* (2nd ed., pp. 363–386). New York, NY: Routledge.
- Zins, J. E., Bloodworth, M. R., Weissberg, R. P., & Walberg, H. J. (2007) The Scientific Base Linking Social and Emotional Learning to School Success. *Journal of Educational and Psychological Consultation*, 17(2–3), 191–210. <https://doi.org/10.1080/10474410701413145>

How Pupils Learn (Standard 2 – Promote good progress)

[Further reading recommendations are indicated with an asterisk.]

Adesope, O. O., Trevisan, D. A., & Sundararajan, N. (2017) Rethinking the Use of Tests: A Meta-Analysis of Practice Testing. *Review of Educational Research*, 87(3), 659–701. <https://doi.org/10.3102/0034654316689306>.

Agarwal, P. K., Finley, J. R., Rose, N. S., & Roediger, H. L. (2017) Benefits from retrieval practice are greater for students with lower working memory capacity. *Memory*, 25(6), 764–771. <https://doi.org/10.1080/09658211.2016.1220579>.

Allen, B. and Sims, S. (2018) *The Teacher Gap*. Abingdon: Routledge.

Baddeley, A. (2003) Working memory: looking back and looking forward. *Nature reviews neuroscience*, 4(10), 829-839.

Black, P., & Wiliam, D. (2009) Developing the theory of formative assessment. *Educational Assessment, Evaluation and Accountability*, 21(1), pp.5-31.

Chi, M. T. (2009) Three types of conceptual change: Belief revision, mental model transformation, and categorical shift. In *International handbook of research on conceptual change* (pp. 89-110). Routledge.

Clark, R., Nguyen, F. & Sweller, J. (2006) *Efficiency in Learning: Evidence-Based Guidelines to Manage Cognitive Load*. John Wiley & Sons.

Cowan, N. (2008) What are the differences between long-term, short-term, and working memory? *Progress in brain research*, 169, 323-338.

*Deans for Impact (2015) *The Science of Learning* [Online] Accessible from: <https://deansforimpact.org/resources/the-science-of-learning/>. [retrieved 10 October 2018].

Dunlosky, J., Rawson, K. A., Marsh, E. J., Nathan, M. J., & Willingham, D. T. (2013) Improving students' learning with effective learning techniques: Promising directions from cognitive and educational psychology. *Psychological Science in the Public Interest, Supplement*, 14(1), 4–58. <https://doi.org/10.1177/1529100612453266>.

*Education Endowment Foundation (2018) *Improving Secondary Science Guidance Report*. [Online] Accessible from: <https://educationendowmentfoundation.org.uk/tools/guidance-reports/> [retrieved 10 October 2018].

- Gathercole, S., Lamont, E., & Alloway, T. (2006) Working memory in the classroom. *Working memory and education*, 219-240.
- Hattie, J. (2012) Visible Learning for Teachers. Oxford: Routledge.
- Kirschner, P., Sweller, J., Kirschner, F. & Zambrano, J. (2018) From cognitive load theory to collaborative cognitive load theory. In *International Journal of Computer-Supported Collaborative Learning*, 13(2), 213-233.
- Pachler, H., Bain, P. M., Bottge, B. A., Graesser, A., Koedinger, K., McDaniel, M., & Metcalfe, J. (2007) Organizing Instruction and Study to Improve Student Learning. US Department of Education.
- Pan, S. C., & Rickard, T. C. (2018) Transfer of test-enhanced learning: Meta-analytic review and synthesis. *Psychological Bulletin*, 144(7), 710–756. <https://doi.org/10.1037/bul0000151>.
- Roediger, H. L., & Butler, A. C. (2011) The critical role of retrieval practice in long-term retention. *Trends in Cognitive Sciences*, 15(1), 20–27. <https://doi.org/10.1016/j.tics.2010.09.003>.
- *Rosenshine, B. (2012) Principles of Instruction: Research-based strategies that all teachers should know. *American Educator*, 12–20. <https://doi.org/10.1111/j.1467-8535.2005.00507.x>.
- Simonsmeier, B. A., Flaig, M., Deiglmayr, A., Schalk, L., & Well-being, S. (2018) Domain-Specific Prior Knowledge and Learning: A Meta-Analysis Prior Knowledge and Learning. Accessible from: <https://www.psycharchives.org/handle/20.500.12034/642>
- Sweller, J. (2016). Working Memory, Long-term Memory, and Instructional Design. *Journal of Applied Research in Memory and Cognition*, 5(4), 360–367. <http://doi.org/10.1016/j.jarmac.2015.12.002>.
- Willingham, D. T. (2009) *Why don't students like school?* San Francisco, CA: JosseyBass.
- Wittwer, J., & Renkl, A. (2010) How Effective are Instructional Explanations in Example-Based Learning? A Meta-Analytic Review. *Educational Psychology Review*, 22(4), 393–409. <https://doi.org/10.1007/s10648-010-9136-5>.

