





EARLY CAREER FRAMEWORK – LEARNING AND TEACHING CORE CONTENT



1. Challenge

In order to plan a <u>challenging</u> lesson we need to understand the nature of progress in the subject discipline

- Change your timescale on how you think about progress e.g. don't think on a term by term basis, think about the progress through key stages
- We want to ensure students are equipped with a well-developed toolbox of skills to deploy.

Know thy subject

- Recognise the importance of teachers staying on top of their subject knowledge
- Carry out an honest <u>subject-knowledge audit</u>.
 Consider what your strengths and weaknesses are and create a strategy to overcome the target areas. This could be on a department scale and utilising meetings to teach each other difficult concepts.
- Utilise other schools and try and bring the cost of CPD down or focus on using articles to improve subject knowledge e.g. Teaching Geography

Agree Excellence

- To be able to agree on excellence it is imperative that you are able to recognise what the key strands of your subject are.
- Consider what you would define as an 'excellent practitioner' in your subject area.
- Expectations must be high but you must offer he support to ensure students can meet them. Plan across Key Stages
- To increase the level of challenge in our lessons we can look ahead through key stages and think about incorporating higher level skills further down the school.
- For learning to be effective, we want to break it down into smaller manageable pieces that students can practise and improve upon.
- <u>Fertile questions</u> become the starting point to planning a sequence of lessons.
- Combining small steps of deliberate practice that lead to secure leaning.
- Regularly revisiting fertile questions means that key threshold concepts can be recalled resulting in strengthening the retention of information.
 Cross the threshold
- The barrier to setting challenging questions; they are inevitably based on a huge amount or prior knowledge.
- Threshold concepts transformative, troublesome, irreversible, integrated, bounded and discursive.
- How to use threshold concepts structure your programme of study, planning a sequence of learning, test the concepts, close the gaps and

2. Explanation

Good-quality explanation sits at the heart of what we do. It is through explanation that we can allow our subject to come alive within the classroom.

 Our job as specialists is to provide the link between the canon of knowledge about our subject and our subjects.

Plan Carefully

- Explaining something well takes thought, care and planning.
- Utilise notes within your lesson when explaining difficult concepts this avoids you thinking that your subject knowledge is much better than it is.

Consider 5 questions:

- 1. What else do the students need to know if they are going to understand this?
- 2. How can this explanation help them to picture what is being said?
- 3. What will they struggle with the most and how will we support them with this?
- 4. What must they remember at the end of this explanation?
- 5. How can this be explained in a way that will support their working memory?

Know what they know

- Try to adapt your explanation to take into account misconceptions that students are likely to have and to address them before they become embedded.
- Check what the students have learnt through low-stakes quizzes, so we can see what they have actually remembered and can recall on demand.

 Use analogies
- Students are more likely to remember your explanation of a new concept if they can relate it to something well-known.
- The aim of the analogy is to make the abstract more concrete.
- The analogy enables students to be able to picture what that abstract idea might look like if made physical, so analogies are best drawn from things they have seen or experienced themselves.

Tell storie

- The use of stories can also aid the process of making an abstract concept more concrete and can help make your explanation stick. For C's of storytelling – causality, conflict, complication and character (Daniel Willingham)
- We should build these into our explanations if we want students to remember
- Be cautious of the fact that the stories you pick are mainly based on your own experiences and subject knowledge – this is why our subject

3. Modelling

Modelling is tricky business. Too little can leave students unsure of the expectations you have for their work and blind to what a finished piece should look like.

- Be aware however, that we do not just want to show them a finished article; we want to develop their metacognition, the ways in which they think about their learning so they understand WHY their work should look like this.
- It is important that we don't miss out on steps or assume a level of prior knowledge.
- For students to believe that they can be successful, they first need the <u>support</u> that will allow them to experience the feeling of success
- Might be worth you keeping evidence of 'excellent work' in a portfolio so that you are able to refer to these during lessons.

Choosing to mode

- When students are exposed to a new skill it would be extremely beneficial for you to model it very thoroughly – working step by step.
- The next time they encounter the same skill you can just run through the basics once more and focus more on the common errors.
- We don't necessarily need to lower our expectations but we do need to model exactly how to reach it

Using exemplars

An exemplar is a piece of work that demonstrates the standard you are expecting – this is why you need to have an idea in your mind of what an excellent piece of work looks like at each different stage.

- Instead of just showing them examples, we need to break exemplars down into their component parts so that students can see how they work and why they are of a high standard
- Use exemplars focused on subject specific skill rather than generic task completion. This will avoid students trying to mimic or copy the work and instead think hard about their answer.
- Help them to identify a logical structure and discuss how this comes from planning an answer before you begin writing.

Going Live

Models can be created in advance, but we can also produce them live, working through the steps with the class in real time e.g. producing a graph.

- Live model starter sentences when setting extended answers. This might help students understand the key components that makes up a great answer
- Live modelling allows us to show how we make correction and edits to our work and that we do this as an on-going process.

4. Practice

The aim of practice to ensure that students have learnt what we intended them to learn; that there has been a change in their long-term memory. But it is essential to remember that practice doesn't make perfect it makes it permanent. Students may practice a large amount but be doing something wrong, this includes embedding mistakes.

