Critical thinking and problem solving; reporting school-based practice: secondary schools and colleges.

This project had a strong and important impact on my teaching. It helped me to think more critically about planning lessons, ensuring I had more questioning techniques to encourage student participation and get them to develop ideas further. It introduced students to think more critically about different sources of evidence (Carrie Carter Chesterton Community College).

As part of the British Council’s Connecting Classrooms Programme, 800 teachers took part in CPD to develop their understanding and practical strategies for critical thinking. The course is based on a plan – do – review model: a key element of the training is that participants put one or more aspects of the course into practice in their classroom or school. They then review the outcomes and impact on pupils, before sharing their findings with other course members, other schools in the UK and internationally. These reports are a sample of the projects undertaken by teachers from courses between Spring 2016 and Spring 2017; they demonstrate a range of approaches to critical thinking applied in a range of curriculum areas, including geography and history and often developing literacy skills; particularly speaking and listening and writing.

Key Stage 3 and cross-phase

A. **Questioning in the geography classroom**: Abbeyfield School, Chippenham (page 3).

B. **Using critical thinking to make connections between historical sources and events**: Allenbourne Middle School (page 5).

C. **Developing questioning in geography**: Bishop Justus C of E School (page 7).

D. **Critical thinking about data in geography and mathematics**: Bourne Grammar School (page 8).

E. **Developing questioning in geography**: Braunton Academy, South Molton Community College and NORDAB (page 11).

F. **Understanding complex data and challenging validity through argument frames**: Casterton College, Rutland (page 13).

G. **Critical thinking about migration**: Churston Ferrers Grammar School, Torbay (page 14).

H. **Focussed thinking for Key Stage 3**: The Cooper School, Bicester (page 15).
I. Incorporating critical thinking questions into Year 7 formative assessment: Falinge Park High School, Rochdale (page 16).

J. Asking deeper higher order questions in geography: Hitchen Girls School, Hitchen; (page 18).

K. Promoting independent learning through critical thinking in geography: Maidstone Grammar School for Girls (page 19).

L. Developing questioning at the heart of all lessons: Mary Webb School and Science College (page 22).

M. Digital literacy and critical thinking: North Leamington School (page 23).

N. Using infographics to facilitate Key Stage 3 independent learning; Year 9 development topic: Roundhay School, Leeds (page 26).

O. Questions from photos: Samuel Lister Academy (page 28)

P. Critical thinking around a Big Question: Sir John Leman High School, Suffolk (page 30).

GCSE and A level

Q. Using thinking hats to improve critical thinking in German: Abbeyfield School, Chippenham (page 31).

R. Decision making skills in GCSE geography: Central Foundation Girls School, Tower Hamlets; (page 33).

S. Exploring questioning techniques to support critical thinking and develop ideas: Chesterton Community College (page 35).

T. Using critical thinking to underpin enquiry: Christ the King Catholic High School and Sixth Form Centre, Merseyside (page 39).

U. Using two new methods to encourage critical engagement of students on the topic of climate change: Hills Road Sixth Form College, Cambridge (page 40)

V. Developing evaluation and analysis skills in A level Geography essay writing using critical thinking techniques: The King John School, Essex (page 43).

You will also find examples of schools’ international Connecting Classroom projects here.
Key Stage 3 and cross-phase practice

Questioning in the geography classroom: Abbeyfield School, Chippenham.

What did we want to achieve?

Classroom learning walks, observations and drops-ins conducted within the Humanities department (comprising RPE, history and geography) across all key stages identified that, whilst teaching is very strong within the department, there was scope to improve the level of engagement and challenge within lessons.

Subsequent student voice conducted in T5 & T6 of 2016 also concluded that, whilst students enjoyed their humanities lessons, they did feel that sometimes they could be more involved and more challenged in their learning.

My school-based practice project was therefore to improve the use of questioning within our humanities department, which a view to enabling students to make better progress (feel more challenged), and increasing levels of engagement and participation. As a geography teacher I focused on improving engagement through questioning in the geography classroom, but the teaching and learning (T&L) strategies were embedded, and reviewed, across the department.

How did we go about it?

I first researched different pedagogies and theory on questioning strategies. This clearly supported our conclusions that through more effective questioning we could encourage higher level thinking and therefore more progress and engagement.

Once I had established the rationale behind our decision to improve questioning, I then explored different practical activities and methods to plan for, and incorporate questioning within lessons. One strategy was to re-establish the proven best practice of planning for questioning when planning lessons i.e. clearly signposting the points in the lesson. Within the department, and we achieved this through introducing ideas such as ‘Thunks’, ‘Big Questions’, and ‘Three Questions I would ask…’ as starters and plenaries to lessons.

Examples from a geography lesson were "What if there were no Trees", or “What colour is geography”. This was supported through a ‘hands-down’ questioning strategy, whereby any student could be asked to provide an answer. Students would all have to think / write down ideas and be prepared to contribute ideas to the lesson.

Whilst this stimulated discussion and higher level thinking, (and is successfully embedded, and evidenced in lesson resources from Key Stage 3 – Key Stage 5) it didn’t alone fully meet...
our objectives to improve engagement. What was needed was a more practical approach, which could be used as opportunities arose or become necessary within a lesson.

I had previously seen on Pinterest that many schools were introducing the idea of a ‘Question Tool Box’ to encourage use of questioning within lessons. Working with my HOD, we used Twitter ‘Pedagogy Friday’, and ideas from colleagues across the school to put together a box of questioning strategies for each classroom in the Humanities department.

Examples of how this has been used to improve engagement and stretch students within the geography classroom include using debating cards with Key Stage 3 students to discuss the EU Referendum outcomes (with students using cue cards to extend their answers), incorporating questioning phrases and responses within Key Stage 5 extended written work, exit questioning cards so each student has to contribute to a lesson before they can leave, and with Key Stage 3 and Key Stage 5 students using scrabble tiles to encourage all students to contribute ideas/key terms starting with the letter(s) chosen.

The other Humanities subjects were also supported by taking the lead in developing and implementing an Abbeyfield Learner approach to T&L across the school. The objective was to encourage students to think about how they learn, not just what they learn. The T2 focus “how I learn”, and T3 focus “learning together” encourage students to think about how they are contributing to, and participating in lessons, with reward points given for students who are engaging in their learning.

Whilst not directly part of my project, this has certainly supported the aims of our department in increasing engagement through students being more able to see the importance of participating in lessons.

**How well did we achieve our aims?**

Recent classroom learning walks, observations and drops-ins conducted by myself within the Humanities department as part of a Department Review across all key stages, clearly evidenced more confidence by teachers in questioning within lessons, and the use of the ‘questioning toolbox’ and ‘Thunks’ approach to T&L was evidence.

Similarly, student voice conducted by both myself and senior leaders outside of the department, as part of our review, also showed that students felt more challenged and engaged in class, and enjoyed their lesson more as a result. Within geography, there was very positive feedback on the increased level of questioning: students identify that they enjoyed the use of questioning activities in lessons.

**QUESTIONING STRATEGIES**

1. “Ticket to Freedom” (exit cards)
2. Raffle Tickets
3. “tell me what you know about….”
4. Scrabble letters (1 or 2 tiles)
5. Debating cards (also good for KS5 essay writing)
6. ‘ropey questioning’
What was the impact on pupils?

Overall, high impact outcomes, with learning walks, drop-ins and observations evidencing higher levels of engagement (see above). Students have evidenced in student voice across the key stages and, at Key Stage 3 termly written ‘reflections’, that they enjoy their Humanities lesson and feel involved in their learning.

Retention levels for geography from Key Stage 3-4, and Key Stage 4-5 are exceptional, which evidences that they feel engaged in their learning and confident that they will be challenged and able to be successful at GCSE and A Level. Summer 2016 geography results at Key Stage 4 and 5 were extremely strong, and this was mirrored across the department, reflecting that through increasing participation through questioning, students are now more successful and, on the whole, make better than expected progress.

Other outcomes:

- Sharing best practise in questioning through leading TeachMeet talks and workshops, and through collaborative working across the school.
- The Abbeyfield learner ethos of participation in learning embedded within geography, the Humanities Department and wider school.
- Improved results and retention.

Download

- Presentation: Questioning strategies <add hyperlink to pdf ‘Abbeyfield questions strategies’>

School context, colleagues involved

Abbeyfield School is an 11-19 mixed comprehensive. Whilst the school role is growing school, it is still smaller than average. The cohort of approximately 800 students, are mostly White British, with a slightly below average proportion of students eligible for Pupil Premium.

Selina Jones, Geography Teacher & Second in Humanities Department (Middle Leader), Abbeyfield School, Chippenham.

Using critical thinking to make connections between historical sources and the events they represent: Allenbourn Middle School

What did we want to achieve?

I wanted pupils to engage in an enquiry where they questioned links between sources and improved their analysis skills. Also, I wanted the pupils to develop their skills in relating historical events to current affairs – in particular how our governing system works and how it came to be. As classes are mixed ability, it was important to ensure all pupils were able to access the project and gain skills.
How did we go about it?

The pupils were posed the question of ‘What makes a good monarch?’ which followed on from completing a unit looking at the religious changes during the Tudor reign. The debate was initially led by teacher questions to encourage higher level thinking. They were then presented with a source image of Charles I surrounded by a frame of Blooms linked questions to promote the skills of finding/highlighting evidence of what they thought a good monarch should be.

The pupils were finally presented with a second source image of Charles I’s public execution. The main question ‘Why did the English kill their king?’ was launched and pupils were guided through sentence stems and questions to draw links between the sources. This will then lead to a causation response using a skeleton planning frame to analyse influence of causes as Charles I’s reign is studied further.