Subject and Curriculum (Standard 3 – Demonstrate good subject and curriculum knowledge)

[Further reading recommendations are indicated with an asterisk.]

Bailin, S., Case, R., Coombs, J. R., & Daniels, L. B. (1999) Common misconceptions of critical thinking. *Journal of Curriculum Studies*, 31(3), 269-283.

Ball, D. L., Thames, M. H., & Phelps, G. (2008) Content knowledge for teachers: What makes it special? *Journal of Teacher Education*, 2008 59: 389 DOI: 10.1177/0022487108324554 [Online] Accessible from: <https://www.math.ksu.edu/~bennett/onlinehw/qcenter/ballmkt.pdf>.

Biesta, G. (2009) Good education in an age of measurement: on the need to reconnect with the question of purpose in education. *Educational Assessment, Evaluation and Accountability*, 21(1).

*Coe, R., Aloisi, C., Higgins, S., & Major, L. E. (2014) *What makes great teaching. Review of the underpinning research*. Durham University: UK. Available at: <http://bit.ly/2OvmvKO>

Cowan, N. (2008) What are the differences between long-term, short-term, and working memory? *Progress in brain research*, 169, 323-338.

Deans for Impact (2015) The Science of Learning [Online] Accessible from: <https://deansforimpact.org/resources/the-science-of-learning/> [retrieved 10 October 2018].

Education Endowment Foundation (2018) Improving Secondary Science Guidance Report. [Online] Accessible from: <https://educationendowmentfoundation.org.uk/tools/guidance-reports/> [retrieved 10 October 2018].

Education Endowment Foundation (2018) Preparing for Literacy Guidance Report. [Online] Accessible from: https://educationendowmentfoundation.org.uk/public/files/Preparing_Literacy_Guidance_2018.pdf

Education Endowment Foundation (2018) Sutton Trust-Education Endowment Foundation Teaching and Learning Toolkit: Accessible from: <https://educationendowmentfoundation.org.uk/evidence-summaries/teaching-learning-toolkit/> [retrieved 10 October 2018].

- Guzzetti, B. J. (2000) Learning counter-intuitive science concepts: What have we learned from over a decade of research? *Reading & Writing Quarterly: Overcoming Learning Difficulties*, 16, 89–98. <http://dx.doi.org/10.1080/105735600277971>.
- Jerrim, J., & Vignoles, A. (2016) The link between East Asian "mastery" teaching methods and English children's mathematics skills. *Economics of Education Review*, 50, 29-44. <https://doi.org/10.1016/j.econedurev.2015.11.003>.
- Machin, S., McNally, S., & Viarengo, M. (2018) Changing how literacy is taught: Evidence on synthetic phonics. *American Economic Journal: Economic Policy*, 10(2), 217–241. <https://doi.org/10.1257/pol.20160514>.
- Rich, P. R., Van Loon, M. H., Dunlosky, J., & Zaragoza, M. S. (2017) Belief in corrective feedback for common misconceptions: Implications for knowledge revision. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 43(3), 492-501. <http://dx.doi.org/10.1037/xlm0000322>.
- *Rosenshine, B. (2012) Principles of Instruction: Research-based strategies that all teachers should know. *American Educator*, 12–20. <https://www.aft.org/sites/default/files/periodicals/Rosenshine.pdf>.
- Scott, C. E., McTigue, E. M., Miller, D. M., & Washburn, E. K. (2018) The what, when, and how of preservice teachers and literacy across the disciplines : A systematic literature review of nearly 50 years of research. *Teaching and Teacher Education*, 73, 1–13. <https://doi.org/10.1016/j.tate.2018.03.010>.
- *Shanahan, T. (2005) The National Reading Panel Report: Practical Advice for Teachers. Accessible from: <https://files.eric.ed.gov/fulltext/ED489535.pdf>.
- Sweller, J., van Merriënboer, J. J. G., & Paas, F. G. W. C. (1998) Cognitive Architecture and Instructional Design. *Educational Psychology Review*, 10(3), 251–296. <https://doi.org/10.1023/A:1022193728205>.
- Willingham, D. T. (2002) Ask the Cognitive Scientist. Inflexible Knowledge: The First Step to Expertise. *American Educator*, 26(4), 31-33. Accessible from: <https://www.aft.org/periodical/american-educator/winter-2002/ask-cognitive-scientist>.

