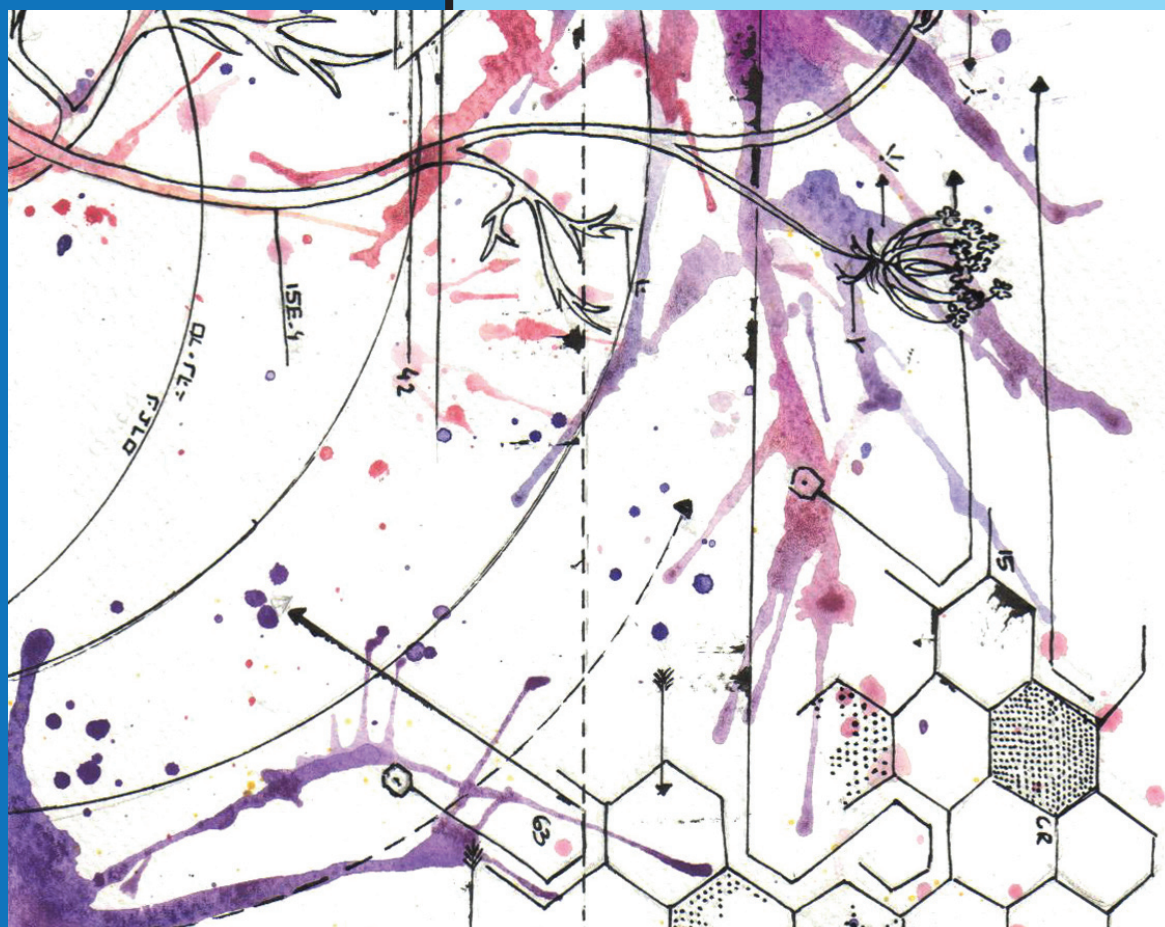




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Journal for the support
and development
of content and language
integrated learning
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Submit materials to the following e-mails: keithpkelly@yahoo.co.uk and elicit_bg@abv.bg

Font: Times New Roman, size 10 pt

Text length: 3 pages (about 5000 characters)

Begin with:

Topic

For which grade the material is

For what purpose the material is

How to use the material

Also send opinions, critics, etc.

Write author's name, position, e-mail

Cite sources in alphabetical order

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Welcome to the 15th Jubilee edition of the FACTWorld Journal!

It's a pleasure and a privilege to be able to sit down and write an opening message to this book to the FACTWorld network of teachers around the world all with an interest in CLIL.

The FACTWorld network began at a teacher training event in Knazhevo, Sofia in Bulgaria in 1999. That meeting of 30 teachers working through the medium of English and other languages went on to become the FACT group which met 5 or 6 times per year on a purely voluntary basis to discuss teaching and learning of curriculum subjects through the medium of a foreign language. The group also served as a instrument for colleagues to share and communicate with each other in a profession which rarely has opportunities for such meetings and discussion. We set up a website called 'factbg', which has since closed down. In its ashes sprung up factworld (www.factworld.info) which this year relauches on a new platform, tidier, not so cluttered, better organized. Along with Web space, we developed communication groups such as factworld@yahoo.com, and it is this group that now numbers over 3500 teachers around the world (... and still growing).