How well did we achieve our aims?

The starting point of this project encouraged discussion and development of historical skills across the ability range. All pupils were able to transfer the source evaluation skills to the second source – mostly independently. Interesting discussion threads were followed in paired and group work that showed the pupils linking in prior learning about the Tudors and the development of power for Parliament.

What was the impact on pupils?

Although the project is on-going through a unit, it was evident that the pupils were engaged and confident in developing their own questions for enquiry. Lower ability pupils gained confidence from hearing peers frame their questions and responses whilst higher ability pupils began to quickly develop even higher order questioning such as analysing the purpose of the first source image.

Other outcomes:

This project has demonstrated the importance of critical thinking skills to improve pupils’ experience and learning within history. Schemes of Work are going to be updated to include opportunities for critical thinking within the subject and explicit teaching of those skills early on in the year.

From this project, I came to realise that I do encourage critical thinking skills across the curriculum but need to now make this explicit through my teaching but also the resources that I use. Pupils need to have reference points and tools to help them become independent learners. One way, I found from this project, to encourage this is to have a display that makes higher level thinking clear and provides clues as to move from one stage of an activity/though process to another. I am hoping to take this to staff training and encourage colleagues to use these across the curriculum and school.

Amber Nash, Key Stage 3 History Leader, Allenbourn Middle School, Dorset.
Developing questioning in geography: Bishop Justus C of E School

What did we want to achieve?

Students struggle to demonstrate deep thinking, so the aim was to develop their ability to question concepts and challenge ideas. This is particularly a problem for our Key Stage 5 students who must be able to demonstrate this as part of their assessment with a focus on critical understanding. As this has not been achieved at Key Stage 3 and 4, students then struggle with this skill. As such the investigation focused on Key Stage 3 and 4 with the idea that improving their ability to question at this level will then enable them to have already developed this skill by the time they reach Key Stage 5.

How did we go about it?

I assessed the base level of critical questioning with students in Years 7, 8 and 9. Interestingly, students expressed that they didn’t find geography particularly challenging at Key Stage 3, whilst Key Stage 4 students did find it challenging. They also said that they didn’t use the thinking time they were given effectively, although they felt they were given enough time. I assessed the types of questions they were asking, with most of them being low order questions with some deeper thinking questions demonstrated. Once I had done this base line assessment I implemented a questioning tool in the classroom. This set out a range of possible questions by a themed focus.

For example, when looking at sources, one question is ‘Where is this information from?’ Student often take what is said as unquestionable and these questions gave the students a platform to begin to unpick reliability, view points, and challenge their ideas. I explained the tool and would then refer to it in lessons, asking pupils to design their own questions or pick the question they would most like to ask. For example, with Year 7 we were looking at Food and Farming, watching a video on where chocolate comes from linked to child labour and Fair Trade. At the end of the video students were asked to design questions they would like to ask. The questions were insightful and demonstrated the students had really thought about the different angles of the film – who had made it, what was the purpose, what you would do if you were the farmer in that position, is fair trade really fair. I was impressed with the detail and thought in their questions when the idea of questioning is more specifically role modelled for them and clear examples given. It provoked an insightful discussion, with critical thinking clearly demonstrated.

I had the tools out on each desk for every lesson for a period of six weeks. Over this time I noted the change in their questioning. There was a clear shift towards higher order questions with deep thinking demonstrated. After this period of time I carried out another survey for each of the classes I had been using the tool with. The response was very positive from the students, with most students agreeing that the tool had improved their confidence in questioning in geography. They also felt that the tool had been useful and that overall they had improved their critical thinking. This was supported by the types of questions that students were asking in class.
How well did we achieve our aims?

Overall, the aims were achieved with pupils developing their questioning. Whilst this was evident in class discussion, I would like to develop this further, perhaps using silent debates to ensure that each pupil is developing their critical understanding. The feedback from students also indicated that the tool could be adapted to make it more user-friendly with different colours and pictures to help them further.

What was the impact on pupils?

Overall, the impact was very positive with students more engaged in topics and a clear focus developing amongst them on challenging ideas and thinking critically. I believe that geography can be made more challenging for these students by getting them to question and challenge concepts and ideas which will assist them greatly at Key Stage 5. Pupils demonstrated that they could think for themselves and produce some excellent questions when given support to do this.

Other outcomes:

I ensured that throughout the investigation I was carefully modelling questions and discussing what made a good question with pupils. I gave more time in lessons to allow them to think about questions and challenge the ideas of the lesson. There was more flexibility for discussion which led to some interesting points at times and certainly ensured more progress was achieved. It is clear that students can think for themselves when given more opportunity and some support.

I intend to share what I have found from my investigation at our School’s Teaching and Learning Forum and have already discussed the project with the Head Teacher. This will enable other subjects to learn from this study in geography as this can easily be adapted to other subjects. This will help other teachers to support children in thinking independently and ensure our students continue to grow as critical thinkers. Going forward the head of department for geography will be involved along with the head of Teaching and Learning.

School context: Bishop Justus C of E School is a mixed academy in South East London.
Louise Gibbons, Geography Class Teacher, Bishop Justus C of E School.

Critical thinking about data in geography and mathematics: Bourne Grammar School

What did we want to achieve?

The project is based on an idea from the Oxfam website. The aim was for the students to use real data that has an important geographical context. By doing this it was hoped that students would not only be able to increase their mathematical skills, but would also be more able to apply these skills to their learning in geography (in this case, their understanding of life in the Horn of Africa).
How did we go about it?

The project relied on data collected by Oxfam in relation to honey production in the Amhara region of NW Ethiopia. This is a traditionally poor region where it is often women who supplement the family income by collecting honey to sell locally. Since 2009 Oxfam have been involved in supporting women (though a scheme known as the Women's Collective Action) by offering better equipment, more efficient methods and a cooperative selling agreement. The data compares women from this group (and the amount of honey they produce) with women from the area who are not yet part of the scheme.

Within previous geography lessons the students had learnt briefly about the Horn of Africa (physical features, names of countries, population data). The first lesson of this project looked in detail at the Oxfam honey production scheme. It introduced students to the ways in which women had been helped and looked in detail at the case study of an Ethiopian woman (Shaashi) who had benefitted from the scheme. We also discussed how Oxfam would have collected the data and then possible problems with this (this could have been done in much more detail with older students).

This was followed by a series of maths lessons looking in turn at scatter graphs, bar charts, pie charts and measures of central tendency. Each lesson started with an introduction of the skill followed by a chance to practise the skill using the data collected by Oxfam.

The second geography lesson (in the middle of the maths lessons) looked at starting to bring the findings from the maths work together. We also had a class discussion on who the information may be useful to - e.g. Oxfam, Ethiopian government, honey buyer, Tesco, neighbouring village.

The series of lessons finished with a joint geography/maths double lesson (with both teachers - we had to rely on colleagues covering our other lessons) in which students worked in groups of three with the aim of presenting to a specific organisation (see previous list). Students worked on poster paper and were given new data (i.e. different to what they had seen in maths lessons - but from the same project) and were tasked with producing graphs and averages to back up their argument. The lesson ended with students presenting to senior teachers.

What was the impact on pupils?

We feel that there have been a series of benefits of the project:

- Students (and staff!) have improved their knowledge of life in rural Ethiopia. Students have been able to empathise with women in the Amhara region and better understand the challenges they face.
- Students have improved their mathematical skills and are more aware of when to use specific types of graphs.
- Students have begun to interpret graphs and averages in a way that helps their understanding of the world.
- Students have worked together well – deciding on which tasks suit each student’s strengths.
Students have seen that the same skills are useful in maths and geography (and hopefully realise that other aspects of learning across different subjects are also linked).

**What do the students think?** Students believe that their understanding of mathematical skills has improved. The following table is based on an evaluation form in which students rated their own understanding out of 5.

<table>
<thead>
<tr>
<th></th>
<th>Before</th>
<th>After</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scatter graph</td>
<td>3.2</td>
<td>4.3</td>
</tr>
<tr>
<td>Bar chart</td>
<td>3.5</td>
<td>4.8</td>
</tr>
<tr>
<td>Pie chart</td>
<td>3.4</td>
<td>4.7</td>
</tr>
<tr>
<td>Averages</td>
<td>3.6</td>
<td>4.3</td>
</tr>
</tbody>
</table>

It can clearly be seen that the students believe that their understanding has improved through doing the project (closer inspection of their work shows, however, that students may have over-estimated their understanding of scatter graphs).

Students explained that they now have a much better understanding of life in Ethiopia – for example that it has a mix of poverty and wealth. They all noted how honey production was a way to ‘get richer’ and the brighter ones understood the impact on women’s lives.

All students said that they enjoyed doing a project across geography and maths (they particularly liked the final presentation lesson). A selection of their comments is listed below:

- ‘It is good as it is putting a real life situation into your maths – not just numbers from a text book’
- ‘I liked them because they were better and more fun than normal lessons’
- ‘It is better because the lessons are enjoyable, challenging and helpful’.

**How might we change things for next year?** Whilst we feel that the project was a success, there are several changes that we are considering for next year.