Classroom Practice (Standard 4 – Plan and teach well structured lessons)

[Further reading recommendations are indicated with an asterisk.]

Alexander, R. (2017) *Towards Dialogic Teaching: rethinking classroom talk*. York: Dialogos.

*Coe, R., Aloisi, C., Higgins, S., & Major, L. E. (2014) *What makes great teaching. Review of the underpinning research*. Durham University: UK. Available at: <http://bit.ly/2OvmvKO>

Donker, A. S., de Boer, H., Kostons, D., Dignath van Ewijk, C. C., & van der Werf, M. P. C. (2014) Effectiveness of learning strategy instruction on academic performance: A meta-analysis. *Educational Research Review*, 11, 1–26.
<https://doi.org/10.1016/j.edurev.2013.11.002>.

Donovan, M. S., & Bransford, J. D. (2005) *How students learn: Mathematics in the classroom*. Washington, DC: The National Academies Press.

Dunlosky, J., Rawson, K. A., Marsh, E. J., Nathan, M. J., & Willingham, D. T. (2013) Improving students' learning with effective learning techniques: Promising directions from cognitive and educational psychology. *Psychological Science in the Public Interest, Supplement*, 14(1), 4–58. <https://doi.org/10.1177/1529100612453266>.

Education Endowment Foundation (2016) *Improving Literacy in Key Stage One Guidance Report*. [Online] Accessible from: <https://educationendowmentfoundation.org.uk/tools/guidance-reports/> [retrieved 10 October 2018].

Education Endowment Foundation (2017) *Improving Mathematics in Key Stages Two and Three Guidance Report*. [Online] Accessible from: <https://educationendowmentfoundation.org.uk/tools/guidance-reports/> [retrieved 10 October 2018].

Education Endowment Foundation (2017) *Metacognition and Self-regulated learning Guidance Report*. [Online] Accessible from: <https://educationendowmentfoundation.org.uk/tools/guidance-reports/> [retrieved 10 October 2018].

Education Endowment Foundation (2018) *Improving Secondary Science Guidance Report*. [Online] Accessible from: <https://educationendowmentfoundation.org.uk/tools/guidance-reports/> [retrieved 10 October 2018].

*Education Endowment Foundation (2018) *Sutton Trust-Education Endowment Foundation Teaching and Learning Toolkit*: Accessible from: <https://educationendowmentfoundation.org.uk/evidence-summaries/teaching-learning-toolkit/> [retrieved 10 October 2018].

Elleman, A. M., Lindo, E. J., Morphy, P., & Compton, D. L. (2009) The Impact of Vocabulary Instruction on Passage-Level Comprehension of School-Age Children: A Meta-Analysis. *Journal of Research on Educational Effectiveness*, 2(1), 1–44. <https://doi.org/10.1080/19345740802539200>.

Hodgen, J., Foster, C., Marks, R. & Brown, M. (2018) Improving Mathematics in Key Stages Two and Three: Evidence Review. [Online] Accessible from <https://educationendowmentfoundation.org.uk/evidence-summaries/evidence-reviews/improving-mathematics-in-key-stages-two-and-three/> [retrieved 22 October 2018], 149-157.

Institute of Education Sciences. (2009) Assisting Students Struggling with Mathematics: Response to Intervention for Elementary and Middle Schools. Accessible from: https://ies.ed.gov/ncee/wwc/Docs/PracticeGuide/rti_math_pg_042109.pdf.