As this publication marks the 15th anniversary of FACTWorld and FACTWorld relauches, we have decided to continue to publish the FACTWorld journal twice yearly and ask colleagues to give a small donation to help cover printing costs. You will find instructions for writing and sending materials to the journal in this edition of the publication. So, send us your creations!

At the same time, FACTWorld meetings will begin again in Bulgaria for interested colleagues, and we know there are many! Again, these meetings will be on a voluntary and self-funded basis and you will be able to find information about upcoming meetings through our website and discussion group and other social media (FACTWorld in facebook, Twitter). You can also read about the events in the same places.

Lastly, we hope to go on to bring together FACTWorld teachers for international events such as conferences and training events. We'll be investigating funding and opportunities and will keep you all informed.

Watch this space!

With very best wishes,
Keith Kelly
Education Consultant
Spring 2015

CLIL for ELTs

Introduction and thanks

First of all the thanks, and please forgive me if you don't appear but you contributed, you know you're appreciated!

Thanks to John Clegg and Phil Ball for giving so much, not least getting to Ruse for the conference among trying circumstances! Thanks to the British Council and Macmillan for sponsoring John and Phil's and my own participation in the BETA Conference and pre-conference CLIL day which led to the writing of this book. Thanks to BETA for agreeing to run the pre-conference CLIL day and for their impeccable administration of the arrival and contributions of our visitors to the day and organization of the day itself. Thanks to you all, for believing in CLIL. It's where language learning really is!

CLIL for ELTs is two things.

Firstly, it is a bird's eye view of some of the contributions to the pre-conference CLIL day before the BETA Conference in Ruse, Bulgaria in April 2012. Secondly, it attempts to offer ideas and guidance to English language teachers with a desire to find out more about CLIL and dip their toes into its luke warm welcoming waters, before they decide whether or not to take a dive.

What you will find in these pages to help you decide are two chunks of things to read. The first section 'discussion' includes summaries of the main content and discussion of some of the talks at our pre-conference CLIL day and a second section offering CLIL resources which relate directly to the issues raised in the discussion.

In the discussion section 3, Phil gets us started in 3.1, as he did at the conference, with a discussion on CLIL as a new way looking at teaching language suggesting that we stop trying to teach the language so much as let it come from what we do with the language. In 3.2 we have a message from Dario Luis Banegas that the challenges presented by CLIL can be seen as opportunities, for example in contexts where there are no appropriate CLIL resources it is suggested to supplement the curriculum to suit local learning needs and demands and in turn enable teachers to become 'autonomous, less market-dependent, and developers of their own CLIL materials'. Jana Jilková in 3.3 gives us an overview of a national project namely Czech CLIL with much debate around the standard language expectations for teachers attempting to teach a content subject through the medium of a foreign language and asking to what extent the same expectations are placed or should be placed upon language teachers in terms of their content. Elka Goranova and Stefka Kitanova report back in 3.4 on CLIL lesson observation with some findings to do with transfer of skills between language and CLIL classes. In 3.5 Nina Tsvetkova asks for more CLIL for tertiary language preparation in her talk on the challenge of teaching specific terminology to university students. My own plenary is written up in 3.6 and offers ideas for setting up CLIL projects in the English classroom. Lastly, but never least, in 3.7 John rounds up discussion offering insights and advice into what CLIL can and does offer English language teachers.

My plenary discusses project work for language classrooms and takes examples from Science Across the World and in 4.1 readers are treated to a free pack from the Science Across programme (What did you eat?) as well as ideas on what to do with it and how to get good partnerships going with other schools using the programme. Additionally, in 4.2 there are two project units from John and myself which are offered for language teachers who are already paddling around in CLIL waters. We have also included a sample Your CLIL topic in 4.3 from Macmillan's onestopenglish website. You will find a key word and phrase list on 'root words' as well as a Geography lesson exemplifying this area on the topic of 'Agriculture' to help get some of you started! Finally, as if that wasn't enough, in 4.4 we have a sample of material for ELT CLIL from Phil and the Eleanitz Basque Multilingual Project where you will see ELT materials written specifically to teach language and skills students meet in the Social Science curriculum.

Enjoy!

Best wishes
Keith Kelly
02.07.12

Do you want your students to learn language? Then stop teaching it!

