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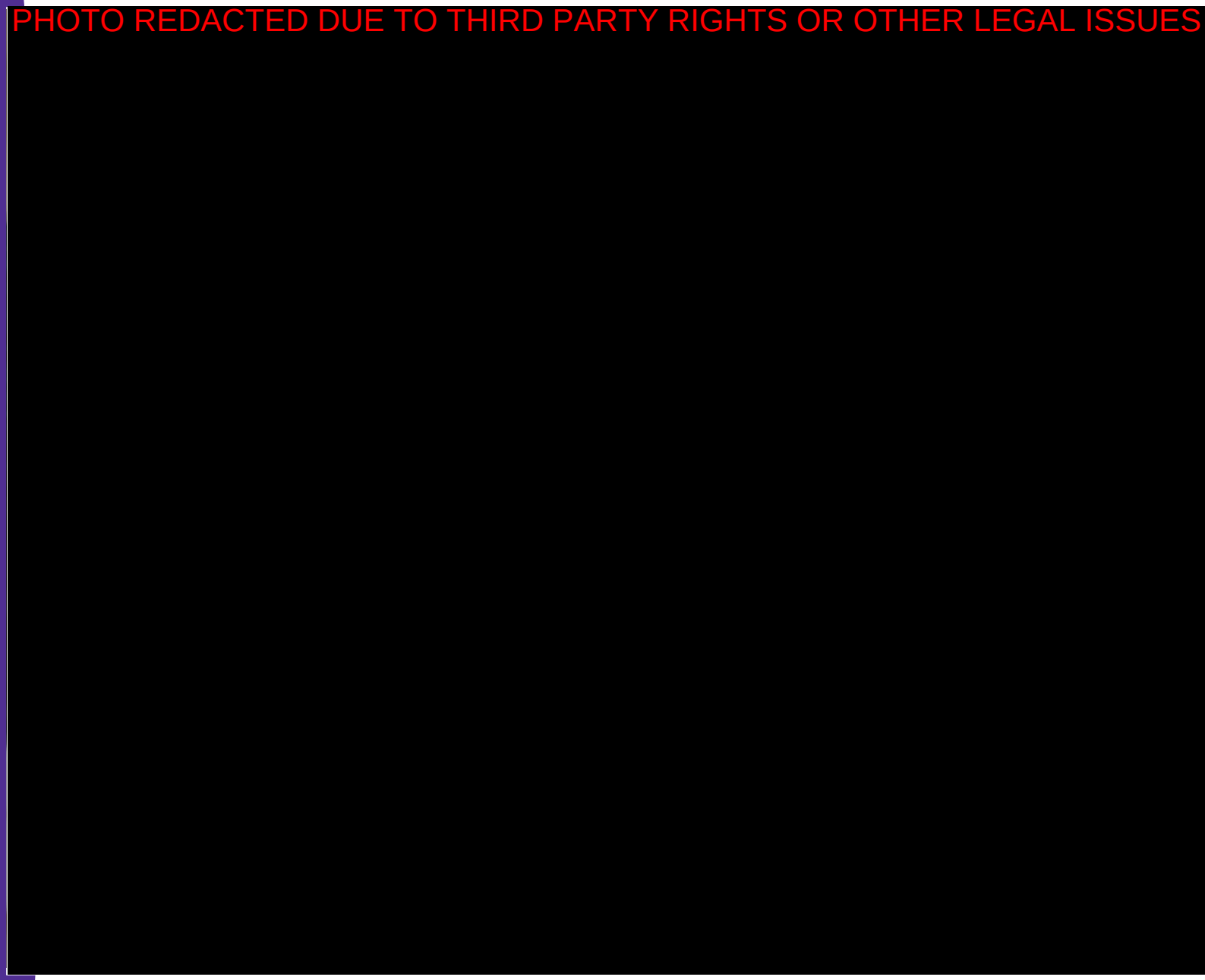

2010
A levels

Stretch and challenge and the A* grade
Guidance on changes to A level teaching and learning

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Qualifications and Curriculum Development Agency
53-55 Butts Road
Earlsdon Park
Coventry
CV1 3BH

Telephone 0300 303 3010
Enquiry line 0300 303 3011
Textphone 0300 303 3012
Fax 0300 303 3014
info@qcda.gov.uk
www.qcda.gov.uk

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Contents

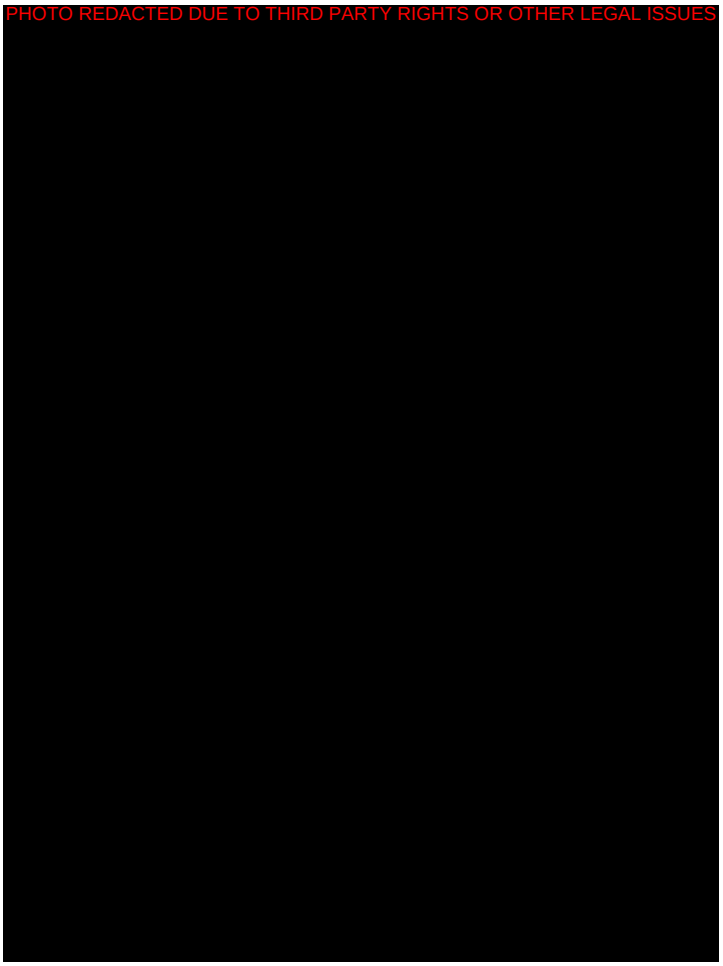
Introduction

The revisions to A levels, introduced for teaching from September 2008, involve changes to A level content, assessment and grading. The revisions include the introduction of stretch and challenge at A2 and a new A* grade.

These changes are important for all A level students, not only the highest achievers, and will prepare students for higher education and employment. Students now need to develop a greater depth of conceptual understanding and the skills of analysis, evaluation and synthesis. They also need to demonstrate and communicate this knowledge and understanding effectively.

Teachers will need to understand the changes, and build on their existing teaching and learning strategies to ensure that all students reach their full potential. The changes do not require completely new teaching and learning approaches, but might require greater focus on particular areas to extend students further and help them engage with the demands of the A2 assessments.

This guidance is designed to help teachers to deliver the stretch and challenge and A* aspects of the revised A levels. It draws from the experiences of people who have been teaching revised A levels since 2008, and expert knowledge of teaching theory and practice.



In addition to this guidance, QCDA has produced a short film showing how some schools and colleges are responding to stretch and challenge and the new A* grade at A level.

The film is available on the QCDA website, www.qcda.gov.uk.

Background to the changes

The A levels introduced for teaching in September 2000 were split into AS and A2 units to enable learners to study a wider range of subjects in year 12 and make more informed choices of subjects to continue in year 13.

The AS/A2 unitised structure has proved successful, but the large number of examinations placed a burden on students. In some subjects, assessment focused too much on factual knowledge and understanding and too little on thinking and problem solving.

Although students had opportunities to demonstrate good examination technique they did not necessarily develop broader and deeper knowledge of the skills and understanding needed for higher level study.

> **After doing A levels you sort of realise that A levels aren't about how good you are at the subject. It's how good you are at learning the mark scheme.**
>
> **A level student**

The A levels introduced for teaching from September 2008 are designed to be more challenging and stimulating, to improve motivation and reduce the assessment burden. Increased stretch and challenge will ensure all students develop broader skills and knowledge and the new A* grade will help differentiate between candidates at the very highest level.

> **I quite like it in the sense that it does add that depth and I think that it takes away that superficiality. My only concern is in terms of the impact on workload [on students] and on their managing that workload … because we're asking them to do an awful lot of research.**
>
> **Head of sixth form,**
> Moseley Park School

Achievement on stretch and challenge will be recognised, rewarded and reported through an additional A* grade. The A* grade will be awarded for the A level qualification only (not for the AS qualification or at unit level). The A* grade will be awarded to candidates who have achieved:

- a grade A overall (ie 80 per cent of the maximum uniform marks for the whole A level qualifications)
- 90 per cent of the maximum uniform marks on the aggregate of the A2 units.