Jay, T., Willis, B., Thomas, P., Taylor, R., Moore, N., Burnett, C., Merchant, G., Stevens, A. (2017) Dialogic Teaching: Evaluation Report. [Online] Accessible from: <https://educationendowmentfoundation.org.uk/projects-and-evaluation/projects/dialogic-teaching> [retrieved 10 October 2018].

Kalyuga, S. (2007) Expertise reversal effect and its implications for learner-tailored instruction. *Educational Psychology Review*, 19(4), 509-539.

Kirschner, P., Sweller, J., Kirschner, F. & Zambrano, J. (2018) From cognitive load theory to collaborative cognitive load theory. In *International Journal of Computer-Supported Collaborative Learning*, 13(2), 213-233.

Leung, K. C. (2015) Preliminary Empirical Model of Crucial Determinants of Best Practice for Peer Tutoring on Academic Achievement. *Journal of Educational Psychology*, 107(2), 558–579. <https://doi.org/10.1037/a0037698>.

Muijs, D., & Reynolds, D. (2017) *Effective teaching: Evidence and practice*. Thousand Oaks, CA: Sage.

Pan, S. C., & Rickard, T. C. (2018) Transfer of test-enhanced learning: Meta-analytic review and synthesis. *Psychological Bulletin*, 144(7), 710–756. <http://psycnet.apa.org/doiLanding?doi=10.1037%2Fbul0000151>.

*Rosenshine, B. (2012) Principles of Instruction: Research-based strategies that all teachers should know. *American Educator*, 12–20. <https://doi.org/10.1111/j.1467-8535.2005.00507.x>

Sweller, J. (2016). Working Memory, Long-term Memory, and Instructional Design. *Journal of Applied Research in Memory and Cognition*, 5(4), 360–367. <http://doi.org/10.1016/j.jarmac.2015.12.002>.

Tereshchenko, A., Francis, B., Archer, L., Hodgen, J., Mazonod, A., Taylor, B., Travers, M. C. (2018) Learners' attitudes to mixed-attainment grouping: examining the views of students of high, middle and low attainment. *Research Papers in Education*, 1522, 1–20. <https://doi.org/10.1080/02671522.2018.1452962>.

Van de Pol, J., Volman, M., Oort, F., & Beishuizen, J. (2015) The effects of scaffolding in the classroom: support contingency and student independent working time in relation to student achievement, task effort and appreciation of support. *Instructional Science*, 43(5), 615-641.

Wittwer, J., & Renkl, A. (2010) How Effective are Instructional Explanations in Example-Based Learning? A Meta-Analytic Review. *Educational Psychology Review*, 22(4), 393–409. <https://doi.org/10.1007/s10648-010-9136-5>.

Zimmerman, B. J. (2002) Becoming a Self-Regulated Learner: An Overview, Theory Into Practice. *Theory Into Practice*, 41(2), 64–70. https://www.jstor.org/stable/1477457?seq=1#page_scan_tab_contents.

Adaptive Teaching (Standard 5 – Adapt teaching)

[Further reading recommendations are indicated with an asterisk.]

*Davis, P., Florian, L., Ainscow, M., Dyson, A., Farrell, P., Hick, P., Rouse, M. (2004) Teaching Strategies and Approaches for Pupils with Special Educational Needs: A Scoping Study. Accessible from: <http://dera.ioe.ac.uk/6059/1/RR516.pdf>.

Deunk, M. I., Smale-Jacobse, A. E., de Boer, H., Doolaard, S., & Bosker, R. J. (2018) Effective differentiation Practices: A systematic review and meta-analysis of studies on the cognitive effects of differentiation practices in primary education. *Educational Research Review*, 24(February), 31–54. <https://doi.org/10.1016/j.edurev.2018.02.002>.

*Education Endowment Foundation (2018) Sutton Trust-Education Endowment Foundation Teaching and Learning Toolkit: Accessible from: <https://educationendowmentfoundation.org.uk/evidence-summaries/teaching-learning-toolkit> [retrieved 10 October 2018].

Hattie, J. (2009) Visible learning: a synthesis of over 800 meta-analyses relating to achievement. London: Routledge.