The following strategies consider the ways in which we can ensure that practice leads to secure learning:

The testing effect

- We are expecting students to remember a lot! Some of which include tier 3 words – these are words students are unlikely to encounter in everyday life. We need to ensure we are offering support and regular recall on using this terminology.
- We also need students to recall a wealth of information regarding case studies and examples.
 This can be done through recall in the form of low-stake quizzes. The idea here is to ensure students are recalling information from their long term memory to their working memory to strengthen their ability to recall it in the future.
 Look both ways
- We need to plan our <u>curriculum</u> carefully and make the links between content explicit at every opportunity.
- Students need to learn the content and be able to recall it in the future. This means looking forward as well as back.

To make connection explicit we could

- Provide students with a topic overview
- Use knowledge quizzes at the start of a lesson
 Ask students themselves to make links between the topics
- Provide a corridor display showing the big picture
- Use of <u>questioning</u>

Micro-details

To enable students to get better at something, it would be better to help them practice the component parts and improve each aspect.

- Take into consideration however, that to effectively practice we need to equip the students with the knowledge and skills to do this.
 Show them various different methods for
- Snow them various different methods for completing a task and work with them in various contexts.
- Treat it like a drill students practice smaller components of a task until they have mastered a skill.

5. Feedback

We look for <u>feedback</u> from various sources all the time, including exerts and our own instincts, so that we can improve.

- Effective feedback is said to contribute to eight months of additional progress for students
 If the wrong feedback is given, students make less progress then they otherwise would have
- <u>Feedback</u> about a specific task is often best given <u>immediately after</u>, however feedback on the process of the work or student's selfregulation tasks, are often best delayed.

Put down the pen

- One of the big issues with feedback is that it has become associated with just one form, that of written comments on students' work. The issue with this is that it results in us correcting the work rather than the student.
- When giving generic feedback e.g. include the death toll of X, you run the risk of students not being able to answer other questions of a similar format.
- For feedback to be effective it has to be received in the right way – this can lead to students believing they can make the necessary improvements and make progress.
- Time is a finite resource and should be budgeted just like anything else. Spending hours marking books with three coloured pens will have a detrimental impact on you're the time you could spend on planning and improving your subject knowledge.

Whole class feedback

- This allows us to comment on common areas that many students are making and show them how to do things differently.
- When giving WCF you can incorporate examples of excellent work and add commentary on why it is of the standard a teacher should expect.
- This type of feedback takes less time than marking a set of books and becomes quicker the more you do it.
- The feedback although applicable to many students becomes less personal as every student is finding mistakes and correcting.

Personal review

- Feedback on a task is often best given live, as we want to pick up on any misconceptions before they become embedded.
- There are three approaches you could take when addressing mistakes; tell the student what mistake they have made and how to correct it, place a dot on their work and tell them to find

6. Questioning

<u>Questioning</u> is a vital part of any lesson. <u>Rosenshine</u> found that effective teachers ask significantly more questions than less effective ones.

- Teachers ask questions for three main reasons: to <u>check understanding</u>, to improve recall and to deepen thinking.
- There are excellent geographical questions asked by students which cut to the heart of many topics, but answering them in class is near impossible – it is worth making a note of these questions and checking at the end of the topic to see whether students can now answer them themselves.

Plan your questions

- Always take the time to plan your questions; otherwise there is always a risk that your questioning becomes a guessing game.
- It is worthwhile considering the particular threshold concepts students will encounter and may cause issues.
- You also need to think about how you are going to direct different questions. This is one reason why it is very important to know your class, as questioning allows you to address their specific strengths and weaknesses.
- By planning questions in advance you can carefully consider their exact purpose and ensure that we carefully consider their exact purpose and ensure that we ask the right type of question at the right time to the right student.

Go off-piste

Although lessons benefit from careful planning, we have to acknowledge the dynamic nature of

- Questioning is a phase in the lesson when misconceptions re often revealed – when this occurs it would be negligent to continue the lesson without addressing and correcting the misconceptions.
- It is important however to have a deep well of knowledge to draw on and be well-practised at delivering clear and concise explanation before we can go off plan and address misconceptions. Socratic questions
- <u>Socratic questions</u> are designed to challenge the accuracy and completeness of students' thinking about a topic.

Socratic questions are designed to achieve six different purposes: Classify their thinking, Probe assumptions, Demand evidence, Consider alternative viewpoints, Explore implication and Question the question.

Hinge questions

Hinge questions are often framed as multiplechoice questions, as the potential answers are



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revisiting links between different parts of the discipline.

- Wider Engagement
- Subject knowledge and application of knowledge is all around us and we can help ensure our students seize the opportunity to see this.
- Make knowledge readily available to them but in an accessible and meaningful way e.g. Local Associations or university talks.
- Give students an opportunity to take their knowledge further and allow their curiosity to take shape e.g. through the use of a 'super curriculum'.

knowledge is so important to keep updated and relevant.

