



Birmingham
Newman
University

Research informed practice for Subject mentoring



Module aims

- To share relevant research and reflections regarding the impact of excellent and accurate subject knowledge of teachers on those that they teach
- To signpost mentors to reliable and usable sources to inform their practice and that of their mentee
- To introduce effective practice of 'Big question' reflections regarding both mentee subject knowledge and their effective delivery of this
- To introduce models of effective coaching to enhance the practice of evidence informed approaches to teaching

Learning outcomes

By the end of the module mentors will:

- be familiar with research and evidence regarding the impact of excellent subject knowledge on those that we teach
- be able to source and cite reliable sources to inform good practice in subject development
- be familiar with coaching styles and modelling techniques of value to effective subject mentoring



“Teachers make the education of their pupils their first concern, and are accountable for achieving the highest possible standards in work and conduct. Teachers act with honesty and integrity; have strong subject knowledge, keep their knowledge and skills as teachers up-to-date and are self-critical; forge positive professional relationships; and work with parents in the best interests of their pupils”

[Preamble – Teachers’ standards](#)

ITT CCF

Learn that ...Reflective practice, supported by feedback from and observation of experienced colleagues, professional debate, and learning from educational research, is also likely to support improvement. [CCF Standard 8.2](#)

Learn how to *develop as a professional by ... (8d)* Engaging with research evidence by accessing reliable sources, seeking support for how findings can inform practice, and monitoring the impact of applications. [CCF Standard 8.d](#)

NCCAT

Designed and formatted in line with the CCF and with reference to the Ofsted research reviews and subject reports. The *Birmingham Newman continuous curriculum assessment tool* offers comprehensive guidance throughout your mentoring journey, ensuring all expectations are outlined with achievable goals included in an achievable and timely format.



- Take a moment to reflect on the content shared.

You may wish to think about:

- *How well do I meet the expectations and responsibilities outlined?*
- *What are my strengths as a subject mentor?*
- *In which areas do I wish to progress or improve?*
- *What impact might I have on my trainee by reflecting on my own practice?*

***“sometimes it is useful to reflect on the quality of your instruction,
no matter how experienced you are”*** Hughes, 2021, p47



The value of being evidence informed in our practice is now well documented. The Nuance between research informed and evidence informed practice is also important to understand if we are to be truly effective.

Research informed practice

Using academic papers and peer reviewed documentation to inform discipline. Engaging with research will arm teachers with concepts that have been tested and analysed in order to provide information for teachers and other professionals in education

“Research can never tell teachers what to do, nor should it; it can, however, help provide teachers and leaders with what Prof. Steve Higgins (and others) have called ‘best bets’. It can – and should – provide the theory underpinning the action in classrooms, leadership meetings, governing body committees and policy-making discussions.”(Coe, 2019)

Evidence informed practice

Evidence based practice is a term using a wider capture of informative practice for teachers, drawing on academic research as well as secondary evidence of good practice, such as teacher feedback and the wealth of tried and tested approaches, the experience of expert colleagues

A useful discussion on evidence based teaching and terminology can be found [here \[insert source\]](#)

For the purposes of this unit of study we use the term research informed practice inclusively. This is not to underestimate the value of the expert colleagues around you, or indeed your own experiences as a mentor. The golden thread here is to be able to weave your contextual awareness, with the experience of your colleagues along side academia in supporting good practice.



Where do you currently look for subject research and reflection?

How do you ensure you are evidence informed in your practice?