- Some of the Year 7 students struggled to fully understand some of the concepts, especially the scatter graphs. It is possible that we could use the project with Year 8 or Year 9 students (though this would involve altering the order of geography topics….) OR if the project was to continue with Year 7, exclude scatter graphs from the project entirely and concentrate on bar charts, pie charts and averages.
- When looking at scatter graphs we would compare ‘amount produced’ to something easier then ‘wealth index’.
- In future we would look to give some background info on population and development statistics on Ethiopia before starting the project (particularly introducing the concept of gender inequality).
The final ‘presentation’ lesson was too rushed for the students to fully understand their findings. In future we would ask the groups to assign specific roles and plan their organisation in the preceding lesson.

Include an additional lesson (prior to preparing the presentations) about how to compare graphs and explain their findings. This could have been done in either maths or geography, but would have given a clearer idea as to how to compare the information in their charts for the chosen companies they were presenting to.

Tim Randman, Bourne Grammar School, Lincolnshire.

Developing questioning in geography: Braunton Academy, South Molton Community College and NORDAB

What did we want to achieve?
Students at our schools have at times tended to find difficult the ability to demonstrate deep thinking. Therefore our aim was to develop their ability to question concepts and challenge ideas. This is particularly a problem for our students who must be able to demonstrate this in depth for success at GCSE Geography, with a greater focus nowadays on detail and justified thinking as core constructs that enable success at GCSE. As such the investigation focused on Key Stage 3, with the idea that improving their ability to question at this level will then enable them to have already developed this skill by the time they reach Key Stage 4.

How did we go about it?
We as departments in our own individual settings discussed the levels of critical questioning our students produced in Key Stage 3 lessons and assessment pieces. It was common that all students in our schools found geography stimulating, but equally many said that they didn’t use thinking time effectively or felt that responses to questioning led to less targeted or detailed developed responses. When we analysed deeper it was felt that in many cases the types of questions being asked of our students were often low order questions with some deeper thinking questions demonstrated.

In response to this we began to implement use of the questioning tool matrix that was outlined at Day 1 (of the course). We had all as a consortium been introduced to this tool previously and had sporadically used in lessons to challenge students, but hadn’t utilised it effectively across the whole of the key stage. It therefore allowed a greater possibility of engaged responses from all students.
given a focused tool for assistance.

Many students are led to think that what they are asked is unanswerable. This tool enabled all students the ability to begin to unpick reliability, view points, and challenge their ideas. Their questions were insightful and demonstrated the students had really thought about the types of deeper questions to focus upon. We were impressed with the detail and thought in their questions. It created great discussion, with critical thinking clearly demonstrated.

Each school had a resource bank of these created for reference in lessons and in each case it has been agreed that there has been a clear shift towards higher order questions with deep thinking demonstrated.

Students have been questioned through student voice and in all cases they have felt that their ability to question to a deeper level with focus and insight has increased.

**How well did we achieve our aims?**
Overall, the aims were achieved with pupils developing their questioning. Whilst this was evident in class discussion, we feel that there is still work to do on transferring it to written responses, so developing their performances in assessed conditions. Feedback from students as mentioned was positive with some suggesting that we could use alternative stems or even phrases to take it further.

**What was the impact on pupils?**
Across both schools and through our NORDAB network the impact of using this as a tool for developing critical thinking has been a success. Students were felt to be more engaged and focused as they became used to the tool, with a large majority becoming more engaged and having a clear focus to challenge and extend ideas to improve understanding and responses. It was universally agreed that with sustained use of this tool across Key Stage 3 and developed further into Key Stage 4, greater success amongst all students of different levels of ability would be seen. Pupils in all contexts demonstrated that they could think for themselves and produce some excellent questions.

**School context:**
We work collaboratively with South Molton Community College, shared at our local secondary geography academic board meetings with members from seven local schools.

Nick Langmead, Braunton Academy, and Gareth Godwin, South Molton Community College.
Understanding complex data and challenging validity through argument frames: Casterton College, Rutland

What did we want to achieve

The plan was to give students large amount of information which they then had to use to answer an enquiry question. This was completed across year 7 and 9 on the topics of extreme weather and availability of water. It was designed to allow them flexibility in the data they used to answer the enquiry, but required them to distinguish what is valuable and what is not. Part of the reason for this is to address some of the issues surrounding ‘fake news’ and the belief in some young people that everything they read on line is true.

How did we go about it?

Students were split into groups of four or five, chosen carefully to mix abilities. Each group was given a pack from various sources that included copious amounts of information in the form of maps, graphs, tables, photos, quotes, opinions and others. Students were given two options of enquiry question, that were similar but one had an extra level of difficulty built in (see example). More groups chose the harder green than the red.

How well did we achieve our aims?

The aims were undoubtedly achieved. The time frame that the students had to work in needed to be extended as a result of the depth of the conversation. There was clear evidence of the students challenging the validity of the sources (not always correctly, but that wasn’t really the point). They worked exceptionally well collaboratively, especially the Year 7s, and the overall outcomes were detailed and sensible.

What was the impact on pupils?

The impacts could be broken down in to:

- Enhancing abilities to work with peers to overcome disagreements
- To challenge data presented and not take everything as fact
- The level of engagement with the task was higher than normal
- The sense of achievement in the outcome was greater.

Other outcomes

The impacts on teaching included increasing my confidence levels in allowing long tasks through a lesson, which many staff shy away from. By using the argument frame, it pushed students into the art of thinking critically about what is in front of them.

I am lead teacher on PfP, a teaching and learning group that disseminates good practice to other members of staff through conferences. This has already been done with this task.
Some of my colleagues have also shared good practice from the course including multiple choice questioning, question grids and Socratic questioning. These ideas have been taken on board by multiple colleagues.

**School context:** 11-16 academy in Rutland with approx. 800 on roll.

Andrew Peploe, Casterton College, Rutland

**Critical thinking about migration:** Churston Ferrers Grammar School, Torbay

**What did we want to achieve?**

We adapted an existing successful Year 8 Scheme of Work on Migration to introduce an over-arching BIG QUESTION across the eight weeks, in order to assist students in making deeper connections with the issues.

**How did we go about it?**

We set an initial home learning task set via a Google Classroom Question (please see ‘capture.jpg’ for a sample):

8S3 - **Is it useful to investigate migration? Why? Which questions do we need to ask?**
8S2 - **Is it useful to investigate migration? Why? Which questions do we need to ask?**
8S1 - **Is it useful to investigate migration? Why? Which questions do we need to ask?**

We then used a gradual building-up of planning grids over the series of lessons, to better prepare students for the up-coming assessment:

https://drive.google.com/open?id=11gvT2DPVVkO6Fn-ywR3wtSOgSzHopyBNIMkfq-FTvw8&authuser=1
Should Mexican citizens be allowed to migrate to the USA?

<table>
<thead>
<tr>
<th>Facts:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Opinions:</td>
<td></td>
</tr>
<tr>
<td>Arguments FOR migration:</td>
<td>Arguments AGAINST migration:</td>
</tr>
</tbody>
</table>

The ‘Questions for critical thinking’ sheet from the course is being used throughout to guide deeper thinking across my three Year 8 teaching groups.

**How well did we achieve our aims?**

The end-of-unit assessment will include the BIG QUESTION, “Should Mexican citizens be allowed to migrate to the USA?” Looking at the students' preparation for this, I can see that a much more detailed understanding of the issues has arisen; this is in part due to the topical nature of this topic at the moment!

**What was the impact on pupils?**

We found more engagement with deeper questioning through the use of Google Classroom to set questions and to encourage students to respond to each other’s answers.

Ben King, Teacher of Geography, Churston Ferrers Grammar School, Torbay

**Focussed thinking for Key Stage 3: The Cooper School, Bicester**

**What did we want to achieve?**

After attending Day 1 of the course I decided that I wanted to introduce higher order questioning and encourage critical thinking in Key Stage 3 geography classes. We wanted to encourage deeper thinking, developing from the BIG picture and developing a focus – using a focussed question technique

**How did we go about it?**

Using the current lesson structure where a BIG question is posed at the start of each lesson, the teacher then indicates the three mini focus questions where different activities allowed the students to work out the answers. I wanted to encourage the students to create their own three mini focus questions from the BIG picture.

I planned to introduce the idea of a funnel and how it can be used to represent an idea getting smaller and more focussed. Then I planned to introduce specific stages of reducing and simplifying. At each lower stage, meaning must be maintained by linking to the previous stage.
As they got used to the idea, I varied the number of stages (and what students are required to do) based on the level of challenge and the nature of the Thinking Prompt (this is a work in progress for Year 9s). It is possible to reverse the thinking, using fewer prompts at the start and asking them to think more deeply to develop their answers, in this case developing their ability to create questions.

**How well did we achieve our aims?**

Firstly we gave the children examples of how to critically analyse the BIG picture and then helped them to ask as many possible questions using the questions starters. Higher order sentence starters and questioning stems are displayed in each classroom and children were encouraged to create their questions using these primarily, with the aim to progress to creating them on their own as they move through the key stage, using Bloom’s taxonomy.

I found that the first questions the students asked were quite basic and often didn’t answer the big question in enough depth. They then realised that they need to think more deeply about the questions they were asking in order to find out the answer or it could lead to subsequent questions.

**What was the impact on pupils?**

- Year 7 – The importance of Bees: students asked clear, but basic questions
- Year 8 – Why we have more stuff: students found creating basic questions relatively easy
- Year 9 – Extreme Environments: students started off with basic questions and then gradually developed confidence to ask more detailed questions by thinking about the type of answer they wanted to achieve.

To improve the questioning techniques used by the students, I would introduce the window thinking technique (introduced on the course) to add another dimension to the level of thinking and the process taken to gain the answers they need.

Rebecca Newing, Geography Teacher, The Cooper School, Bicester.