This means that students will have to access a high proportion of marks in the highest mark bands if they are to achieve A*.

Please note: for A level mathematics, the A* grade will be awarded to students who achieve 90 per cent of the maximum uniform marks on units C3 and C4 only, as students can be awarded A level mathematics with only two A2 units in some circumstances.

Teaching and learning for stretch and challenge

The introduction of stretch and challenge is particularly reflected in the A2 units which schools and colleges started teaching in September 2009. However, stretch and challenge should be reflected in teaching and learning from the start of every A level course.

Teaching should stretch and challenge students in ways that are appropriate to their needs, and the revised A levels will not require completely different approaches to teaching and learning. Many teachers have long been developing stretch and challenge skills and content to ensure that students achieve their potential. Stretch and challenge should build on and recognise the value of existing practice rather than introduce a new approach.

The introduction of stretch and challenge involves different question styles in A2 assessments that are designed to:

- reduce formulaic approaches to assessment
- increase extended writing
- promote synthesis of ideas developed across an A level course (synoptic assessment)
- ensure less formulaic and more evaluative responses.

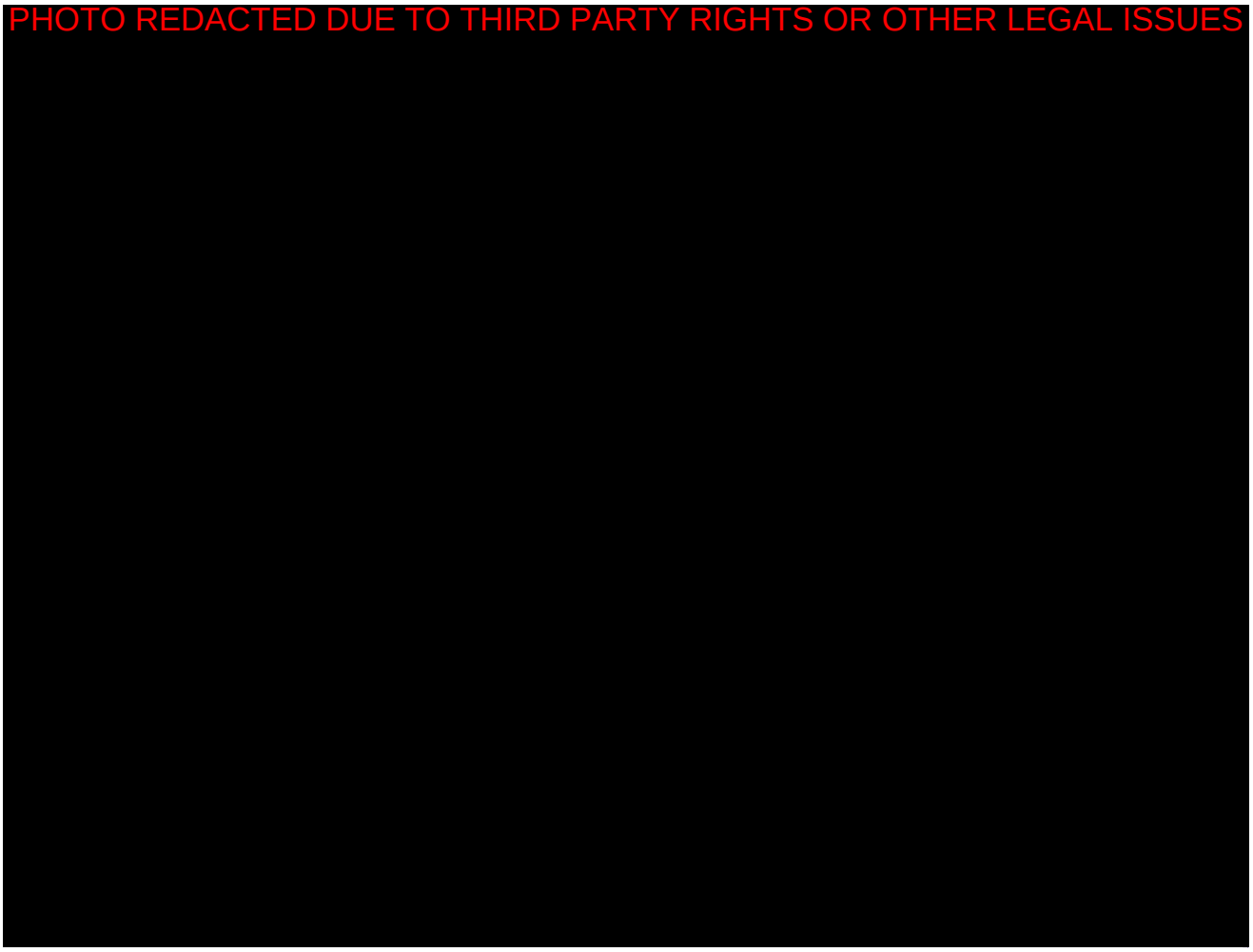
This means that A2 assessments will now include:

- a wider range of question types to address different skills, for example case studies and open-ended questions, rather than just short answer questions
- a greater number of higher demand evaluative tasks
- questions that require learners to show more connections between sections of the specification
- extended writing in all subjects except where it is clearly inappropriate.

These changes might require greater focus on particular areas to extend students further and help them engage with the demands of the A2 assessments.

Teaching and learning should reinforce three areas in particular:

- **developing better conceptual understanding** and linkage between concepts across the specification
- **developing higher order skills of analysis, evaluation and synthesis**
- **improving the quality of written communication** so students can express their understanding clearly and demonstrate their skills.



These three areas are explored in more depth in the following sections. They are mutually reinforcing – improving written communication reinforces conceptual understanding and strengthens skills of analysis and evaluation. Students need to be working on all three areas throughout their A level courses, starting in their AS year. Students at the beginning of year 13 can think that success at A2 will come from 'knowing the notes really well' but stretch and challenge, synoptic assessment and the A* grade require students to do more than regurgitate factual information.

"The issue of differentiation is quite a tricky one for a lot of A level teachers … because in the past you have kind of gone for that middle segment and I think that increasingly with stretch and challenge you have to be prepared to do a little bit more than that. I think more and more teachers are building into their schemes of work the idea of differentiation to try and stretch and challenge their students – to give some more demanding homework, to encourage them to read more widely."

Head of sixth form,
Moseley Park School

Developing conceptual understanding

Teaching and learning at A level has always been about developing students' understanding of the concepts and ideas that lie at the heart of subjects and disciplines. Stretch and challenge places renewed emphasis on *developing conceptual understanding while maintaining breadth of knowledge*.

Increasing depth

> **The depth of knowledge that the students are expected to have is, I think, a big difference to what was expected in the previous 15 years. The extent of that depth of knowledge – I found it surprising that they are… expected to go into much more depth than they were previously, so what I find is that it is not sufficient for them to know a little bit about a lot – they can't know just superficial things, they have to know in detail. That's [a] challenge, getting that depth of knowledge and understanding in the same time frame.**

Head of sixth form,
Moseley Park School

Synoptic assessment at A2 requires candidates to demonstrate that they can make effective use of techniques, concepts and theories relevant to a particular subject. This involves far more than simply knowing and recalling information. It requires an understanding that ties together and makes sense out of this information. Understanding the relationship between ideas is crucial to good performance on synoptic assessment questions at A2. The more applied and open-ended questions require learners to think flexibly about applying their knowledge.

A2 assessments require conceptual understanding, in both depth and breadth, and also the ability to communicate that understanding in response to less structured questions, often in the form of extended written answers. To achieve the highest marks, students will need to prove their understanding of the key concepts, theories and techniques of a subject, rather than simply demonstrating that they have covered the content of the specification. Students need to be supported to recognise and understand key concepts and ideas, and then relate and transfer them to a range of different contexts.

This section looks at three areas of teaching and learning for developing greater conceptual understanding:

- understanding concepts
- transferring learning
- weaving concepts together.

> **There is an expectation that they will have a much deeper understanding and an ability to apply that to a wider range of situations.**

Head of science,
Gosford Hill School

Understanding concepts

The revised A level specifications set out the content that students need to learn for each subject, and within that content there are key concepts that need to be understood. Learners should be introduced to the key concepts of a subject in a way that helps them begin to differentiate between them.

It is very important to clearly identify and label key concepts for learners – learners cannot be left to discover them on their own. Teachers should guide their students to these concepts and make them aware of their explanatory power. This involves going beyond the 'bare bones' of the specification and doing things that students will find difficult. Teachers should build trust with their students and be open with the demands of the course and the fact that struggling is perfectly normal.

The assessment of stretch and challenge needs learners to develop a deeper understanding of the key concepts in a subject and the relationships between them. Teachers may already develop this type of understanding using a structured approach.