Where can you go to improve further, so to additionally support your trainee

	Research evidence	School-based data	Other sources of information
Definition	Evidence generated through planned and systematic processes that answer specific questions, often assessing the impact of practices or approaches.	Evidence generated by settings through the collection and analysis of pupil assessments and other sources of data.	Other information concerning schools and teaching that is not generated through the systematic collection and analysis of data.
Examples	<ul style="list-style-type: none"> • Experiments (such as randomised controlled trials) • Case studies • Surveys • Systematic reviews • Interviews and focus groups 	<ul style="list-style-type: none"> • Progress and attainment data • Attendance data • Feedback from lesson observations • Samples of pupils' work • Pupil and teacher feedback • Behaviour logs • Pastoral and wellbeing information • Special Educational Needs (SEN) data • Parental and carer involvement and communication 	<ul style="list-style-type: none"> • Blogs and social media • Newspapers • Podcasts • Accounts from education professionals (e.g. teachers, school leaders, consultants)



The importance of subject mentoring

- [CCF](#) “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. (CCF Standard 3)
- [NCCAT](#) “*[The trainee] Identifies own areas of need and professional development with support from Subject Tutor and Subject Mentor. [The Trainee] Develops professional understanding and skills, utilising university and school colleagues ... Engages in **reflection** and **feedback** with experienced colleagues, using research-informed discussions to demonstrate an **ability to evaluate theory in practice.***” (NCCAT Stage 2 – Role of the Teacher)
- The importance of good subject knowledge, alongside pedagogical awareness cannot be understated. It is the essence of schooling that engages, inspires and ultimately aids progress because without a thirst for knowledge, pupils will not effectively learn

“Teachers need to demonstrate their subject knowledge by identifying the key concepts in their subject that the students need to know and providing opportunities, through a knowledge rich curriculum, for students to learn and master them.” (Hughes, 2021, p45)
- Being a subject mentor then is both a privilege and a responsibility. Our work here is to fan the flame of enthusiasm that has brought a trainee to the profession, in their area of expertise, in the first place.



A Model for **Great Teaching**

01



Great teachers understand the content they are teaching and how it is learnt

02



Great teachers create a supportive environment for learning

03



Great teachers manage the classroom to maximise opportunity to learn

04



Great teachers present content, activities and interactions that activate their students' thinking



A Model for **Great Teaching**

1. Understanding the content

1

Having deep and fluent knowledge and flexible understanding of the content you are teaching

2

Knowledge of the requirements of curriculum sequencing and dependencies in relation to the content and ideas you are teaching

3

Knowledge of relevant curriculum tasks, assessments and activities, their diagnostic and didactic potential; being able to generate varied explanations and multiple representations/analogies/examples for the ideas you are teaching

4

Knowledge of common student strategies, misconceptions and sticking points in relation to the content you are teaching



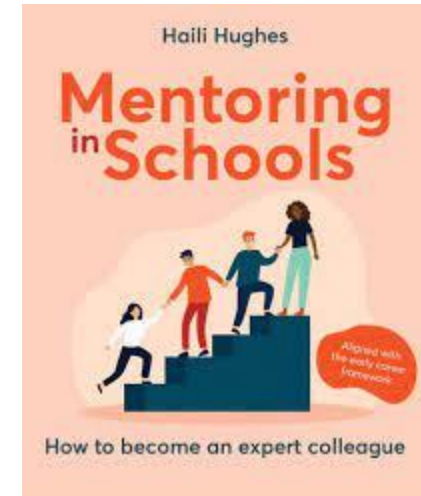
In her helpful handbook, Hughes points to the wealth of research behind how children learn, and how effective delivery requires sequencing when it comes to retention of subject content. Hughes outlines the work of a number of scholars to assist us in this area:

*“**Counsell** (2018) has written about the curriculum being like a narrative, where ‘every bit of content has a function’... [where] good curriculum sequencing should be ‘unifying’...”*

*“**Rosenshine** (2012) summarised the best part of nearly half a century’s worth of research on effective instruction and how teachers can maximise impact...”*

*“**Danielson’s** (2007) ‘Framework for teaching’ ... aims to provide a common language for instructional practice, while also offering a roadmap of practices which support great teaching in every career phase...”*

*“**Kidd** (2020) in her ‘Curriculum of Hope’... advises school leaders to consider the value of what is being taught and how it leads to lines of enquiry for children who are then empowered to shape their future communities”*