Phil Ball (ball.philip6@gmail.com)

The talk was based on the following notions concerning CLIL – basically that one of the problems with language teaching is that it often tries too hard to teach language. That may seem paradoxical, but it remains true that language teachers have struggled for decades to establish a valid basis for the *content* of their lessons. It has never been easy to find a satisfactory way to marry linguistic and conceptual/topical content.

Real content

The message was that CLIL, given the appropriate conditions, can enrich a language syllabus by introducing real reasons for using English. What do we mean by ‘real’? Well, subject teachers have a mass of content on their menus. Their problems are completely distinct, in that they need to often *reduce* the conceptual content that is inherent to their programmes, and if they are CLIL teachers, think more about the linguistic and procedural implications of their topics. This is what we call ‘hard CLIL’. However, the English teacher needs to approach CLIL from a different perspective – often called ‘soft CLIL’. It’s not a negative term! It’s simply the way that the terminology has developed.

The talk began with the anecdote of ‘*La Abuela del Montevideo*’ (the grandma of Montevideo) which described a story told to the speaker by a retired ex-English teacher in Uruguay whose grandson (7 years old) had run to her saying that he liked his English lessons. When questioned further by his grandma as to why, he replied ‘*Porque hacemos cosas*’ (because we do things). This proved to be a simple and powerful message, and the speaker has been relating the anecdote ever since. Why? Because the implications of the message were various:

- 1) What were the boy’s expectations before he began the course?
- 2) What were his friends doing in other schools? (not ‘things’, it would seem).
- 3) The boy had recognised, instinctively, that English was merely a vehicle. ‘Doing things’ was the most important aspect of the classes.
- 4) CLIL is about ‘doing things’. It’s not really about concepts, and it’s not really about language. It’s about skills – or better, competences.

One shouldn’t make too much of the boy’s innocent statement, of course. But it’s a good way to understand the main point of a talk with a title like this. The basis of language teaching has changed radically in the last decade, to the point where students are following to the letter the idea propagated by David Graddol where he wrote, that the central idea of learning English now is that of using it....

‘...in order to do something else’ (‘English Next’ 2006)

Language as vehicle

This is a radical shift in thinking to a more instrumental view of language teaching, but it has implications for our practice. CLIL seems to offer a methodological (and possibly ideological) menu that can enable language teachers to bring their practice more into

line with this tendency. To ignore the tendency may be brave, but one suspects possibly short-sighted.

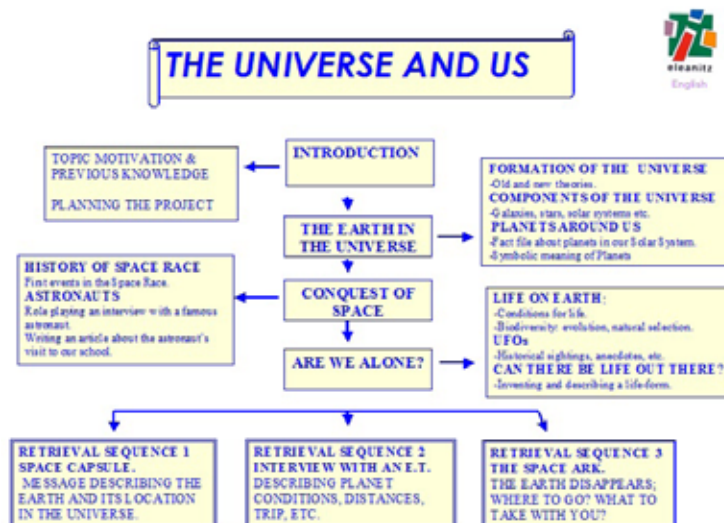


Figure 1 Textbook extract 1 (Subject Projects 2009)

The talk went on to develop the idea, first raised by The Bullock Report in 1975, that ‘all teachers are language teachers’ - the slogan of the LAC movement (language Across the Curriculum). This was changed to read ‘All language teachers are content teachers?’.

This is an equally interesting notion, since language teachers are not trained, in general, to consider ‘content’ as anything but the body of language that they are being paid to teach.

They are also paid to assess language objectives, not ‘content’ objectives. Are these problems insuperable?

Language objectives and CLIL objectives

Well of course not. But before the talk went on to consider this issue, it showed the basic differences between a language objective and a CLIL objective. The example used was a unit on ‘Global Warming’, a current obligatory chapter for any language textbook in Secondary. The unit proposes to ‘save the planet’ by working in groups of three and making proposals, as if the group were a presidential committee, passing advice to the president. He/she would then announce ‘*If I were to save the world I would...*’ using 2nd Conditional structures. At the end of the term, the teacher would test the student on the use of the 2nd Conditional, whose underlying objective the unit was.