1. Introducing the subject content, new ideas and topics with collective discussion and clarification of key concepts.

2. Rehearsing the use of the concepts in simple, well defined problems.

3. Applying the problems to solve more unstructured problems, often in group situations to expose students to differences of opinion.

4. Practising exam questions, using actual or sample questions, using modelling and collaborative writing to help students 'read' longer questions and navigate unstructured questions.

However, by giving less emphasis to 'introduction' (1) and more to ' application' (3), learners will have more opportunities to work with these concepts on their own and in small groups. These opportunities are very important as learners need to rehearse the use of key concepts constantly to develop fluency in their use.

Building trust

> **They don't know how much they are going to enjoy it until they have been stretched. You can't sit back and say 'Oh they'll be scared.' My philosophy is that it is like a journey. I say 'come with me. I am a tour guide – you know you go to Turkey, you don't like all of it. This will be the same thing, just stay with me and you'll enjoy it.**

Head of science,
Gosford Hill School

Going further

> **They have been told they are absolutely going to have to do more independent reading and learning to cope with the stretch and challenge. But they are doing that reading and they are finding excitement in the reading. I can remember someone saying five years ago that there is nothing in *Pride and Prejudice* of any relevance to their A level study [it was not a set book]. Now the students are reading it on their own, discussing it, presenting it, they get very excited.**
>
> **English teacher,**
> Oxford and Cherwell Valley College

Providing learners with opportunities to use concepts is essential to help them understand the relationship between concepts. As their conceptual understanding develops, learners should be provided with less support and solve increasingly less structured problems. The support provided needs to reduce so that all students can engage confidently with the examination questions by the end of the course. This is typically achieved through a progression from whole-class teaching, to group work and then individual problem solving, with appropriate formative feedback. Students then need to move on to working on examination questions, from the highly structured to the less well structured.

In addition to understanding key concepts, students also need to develop and use conceptual language. Conceptual language is crucial to developing understanding of a concept and confidence in using the idea. Students can be encouraged to learn and use conceptual language using questioning. Any questioning must be appropriate to the complexity of a topic and the students' understanding of that topic. Students will also use conceptual language when discussing ideas with each other.

Using questioning to develop conceptual understanding

> **We have a quiz at the start of most lessons … some of the questions we look at on the whiteboard will last just a couple of minutes, others will last for 10 or 15 minutes … [their success] will depend on how good a job we can do with getting them to speak physics as opposed to English. If they can get the vocabulary right and use that appropriately, I'm hoping that they will be able to get the correct physics sense out of the answers.**
>
> **Head of science,**
> Gosford Hill School

Transferring learning

As the revised A levels require students to link the course content in new ways, teachers might need to give more emphasis to the synoptic aspects in their teaching. Synoptic assessment at A2 requires learners to transfer concepts and ideas learnt in one context and apply them in a new context. Students will need to transfer ideas from one context to another to do well in A2 assessments, but they often see information in discrete areas of study even though these areas might already draw upon the same key concepts.

Experienced A level teachers will support learners to transfer ideas to different areas by providing explicit connections between different parts of the specification using themes or vivid experiences in their teaching. This will help students to see the same idea being used and applied in different parts of the subject. They should be encouraged to work with this concept again and again in different ways in different contexts. It is very important that teaching ensures that students see the difference between the concept and the concrete example it is being applied to.

> **I am continually referring back, getting the idea from the previous context and bringing it forward into the new one. Saying 'look it's the same thing but with a different example to illustrate it.**
>
> **Sociology teacher,**
> Stanmore College

Learners can find it difficult to transfer knowledge successfully, and there are certain learning requirements that will help students transfer an idea to a different context:

1. sufficient initial learning and sufficient conceptual understanding
2. approaches to learning that emphasise the key concepts of the subject and their application to problems
3. enhancing the initial learning of an idea using concrete examples to help students appreciate its relevance
4. helping students to represent problems and solutions at an appropriate level of abstraction
5. helping students monitor, reflect upon and improve their learning strategies.

These requirements are explained in more detail below.

1. **Sufficient initial learning and sufficient conceptual understanding** – there need to be adequate opportunities for students to learn in the first place.

2. **Approaches to learning that emphasise the key concepts of the subject and their application to problems**. Such learning involves more than the teacher simply transmitting information. Students need time to work with the ideas in a range of increasingly less structured problems.

3. **Enhancing the initial learning of an idea using concrete examples to help students appreciate its relevance**. The idea will need to be unmoored from that initial context and made more abstract if it is to be successfully transferred. (see *example below*)

Exponential popcorn

> **When we do exponentials we make popcorn at the start. The whole point of the popcorn is that the rate of popping is proportional to the number of un-popped popcorns – the kids get that idea. But the idea then transcends to that the rate of X is dependent on the rate of Y. So, while it sounds gimmicky, you have a common point [making popcorn] that you can come back to every time they have something else they think might be exponential.**
>
> **Head of science,**
> Gosford Hill School

4. **Helping students to represent problems and solutions at an appropriate level of abstraction** – this will assist students in transferring ideas to new concepts. The A2 assessments require students to learn how to apply their ideas in a range of increasingly unstructured contexts and problems. For more unstructured questions, students must recognise the type of problem they are facing, represent that problem in a particular way and then marshal the intellectual resources needed to answer the question. Concept mapping and Vee diagrams are two ways of helping learners to develop this difficult skill.

5. **Helping students monitor, reflect upon and improve their learning strategies**. These activities cannot be reduced to generic study skills – they require students to have well differentiated knowledge and a firm grasp of key concepts in a subject. A variety of approaches can be used to help with this aspect of learning transfer, particularly formative teacher assessment, peer assessment and self-assessment.

Some schools already using strategies to help young people become better learners (such as Building Learning Power www.buildinglearningpower.co.uk) are extending these approaches into A level teaching in response to stretch and challenge. These approaches explicitly require students to think about their own learning and how they can improve.

Weaving concepts together

Students will need to be helped to weave concepts together and then explore the relationship between them for the revised A level assessments. Graphic organisers (such as webs, time lines, Venn diagrams, flowcharts, and concept maps) are well known and widely used visual learning tools. They help teachers and students to identify and visually represent their views and knowledge, and also to recognise and depict relationships between concepts.

Trying to convey what they know and understand in non-linear, visual ways, requires students to:

- draw together what they have learned
- see how ideas, information and concepts are connected
- develop higher order skills such as analytical thinking
- organise their knowledge in a way that makes sense to others.

Learning how to show what they know in an easy-to-read way requires students to understand the topic under study, discern relationships between concepts and prioritise information. Making their ideas explicit in the form of a visual representation enables students to generate ideas, structure their thoughts and reflect on their understanding with the help of their peers and teachers. Visual representations also help students to comprehend complex information and relationships more easily, and remember and recall information more efficiently.

The visual learning tool used needs to reflect the nature of the relationship between concepts:

Example	Relationship
Concept maps	Hierarchical information
Chain of events time lines	Time-sequence patterns
Fishbone diagrams	Cause–effect relationships
Venn diagrams	Comparisons
Webs or mind maps	Free associations and links among ideas
Life cycle diagrams	How a series of events or stages are related to one another in a repeating process

Concept maps and Vee diagrams are two particularly useful visual learning tools.

Concept maps have demonstrable impact on developing students' conceptual understanding and in weaving ideas together.

They can help develop the ability to:

- draw reasonable inferences from observations
- synthesise and integrate information and ideas
- learn concepts and theories in the subject area.

Vee diagrams are one way to help students be more aware of what they are doing when they solve problems and learn from the activity to develop their confidence and capability as problem solvers. They help students to weave their ideas together to answer problems and produce coherent, reasoned answers and this is important for success in unstructured problem-solving tasks at A2.

The appendix includes more information and examples of concept maps and Vee diagrams.

Teaching for higher skills development

The introduction of stretch and challenge will require students to use the higher order skills of analysis, evaluation and synthesis. This section outlines teaching and learning approaches for developing higher order skills, including examples of these approaches in schools and colleges.