“Teachers need to know how different ideas in the subject or domain are related, similar, sequential, analogous or distinct. They need to have thought about, and have good answers to, the kinds of ‘Why?’ and ‘What would happen if...?’ questions that students may ask and that teachers themselves should ask to promote connected and higher-order thinking” Coe, 2020. P18

“If teachers are to become self-regulated learners and take responsibility for their own learning in the same way that [is proposed] for students, then teachers must set learning goals for themselves as well as their students” Timperley, 2013

“Finally, as has been stressed in this chapter and the related standard (CCF standard 3), the importance of literacy in every subject area cannot be underestimated. It is every teacher’s responsibility to develop a student’s literacy by modelling high quality oral language, promoting reading for pleasure and teaching different forms of writing.” Hughes 2021, p59



“The curriculum – what pupils learn – is the very core of education.

The curriculum in schools in England is built around subjects.

Our inspection methodology is, as a consequence, based to a large extent on subject ‘deep dives’.

*These provide evidence of curriculum quality, which informs our ‘quality of education’ judgement” **

In 2021 Ofsted introduced a series of publications ‘as a force for improvement’ with a view to ‘help subject leaders in curriculum planning’. These publications fall into two categories and both are instrumental in supporting your trainee in their subject development.

- **research reviews:** collate currently available research evidence and consider what published research evidence tells us, about a high-quality education in each subject
- **subject reports:** inform leaders, teachers and tutors, parents and policymakers about what [ofsted] have learned about the quality of school curriculum in a range of subjects

* <https://www.gov.uk/government/publications/principles-behind-ofsted-research-reviews-and-subject-reports/principles-behind-ofsted-research-reviews-and-subject-reports>



How to utilise an ofsted subject report:

- *Have awareness of the structure and content of the review*
- *Pay attention to what is being noticed as positive and developmental in those schools inspected*
- *Notice the gaps: Where have inspected school been lacking, and what needs to be done*

Consider: A subject audit

Take some time to reflect on and analyse the depth and breadth of your subject curriculum

- How do you know it is 'broad and deep'?
- How do you know it is taught effectively?
- How do you know that your subject is impactful on those that you teach?



Student name:

Student Number:

Stage 2

08.01.2024 to 05.04.2024

Teaching File – a record of weekly reflective discussions.

Week 19 08.01.2024.

University Big Question – [T2] How can pupils' attainment be accurately assessed as part of the cycle of planning & teaching, including target setting & use of whole school data?

Subject lens focus – How do we know that pupils make progress in RE when we cover a range of Religions and denominations?



Implementing the guidance through your mentor meeting:

Come prepared

Be prepared for the meeting.

Be clear with your trainee that their development is their responsibility.

The NCCAT is clear that expectations lie with the Trainee to take ownership of their reading, research and target setting *under your guidance as mentor*

Pre reading

Pre-reading and preparation

Ensure you have engaged in any pre-reading set for your trainee. Effective coaching can only take place if you are truly in the same place with your mentee regarding any research.

However, emphasise to your trainee that ownership of their engagement and reading lies with them.

Review targets prior to the mentor meeting

Remind trainees that targets set from the week before, should be reviewed before the meeting. Similarly, as mentor, have you observed on the targets set, are you prepared to comment on reflections?

-As a guide the following outline may be useful regarding the format of your meeting:

- *welcome 5 mins*
- *review targets of the previous week 10 mins*
- *Big questions – prewritten – see placement guide 15 mins*
- *new purposeful targets and rationale for these - discussion linked to CCF and NCCAT (Newman curriculum continuous assessment tool) 15*
- *AOB 15*



Three Models to Approaching Coaching

Facilitative	Dialogical	Directive
Coach does not share expertise	Coach shares expertise dialogically when appropriate	Coach's expertise is the focus of the coaching session
Teacher does most of the thinking	Coach and teacher think together	Coach does most of the thinking
Teacher-focused goal	Student-focused goal	Strategy-focused goal

INSTRUCTIONALCOACHING.COM



Being a subject mentor is a great privilege and responsibility.