Case studies and examples

- The selection of the best possible case study or example can make an explanation all the more powerful and memorable.
- Try to avoid selecting the same locations or examples to typify content every time this will create a risk that students will have a shallow understanding of certain places.
- As teachers we need to ensure we regularly update our schemes of work to reflect our changing planet.

Support working memory

- If we give students to much new information, we can run the risk of overloading their memory and much of what we say will be forgotten.
- When discussing new topics or content it is essential we avoid the possibility of distractions e.g. making sure students know when is an appropriate time to ask questions.
- Distractions from within an explanation can be most difficult to target this is why it is good to plan your explanations beforehand.
- Support students through your explanation by making notes of key points on the board while you're talking so they have something to refer back to a visualiser can help with this.

Search and Destroy

- It is often useful to <u>provide models</u> at a range of standards and to unpick the features that make one more successful than another. This is extremely useful when dealing with mock exams when students seem to contain an amalgamation of the errors they made.
- We are trying to develop self-regulation in students
- Ask students to create success criteria for a model answer you are using and then when giving them a similar question they are able to apply the same skills.
- They will develop an excellent understanding of the standard required and, importantly the experience of applying this understanding to a range of questions.

Talk the walk

• Encourage the students to think like a specialist from your discipline

Removing the scaffolding

- If your students have become over-reliant on support, you might want to look again at how you are using modelling.
- Students should be able to refer back to previous experiences of working with the aid of a model and apply this when they encounter something similar again.
- Using, and removing <u>scaffolding</u> takes careful planning and a long view through the curriculum.

- For this to be most successful your strategies will need effective explanation and modelling.

 Return to fertile questions
- At the heart of enquiry-based learning should involve setting powerful, or fertile, questions.
- By framing a topic as a fertile question, students are taught to link together different pieces of relevant knowledge and draw on things they have learn in the past.

Functional fitness

There are things we can, and should do to prepare students for important exams but there is no better preparation than teaching them well.

- If students practise specific past exam questions then there is a danger that we are just preparing them to answer those questions. We need to look beyond the exam questions and the specification to explore the underlying subject knowledge.
- Do not allow the exam paper to become the curriculum
- We practice because it enables us to learn; we don't learn to enable us to practice.

 Support self-regulation

There is a natural tension between our desire to see what students are able to do by themselves and the need to intervene to make sure they are getting it right.

- <u>Self-regulation</u> is the ability of students to reflect on their own work and make improvements to it.
- By being aware of these areas of misunderstanding, we can pre-empt them and intervene appropriately.
- Some strategies that can be used to encourage <u>self-regulation</u> include; creating success criteria, asking students to proofread their own work, using peer assessment and encouraging self-testing to practise recall.

- the mistake or stop the lesson if a number of students appear to have the same problem.
- Mass misunderstanding tends to indicate a need to remodel or re-teach what they need to do before they try again.
- One-to-one coaching cannot be replicated with written comments. Even doing a review with only one student will identify wider issues in your class.

Peer pressure

- Ensure you do not expect students to be able to peer-mark without having modelled the correct and most effective way to do it.
- Make sure the students have a very clear success criteria in mind and preferably an exemplar piece of work for comparison.
- The combination of peer feedback followed by self-assessment can lead to a much deeper reflection about what makes a good piece of work and more opportunities for students to apply what they learnt in their practice.

Responsive teaching

Feedback is a constant process and that it works both ways: informing both the teacher and the student.

- Using quick low-stake quizzes at the start of your lesson enables you to get instant feedback about how your students are doing. However, assign an exploratory task to each of the questions and get the students to complete it if they got it wrong.
- Sometimes quizzing or other forms of assessment, reveals a more significant difficulty that the whole class is having and needs to be addressed by reteaching.
- We need to recognise feedback as an intrinsic part of every lesson.

Building self-regulation

Ultimately, we want to get to the point where students are able to monitor their own learning, reflect on what they have done and act on this reflection.

 In the fast pace of the classroom we need to find the time if we are going to develop learners who can eventually continue their journey without us limited and can be chosen in a way that is actually very revealing.

- Daisy Christodoulou explains that multiple choice questions are often dismissed as being too simple, but as long as all the potential answers appear plausible they can be fiendishly tricky.
- Planning in these hinge questions can be useful to quickly identify whether students have the understanding of the topic needed to proceed with the lesson.

Involving everyone

One potential problem with questioning is making the assumption that we have be led to believe that a whole class has fully understood a topic on the basis of just a couple of students answering questions.

- To avoid this you can <u>ask students at random</u>.
 Once students realise they could be called upon to answer a question, they are more incentivised to pay close attention to what is being said or to
- To use mass participation you could use strategies such as: mini-whiteboards, quiz apps, sticky notes, homework planners etc.

Asking questions

ask for clarification

We want our students to look at the world around them and ask questions. • The first step in encouraging questioning is to equip students with the knowledge to explore and to interrogate, and to question with.

- The next step in encouraging students to ask questions is to model it
- Once the process has been modelled, we need to give students the opportunity to ask questions At the start of a topic you could pose a fertile question and ask students to develop the enquiry questions that they would need to answer this fully. This will help in creating mental hooks and links between what they already know about the issue and what they will learn.