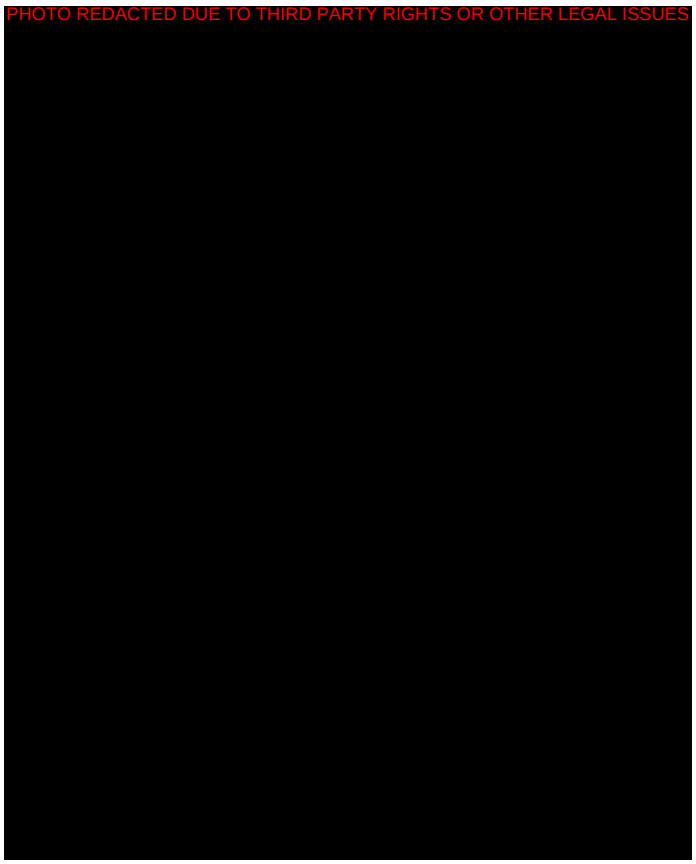
The proportion of marks allocated to analysis, evaluation and synthesis is stated in revised A level specifications and the more open-ended questions will contribute a greater proportion of the marks for these skills. Open-ended questions typically require students to apply their knowledge to demonstrate their ability to analyse, evaluate and synthesise.

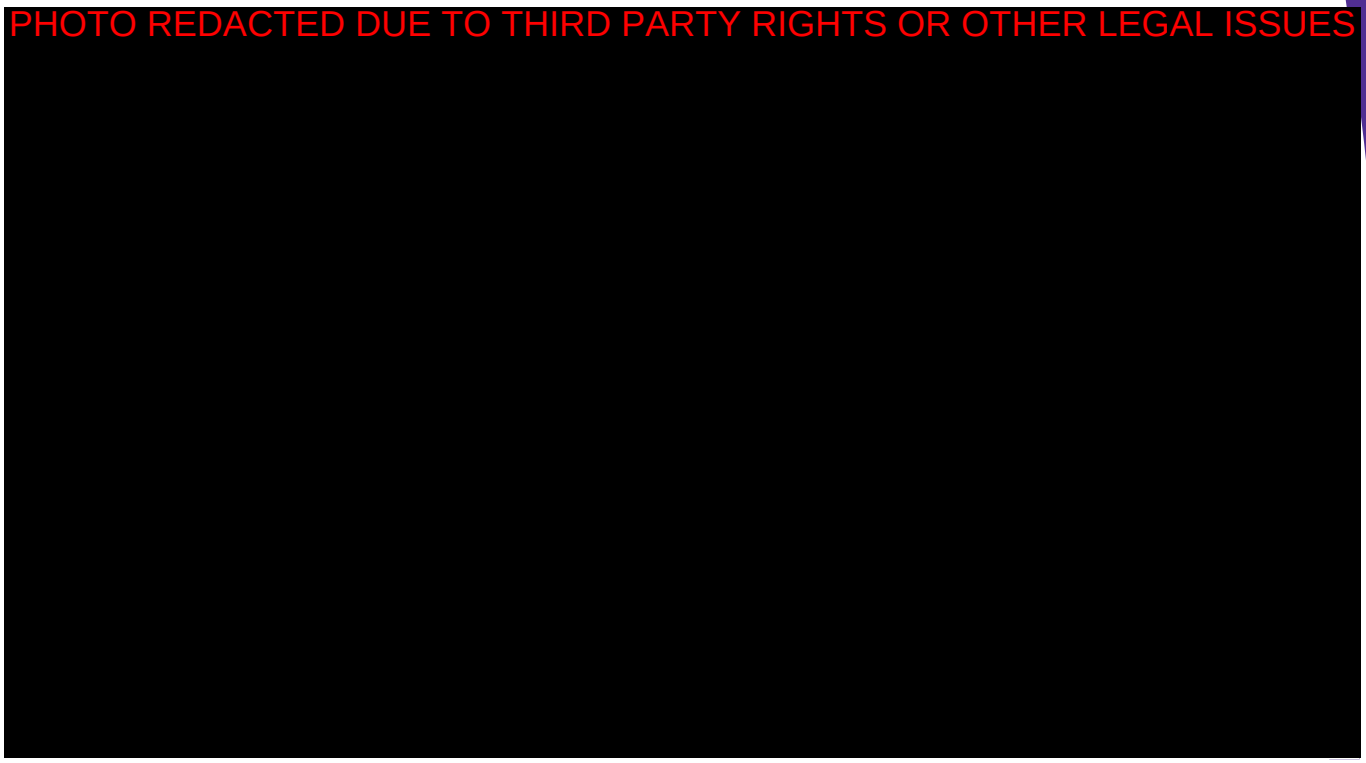
Students often do not understand the meaning of terms such as analysis and evaluation. Competence in these higher order skills has to be explicitly taught and this takes time. It is crucial that such activity takes place in lesson time as well as during private study so that the teachers can model the skills (application, analysis, synthesis and evaluation required to answer a question or solve a problem. Without such modelling students may simply regurgitate factual information, which is likely to be insufficient for the highest levels of achievement.

Introducing higher order skills

For students to develop higher order skills, teachers must ensure that students are familiar with what is expected of them. This needs to be done explicitly – these skills need to be taught rather than expecting learners to develop them autonomously. Early in the course teachers must also introduce tools, such as self-assessment, that will help students develop these skills.

The following three examples show how teachers at Stanmore College are teaching for higher order skill development.





Example 1 – Raising awareness of higher order skills

Start by making it clear that learners need to do more than simply regurgitate information to do well:

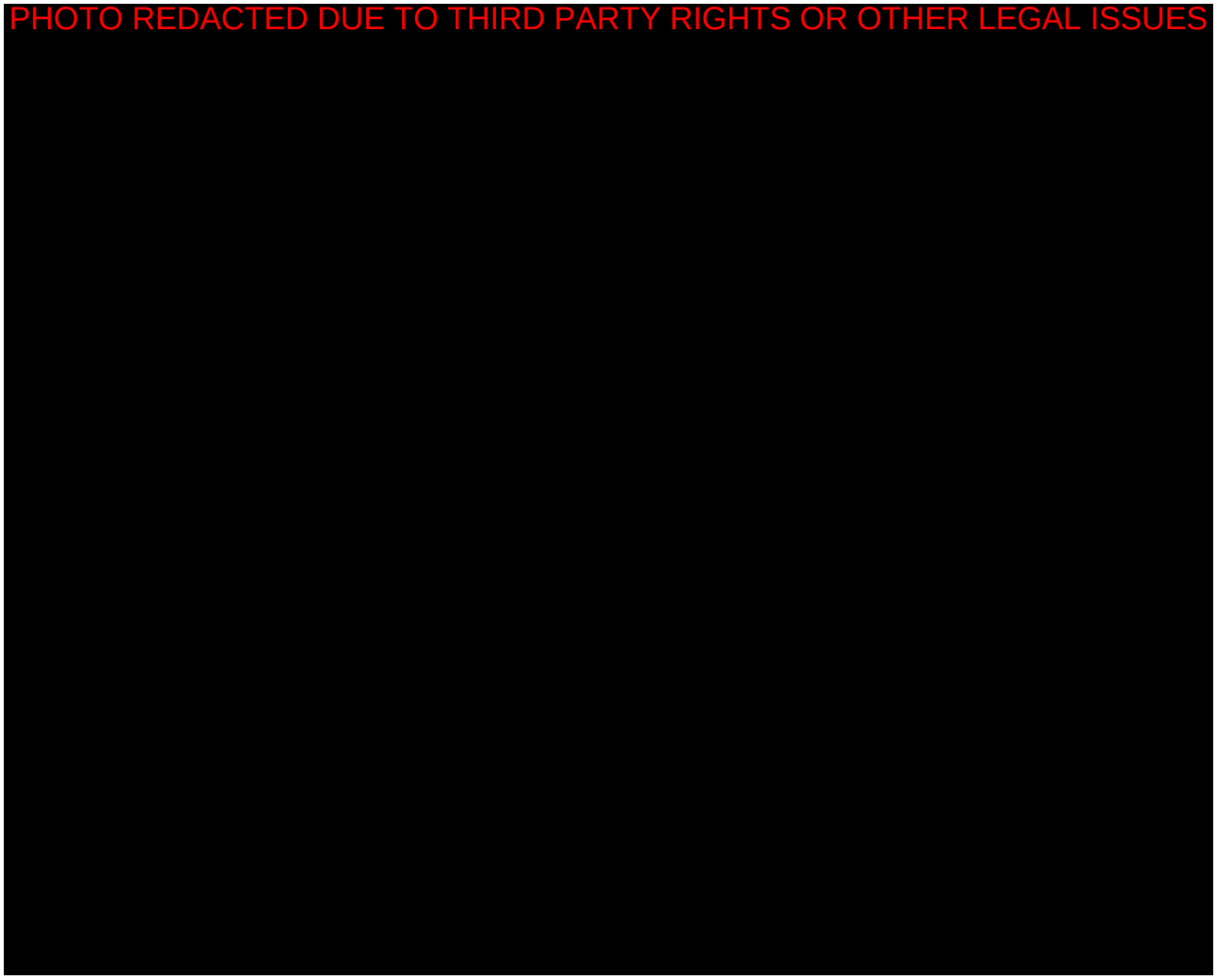
"Imagine that as a teacher I have three pots of marks that I can distribute when I'm marking an essay. One pot is knowledge based – Talcott Parsons said that this statistic reveals that etc, etc. That's the stuff you've learnt and obviously that is an essential element of any essay. The chances are that you'll probably get about 50 per cent of the marks for doing that. But if all you produce is a load of factual information with very little evaluation and very little linking back to the question, then all you will be getting is a D for that particular assessment. So just producing a load of factual information is only going to get you so far."