In the CLIL version, the teacher’s objective is ‘To save the world’. To do this, among other things, the students require the 2nd Conditional, since without it they cannot express themselves (and therefore cannot save the world). At the end of term, they are assessed by their teacher on the efficacy of their proposals in relation to saving the planet.

You can see the difference. The language student has little interest in saving the world. What matters is the correct use of the language. Who cares about the planet, as long as he/she obtains 10/10 in the English exam, for filling in the gaps correctly?

It's different for the CLIL student. He/she uses the language as the means to save the planet. The student is judged on the content objective, not the linguistic one. This is what we mean by 'real' content. The student feels that the learning of a language is going to serve some real (or hypothetical) purpose. The objective makes sense.

The CLIL Trinity

The talk moved on to consider the 'trinity', less of a religious concept than a way of analysing the word *content*. The talk offered up an example of an English class that used a running- dictation to teach 12 year-olds the basic concepts inherent to our solar system. The content identified in the equation was broken up into *conceptual*, *procedural* and *linguistic* content (the trinity), whose conscious combination by the teacher provides the key to CLIL practice. It was argued that these three elements are always present in any class, in any task, in any activity, but that in CLIL the teacher and learners become more aware of how to balance them, and which to prioritise, at any given moment. The argument was that the process (procedure) often exceeds in importance the conceptual objective.

This is a crucial idea, because it shows that CLIL is not necessarily a 'dual focused' approach, as suggested by Marsh (1995) – meaning that it focuses on both content and language – but rather that it is a *singular* approach focused on skills and competences, for which concepts and language are merely the vehicles. The running dictation involved *speaking, reading, listening* and *writing*, and yet this was not a necessary means of teaching the objective. It's just that CLIL demands it, because teachers need to get across the concepts in other ways. Their methodological repertoire increases, the students benefit, and CLIL begins to work its magic.

Knowledge

The talk went on to examine the ideas of 'knowledge', and Biggs' idea that we need to move the students from the declarative to the functional, in other words to get them thinking. When they do, it seems they learn languages better.

Breakdown of content

The talk concluded by showing how conceptual/thematic content can be broken down into sequences, with its accompanying procedural and linguistic demands, in order to formulate units that can last for over two months in an English language syllabus. Examples were shown from the Basque Country, where the students in the 12-14 range study 'Subject Projects', a series of theme-based units which are centred on authentic content and demanding but motivating final production tasks. The conceptual sequencing in *Figure 1* and *Figure 2* is enormously different from the sort of content basis that one finds in language textbooks, where the content is brief and the procedures almost non-existent.

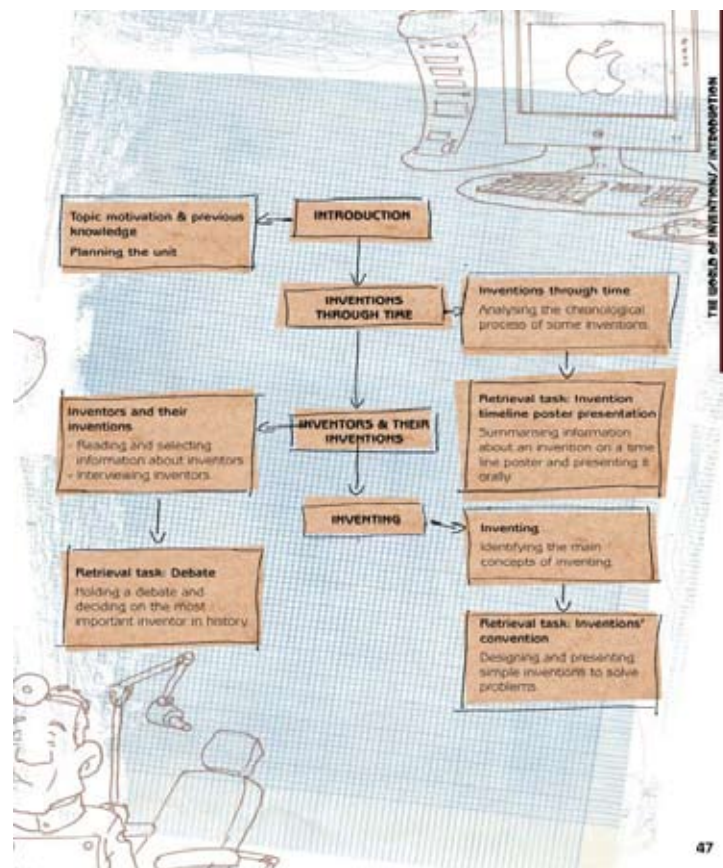


Figure 2 Textbook extract 2 (Subject Projects 2009)

In short, 'doing things' seems to work. Language teachers can incorporate more conceptual content, as long as they are aware of the 'trinity'. Stop teaching language, and start to use it for something. We might just save the world!