In order to ensure effectiveness for all – yourself, your trainee and the pupils that each of you deliver to, it is important to be mindful of the following, and to plan in order to mitigate for these:

- Time and effective planning of this
- Work life balance and mental health
- Personal professional development and the importance of networking
- Pupil outcomes



- Effective planning
- work life balance -YES
- Read widely – but smartly
- Block your time/ protected
- Ensure support from your Headteacher and the
- Birmingham Newman partnership team
- Record discussions
- Record progress –
- Ref CfSA (Appendix 2)
- Network – learn from and share with others

Use of NCCAT in Weekly Mentoring Meeting

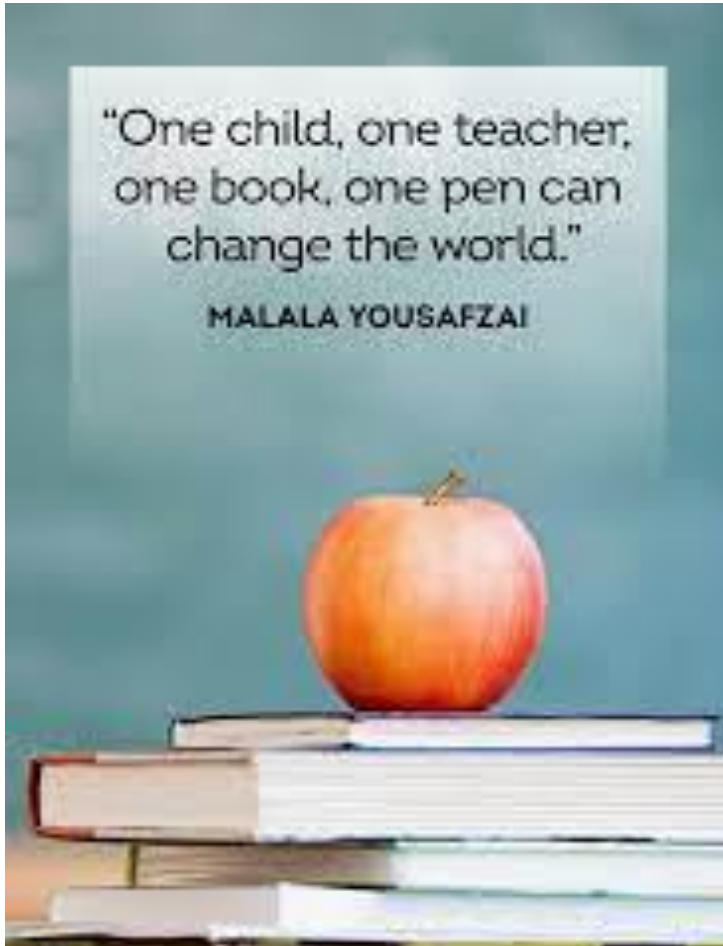
In preparation for the weekly meeting with the mentor, the **trainee** should review their progress and evidence towards the **NCCAT** criteria for the identified theme for the week (**Big Questions**) and ongoing subject knowledge development. At the meeting trainee and **mentor** use this as a foundation for their conversation.

The **trainee** should also review the targets set in the previous weekly meeting and be able to discuss with the **mentor** how they met them and reflect on how this has had an impact on their teaching.

The **trainee** and the **mentor**, collaboratively, should then set further **SMART Targets** (no more than 3 from the identified theme and 1 for Subject Knowledge) each week using the **Big Questions** and **NCCAT** as a reference point. Targets should also be set as a result of lesson observation feedback. These **SMART Targets** identify what aspect of their teaching they should focus on.

During the week **trainees** will be proactive in identifying other themed targets they can meet within the criteria alongside the targets that have been set in weekly meetings. These are also shared at the weekly mentoring meeting.

Trainees and **mentors** can use the **NCCAT** to identify where trainees are not making good progress and if necessary, trigger support processes in discussion with **subject tutors**.



Questions or comments?