Provide a strong image to help students think about what they need to do:

"Imagine an answer to a question is like a hamburger [and draw this on the board]. The top bun is your linking back to the question, then you have your content, and then your intermediate conclusion, some evaluation and then round it all off [label each part of the hamburger with the different skills]."

Using two strong images – pots of marks and a hamburger – raises awareness of the different skills that need to be included, but the students still need to be taught what analysis and evaluation look like in the context of the subject.

"So I show them how to open the paragraph 'One sociologist who would agree with this point is …' 'A sociologist who would disagree is …' 'They would argue that …' That is your application. Then you would get into why they would agree/disagree with the evaluation."



Example 2 – Self-assessment using colour coding

This idea is introduced in the AS year when students suggest ideas and sentences in response to an essay question, with other ideas and sentences supplied by the teacher, to develop an answer. This answer is then analysed to show where the skills of application of knowledge, analysis, synthesis and evaluation are being deployed. Parts of the answer are then highlighted in different colours to provide concrete examples of these skills. These exemplars can be placed on the virtual learning environment (VLE) so that they are available to students when they are working on their own.

Students can carry on using the colour coding approach to self-assess essays before handing them in. The colour coding forces students to recognise when written work is over reliant on factual recall and highlights evidence of the use of the higher order skills. This helps students to reformulate their essays and include more use of the higher order skills. By the A2 year this approach should be a routine part of most students' learning practice.

Using these tools rapidly raises the marks that students get for their essays and their awareness of how they are achieving these gains. This helps them to reflect on their own learning and self-assess.

Example 3 – Identifying the steps

First, emphasise the need to be critical of everything and model an approach to asking questions that requires learners to be critical:

"On the first day in class I will tell you something but the next day I will ask you 'Is this the only way to think about this, what might be an exception?'"

Then provide strong analogies that students can use as an *aide memoire* to remind themselves of the meaning of analysis and evaluation:

"Imagine the four walls of the classroom. Whatever you can see in front of you, the front wall, that is your knowledge, you can see it there in front of you, learn it. Now, for analysis you have to turn your head from side to side and ask 'how does this work?' Evaluation – you have to turn your head right around and look at the back wall and ask 'Is there anything else? How else could we look at this?"

Finally, model quite explicitly what evidence of the skills looks like in written answers:

"I start for example with an idea – lower levels of trade union power will cause lower unemployment. OK that is a statement of knowledge. But then I analyse it for them so they understand how. I emphasise the need to put steps in between the two parts of the statement but to help them I suggest a minimum of two steps and a maximum of three. Any more than that and they get lost and wander off. So here – the lower
the trade union power, the lower the demand for wages and fewer strikes, **therefore** more motivation for firms to expand and take on more labour, and **so** higher employment levels."

Notice the emphasis being placed on the words "therefore" and "so". This process of analysing statements becomes routine – it is done repeatedly verbally and then in writing – and as this approach started in the AS year, many students do it automatically in their A2 year.

Developing higher order skills in subject contexts

The higher order skills of analysis, synthesis and evaluation cannot be developed in a vacuum – they have to be developed through the application of subject knowledge and understanding. Using standalone study skill courses, for example, to develop the use of these skills will not be sufficient because the meaning of such skills and their use differs across subjects. Study skills programmes may be useful but explicit attention needs to be given to developing these skills in the context of a subject and for the unstructured problems that are characteristic for that subject.

Using formative assessment

Good formative assessment is crucial for developing higher order skills and communicating their use. Teaching should require students to work on questions and dealing with increasingly unstructured problems from an early stage in the course. Developing the higher order skills needed to deal with increasingly unstructured problem solving can be facilitated by group work and discussion.

> **In English literature there is an increased level of debate that students have to be aware of. They don't have to be critics but they have got to be aware of alternative interpretations and opinions. So debate [in class] is a very important aspect and they enjoy that.**
>
> **English teacher,**
> Oxford and Cherwell Valley College

Using sample exam questions

The revised A levels will require students to demonstrate higher order skills in extended written responses to a variety of questions. Sample exam questions and other exemplar materials from awarding organisations are a good to way to raise awareness of how these skills will appear in A2 assessments.

Students will encounter a wider range of question types that assess these higher order skills, from short answer and structured questions to open ended questions and case studies. These questions will use a variety of stems and command words, for example *analyse*, *evaluate*, *discuss* and *compare* and these skills will be recognised in the highest levels of the mark scheme.

> **Scrutinising mark schemes helps students to understand the number of marks available for source review and makes them aware of the difference between narrative writing and analysis. Students are beginning to appreciate the level of evaluation of sources required.**
>
> **History teacher,**
> Gloucestershire College

Please see section 7 for further information about mark schemes.

Teaching for better written communication

The revised A levels will assess the quality of written communication (QWC) wherever there is a requirement for extended writing. The level of response mark schemes for questions requiring extended answers will have marks for the quality of written communication integrated into them. Candidates will only achieve the highest marks if they demonstrate good quality written communication.

Successful candidates need to have a deep understanding of the subject matter, including linkage between topics and ideas, but also be able to communicate this understanding in writing. However, this requires more than good spelling, punctuation and grammar. Achieving the highest marks demands an increased capacity to argue, evaluate and synthesise coherently and express those skills through writing.

> **A key challenge is on written communication and extended pieces of writing … where our students frequently fall down is being able to articulate what they know and so they often have factual knowledge, but when they're given much more open-ended questions and they're asked to discuss things and to express that in written form they find that really quite challenging.**
>
> **Head of sixth form,**
> Moseley Park School

The requirements for the assessment of QWC in the revised A levels are outlined in paragraph 87 of the *Statutory regulations of external qualifications in England, Wales and Northern Ireland* (QCA/04/1293). When producing written material, assessments must require candidates to:

- ensure that text is legible and that spelling, punctuation and grammar are accurate so meaning is clear
- select and use a form and style of writing appropriate to purpose and to complex subject matter
- organise information clearly and coherently, using specialist vocabulary when appropriate.

Please note: these requirements only apply to producing written material in English, Welsh or Irish (Gaelige) – they do not apply when producing written material in other languages.

> **Our students find it very difficult to express their ideas. They can talk happily and they can explain things orally. But they cannot write a lot of them – that is a huge generalisation but a lot of them find it difficult to express exactly what they want to say. They often say the opposite of what they mean. Expression is I suppose the biggest problem here.**

English literature teacher,
Oxford and Cherwell Valley College

> **Longer questions with more marks pose problems because students tend to continue writing about one point at length rather than making links.**

Biology teacher,
City of Bristol College

> **There has to be a greater concentration on QWC because even the most able students can have difficulties with paragraphing and punctuation.**

History teacher,
Tendring Technology College

Longer A2 questions, with higher numbers of marks, can pose problems if students write about one point at length rather than making links between different parts of the specification to answer the question. Good quality written communication requires the capacity to construct an argument that synthesises information across the specification.

The solution is a structured, progressive approach to teaching students to communicate their understanding and develop the capacity to demonstrate the skills of analysis, synthesis and evaluation through their writing. This highly scaffolded process has to start in the AS year with decreasing levels of support as students develop the lead up to A2 assessments.

The following strategies can help teachers to develop their students' quality of written communication.

Critical review and feedback

Modelling good writing can be used to provide feedback to show students the problems with their written communication and their arguments. This requires students to produce written work first and then accept constructive criticism, either in writing or through one-to-one interactions with their teachers in tutorials or writing workshops. Such constructive criticism often focuses on just one or two points at a time.

> **Critical feedback is vital – training students to use apposite words and appropriate structure in their writing.**

History teacher,
Gloucestershire College

> **… the challenge is making them write concisely, because they over write quite a lot so the idea of quality rather than quantity is very significant. I will take out the unnecessary bits [from a piece of written work], literally just cross them through and explain that 'you've said that already' or 'that is an elaboration of a point that is unnecessary' or 'this is a tautology'.**
>
> **English teacher,**
> Oxford and Cherwell Valley College

Analysing model answers

One common strategy involves working with model answers. Students could be given access to several essays on a topic generated by previous classes early on in their A level course. They then judge which of the essays is the best and what qualities good answers have. These qualities are summarised for students as an *aide memoire* that they can use to reflect on their own work. The *aide memoire* includes information about the structure of a written answer, one point per paragraph, such as the characteristics of a logical argument. Regular reference is made to the *aide memoire* in feedback to students about their work including through peer assessment (See *Peer assessment* below).