The Challenges of CLIL Implementation in EFL Contexts

Darío Luis Banegas (dariobanegas@hotmail.com)

When CLIL models are the result of top-down policies and curriculum initiatives, we need to accept that they carry benefits as well as challenges which may emerge from research interested in CLIL programme evaluation. Mehisto (2008) notes that one of the issues is the lack of knowledge stakeholders have as regards aims. In order for administrators to implement CLIL programmes and multiple models, there must be serious needs analysis (Butler, 2005; Ruiz-Garrido & Fortanet-Gómez, 2009) to be carried out before all actions actually begin. In my view, all models need to be inductively implemented as it may be the best way to ensure that implementations are the product of contextual conditions. Context-responsive CLIL pedagogies entail that stakeholders are aware of the conditions offered and required in each educational setting.

Lack of awareness or knowledge among administrators can also be found among those who are in charge of implementing CLIL: teachers. Teachers sometimes do not know what is expected from them especially when CLIL means putting content and language teachers working together. For instance, Mehisto (2008) found out that those CLIL classes which were only taught by content teachers featured second language support mostly through unnecessary translation. This also led to the discovery that teachers saw themselves as either content or language teachers, a view which affected team teaching or a full integration of components. This reticence was found even in teachers' unwillingness to incorporate materials coming from content or language classes. Overall, the author suggests that team teaching is one of the major drawbacks in CLIL (Coyle, Hood & Marsh, 2010; Mehisto, Marsh & Frigols, 2008; Yassin, Tek, Alimon, Baharom & Ying, 2010). What I put forward is that in those situations where team teaching is still expected, this may occur between EFL teachers by strengthening collaborative planning and materials development within the EFL teaching staff.

More teacher-related concerns are reported in Pena Díaz & Porto Requejo (2008) as part of a research project following the implementation of bilingual-CLIL programmes in 150 primary schools in Madrid. Results showed that teachers believed their practices could be enhanced should they develop a more proficient command of English. In other words, teachers may equate CLIL success to their own level of English and curricular content understanding. Surprisingly, given the fact that the participants in Pena Díaz and Porto Requejo (2008) lacked formal training on bilingual education methodologies, they considered they did not need that type of theoretical training. They expressed their reliance on working with content teachers and the practical knowledge, not defined in the article, of their subjects. Put simply, another concern which is recurrent across contexts is how to organise pre-service and in-service teacher education programmes which could also contemplate CLIL settings as possible sources of employment for future teachers.

Mehisto's (2008) article also includes a review of interviews with teachers who were asked about what factors helped achieve CLIL programme success. Among the factors mentioned, training opportunities, support by Immersion Centres, and teaching materials were ranked in that order as regards their central importance in CLIL programmes. Addressing such factors is paramount for quality assurance in CLIL

(Coyle, 2007) However, when school managers were interviewed, they admitted that these factors were rarely met. Such inaction caused distress as well as further resistance to innovation among teachers. This fact should remind us of what happens when implementations occur from the centre to the periphery where the implementers, that is, the teachers, are not fully equipped by adopters and suppliers. Nor is there development of CLIL teacher training programmes, content materials or instructional resources (Lyster & Ballinger, 2011). However, in Germany, a trend which could be imitated by other countries, universities have started to offer an additional CLIL teaching qualification (Vázquez, 2007).

With reference to materials, Ballman (1997) claims that publishers need to produce coursebooks which are related to learners' lives in their contexts. Nonetheless, this suggestion is incompatible with CLIL spirit as contents should match the context and curriculum of implementation and therefore I suspect that publishers, especially in this era of the global coursebook, may not be interested to localise their international coursebooks to match the national curricula in every setting. This would call for an extreme diversification which implies huge investment and little profits. It has also been suggested that teachers engaged in content-driven models may use textbooks for native speakers to teach subjects such as History. The drawback of these materials is that they will not match other curricula than that of the native student. It cannot be expected that a History book produced for British students could possibly respond to the Argentinian school curriculum for example. British History is studied by British students. Argentinian History is studied by Argentinian students.

This lack of CLIL materials implies greater workload for teachers. However, it is teachers in Argentina, Spain, or Bulgaria who truly know what their school curricula contain and therefore they are in the best position to develop curriculum-responsive materials which could supplement other international materials. What I observe is that this challenge is, in fact, an opportunity for teachers to become autonomous, less market-dependant, and developers of their own CLIL materials. I suggest that teachers may produce their own materials in collaboration even with their students to ensure that topics, sources, and activities are relevant and motivating in both students (Huang, 2011) and teachers' eyes and in response to the L1 curriculum.