Should you have any further queries or comments please speak to your subject tutor at Birmingham Newman

If you need further help please email the partnership administration faculty at secondaryfed@newman.ac.uk



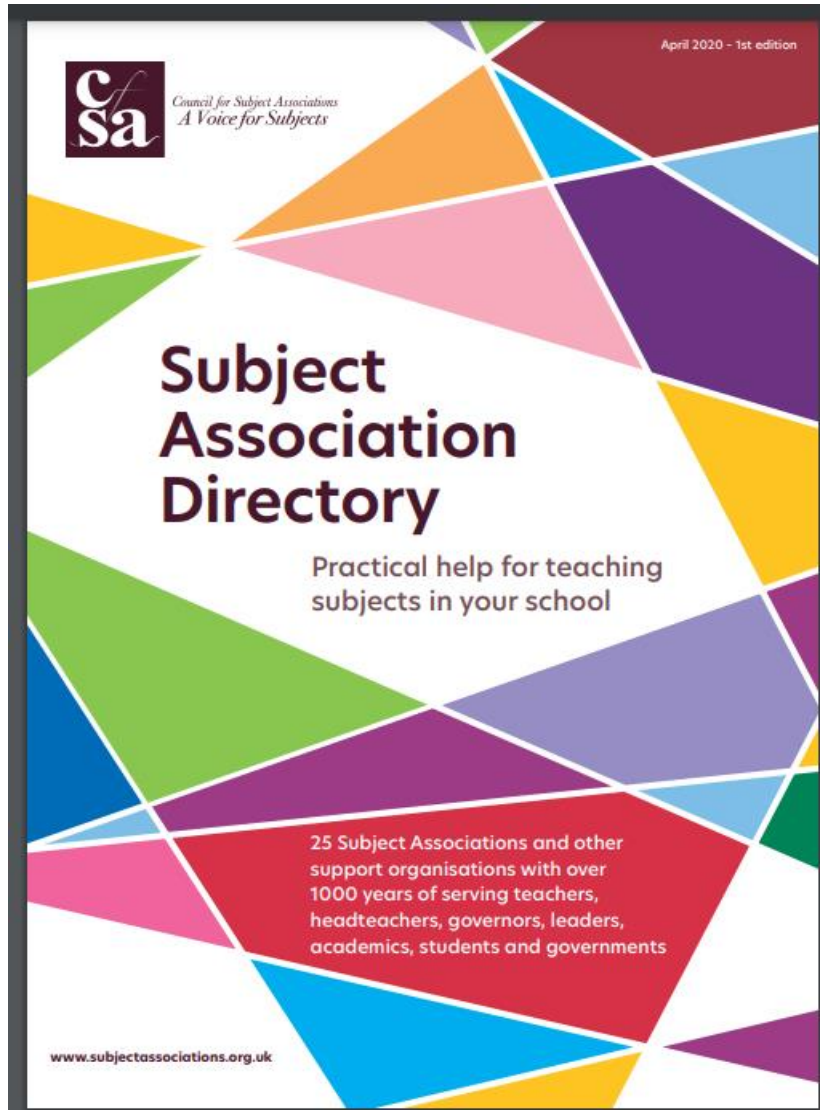
- Coe et al., 2014. [The Great teaching toolkit](#)
- [DfE Research reviews and subject reports](#)
- Hughes, H., 2021. *Mentoring in Schools: How to become an expert colleague-aligned with the Early Career Framework*. Ch. 3 Demonstrate good subject and curriculum knowledge Crown House Publishing Ltd.
- Knight, J., www.instructionalcoaching.com
- Muijs, D., Kyriakides L., et al., 2014. [State of the art – teacher effectiveness and professional learning, School Effectiveness and School Improvement](#), 25:2, 231-256
- [Sherrington, T., walkthru series online](#)
- Taylor, K. 2018, [What do we mean by research informed practice in education?](#)
- Timperley, H., 2001. *Mentoring Conversations Designed to Promote Student Teacher Learning*, [Asia-Pacific Journal of Teacher Education](#), 29:2, 111-123