An alternative approach is to give students specially crafted specimen answers to questions that are borderline grade E answers. Students are then asked to identify, using the mark scheme, why this is a poor answer. They can then correct the essay to improve it, either individually or in small groups, receiving formative feedback from the teacher.

In both of these approaches the purpose of the activity is to help students understand what makes a good answer through active analysis of text, not just through reading and copying. This helps them to reflect on their own, developing writing skills *and* the higher order skills of analysis, synthesis and evaluation, reinforcing their learning in both areas.

Collaborative writing

This strategy shifts the emphasis from analysing existing material to identify its strengths and weaknesses to producing text, with teachers and students working together to generate answers to questions.

The following are two examples of collaborative writing.

After setting a problem and a brainstorming session, ideas are captured on separate pieces of paper. These ideas are then organised into an argument to answer the question. The separate ideas are moved around to produce a reasoned response to the question. Gaps in the argument are identified and remedied. If an electronic whiteboard is available, ideas can be captured in the form of whole sentences, with an answer emerging progressively. By moving text around, an improving response to the question is constructed, with any gaps in the argument being identified and resolved. Throughout the process, explicit attention is paid to identifying the skills of analysis, synthesis and evaluation. The outline answer produced is placed on the VLE for students to use when producing their own piece of written work.

A different approach would be for the teacher to produce a set of sentences that form the response to a question. Students could organise these into paragraphs to produce an argument. This can then be developed on to the ordering of whole paragraphs.

These approaches focus on the ordering of ideas into logical arguments to form a response to a question, rather than the physical act of writing. Feedback should also focus on the formation of the arguments to improve students' composition skills.

Peer assessment

Many teachers are already making greater use of peer-and self-assessment in teaching the revised A levels as part of the move towards fostering more independent learning. This often includes a specific focus on students' thinking about what makes a good written answer.

Students' responses to the same question can be shared in the class and each is subjected to criticism by peers, with differences of opinion between students enabling the development of evaluation skills. Peer assessment requires a high level of trust between students to be successful. It is best used once students have worked on developing trust and have experience of analysing model answers and collaborative writing processes.

Formative feedback

Formative feedback can be used to comment on the content of a piece of extended writing and to provide feedback about the quality of the written communication. This approach can make use of tools such as feedback sheets that require students to self-assess their work, including the QWC, before it is submitted.

QCDA's guidance on delivering projects, including a film on the experience of schools and colleges, is available from the QCDA website, www.qcda.gov.uk.

> **"In English we've got very clear feedback sheets. They have to self-assess first and then they give it in and then we give our comments. Then they have to set targets for the next essay based on our comments and the assessment objectives. We highlight the assessment objectives we think they've fulfilled so they know where they are on the band and they know exactly what's going to be required if they need to get band 4 – I know it is teaching to the exam but they are certainly made aware of what they have to do."**
>
> **English teacher,**
> Oxford and Cherwell Valley College

Role of the extended project

In addition to developing independent research and learning skills, the extended project provides an opportunity to develop the writing skills needed for the high marks in A2 synoptic assessments. However, the challenge is to make students appreciate that the skills they are developing in the extended project are transferred to their written work in their A level subjects, especially in subject areas that do not form the focus for their project work.

One way of achieving this is to provide students with the opportunity to undertake mini-extended projects in the context of subject learning. For example, students can be required to undertake more independent research set within a specific context, in order to generate greater conceptual understanding of a topic.

Teaching for independent learning

Teaching for the revised A levels needs to be carefully planned to ensure that students have:

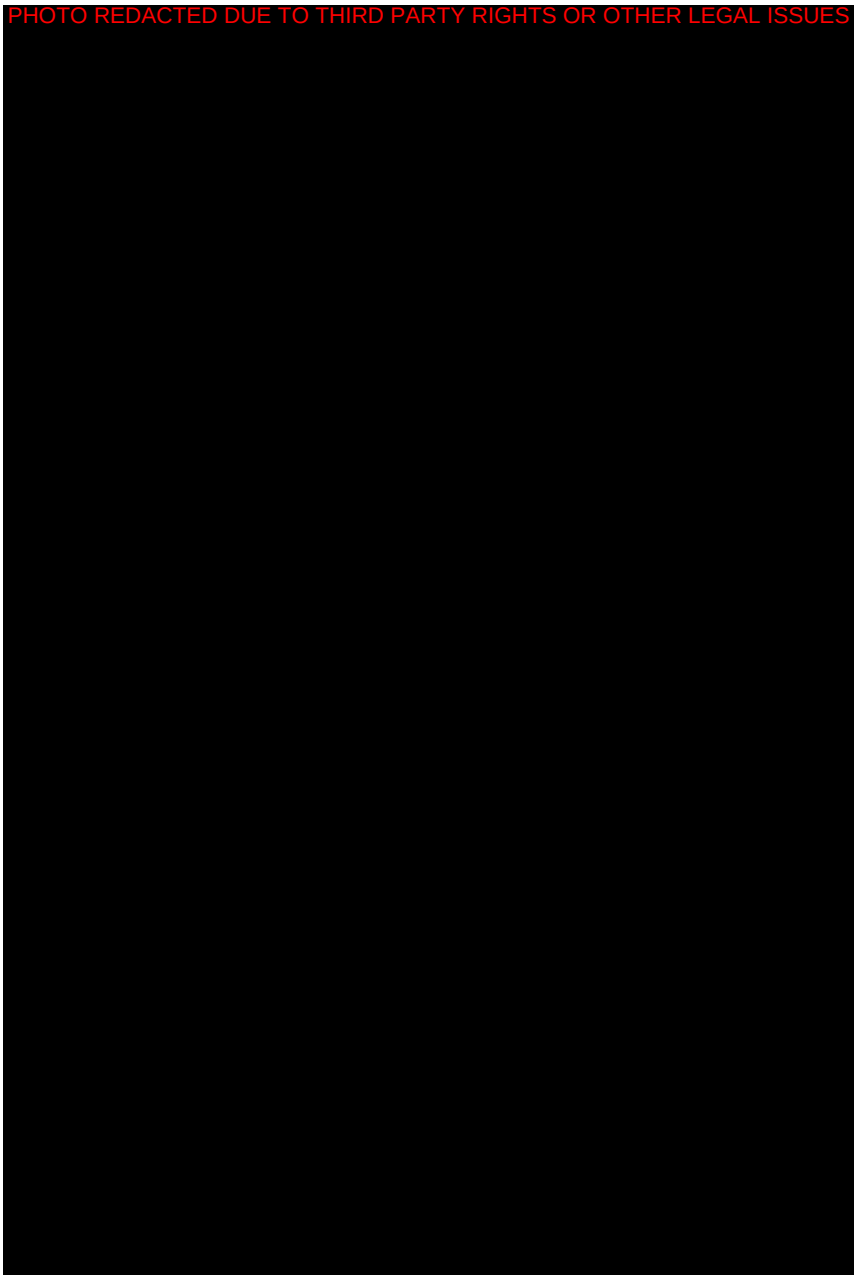
- better conceptual understanding
- developed higher order analysis and evaluation skills
- improved written communication skills.

However, given the pressures on class time, teachers need to have the confidence to make students do more on their own. At first a large amount of support should be provided, both in class and during private study, via *aide memoirs*, materials on a VLE, peer and teacher assessment. This supportive scaffolding should reduce over time so that by the end of the course all students, to differing degrees, can engage with managing their own learning.

Developing students' independent learning skills gives teachers more opportunities to develop their subject teaching. This requires teaching research skills, how to collate information and how to make judgements about the validity of the information. Teachers have to encourage their students to use a greater range of resource materials and not just a textbook.

> **"We're doing transport economics at the moment as part of our A2. One of the issues that we have got to look at is the problem of congestion. What we did this time round, which is different to how I'd have done it in the past, was to simply ask the students to advise me – I took on the role of Prime Minister. I gave them about two weeks to research a variety of solutions and they had to make recommendations. They gave about an hour long presentation on the various solutions they would make and as part of that they went away and researched Hong Kong, Singapore and Stockholm. The actual depth that they generated was fantastic, absolutely astonishing."**
>
> **Economics teacher,**
> Moseley Park School

Students can also enjoy the new challenges and the higher expectations placed upon them. They realise that doing more on their own does prepare them better for future learning in higher education.



The process of devolving responsibility to students can be difficult and demotivating for some students, particularly for students who are unlikely to achieve high A level grades. However, the changes associated with the introduction of stretch and challenge will be helpful for all students, and not just the students who are aiming for A* grades.