Another cause of disjuncture among teachers is the issue of examinations (Serragiotto, 2007). While CLIL looks at, in theory, language and content holistically, national exams are solely focused on content, creating a fracture in the system. In other words, while the educational process has one set of aims, examinations are guided by a different agenda, as it were. With reference to this concern, to my knowledge, there are no research studies which investigate complete teaching and learning processes so as to see what principles and decisions are to be found in classrooms. The point I am advancing here is that there is a timely need to investigate classroom practices which evidence what teachers do from introducing new content and language topics until assessment is carried out and what materials scaffold these processes.

As Mehisto (2008) rightly claims above, stakeholders, especially school managers, must exercise a prominent role when CLIL is adopted as a result of a top-down process. In that case, one of the challenges which school managers are not ready to explore is faculty development which assists both subject and language teachers so that they collaboratively teach subject-matter they have not been initially trained for.

If this is not achieved, content teachers, who usually lack linguistic expertise, may tend to stress content and neglect both language learning and the language teacher (Kong, 2009; Creese, 2005). In these situations, a CLIL coordinator can act as a liaison among learners, parents and content and language teachers (Pavón, Vázquez & Rubio, 2010). I believe that a CBI-CLIL coordinator may be in charge of ensuring the proper balance in content and language supported by methodologies and materials which help construct this integration, especially when teachers may find it difficult to team teach.

All these challenges should not be seen as walls, but as possibilities for our own professional development and awareness of the practicalities of CLIL implementation.

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CLIL IN THE CZECH REPUBLIC

‘Ready for a challenge?’

Jana Jilková (jjilkova@gmail.com)

Jana gave us a brief summary of the general educational scene in the Czech Republic in which children begin compulsory education at 6 years of age, and go on to a system of grammar, technical and vocational schools at the post-15 stage. The first foreign language is learned at the age of 8, in 3rd Grade, usually English, but German is offered too.

With regard to CLIL, the state has decreed that teachers must possess an MEd and be at the C1 level, according to the Common European Framework of Reference. The speaker asked the audience to judge their own proficiency, in terms of possible CLIL teaching and whether or not we thought the demand of C1 to be excessive or correct.

Subject teachers are required to have C1, but language teachers are not required, it seems to demonstrate anything so far. Jana wondered whether they should also be required to be ‘C1’ in some form of subject content. There ensued some discussion about whether language teachers really understood the issues of CLIL, and the related issues of discourse, which are different from normal language teaching.

With this in mind, the Czech ministry had put in place an Action Plan between 2004 and 2006 (MSMT Action Plan) to raise teachers’ levels of the target language (Usually English) and also to help them with methodological issues related to CLIL.

The speaker’s own interest in CLIL stemmed from her research project about her own pupils’ feedback, in which she concluded that the best students tend to underestimate and underrate themselves with regard to their own attainment. However, she felt that CLIL enabled more students, with a greater range of abilities, to prove that they are ‘good at something’. She also speculated as to the possibility of the students feeling better about their defective English, since it was being used for a purpose, and was not the main focus of attention, as it were. She described language learning as a journey ‘from nothing to something’, and that CLIL helps the journey to take place.

She outlined the project that the Czech Republic is involved in, with NIDV, VUP and AMATE as partners. The participants’ ‘readiness is high’, and there are 468 teachers and 27 trainers involved. Jana herself teaches on the project. She also showed us a clip of a teacher working with 7th Grade students in a Physics class (in English). It looked very participative and lively.

She showed a Maths example from 7th grade which emphasized thinking skills, and others regarding time concepts and the topic of food. She suggested that if you are ‘CLIL-ing’ it is a mistake not to extend the curricular time devoted to it, because the extra procedural content means that more time is required, especially if we are to take advantage of the increased language opportunities that this offers.

She then discussed the theme of motivation, and whether it was controlled by a gene. This was a continuation of a discussion that had taken place at last year’s IATEFL. His moved on to a discussion of multilingual competences, and the potential of the multilingual brain.

To conclude, it seemed that the Czech system needs to expand its tertiary offer in CLIL, to allow students to use the CLIL skills gathered during the school stage. Unless this happens, the backwash effect might have a negative influence on the schools’ CLIL project.

How general is general English?

Elka Stavreva (elka.goranova@gmail.com), Stefka Kitanova (butsa13@abv.bg)

When talking about CLIL in Bulgaria, we often focus on our language high schools and the subjects taught through the foreign language there. Since this happens after a year of highly intensive target language preparation (i.e., 20 lessons per week), it is tempting to assume that students are proficient enough to cope with studying science in the foreign language. The question subject to discussion is if this is truly so. Is general English general enough to provide what CLIL aims to provide? And what implications would the answer to that question have regarding the ratio of attention paid to language and subject in the subject-in-a-foreign-language lessons?