**Incorporating critical thinking questions into Year 7 formative assessment:** Falinge Park High School, Rochdale

**What did we want to achieve?**

We used the critical thinking questions introduced in the first part of the core skills - critical thinking and problem solving course, and wanted to incorporate them into the teaching of the unit called ‘crazy climate change’. The questions which we focussed on were:

- Is it useful to investigate this? Why?
- Where is this information from?
- Who produced this evidence and why?
- What is fact and what is opinion?
- Is the evidence fair? Is it biased? What has been left out?
• What other evidence would be useful? What other evidence should we see?
• What reasons are given? What reasons did we think of?
• What arguments could I use? Which are the best arguments?
• What do I think? What do other people think?
• Do the conclusions make sense?
• Do the conclusions match the evidence and the reasons?

With a focus on the use of these questions, we wanted the students to gain a deeper understanding of the controversial issue of climate change and how it might impact on people at different locations around the world. We had already looked at flooding on a local level through our rivers topic and we wanted to include a link with the rivers topic and climate change.

How did we go about it?

We showed varying pieces of evidence to the students such as photographs, newspaper articles, infographics and even blogs of recent updates on climate change; we used the critical thinking questions to help the students think more independently and deeper into the evidence which had been provided for them. Using the information from the topic and the deeper learning of the issue of climate change, the formative assessment was then created from a mystery assessment, adapted from a Royal Geographical Society resource: ‘Why has Zack broken his ankle?’

This is a mystery based in the future where Zack has broken his ankle due to the change in the UK climate. Contrary to everyone’s belief the temperature of the UK has not increased by 2050 but has decreased drastically and as a result of this Zack has broken his ankle by skating on the River Thames. The influx of melting ice water from the Arctic into the Atlantic Ocean has pushed the warm ocean current of the North Atlantic Drift, which currently warms the UK, further south: resulting in the influence of the ocean current decreasing and the mild temperate weather of the UK being replaced by a much colder climate, similar to the weather seen in previous cold periods such as the Little Ice Age.

What the mystery brings into the assessment in terms of critical thinking, is that students have to question all of the evidence which they have previously looked at, question its reliability and also question the barriers and problems which are involved in making predictions, especially linked to our climate and weather. Year 7 students are also learning difficult concepts in terms of location, place and interrelationships between the physical and human world, therefore again deepening their understanding.

The critical thinking mats were placed on the tables for the students to refer to throughout the topic and these were available to the students to then help them with their piece of extended writing for their formative assessment.
How well did we achieve our aims, and what was the impact on pupils?

One outcome was a definite increase in deeper understanding of climate change, with the use of the critical thinking questions incorporated into the lessons prior to and within the formative assessment. Using the questions to encourage deeper thinking meant that more time was necessary on the assessment, but the quality of writing produced by the students was at a much higher level and deeper understanding and investigation was shown.

My observations also showed a greater engagement in questioning the evidence provided, for example students asking ‘where was the information from?’, ‘could it be biased?’, ‘should we believe this information to be accurate and correct?’ This was pleasing to see from Year 7 students who might normally just presume that information from a teacher is always accurate and should be taken on board.

More interest was shown from a larger number of students. When they found that they were able to debate this controversial issue in a safe environment within the classroom, and they were expected to question the evidence and not take it for granted that everything given was accurate. The students then became more engaged and wanted to investigate it further in their own time, looking at different sources, which was then linked to their homework for the topic.

Our next steps are to broaden out the approach to other year groups within geography and the rest of the Humanities Faculty. The school is also embracing the British Council Core Skills training, and planning on providing the course for all staff within the school in the next academic year.

Sarah Holmes, Falinge Park High School.

Asking deeper higher order questions in geography: Hitchen Girls School, Hitchen

What did we want to achieve?

The focus adopted was asking deeper higher order questions. The Five Ws are already well embedded within the geography curriculum. At Key Stage 3 they are often used as a starter activity to encourage thinking outside the box, to interpret a photo or image or to set the scene or context. The introduction of deeper questioning/questions is aimed at encouraging pupils to build upon their existing “structures” and think more effectively and understand issues in more depth. They would then be more equipped to think more synoptically and consider more than one side of an issue. This would provide them with more building blocks to use deeper questioning skills to investigate issues and develop more critical independent thinking at Key Stage 4 and Key Stage 5 – essential with the introduction of independent investigations at A Level.
How did we go about it?

The department concentrated on the development of higher order questioning at Key Stage 3 using question stems such as ‘If, What, Might, Will, Should, Could and Can…?’ These were initially used as plenary activities and later embedded in main activities and classroom discussions. Pupils were also encouraged to write their own questions on post it notes that were posted to another pupil whose homework task was to provide an answer. This sometimes led pupils to further research the issue or a consideration of other peoples’ viewpoints or the wider consequences of the issue. Pupils enjoyed receiving the answers and sharing their feedback. Interestingly, pupils’ initial attempts to pose questions sometimes veered back to the Five Ws as they could think of these quickly and so they had to think hard to get started. Some of the questions posed were closed questions and so this is an area for future focus. Year 7 have begun to differentiate between closed and open questions and their use so this will act as a future baseline.

Further use of these higher order question stems could be used to challenge pupils to focus in more depth on implications and consequences of an event or issue.

What was the impact on pupils?

Pupils enjoyed the challenge of creating questions and receiving feedback. The resulting peer and class feedback/discussions on the issue covered future scenarios and alternative geographical futures. In peer and class feedback it supported the weaker pupils in their understanding of an issue and to begin to see the wider context. More able pupils could be challenged to think of the relative importance of questions. Engagement and thinking has been enhanced and the image framework we have devised for these higher order questions can easily be used across topic areas and key stages. We are able to easily change the image stimulus and so planning time for these tasks is relatively short.

Download Hitchen Girls School asking questions

Ann Jarratt, Hitchen Girls School Geography Department.

Promoting independent learning through critical thinking in geography: Maidstone Grammar School for Girls

What did we want to achieve?

In our new Key Stage 3 scheme of work we tried to include some aspects of independent learning for each year group in order to help stretch and challenge learners (this was also after learning about the concept of 20% time in a G&T training session). However, this was spectacularly unsuccessful with students producing poor quality work. In order to address this we decided that two things would need to happen:

a) students needed training in how to be independent learners and
b) they need some structure in how to go about it.
One of the sessions ran by the British Council / GA proved to be exactly what we were looking for “Questions for critical thinking” which is a question bank to support developing pupils’ abilities to think critically and improve their own use of questions in geography investigations. We decided that students’ at all key stages needed further support in this area.

How did we go about it?

1) We focused on getting Key Stage 3/4 students to think about questioning by using some of the questions from the question bank (Which questions do I need to ask? Which other questions could I ask? Which are questions are most useful? Which are most important?) and also the Q matrix to encourage students to use high order questions.

2) We focused on getting Key Stage 5 students to consider the sources of their evidence for their 70 mark research report essay:
   o Where is this information from? Who produced it and why?
   o What is fact and what is opinion?
   o Is it fair? Is it biased? What has been left out?
   o What other evidence would be useful? Which other evidence should we see?

3) We focused across all key stages on Thinking about reasons:
   o What reasons are given?
   o What reasons did we think of?
   o What arguments could I use?
   o Which are the best arguments?
   o Are there any arguments against?

This is also tied into a cross-curricular / enrichment theme of “What makes a good argument that was delivered to Year 8 students). We looked at how students could improve their analysis e.g. of river data / collected from a fieldtrip / causes of flooding in Year 7; of their rainforest creature project in Year 8; of the causes of deforestation in Year 10; of comparing and contrasting economic opportunities in a rich and poor part of the world in Year 11 and of the contrasting impact of tectonic activity of the physical landscape in Year 13.

How well did we achieve our aims?

As a department we have tried out these strategies. We have used questioning for starter activities and when thinking about a new topic or resource. We have worked with Year 13 students when compiling a research folder of examples of tectonic hazards to consider the reliability of their sources of evidence and they have used this to write up their methodology section of their 70 marks research essay. We used the thinking about reason questions to
try to improve students’ analysis of resources and the analysis section of investigation write-ups and essays.

What was the impact on pupils?

1) Pupils were able to work in pairs or small groups and also independently to devise their own questions about photographs, for example, of different types of volcanoes or shanty towns. Some students used the 5Ws as a starting point but were able to develop this further using the Q matrix. Some pupils began to stretch their learning by suggesting higher order questions. Some students still reverted to simple low order questions and needed support devising higher order questions.

2) Our Year 13 students showed significant improvement in their methodology section after modelling examples of assessing the reliability of the sources of evidence when researching case studies for their tectonic hazards report essay. Students were able to confidently discuss the reliability, credibility, bias of sources. Some were also able to link the evaluation of the sampling of their resources to the validity of their conclusions.

3) Students have learnt that an argument must attempt to persuade, must have at least one reason and a conclusion through their “What makes a good argument” lessons and they have demonstrated that they can apply this idea to geography. Students were able to discuss several reasons for issues such as flooding and deforestation and some were also able to discuss which reasons were the most significant and why. Students also demonstrated that they could consider both sides of an argument when debating whether Antarctica should be developed for is resources or whether it is acceptable for Malaysia to cut down its rainforests. The focus on reasons also helped students to analyse unseen resources such as graphs and maps in a more logical way.