> **All of the strategies we have got in place will stretch students of any ability and hopefully will take them up a grade or two.**
>
> **Sociology teacher,**
> Stanmore College

Changes to teaching and learning for the A* grade

Preparing high attaining students for this extra demand and helping them to attain an A* requires increased differentiation in A level teaching. Differentiation does not require streaming or setting A level classes but could include:

- the setting of more demanding homework for higher attaining students
- encouraging extra reading
- peer tutoring where higher achieving students lead small group discussions (on the basis of the idea that if you want to understand something well, teach it to others)
- extra tuition in the form of lunchtime and after-school seminars and workshops
- one-to-one support in workshop sessions and/or tutorials
- participation in subject-based competitions.

Too much differentiation can have an effect on class coherence and trust, so it is crucial to be open and honest about why some students are receiving differing work.

To achieve an A* grade, students will need to consistently gain marks in the highest level of response of the mark scheme for the more open ended questions.

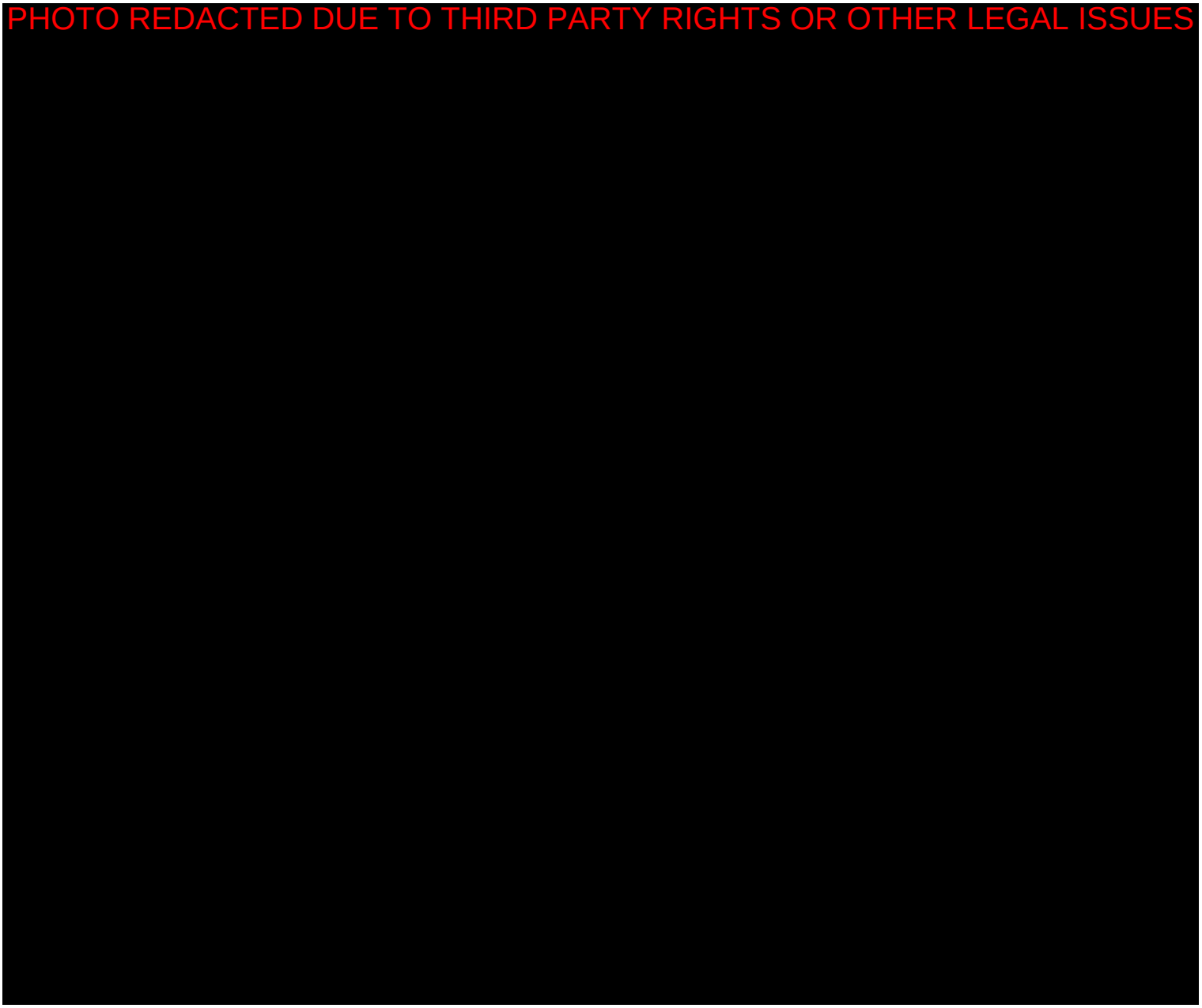
This table compares the mark scheme for a question in a specimen A2 exam paper to the knowledge, skills and understanding associated with conceptual understanding, higher order skills and written communication skills.

The left-hand column shows the information given to examiners for the highest level of response. The right-hand column describes the knowledge, skills and understanding required to achieve the highest marks.

Mark scheme (for 6-8 marks)	Knowledge, skills and understanding
Candidates will show a clear understanding of the problem and answer the question.	Conceptual understanding and higher order skills: students will have to synthesise a range of information from across the specification (the mark scheme lists 18 points).
Candidates will accurately and clearly, as a minimum, give both positive and negative implications and a discussion will take place.	Conceptual understanding and higher order skills: the student needs to make judgements and evaluate the implications of what they understand. Written communication: the mark scheme emphasises the need to be clear and concise.
The information will be presented in a structured and coherent form appropriate to a discussion.	Conceptual understanding and written communication: students need to express ideas in a coherent and logical way.
There will be few, if any, errors in spelling, grammar and punctuation.	Written communication.

Feedback for students aiming for an A* grade must map to the requirements for achieving marks in the higher level response bands. Specimen exam papers and mark schemes can be used to provide practice and to provide feedback to students, although there are limited sample assessment materials for the revised A2 assessments. Where subjects do not have a tradition of questions requiring extended written responses, teachers are constructing their own questions, modelled on those in the specimen assessment materials, to provide their students with opportunities to practise.

Students who are on target for an A grade and aiming for an A* grade should concentrate on maximising uniform marks for their A2 units rather than resitting AS units.



Further information and guidance

QCDA

The QCDA website (www.qcda.gov.uk) includes links to other guidance materials on A levels and the A* grade including:

- *Changes to AS and A levels Information for teachers* (QCA/08/3737)
- *Preparing students for 'stretch and challenge' in the revised A2 assessments* (QCA/09/4299).

Awarding organisations

Information on AS and A level specifications:

AQA	www.aqa.org.uk
Edexcel	www.edexcel.com
OCR	www.ocr.org.uk
CCEA	www.rewardinglearning.org.uk
WJEC	www.wjec.co.uk

Joint Council for Qualifications (JCQ)

Information on common administrative arrangements for schools and colleges: www.jcq.org.uk

National Database of Accredited Qualifications

Information on all accredited AS and A level specifications: www.accreditedqualifications.org.uk

Ofqual

Information on A level subject criteria: www.ofqual.gov.uk

DCSF

Information on 14–19 reforms: www.dcsf.gov.uk/14-19

14–19 and general qualification support programmes

Information on support available on 14–19 reforms: http://www.14-19support.org

Information on support available on the revised A levels and the 16–19 curriculum: http://gqsp.excellencegateway.org.uk