A series of observations conducted in Biology in a foreign language lessons has shown that generally students do better in reading and writing than in listening and speaking, the latter being the most problematic skill. During the lessons, students focused mainly, but not entirely on the subject matter – language support was abundant and linguistic errors were corrected on the spot. All four major skills were employed and there was a constant communication and feedback between the teacher and the students. Unfamiliar words were visualized, explained in the foreign language, or associated with related words students were familiar with, which surprisingly proved to be difficult to the students (L1 \leftrightarrow L2 transfer). In an interview, the teacher admitted that the transfer of knowledge and skills from one context to another, e.g. from general language to CLIL lessons, seemed to be the greatest difficulty of students. This again leads to the same question – how general is general English in practice? On the other side of the coin would be the issue of how CLIL improves students' language competence. This is very important in the discussion that communication is more important than accuracy.

The personal experience of the participants was used as a starting point for discussion which grew into a bowl full of food for thought, sprinkled with possible answers to some of the questions. It is possible that we ended up with more questions than answers, particularly as a result of the variety of faces CLIL seems to have.

English or Specific Content: The Challenge of Teaching “Terminology” to University Students

Nikolina Tsvetkova, PhD, Sofia University, Faculty of Philosophy, (nina.tsvetkova@gmail.com)

A feature of modern tertiary bachelor and master programmes for non-philology students at Bulgarian universities are courses in “English (or-a.n.other-language) Terminology”. It is hardly surprising that such courses are used to attract students as this is seen as a way to prepare future specialists in a particular field to operate in a professional environment in a foreign language. The main aims of such courses can be summarised in the following way: to enable students to

- understand, analyse and discuss information from various sources in English or another foreign language (through a visual or auditory channel)
- communicate successfully in English or another foreign language in a professional environment (orally and in written).

However, the reality is that Terminology courses are delivered over a limited number of contact hours (most often 30 per semester) which makes this task very difficult given the constraints: extremely mixed ability groups in terms of language proficiency; student motivation levels; expectations ranging from “I want to study about the English verb tenses” to “I want to cover all topics on the other subject syllabi in English”; common practise to offer students lists of specialised vocabulary or to translate long, complex specialised texts (challenging in terms of syntax and style); a great demand on the teacher who has to be well aware of other subject syllabi, of the central ideas, issues, terms as well as certain scientific trends in the particular field.

The focus here is teaching Terminology (in English) to European Projects Master students at Sofia University, faculty of Philosophy, and so I would like to discuss in brief two possible approaches to teaching English to such audiences: ESP/EAP and CLIL. According to Hutchinson and Waters (1987) ESP is an approach to teaching English which has a very clear focus on the learner and his/her needs which originated as a result of three main factors – “the expansion of demand for English to suit particular needs, developments in the field of linguistics and educational psychology” (Hutchinson & Waters, 1987: 8). The same authors underline that ESP is not separate from ELT but one of its branches which can be further differentiated (Hutchinson & Waters, 1987: 18). EAP (English for Academic Purposes) is seen as a sub-branch of ESP together with EOP (English for Occupational Purposes) for the main branches of ESP (Hutchinson & Waters: 1987). Jordan supports that EAP can be viewed as “those communication skills in English which are required for study purposes in formal educational settings” (1997: 1). EOP, on the other hand, can be associated with the knowledge and skills in English needed for a person to operate successfully in a professional context and has developed in a way similar to EAP (Dudley-Evans & St John (1997: 28). In short, ESP has had a relatively long and well-documented history of development and a list of theoretical and practical achievements in a variety of settings, including university ones. Another, relatively newer, approach to teaching a language is CLIL (Content and Language Integrated Learning) which “involves teaching a curricular subject through the medium of a language other than that normally used” “The key issue is that the learner is gaining new knowledge about the 'non-language' subject while encountering, using and learning the foreign language. The methodologies and approaches used are often linked to the subject area with the content leading the activities. Thanks to its effectiveness and ability to motivate learners, CLIL is put forward as an important approach to learning languages and supporting linguistic diversity in Europe by the European Commission in a number of important EU documents. Mainly related to secondary school education, and as a result to the extensive research in the integrated content and language teaching, a number of procedures have been established to be efficient. CILT: The national Centre for Languages in the UK says a successful CLIL lesson should be based on the following principles: 1. Content - progression in knowledge, skills and understanding related to specific elements of a defined curriculum; 2. Communication - using language to learn - whilst

learning to use language. The key is interaction, NOT reaction; 3. Cognition - developing thinking skills which link concept formation (abstract and concrete), understanding and language; 4. Culture - exposure to alternative perspectives and shared understandings, which deepen awareness of otherness and self (http://www.cilt.org.uk/secondary/14-19/intensive_and_immersion/clil/principles_of_teaching.aspx). The same principles are pertinent to language learning at a tertiary level, especially to the needs of a terminology course. In short, to be able to achieve the aims of such a course, a teacher could try to combine the ESP and the CLIL approaches in the delivery of a certain subject-specific content in English.