Kriegbaum, K., Becker, N., & Spinath, B. (2018) The Relative Importance of Intelligence and Motivation as Predictors of School Achievement: A meta-analysis. *Educational Research Review*. <https://doi.org/10.1016/j.edurev.2018.10.001>.

*OECD (2015) Pisa 2015 Result: Policies and Practices for Successful Schools. Accessible from: <https://doi.org/10.1787/9789264267510-en>.

Pashler, H., McDaniel, M., Rohrer, D., & Bjork, R. (2008) Learning Styles: Concepts and Evidence. *Psychological Science in the Public Interest*, 9 (3).

Sisk, V. F., Burgoyne, A. P., Sun, J., Butler, J. L., & Macnamara, B. N. (2018) To What Extent and Under Which Circumstances Are Growth Mind-Sets Important to Academic Achievement? Two Meta-Analyses. *Psychological Science*, 29(4), 549–571. <https://doi.org/10.1177/0956797617739704>.

Speckesser, S., Runge, J., Foliano, F., Bursnall, M., Hudson-Sharp, N., Rolfe, H. & Anders, J. (2018) Embedding Formative Assessment: Evaluation Report. [Online] Accessible from: https://educationendowmentfoundation.org.uk/public/files/EFA_evaluation_report.pdf [retrieved 10 October 2018].

Steenbergen-Hu, S., Makel, M. C., & Olszewski-Kubilius, P. (2016) *What One Hundred Years of Research Says About the Effects of Ability Grouping and Acceleration on K-12 Students Academic Achievement: Findings of Two Second-Order Meta-Analyses*. *Review of Educational Research* (Vol. 86). <https://doi.org/10.3102/0034654316675417>.

Tereshchenko, A., Francis, B., Archer, L., Hodgen, J., Mazonod, A., Taylor, B., Travers, M. C. (2018) Learners' attitudes to mixed-attainment grouping: examining the views of students of high, middle and low attainment. *Research Papers in Education*, 1522, 1–20. <https://doi.org/10.1080/02671522.2018.1452962>.

Willingham, D. T. (2010) The Myth of Learning Styles, *Change*, 42(5), 32–35.

Assessment (Standard 6 – Make accurate and productive use of assessment)

[Further reading recommendations are indicated with an asterisk.]

Black, P., & Wiliam, D. (2009) Developing the theory of formative assessment. *Educational Assessment, Evaluation and Accountability*, 21(1), pp.5-31.

*Black, P., Harrison, C., Lee, C., Marshall, B., & Wiliam, D. (2004). Working inside the Black Box: Assessment for Learning in the Classroom. *Phi Delta Kappan*, 86(1), 8–21. Accessible from: <https://eric.ed.gov/?id=EJ705962>

Christodoulou, D. (2017) *Making Good Progress: The Future of Assessment for Learning*. Oxford: OUP.

*Coe, R. (2013) *Improving Education: A triumph of hope over experience*. Centre for Evaluation and Monitoring. Accessible from: <http://www.cem.org/attachments/publications/ImprovingEducation2013.pdf>.

*Education Endowment Foundation (2016) A marked improvement? A review of the evidence on written marking. Accessible from: https://educationendowmentfoundation.org.uk/public/files/Publications/EEF_Marking_Review_April_2016.pdf.

Education Endowment Foundation (2018) Sutton Trust-Education Endowment Foundation Teaching and Learning Toolkit: Accessible from: <https://educationendowmentfoundation.org.uk/evidence-summaries/teaching-learning-toolkit/> [retrieved 10 October 2018].

Gibson, S., Oliver, L. and Dennison, M. (2015) *Workload Challenge: Analysis of teacher consultation responses*. Department for Education. Accessible from: [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/485075/DFE-RR456A - Workload Challenge Analysis of teacher consultation responses sixth form colleges.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/485075/DFE-RR456A_-_Workload_Challenge_Analysis_of_teacher_consultation_responses_sixth_form_colleges.pdf).