Other outcomes

- Our teaching has been altered to incorporate these strategies, for example, embedded into PowerPoints and schemes of work; the practice was shared with colleagues through schemes of work and lesson resources and through discussion in department meetings

- Any of the strategies are worth a go and even though you might not see immediate benefit or progress it is worth persevering with. It might not help all students but we found it did help a significant proportion. Some higher ability students can feel a bit stifled by being asked to do something in a specific way but my argument to that was to give it a go and then when they had understood the technique they could adapt if to suit or suggest an alternative they were more comfortable with. This could even lead to other teaching and learning suggestions coming from students that could be shared by other students.

School context:

Maidstone Grammar School for Girls is a 1-18 selective 6 form entry girls' school with boys in the sixth-from. The department consists of three full time specialists plus two part-time non-specialists. Emma Milne, Head of Geography, Maidstone Grammar School for Girls.
Developing questioning at the heart of all lessons: Mary Webb
School and Science College

What did we want to achieve?

- To improve questioning by staff and students.
- To deepen student understanding.

How did we go about it?

We focused at first on staff questions. Each lesson’s title / learning objective were posed as a question across geography lessons, which all students must answer during or at the end of the lesson, frequently leading into a homework task. Staff then created differentiated questions for each lesson; a ‘no hands’ policy was used in lessons to allow staff to direct questions to individuals. The 10 second rule was followed, then if the student struggled to answer, we allowed the rest of that table to answer. Blooms taxonomy and ‘Thinking Dice’ (also laminated paper versions of the dice) were used widely by staff. Students were encouraged to take risks, to leave their comfort zone and ask challenging questions, which they did not know the answers to.

Images and sources were used widely for students to study and to generate questions. Model examples were used to help. At first they were given questions to answer based on their prior knowledge e.g. floods in Shrewsbury. Then they were asked to generate five of their own questions about another image of flooding. We stressed the importance of not having to know the answers to their questions. Again we used the Thinking Dice with students to promote challenge. For homework they swapped questions and had to answer each other’s questions, which caused some excitement and interest. The responses were diverse; showing that the students did think more and more widely, they challenged their own perceptions and they showed a broader and deeper understanding of the topic.

Recently we have used the GA ‘Question Generator’ sheet in geography lessons at all levels to help students show a deeper understanding of topics and issues by generating challenging questions about topics they have studied or were to begin studying.

How well did we achieve our aims?

- The quality of questioning by staff and students has improved significantly.
- Understanding has improved across the range of abilities, especially the least and the most able.
- Greater challenge in lessons and homeworks, using the ‘Home Work Takeaway’.

What was the impact on pupils?

- The quality of questioning by students has improved significantly. Students are much more at ease asking questions and using a variety of sources across geography, history and RE.
- Understanding has improved across the range of abilities. Students are thinking more critically and maturely about sources, topics and issues. They are comfortable
at setting challenging questions, as they understand it is a powerful tool to help them to understand and achieve.

- Students are more inquisitive when presented with evidence and sources.
- Discussion and oral work has improved too.

Other outcomes

- The quality of questioning by staff has improved significantly. It is established as a classroom routine. “Talk time” is much more focused in lessons. I view my lesson planning differently with questioning at the heart of each lesson.
- Each lesson's title / learning objective is posed as a question across geography, history and RE lessons.

I shared practice with colleagues within the Humanities department day to day, at department meetings, middle leaders’ meetings feedback to lesson observations for next steps in teaching and when I was observed by SLT.

Questioning must be at the heart of good teaching and learning. Staff should allow students to pose questions, even if staff do not know the answers. There is still work to be done within our subject, department and the whole school; questioning is a whole school improvement target for 2016-17.

School context: We are a comprehensive, non-academy rural 11-16 school in Shropshire.

Peter Lee, Head of Humanities, Mary Webb School and Science College.

Digital literacy and critical thinking: North Leamington School

What did we want to achieve?

I wanted to develop the students as critical consumers of information on the internet. 86% of the class use the internet when researching tasks for home learning (see figure one), therefore it is of vital importance that students critically consume the information they read and that they can discern the reliability and bias in a source.

How did we go about it?

The students were asked, as home learning, to find an article on the internet. It could be anything to do with geography; this was to give them the freedom to research something they were interested in. They were given a list of questions (see below) that they had to assess their article against. They could choose how many of the questions to use.

Section 1: Nature – What type of source is it?

- What type of information is this source?
- Does it intend to be read as fact?
- Is it claiming to be fact or opinion?
Section 2: Origin – When and who produced the source?

- Where is this information from?
- Who produced this source? Who is making decisions about this? Which people or groups?
- What other evidence could be useful? What other evidence should we see?

Section 3: Purpose – Why was the source produced?

- Why was this source produced?
- What is fact and what is opinion?
- Is it fair? Is it biased? What has been left out?

Challenge:

- Do the conclusions make sense? Do they match the evidence and the reasons?
- Which are the best arguments? Why?
- Who might gain and who might lose from the information in this article?

These questions were based off a resource from the critical thinking training. Students then discussed their articles as a whole class and I then marked the work.

How well did we achieve our aims?

I was impressed with their work and there were some excellent answers produced. In these the students were critically assessing the article and were exploring the balance of fact and opinion. Those who were not as successful either trusted the source too much e.g. “It’s from the National Geographic so it must be correct” or asserted that, because the article had facts in it and was based on science, there were no opinions presented in the article.

To move forward it would be helpful to explore how opinion can be presented through facts and how people can manipulate data to present certain facts. It would also be useful to spend more time on authorship of articles. The students have understood that some websites are more credible than others, but in the future learning could be moved on to assess how to read credible journalism and pick out facts and opinions.

What was the impact on pupil engagement?

The students choose a wide range of articles and topics. The work they produced was generally to a high standard, illustrating that they had engaged with the task well. The analysis they produced was generally excellent quality, showing that the students were engaged in the task. To move this on, it would be useful to use these questions regularly with the students for research tasks so that they become a resource they are familiar with and can use independently. Students were not as a confident presenting their findings to the class as they have been in other tasks, using the resources regularly should help to overcome that.

Other outcomes:

After the project I conducted a survey of the students to explore their opinions of the project (see figures 1-4 below). Figure 1 shows that 86% of the students use the internet at least
some of the time for their learning beyond the classroom (home learning). This shows how important teaching effective digital literacy is. Encouragingly, 92% do feel confident about critically evaluating a source of information from the internet, however more research could be conducted on how successful they are at doing this. Lastly, figure four shows 91% of students feel more confident after this project about critically evaluating a source of information from the internet, which is encouraging.

**School context:**

North Leamington School is an 11-18 mixed comprehensive of approximately 1350 students, including 200 in the Sixth-Form. NLS is located on the edge of Leamington Spa, a small town in Warwickshire.

Ruth Harding, North Leamington School.
Using infographics to facilitate Key Stage 3 independent learning: Year 9 Development topic: Roundhay School, Leeds

What did we want to achieve

- To engage and challenge students of all abilities
- To increase confidence of all pupils, leading to increased participation form least confident
- To improve interpretation skills (maps/graphs) in preparation for GCSE
- To allow students to problem solve on their own and together with peers
- To improve communication skills with peers.

How did we go about it?

I found a number of infographics online on the development topics (McDonalds, poverty, ownership, development indicators, HIC/LIC country studies). As I didn’t have enough individuals, I had duplicate resources to use with 16 pairs of students.

Before the main task, at the start of the lesson, I explained what an infographic is, watched YouTube video entitled ‘Infographics on infographics’ and we used an example of a deforestation infographic that I had previously used with Year 10 to evaluate what the positive and negatives are, and what would make that particular example better. Roundhay also displays information about previous GCSE/A Level results around the school on infographics; we discussed why this is used.

When distributing infographics to pairs, I matched more difficult examples with most able students; the less able will later be able to access this information with help and guidance of their more able peer pairs.

Timing was critical for the success of the lesson, so I used an egg timer and had clear instructions for each task displayed on the board:

Task 1 – 10 minutes: interpret and read infographic in pair.

Task 2 - 10 minutes: create 10 questions about the infographic, using question matrix
(I recapped open and closed questions with students)
Task 3 – 10 minutes: swap 10 questions and infographic with another pair
Task 4 – 5 minutes: review pair A’s resources and questions
Task 5 – 5 minutes: review pair B’s resources and questions
Task 6 – Discuss as a four which questions were best, how they can improve their questioning techniques
Task 7 – Each group of 4 must share one improvement of their questioning with the class, using an example of their work

This task could have extended into many lessons and there is much more scope detailed later in the text of improvements for next time.

**How well did we achieve our aims?**

Pupils were empowered to lead their own learning and were able to initiate their own progress; there was much more improvement in the less confident students. Less able students were able to use the motivation and knowledge of the more able students to access all tasks and be part of the whole activity.

Students were generally very informative about having seen infographics before. They really enjoyed the ownership of the task, and I appreciated facilitating the task, as I could move around the room and listen to the discussions taking place. This informed me students were problem solving and working together improving their communication skills.

When asked at the end to show RAG on their planners for understanding of their infographic, all students (in this class) showed green.

**What was the impact on pupils?**

When teaching I made sure to explain the activity in context of the new GCSE and A Level specs and how important is their interpretation skills of maps and graphs for analysis.

I encouraged students to engage with resources they encounter everyday….media, social media etc. on Snapchat the ‘Do you know?’ features advertised often include facts/figures they should practice making sense of data where possible to improve their skills base.

Students remained on task for most of the task as they chose who they were working with, and the activity encouraged higher order thinking.

**Other outcomes**

The lesson took some time to pull together and plan. Though I now have the skeletal part to use with other topics, I will simply have to source other info graphs/make my own.