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>Receiving clear, consistent and effective mentoring in how to identify essential concepts, knowledge, skills and principles of the subject.</i> • <i>Observing how expert colleagues ensure pupils' thinking is focused on key ideas within the subject and deconstructing this approach.</i> • <i>Discussing and analysing with expert colleagues the rationale for curriculum choices, the process for arriving at current curriculum choices and how the school's curriculum materials inform lesson preparation.</i> <p>And - following expert input - by taking opportunities to practise, receive feedback and improve at:</p> <ul style="list-style-type: none"> • <i>Providing opportunity for all pupils to learn and master essential concepts, knowledge, skills and principles of the subject.</i> • <i>Working with expert 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 expert colleagues that carefully sequence content).</i> • <i>Being aware of common misconceptions and discussing with expert colleagues how to help pupils master important concepts.</i> <p>Support pupils to build increasingly complex mental models, by:</p>

<p>within the subject area they are being asked to think critically about.</p> <p>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.</p> <p>8. Pupils are likely to struggle to transfer what has been learnt in one discipline to a new or unfamiliar context.</p> <p>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.</p> <p>10. Every teacher can improve pupils' literacy, including by explicitly teaching reading, writing and oral language skills specific to individual disciplines.</p>	<ul style="list-style-type: none"> • <i>Discussing and analysing with expert colleagues how to revisit the big ideas of the subject over time and teach key concepts through a range of examples.</i> • <i>Discussing and analysing with expert colleagues how they balance exposition, repetition, practice of critical skills and knowledge.</i> <p>And - following expert input - by taking opportunities to practise, receive feedback and improve at:</p> <ul style="list-style-type: none"> • <i>Drawing explicit links between new content and the core concepts and principles in the subject.</i> <p>Develop fluency, by:</p> <ul style="list-style-type: none"> • <i>Observing how expert colleagues use retrieval and spaced practice to build automatic recall of key knowledge and deconstructing this approach.</i> <p>And - following expert input - by taking opportunities to practise, receive feedback and improve at:</p> <ul style="list-style-type: none"> • <i>Providing tasks that support pupils to learn key ideas securely (e.g. quizzing pupils so they develop fluency with times tables).</i> <p>Help pupils apply knowledge and skills to other contexts, by:</p> <ul style="list-style-type: none"> • <i>Observing how expert colleagues interleave concrete and abstract examples, slowly withdrawing concrete examples and drawing attention to the underlying structure of problems and deconstructing this approach.</i> <p>And - following expert input - by taking opportunities to practise, receive feedback and improve at:</p> <ul style="list-style-type: none"> • <i>Ensuring pupils have relevant domain-specific knowledge, especially when being asked to think critically within a subject.</i>
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	<p>Develop pupils' literacy, by:</p> <ul style="list-style-type: none">• <i>Observing how expert colleagues demonstrate a clear understanding of systematic synthetic phonics, particularly if teaching early reading and spelling, and deconstructing this approach.</i>• <i>Discussing and analysing with expert colleagues how to support younger pupils to become fluent readers and to write fluently and legibly.</i>• <i>Receiving clear, consistent and effective mentoring in how to model reading comprehension by asking questions, making predictions, and summarising when reading.</i>• <i>Receiving clear, consistent and effective mentoring in how to promote reading for pleasure (e.g. by using a range of whole class reading approaches and regularly reading high-quality texts to children).</i>• <i>Discussing and analysing with expert colleagues how to teach different forms of writing by modelling planning, drafting and editing.</i> <p>And - following expert input - by taking opportunities to practise, receive feedback and improve at:</p> <ul style="list-style-type: none">• <i>Teaching unfamiliar vocabulary explicitly and planning for pupils to be repeatedly exposed to high-utility and high-frequency vocabulary in what is taught.</i>• <i>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).</i>
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Appendix 2 – Subject Associations



Networking and learning from others is key.

The Centre for Subject Associations will guide you to support organisations, that can aid you and your mentee in subject knowledge and delivery.

The experience of our expert colleagues is invaluable!

[Centre for Subject Associations](https://www.subjectassociations.org.uk/)