Hattie, J., & Timperley, H. (2007) The Power of Feedback. *Review of Educational Research*, 77(1), 81–112. <https://doi.org/10.3102/003465430298487>

Harlen, W. & James, M. (1997) Assessment and Learning: differences and relationships between formative and summative assessment, *Assessment in Education: Principles, Policy & Practice* 4:3, 365-379. Kluger, A. N., & DeNisi, A. (1996) The effects of feedback interventions on performance: A historical review, a meta-analysis, and a preliminary feedback intervention theory. *Psychological Bulletin*, 119(2), 254–284. <https://doi.org/10.1037/0033-2909.119.2.254>.

Sadler, D. (1989) Formative assessment and the design of instructional systems. *Instructional Science*, 18(2), pp.119-144.

Speckesser, S., Runge, J., Foliano, F., Bursnall, M., Hudson-Sharp, N., Rolfe, H. & Anders, J. (2018) Embedding Formative Assessment: Evaluation Report. [Online] Accessible from:

https://educationendowmentfoundation.org.uk/public/files/EFA_evaluation_report.pdf [retrieved 10 October 2018].

William, D. (2010) What Counts as Evidence of Educational Achievement? The Role of Constructs in the Pursuit of Equity in Assessment. *Review of Research in Education*, 34, pp. 254-284.

William, D. (2017) Assessment, marking and feedback. In Hendrick, C. and McPherson, R. (Eds.) *What Does This Look Like in the Classroom? Bridging the gap between research and practice*. Woodbridge: John Catt.

Managing Behaviour (Standard 7 – Manage behaviour effectively)

[Further reading recommendations are indicated with an asterisk.]

Bennett, J., Lubben, F., & Hogarth, S. (2006) Bringing Science to Life: A Synthesis of the Research Evidence on the Effects of Context-Based and STS Approaches to Science Teaching. *Science Education*, 91(1), 36–74.

<https://www.york.ac.uk/media/educationalstudies/documents/staff-docs/Bennett%20Lubben%20Hogarth%202007.pdf>.

*Carroll, J., Bradley, L., Crawford, H., Hannant, P., Johnson, H., & Thompson, A. (2017). SEN support: A rapid evidence assessment. Accessible from:

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/628630/DfE_SEN_Support_REA_Report.pdf

Chapman, R. L., Buckley, L., & Sheehan, M. (2013) School-Based Programs for Increasing Connectedness and Reducing Risk Behavior: A Systematic Review, 25(1), 95–114.

*Coe, R., Aloisi, C., Higgins, S., & Major, L. E. (2014) *What makes great teaching. Review of the underpinning research*. Durham University: UK. Available at: <http://bit.ly/2OvmvKO>.

DuPaul, G. J., Belk, G. D., & Puzino, K. (2016) Evidence-Based Interventions for Attention Deficit Hyperactivity Disorder in Children and Adolescents. *Handbook of Evidence-Based Interventions for Children and Adolescents*, 167.

Education Endowment Foundation (2018) Improving Secondary Science Guidance Report. [Online] Accessible from: <https://educationendowmentfoundation.org.uk/tools/guidance-reports/> [retrieved 10 October 2018].

Education Endowment Foundation (2018) Sutton Trust-Education Endowment Foundation Teaching and Learning Toolkit: Accessible from: <https://educationendowmentfoundation.org.uk/evidence-summaries/teaching-learning-toolkit/> [retrieved 10 October 2018].

Gutman, L. & Schoon, L. (2013) The impact of non-cognitive skills on the outcomes of young people. [Online] Accessible from: https://educationendowmentfoundation.org.uk/public/files/Publications/EEF_Lit_Review_Non-CognitiveSkills.pdf [retrieved 10 October 2018].

*Institute of Education Sciences (2008) Reducing Behavior Problems in the Elementary School Classroom. Accessible from <https://ies.ed.gov/ncee/wwc/PracticeGuide/4>.

Kern, L., & Clemens, N. H. (2007) Antecedent strategies to promote appropriate classroom behavior. *Psychology in the Schools*, 44(1), 65–75. <https://doi.org/10.1002/pits.20206>.

Lazowski, R. A., & Hulleman, C. S. (2016) Motivation Interventions in Education: A Meta-Analytic Review. *Review of Educational Research*, 86(2), 602–640. <https://doi.org/10.3102/0034654315617832>.

Mitchell, D. (2014). What really works in special and inclusive education. Oxford: Routledge.