I plan to complete more lessons like this for Key Stage 4 and 5. I have used infographics before, but was not aware of the title ‘infographic.’ In the summer term, I would like to give all my Key Stage 3 classes the opportunity to create their own info graphs and search for their own to interpret themselves/in groups.
I have made the lesson available and reported back to members within my geography department. I have also shared the concept of ‘infographics’ with the department and cross-curricular as CPD time.

Next time I could ask the students to review the activity afterward by using anonymous post it notes to answer ‘How did today’s lesson make you feel?’ ‘What was good? How could the task be improved for future lesson?’ I have also thought there is scope to lead on to a research task to find out why some of the facts are what they are for homework or in lesson if computers available.

Laura White, Teacher of Geography, Roundhay School, Leeds.

Questions from photos: Chantelle Coleman, Geography teacher at Samuel Lister Academy, Bingley, Bradford

What did we want to achieve?

We wanted to develop deeper questioning by our students and to encourage their inquisitiveness. In doing this we would continue to develop our observational skills. With the photos we used, we wanted students to develop their empathy and put themselves in the positions of others shown in the photographs therefore enabling themselves to have a better understanding of the environments and also for our students to be able to put forward arguments of how and if these people should be helped.

How did we go about it?

We had adapted RGS resources on the Himalayas and had learnt about the rise of the Himalayas, the lives of the Sherpa people and tourism in Nepal. Students were under the impression that they were acting as BBC reporter commenting upon tourism in Kathmandu.

Students were given an A4 booklet and on the cover was a photo of Kathmandu that they could see from a rooftop café. Students were informed that, as reporters, they had to be asking probing and unusual, yet relevant questions to work for the BBC. This was a straightforward describe the scene using your five senses.

Then we told the students that they would be watching a video clip and they had to write down five to seven words about how they felt. They did not have prior warning about the content. We showed them a video clip of the earthquake happening (April 2015) taken from a rooftop. We discussed the scene and lots of questions ensued. Students then opened their booklet and for each of the seven photos had to write down a careful question to ask at each location.

For most photos we had a short video clip and students wrote down the answer to their question based on the photo and video. The photos ranged from damaged buildings in Kathmandu, an open area with tents, Everest Base Camp avalanche, people returning to their homes to collect possessions with the threat of aftershocks, helicopter passing over isolated settlements, damaged historic tourist sites and a devastated couple – to encompass social, economic and environmental aspects.
How well did we achieve our aims?

Students were engaged from the start. The photo from the roof top and the thought of breakfast triggered their imaginations. The quality of questions varied, and initially were low-order; this was mainly reflected by the ability of the students. However, using the photos meant that all students were engaged and could access the material as some of our students are EAL. These students were able to ask questions and also annotate the photographs making positive contributions to discussions.

Students did put themselves in the position of experiencing the earthquake and were able to give some analysis of the problems created and the amount of help and type of help given in each environment. Many questioned where money would come from with many tourist areas damaged or destroyed. Almost all students agreed that help should be given to the people of Nepal and suggestions were made.

What was the impact on pupils?

Students are asking more and better quality questions which has been aided by the use of the framework (images can be inserted over the grid). Students are able to develop a range of questions and identify the more searching, open ended questions. We are aware that in some instances there may not be an answer, or there may be a range of answers to the questions posed. Critical thinking has also encouraged students to question the origin of information (prompted by recent ‘fake news’).

Students are more motivated and we found them challenging each other and helping each other to develop more searching questions. This approach empowers our students to ask more open ended questions and conduct relevant research if necessary. The quality of discussion in most instances has improved. In the majority of instances the quality of the writing on this section of the assessment was stronger than in previous assessments and students demonstrated better understanding and achieved higher results.

Other outcomes

We are becoming more aware of opportunities for students to develop their critical thinking linked to development of discussion and problem solving. We will be using critical thinking as part of some our future assessments to challenge students and also highlight synopticity and links particularly in the new GCSE Geography course.

We have shared this CPD within the Humanities Faculty. The use of the question grid and time to develop critical thinking is being written into our lesson plans more frequently. We will share our practice with our colleagues including - Questions for critical thinking from the GA.
Big Question: Should Southwold develop more facilities for tourists? Sir John Leman High School, Suffolk

What did we want to achieve?

To develop Year 8 students’ ability to form a coherent and reasoned argument for or against further development for tourists in Southwold (a traditional seaside resort on the north Suffolk coast), by adopting strategies to research, seek opinions and think/respond objectively about the topic.

How did we go about it?

Most of the Year 8 students in the focus classes had attended a field trip to Southwold prior to this task. Students were given homework tasks to boost their knowledge of current issues affecting the town; seeking opinions from local and researching existing facilities for tourists in the area. In class, as individuals, students were asked to identify problems and benefits of more tourism development within the town. They were then put into mixed ability groups of four and asked to write down three things each that they knew about Southwold; peers extended the writing then added more information and questions to build up a picture of prior knowledge.

As a group they identified additional information they would need in order to be able to answer the ‘big question’. Resources in the form of web and newspaper articles were provided for the groups to extract further information from. Again as a group they identified problems and benefits of more tourism development within the town, explored why some people (stakeholders) may have differing views about further developments to support tourism in the town and to rank the problems and benefits in terms of their importance. Students then completed their own argument frame and were guided through the written task write up including the success criteria, prior to writing an extended response to the big question ‘Should Southwold develop more facilities for tourists?’

How well did we achieve our aims?

Many students responded well in terms of engagement both in response to class tasks and homework tasks. Their ability to express their ideas verbally were good but even though the argument frame was completed well, when it came to the write-up some didn’t make full use of it and were more subjective in their approach. Many did achieve a more objective, structured, balanced and detailed response than they would have done without this approach – lower ability students included. There were strategies that would have enhanced their critical approach to the task, see below.

Improvements identified for future delivery include: students should evaluate the resources supplied; computer access for independent research; include a debate prior to the write up, and allocate more time to write up.

What was the impact on pupils?

As a one-off there were signs that the approaches used did improve the students’ ability to produced better quality responses (see above). Now they have tried this approach its
adoption can be encouraged in future extended writing tasks, with the aim that they subsequently use the approach independently.

**Other outcomes:**

The activity will be added to the Year 8 scheme of work on Coasts. We will use the argument frame to aid the development of responses by students for other extended writing tasks.

**Download**

- Presentation: Critical thinking task – Southwold Big Question <add hyperlink to Sir John Leman pdf>

**School context:**

Sir John Leman High School is a mixed 11-19 comprehensive school serving a market town and coastal communities. The activity was focussed on three Year 8 mixed ability classes for 150 mins (1 x 100 mins 1 x 50mins) plus 3 x 30 minute homework sessions.


---

**GCSE and A level practice**

**Schwule Paare sollten die gleiche Rechte auf Elternschaft haben wie heterosexuelle Paare** (Should gay couples have the same right to parenthood as heterosexual couples?): Abbeyfield School, Wiltshire.

**What did we want to achieve?**

The introduction of a new AS/A2 German spec in 2016 was a good opportunity for staff teaching Key Stage 5 to review our teaching practice and our preparation of students for the terminal examinations in either the summer of 2017 (AS entry) or 2018 (full A level). This was particularly appropriate as we felt that the GCSE does not necessarily prepare students for the rigour of study at Key Stage 5 and beyond. Investigating further and looking at the data generated in school, it was becoming obvious that students who had performed well at GCSE (six students in Key Stage 5 class, 2 x A*, 2 x A, 2 x B grades), were under-performing in Key Stage 5.

The project therefore came at an opportune time, since our cohort had settled into the Key Stage 5 course well, and was at a point in their study where (short) essays were being set about controversial subjects. The essays were not good enough to grade against Key Stage 5 marking schemes, but did show significant progress and maturity from the work of these students in the period leading up to their GCSE exams last summer and also when compared to their work at the start of this course in September 2016.
We wanted therefore to challenge our students to produce a more rounded and complete answer to an essay stimulus including individual opinions, comparisons and facts where appropriate (all within 250-350 word limit and in German). The students had attempted this essay the week before, but had struggled to produce any credible responses. Answers, where submitted, were too short and lacked necessary understanding or depth. In 2/6 cases the essay was not attempted.

**How did we go about it?**

Having completed the research and preparation around the ‘Familie im Wandel’ (Families in Change) topic, we looked at the idea of homosexuality. We collected all the necessary vocabulary items and revised tenses and also presented argument structures (On the one hand; It can be concluded; One can see that; Whilst some people state; etc.) as a hand-out sheet. Students felt confident handling these types of structures. We then introduced six coloured hats (see pictures) and an accompanying ppt slide saying the role of each hat; that is how a student would react, could reply or state evidence of a particular type wearing a specific coloured hat. Students were then required to look at the essays they had drafted previously and highlight their work using coloured pens to see if any colour dominated their answers and which colours were less well represented or missing totally. We then re-visited the essay title and discussed improvements. As students made suggestions, they had to wear the hats and on occasions, we used a random name picker to choose how students should analyse or continue the essay by selecting colours. The atmosphere was warm and there was a good deal of trust amongst the students. They were prepared to wear the hats and comply. They bought into the experiment willingly.

**How well did we achieve our aims?**

In the short term, the essays handed in were of a significantly improved quality and were more rounded and complete answers. Subsequent essays have shown a similar awareness of the need for a balanced argument, although unsurprisingly, given the stage of the course, (2 terms into a 2 year course), still short of the quality needed to meet target grades at Key Stage 5. Medium term, this more mature writing style will pay dividends for anyone entered at AS this summer, as important ground work has already been completed. Longer term, it is to be hoped that we have equipped our students to be more critical thinkers when faced with any situation both within and outside of the classroom and that we have introduced to them the need for an understanding
of the facts, an appreciation of how these may be interpreted by different interest groups and the need for them to come to their own position on any event and not to follow others blindly. It is alright to agree with your friends as long as this is as a result of a clear thinking process and not blind acceptance.