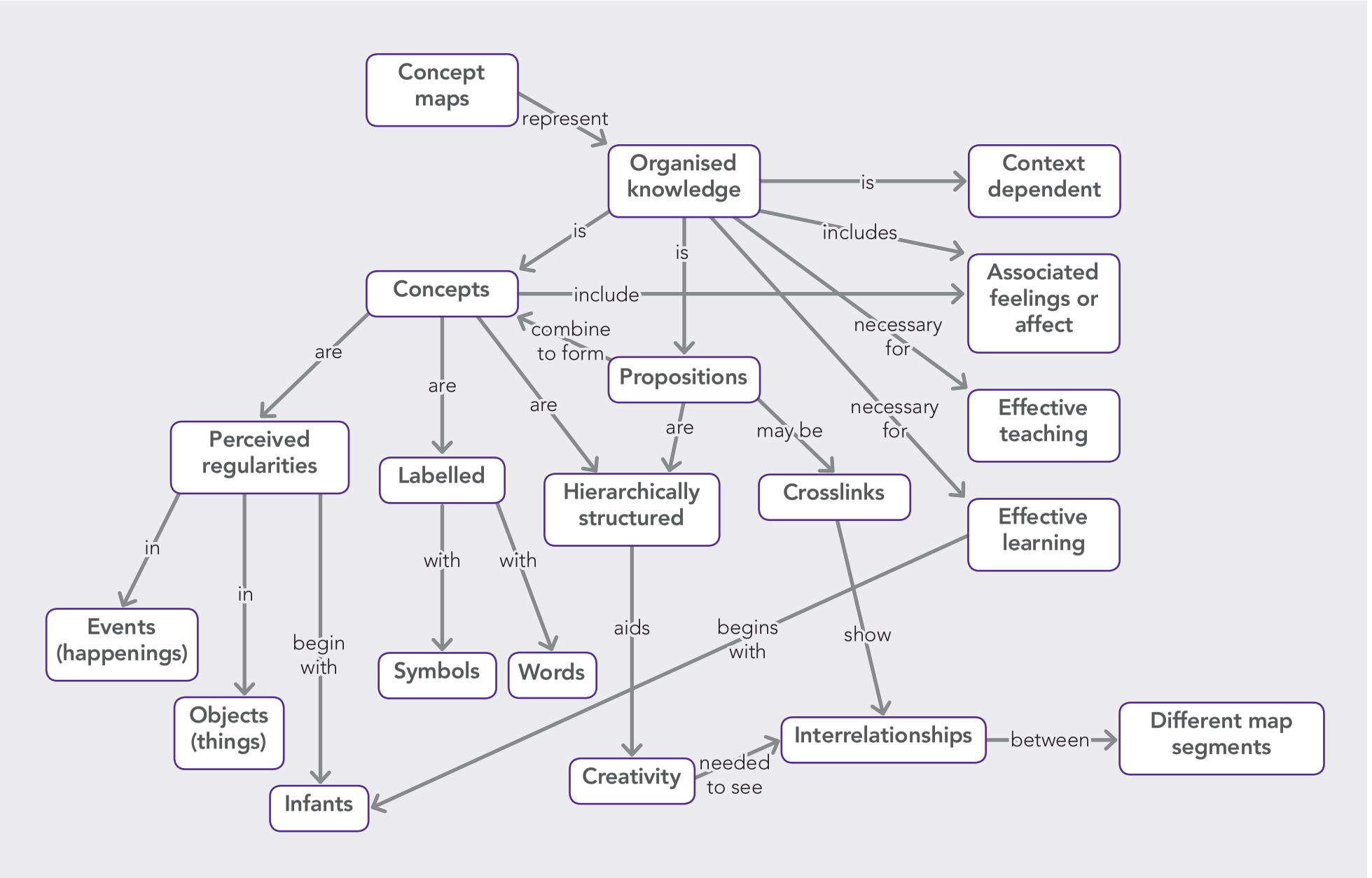
Appendix

Concept maps

A concept map is a diagram with hierarchical nodes, labelled with concepts. The nodes are linked together with directional lines and are arranged from general to specific. Concept maps are not the same as mind maps – they do not simply lay out concepts. They illustrate a hierarchical relationship between them.

Students may not be familiar with concept maps and will need practice in drawing them and appreciating their utility in helping them think both about the subject matter and their own learning.

Step-by-step directions on the construction and use of concept maps in the classroom are available from www.flaguide.org/cat/conmap/conmap1.php


Concept maps
represent
Organised knowledge
is
Context dependent
is
includes
Concepts
include
Associated feelings or affect
is
combine to form
Propositions
necessary for
Effective teaching
are
are
are
are
may be
necessary for
Perceived regularities
Labelled
Hierarchically structured
Crosslinks
Effective learning
in
in
with
with
aids
begins with
show
begin with
Events (happenings)
Objects (things)
Symbols
Words
Infants
Creativity
needed to see
Interrelationships
between
Different map segments

Vee diagrams

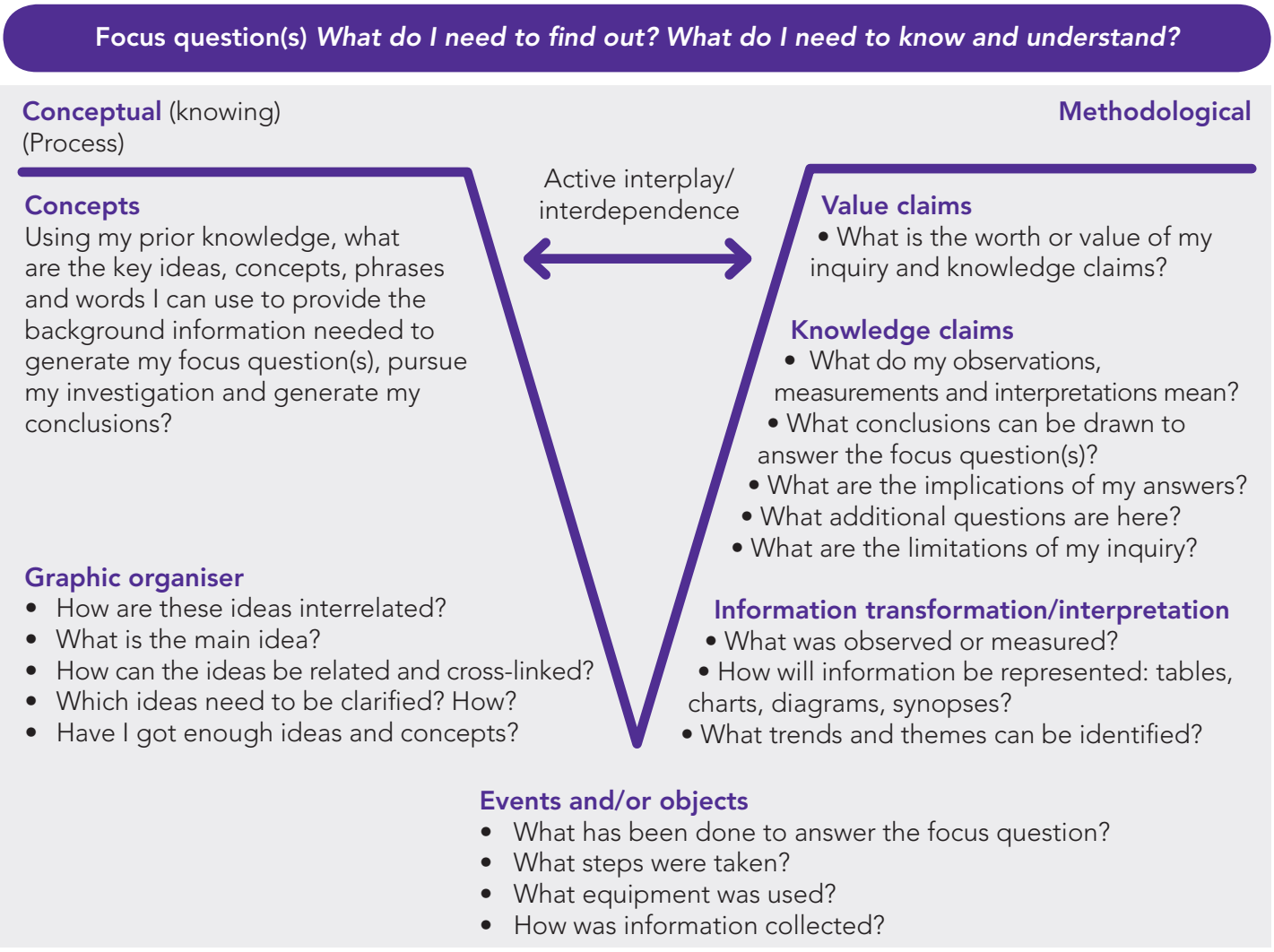
Vee diagrams are a useful tool to help students be more aware of what they are doing when they solve problems, and also learn from the activity to develop their confidence and capability as problem solvers. They were developed by D B Gowin, a biology professor at Cornell University.

The focus question at the top represents what the student is trying to find out. This question is directed to an event – for example, a laboratory experiment or solving a mathematics problem or comparing sources and texts – and the objects used in the event.

The left side of the Vee contains a list of concepts, ideas and relationships (conceptual structures) which might be useful to finding an answer to the problem.

The right side of the Vee begins with making records of events, including notes. The transformation and interpretation of these records may involve reorganising the records, for example by producing tables, charts, graphs and synopses, which enable the drawing of conclusions. This then leads to an answer to the focus question (knowledge claims) and a value claim – what is the worth of the knowledge claim or of the process that leads to that claim?

Note the crucial active interplay across the two sides of the Vee between conceptual structures and transformations/interpretations. This helps students to weave their ideas together to answer problems and produce coherent, reasoned answers.



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Stanmore College
Tendring Technology College, Frinton-on-Sea

About this publication

Who is it for?

This guidance is for people involved in planning and delivering A levels in schools and colleges.

What is it about?

This guidance is about the introduction of stretch and challenge and the new A* grade in revised A levels.

What is it for?

This guidance will help teachers build on their existing teaching and learning strategies, and support their delivery of the stretch and challenge and A* aspects of the revised A levels.

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Contact information:

Qualifications and Curriculum Development Agency
53-55 Butts Road, Earlsdon Park, Coventry CV1 3BH
Telephone 0300 303 3010
Textphone 0300 303 3012
Fax 0300 303 3014
Email info@qcda.gov.uk www.qcda.gov.uk