Sibieta, L., Greaves, E. & Sianesi, B. (2014) Increasing Pupil Motivation: Evaluation Report. [Online] Accessible from: <https://educationendowmentfoundation.org.uk/projects-and-evaluation/projects/increasing-pupil-motivation/> [retrieved 10 October 2018].

Ursache, A., Blair, C., & Raver, C. C. (2012) The promotion of self-regulation as a means of enhancing school readiness and early achievement in children at risk for school failure. *Child Development Perspectives*, 6(2), 122-128.

Willingham, D. T. (2009) *Why don't students like school?* San Francisco, CA: JosseyBass.

Wubbels, T., Brekelmans, M., den Brok, P., Wijsman, L., Mainhard, T., & van Tartwijk, J. (2014) Teacher-student relationships and classroom management. In E. T. Emmer, E. Sabornie, C. Evertson, & C. Weinstein (Eds.). *Handbook of classroom management: Research, practice, and contemporary issues* (2nd ed., pp. 363–386). New York, NY: Routledge.

Yeager, D. S., & Walton, G. M. (2011) Social-Psychological Interventions in Education: They're Not Magic. *Review of Educational Research*, 81(2), 267–301. <https://doi.org/10.3102/0034654311405999>.

Professional Behaviours (Standard 8 – Fulfil wider professional responsibilities)

[Further reading recommendations are indicated with an asterisk.]

Allen JP, Pianta RC, Gregory A, Mikami AY, Lun J (2011) An interaction-based approach to enhancing secondary school instruction and student achievement. *Science* 333(6045):1034-1037 <https://doi.org/10.1126/science.1207998>.

Basma, B. & Savage, R. (2018) Teacher Professional Development and Student Literacy Growth: a Systematic Review and Meta-analysis. *Education Psychology Review*. 30: 457 <https://doi.org/10.1007/s10648-017-9416-4>.

Blatchford, P., Bassett, P., Brown, P., Martin, C., Russell, A., & Webster, R. (2009) Deployment and impact of support staff in schools: Characteristics, Working Conditions and Job Satisfaction of Support Staff in Schools. Retrieved from <http://eprints.uwe.ac.uk/12342/>.

*Carroll, J., Bradley, L., Crawford, H., Hannant, P., Johnson, H., & Thompson, A. (2017) SEN support: A rapid evidence assessment. Accessible from: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/628630/DfE_SEN_Support_REA_Report.pdf

*Cordingley, P., Higgins, S., Greany, T., Buckler, N., Coles-Jordan, D., Crisp, B., Saunders, L. & Coe, R. (2015) Developing Great Teaching. Accessible from: <https://tdtrust.org/about/dgt>. [accessed 18 October 2018].

Darling-Hammond, L. (2009) Professional Learning in the Learning Profession.

Department for Education (2018) Schools: guide to the 0 to 25 SEND code of practice, https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/349053/Schools_Guide_to_the_0_to_25_SEND_Code_of_Practice.pdf. [accessed 18 October 2018].

*Education Endowment Foundation (2015) Making Best Use of Teaching Assistants Guidance Report. [Online] Accessible from: <https://educationendowmentfoundation.org.uk/tools/guidance-reports/> [retrieved 10 October 2018].

Education Endowment Foundation (2018) Sutton Trust-Education Endowment Foundation Teaching and Learning Toolkit: Accessible from: <https://educationendowmentfoundation.org.uk/evidence-summaries/teaching-learning-toolkit/> [retrieved 10 October 2018].

Hughes, D., Mann, A., Barnes, S., Baladuf, B. and McKeown, R. (2016). Careers education: International literature review. <https://educationendowmentfoundation.org.uk/evidence-summaries/evidence-reviews/careers-education/> [Accessed 18 October 2018].

Kraft, M., Blazar, D., & Hogan, D. (2018) The Effect of Teacher Coaching on Instruction and Achievement: A Meta-Analysis of the Causal Evidence. Review of Educational Research, 003465431875926. <https://doi.org/10.3102/0034654318759268>.

Skaalvik, E. M., & Skaalvik, S. (2017) Still motivated to teach? A study of school context variables, stress and job satisfaction among teachers in senior high school. *Social Psychology of Education*, 20(1), 15–37. <https://doi.org/10.1007/s11218-016-9363-9>.



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