What was the impact on pupils?

The pupils involved have already shown themselves to be engaged and motivated learners, since they have chosen to study German in Key Stage 5. They did, however, engage fully and enthusiastically in the lesson, subsequent follow-up work and in a subsequent debrief / student voice activity. They felt that the skills were transferable and that they were conscious of the necessity for the black hat (devil’s advocate) in all situations, especially those where they were tending towards one point of view but could not explain why. They felt that wearing the hats in the lesson had helped embed the critical thinking behaviour. They requested that the hats be available for any subsequent essay prep work. We have adhered to this. Anecdotally, I have heard from other staff members that the students have discussed the lesson in the common room to their peers and have organised a hat box in the work room.

Other outcomes

The lesson and resources have been shared in the department and also at the Key Stage 5 group meeting (a member of staff from each department is required to attend a meeting twice a term) and further at a whole staff training session at the beginning of this term.

I would hope that others would have the confidence to use props and to step aside from the content to be able to concentrate on the skills necessary for success in exams and to be able to play a full part in the wider school community.

Download

- Abbeyfield six hats themes <link to pdf Abbeyfield Thema>

School context, colleagues involved

Abbeyfield School is an 11-18 LA maintained secondary school in North Wiltshire. We have approximately 800 pupils, so are smaller than the two other schools in town and than might be expected nationally. The school is only 17 years old so does not yet benefit from seeing the children of previous pupils on roll. There are growing numbers of pupil premium students on roll, current Year 7 having the highest number in the school. The school has had a recent period of turbulence, but has been more settled under the leadership of the current head teacher.

Deborah Wiltshire, Class Teacher and International Coordinator, Abbeyfield School, Chippenham, Wiltshire SN15 3XB
Decision making skills in GCSE geography: Central Foundation Girls School, Tower Hamlets

What did we want to achieve?

- To improve the decision making skills in GCSE Edexcel B DME Unit 3 exam paper.
- To give students the space to ask and answer questions about the resource booklet and examine the options available and the impacts and the different players involved.

How did we go about it?

Using higher order thinking questions, we put the students into groups to examine the four different options for Jamaica (using the Unit 3 paper, June 2014):

- Option 1: Encourage the rapid development of the tourist industry but discourage the bauxite industry.
- Option 2: Encourage the rapid development of the bauxite industry but discourage further tourist development.
- Option 3: Encourage the rapid development of both tourism and the bauxite industry.
- Option 4: Discourage the development of both tourist and bauxite industries and identify new ways of developing the economy.

In groups students discussed the different options available for future development in Jamaica. Using these they completed a worksheet where they needed to choose the preferred option for each group. Students identified the different players involved and how each option will impact them. We used a conflict matrix to show the opinions of different players towards each other.

How well did we achieve our aims?

Students were able to better identify how each option would impact the different groups of people. The options ranged from Jamaica developing its tourism and/or mining industries or to try something new. Students were able to identify which groups would agree or disagree with each other, using the conflict matrix.

 Students were then able to answer the 12 mark question at the end of the exam paper, making reference to the impacts on the different groups of people, both positive and negative.

Select one option you think would be the best long-term plan to improve Jamaica’s economic growth. Explain why your selected option is the best available.

Use information from the Resource Booklet and your knowledge from Units 1 and 2 to support your answer. (12 marks)

Chosen option ..............................................................................................................
What was the impact on pupils?

Middle ability students and less able students groups were better able to answer the twelve mark question, where students had to decide on the best option for the future development of Jamaica, by weighing up the development of tourism with the further development of bauxite mining or trying something new.

Students were more engaged in the activity as they had a better all-round understanding of the impacts of their choices on the different groups of people. They were encouraged to look at the impacts as social, economic, environmental and political.

Other outcomes:

The approach and resources on how to develop key DME skills with students were shared with department for other teachers to use with their GCSE classes.

Download

- DME group work key questions
- Jamaica conflict matrix
- Decision making exercise Jamaica: different groups.

Rahila Rehman, Head of Geography, Central Foundation Girls School.

Exploring questioning techniques to support critical thinking and develop ideas: Chesterton Community College.

What did we want to achieve?

The purpose of this research is to identify a variety of questioning/ critical thinking techniques to support learning. The end result would be to see how students form an answer to an exam question (AQA B Geography):

\[
2 \ (b) \ (ii) \ Describe \ how \ conditions \ in \ urban \ areas \ are \ being \ improved \ in \ less \ developed \ countries. \ Use \ examples. \ (6 \ marks) \ (June \ 2011).
\]

I wanted students to develop ideas and think more critically about their responses to questions. I wanted them to explore sources of evidence and to think more critically about them being aware that they can be subject to bias.

How did we go about it?

The research into the questioning/ critical thinking techniques will be carried out over two lessons with a Year 10 GCSE Geography class. The topic studied is the Urban Environment and the lesson title: Destroy slums and rebuild to make money. Is this right for Dharavi? The questioning/ critical thinking techniques I will explore are:

- Levelled spider diagram.
- Pose, Pause, Pounce, Bounce (Wallace, I, 2012).
- Kahoot.
- Debate where students have the following roles; Developers/planners, Residents, Government and Potential migrants from a rural area thinking about moving.

Students have access to tablet devices with applications to aide learning. The majority of these techniques allowed for no hands up questioning.

**Layers of inference**

Roberts (2013) states that ‘layers of inference’ encourages the examination of sources, supports being able to make ‘informed guesses’, aware that sources may only present ‘partial evidence’, to ‘be curious and to ask questions’, ‘discuss ideas’, ‘critical, scrutinising what is shown and what is not shown in a piece of evidence’ and reveals what is understood and possibly ‘misunderstandings’ (Roberts. M, 2013). Roberts uses this method in a Geographical way but it can be used in a variety of subjects to question a range of sources from ‘text, photographs, maps, graphs, statistics or film’ (Roberts. M, 2013).

The source used for this technique was a photo of Dharavi slum. The questions used for ‘layers of Inference’ are: ‘what else would I like to find out? What other questions do I need to ask? What does the source not tell me? What can I infer from the source? What guesses can I make? What does the source definitely tell me? Roberts has two templates in her book for this activity however, I decided to use an app called ‘Padlet’. Each question was displayed on a Padlet which would appear on the Interactive White Board (IWB) with students’ responses to the questions. An alternative would be to split the desk into four sections, writing questions into those sections and to write responses on the desks with wipe board markers.

**What Went Well:**

- This technique works very well for developing ideas.
- It encourages students to be critical thinkers when using a source like a photo.
- It helps students to gather a deeper ‘sense of place’ (Massey. D, 1991).
- Students thought critically about whether the photograph depicted a true representation of Dharavi and were able to make inferences about the source e.g. ‘Is there a strong community?’ ‘What shows this place could have a strong sense of community?’ ‘It shows they reuse things because the shacks are built out of reusable materials’.

**Even Better If:**

- Less able students may struggle with some of the questions and may need more support with this but it is easy to differentiate through outcome.
Three level spider diagram

Students had to do some research about how the problems of urban growth in LEDCs are tackled. They had to use a PDF and internet research to help them find out how to tackle the problems, their advantages and disadvantages and how they had an impact on different groups of people. There are three points therefore it is a three level spider diagram. This got the students to think critically about each way the problems could be tackled and its impact on residents, developers/planners and the government.

What Went Well:

- Good for getting ideas down.
- Supports students in constructing levelled answers for level three exam questions.
- Helps students to extend their answers.
- Critical thinking.

Even Better if:

- Students need detailed resources for their answers.
- Some students find it challenging to present their work in a visual way like a spider diagram and wanted to present the information in an alternative format.

Pose, Pause, Pounce, Bounce

‘Pose, Pause, Pounce, Bounce’ (Wallace. I, 2012) is an AfL questioning technique great for finding out how much students have learnt about a topic and encourages in depth thinking about a topic through discussion. A question is posed to the class, the class pauses to think about the question and reflect, use a soft toy or ball to throw to a random student to answer the question (pounce) and bounce to another student to develop the answer further.

What Went Well:

- Most students get a chance to speak and all students are engaged because they do not know who is next.
- All students have an opportunity to speak.
- No hands up approach.
- Less teacher talk.

Even Better If:

- Students have more time to pause as it allows them to think about what to say. Teachers usually find this difficult. I usually try to give 30 seconds to a minute.
Kahoot

This is an app that you can set up for a lesson. I usually use it as a recap starter or a plenary. It allows you to ask questions and pupils can choose from four different responses. They can have more than one correct answer. It calculates which students get the most answers correct. You can set up as many questions as you wish.

This is great for finding out how much students have learnt and finding out how much they already know about a topic.

What Went Well:

- Encourages competition amongst the class.
- Great for AFL and identifying what they know.
- Easy to use.
- Students really enjoy it.
- No hands up.
- Reduces teacher talk.

Even Better If:

- You need the internet to be working otherwise this does not work.
- Sometimes takes a while to load so better to have it already up ready to go before the lesson.
- You need to set this up before a lesson and it works best to have 8-12 questions.

How well did we achieve our aims?

A variety of questioning techniques were explored and evaluated. Students' responses were stronger, with more developed ideas which were evident in their responses to the exam question. Their verbal responses in class were very detailed and critical when discussing how slums might be improved questioning fellow students' responses with comments like; ‘would that actually improve the slums? How?’, ‘Why would that be a benefit to the people living in the slums?’ and ‘Don’t the people want to just keep it the way it is? After all they have a great community spirit and they are happy. Why change things?’ They were able to debate their ideas which reinforced critical thinking and encouraged further questioning.

What was the impact on pupils?

Students had more autonomy and they were more passionate about the subject matter as it made them think about the topic in greater detail. It enabled students to think more critically and deeper about the topic.

Other outcomes

Questioning is on the whole school improvement plan and the techniques discussed above support this; I will share with colleagues at after-school CPD session in the Autumn term.

This project had a strong and important impact on my teaching. It helped me to think more critically about planning lessons ensuring I had more questioning techniques to encourage
student participation and get them to develop ideas further. It introduced students to think more critically about different sources of evidence, as they can be subject to bias.

Other teachers will learn the techniques used and would be able to apply them to most subjects across the curriculum. In geography the application of inference would be learnt as it is more of a history technique. It would allow teachers to identify students’ perceptions and give teachers a clearer idea of their ideas.

Download

- Dharavi lesson plan
- Carrie talks about the programme

School context, colleagues involved

Kath Hutchinson (Director of CPD and Head of the Humanities) supported me with the ideas and allowed me to teach her year 10 GCSE Geography Class to conduct the research.

Carrie Carter, Geography Teacher and Assistant Post 16 and Careers Co-ordinator at Chesterton Community College, Cambridge.

Using critical thinking to underpin enquiry: Christ the King Catholic High School and Sixth Form Centre, Merseyside

What did we want to achieve?

We wanted to:

- challenge students’ perceptions and ideas of prior geographical knowledge;
- improve student enquiry skills with looking at data and facts;
- engage learners within a topic.

How did we go about it?

I embedded critical thinking in our curriculum assessments, setting a question i.e. ‘Could the Earth experience another ice age?’

Students were asked to engage with fact cards - adapted from debate.org or various websites to include a range of facts, opinions and graphs. Students had to organise each piece of information into either fact, opinion, for or against, whilst identifying bias within the evidence.

Using the information gained they were then asked to structure their understanding into a writing frame, linking in both sides of the arguments as well as what the believed were facts, opinions or biased information. We then completed the task by writing this up as an extended piece of writing.
How well did we achieve our aims?

- Students were engaged with the topic as it challenged their prior knowledge - 'an ice age cannot happen as global warming is making our planet warmer'.
- The fact cards provided challenged pupils not to take information at face value and to question the reliability of sources of information and groups of people who provide the information. This seemed to challenge more able students - which was unexpected.
- When discussed as a department we found the need to embed critical thinking further in order to boost students’ enquiry skills. As we believe this will be more valuable when tackling new GCSE questions - we are thinking of expanding this approach in the future.

What was the impact on pupils?

- Students were engaged with the topic and it also allowed synoptic links to be drawn between glaciation, weather and global warming.
- The quality of extended writing was much more in depth with the structured writing frame - but it may be nice to challenge more able students to create their own structured writing frame in the future.

Other outcomes

I believe the quality of my teaching has improved in order for me to challenge student perceptions further, as well as making synoptic links between topics in class. As a department we are going to embed critical thinking into a range of assessments, in order to challenge students understanding of topics further, in order to prepare them for new GCSEs. I think others will learn from this practice that when teachers take risks in a lesson it is very rewarding when students are challenged and engaged, as long as it is delivered at the right level.

Kelly Peppin, Second in Geography, Christ the King Catholic High School and Sixth Form Centre.

Using two new methods to encourage critical engagement of students on the topic of climate change: Hills Road Sixth Form College, Cambridge

What did we want to achieve?

The goal of this practice was to plan and execute a new lesson in an existing scheme of work for A2 F763 Global Issues OCR Geography. The need for this lesson was due to a sense of probable apathy and disinterest in the topic by students in previous years and an apparent lack of curiosity in the subject material by students.
How did we go about it?

The lesson used two new and transferrable elements which engendered a sense of expectation and curiosity.

**Element 1**: Students were asked to vote with their heads down (so they could not see how others were voting) at the start and end of the lesson, to express their opinions on four initial statements. The same four statements were shown and votes were taken.

There was then a discussion based around the Climate Change Deniers video which was shown in the first part of the Connecting Classrooms training day ([https://www.youtube.com/watch?v=gjVjr-gOpNk](https://www.youtube.com/watch?v=gjVjr-gOpNk))

**Element 2**: Students were shown a 15 minute video (Chasing Ice – how it was made [https://www.youtube.com/watch?v=wE4ynZB0Wj0](https://www.youtube.com/watch?v=wE4ynZB0Wj0)) and then the text of video was split into clear statements. Students had to decide if these statements were fact or opinion. They then had to generate questions about the statements which they had read. Then students were asked to go and research the answer to two of their questions. The intention was for them to have time to feedback on this at the start of the next lesson.

How well did we achieve our aims?

The results of the lesson I found interesting as they showed that in fact, contrary to my belief most students were interested in climate change and all were interested after the lesson. This I found astonishing as it was not my perception of the students thinking. The lesson introduced students to the idea that what they read in the news about climate change may be itself influenced by who is funding the research and may be reported on the basis of the research interests, which may, be inclined to stress uncertainty about climate change in the Arctic.

One of biggest effect change of the lesson was seen related to this area of thinking that the causes of climate change are disputed, a 28% drop in those that agreed with
this statement. This demonstrates increased understanding that the climate change topic and reporting of it may be distorted and therefore affect the action or inaction that individuals/councils and governments take as a result.

However, those agreeing that their actions affected climate change also dropped from 36 to only 25 at the end of the lesson. This is a 30% decrease in the belief that is most likely to affect student actions in relation to climate change. As such the lesson could be seen as a bit of a flop.

Using heads down voting, giving students chances to record their questions, discuss their questions and investigate their questions are areas that potentially have transferability to other subject contexts.

**What was the impact on pupils?**

Student work, as above, showed sophisticated levels of understanding and interest in the subject material of the lesson.

Students were expectant and curious as the lesson started in such an unusual way for them, there was a sense of enthusiasm and interest in the whole lesson and students were interested at the end of the lesson as to how their views had changed.

**Other outcomes**

These two new elements were disseminated in two settings. On 7th June 2016 the College held a learning fair and these teaching ideas were shared with geography colleagues. Then other colleagues from other departments also visited the geography station and considered applicability into other discussion topics. An English teacher I spoke to could immediately see the transferability of this idea and apply it to the new A level English scheme of work.

I became aware that it is often the case that the teacher guesses what the students are thinking rather than asking them what they are actually thinking. I realised that my perception of what they were thinking was completely divergent to their actual views. I realised that a profound way to get students to think is to value and take polls as to what their views are, rather than start a topic with a standard series of definitions such as ‘What is the Greenhouse Effect’. I also became aware that a simple vote at the start of the lesson had the potential to transfer the ‘power’ in the lesson to students and empower them to complete and discuss in the rest of the lesson.

Thank you for the opportunity to reflect and experiment and to encourage critical thinking in creative ways.

Julia Thomson, Teacher of Geography, Hills Road Sixth Form College
Developing evaluation and analysis skills in A level Geography essay writing using critical thinking techniques: The King John School (Benfleet, Essex)

What did we want to achieve

To encourage Year 13 students to think more critically about essay titles and improve how they evaluate within essays. The current OCR specification assigns 17 out of 30 marks in an essay to analysis and evaluation, so the emphasis on these skills is a lot more than students have ever experienced before. Some students found it easier to pick up than others, and those who were struggling were getting disheartened by their lack of progress on essay marks. A new approach was needed to support those students in improving evaluation and analysis.

How did we go about it?

Students were given an essay title and asked to identify individually what the question is actually asking. They fed back to each other and as a class we identified the two sides to the argument in the essay. The class was then divided into two groups – each group taking one side of the argument. They worked within their groups for 15 minutes to come up with the key points for their argument and evidence/examples to back up each point. They then each paired up with someone from the opposite group to argue their point. The other student was encouraged to use the question bank to peer assess the points made. From this point, students wrote a paragraph of the essay (using the PEEL technique – point, example, evaluation, link back to the question). They had to use the previous tasks to develop the evaluation of the point made.

This was repeated a few weeks later with another essay title; however this time silent debating was used to argue the opposing points and question them.

How well did we achieve our aims?

The aim was generally achieved, though at varying paces. Some students found this worked for them after trying it for the first time; others needed a little practice for it to impact on the quality of their essay writing. Exam results in August will really show what was achieved.

What was the impact on pupils?

Students were engaged with this as it involved working with other students in the class. When they feel that their understanding of what to do with an essay title is improving then engagement improves as they see their won progress. It gave most students more confidence going into the exam – the final impact will be shown in the exam results!

Other outcomes:

Doing this project helped to focus my teaching on exam technique and the important skills needed, rather than just content. Seeing the impact on students and their confidence growing gave me more faith in my teaching skills.
The project has been shared within the geography department in a department meeting and will be shared with other staff through a “development time” session which staff can sign up to. This can enable them to develop critical thinking and therefore evaluation skills within their own subject areas.

**School context**

King John School is a large comprehensive in South Essex. It has 2000 students with more than 400 of those in sixth form. It was judged outstanding at the last Ofsted.

Hina Robinson, Geography Teacher, The King John School, Benfleet, Essex.