Such an attempt has been made with *Web 2.0 ERC course "European Dimensions"* for EU Projects Master students. The course has a distance format and is delivered as a follow up to a face-to-face delivered one. It contains four modules – Module One: *European structural Funds*, Module Two: *Going European*, Module Three: *Recent events – my project idea* and Module Four: *The EU made simple* – and is based on the 4 CLIL principles mentioned above and on the Pedagogy 2.0 Framework (Connolly et al. 2011) which guides the design of a sequence of online activities integrating use of Web 2.0 tool for collaboration and collective development of content for a particular context.

In the examples from the course below it is evident that the content creates meaningful context thus allowing students to communicate in English.

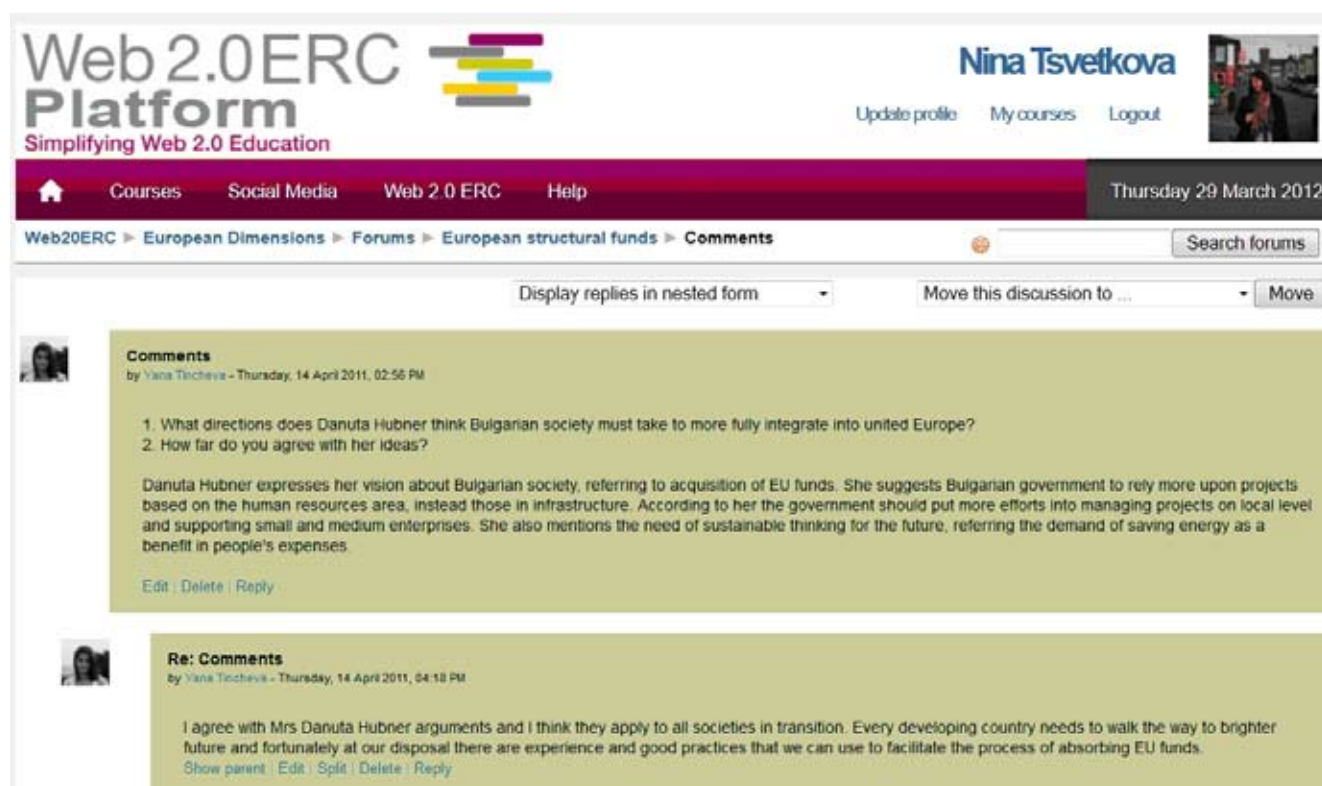


Fig. 1: The discussion forum of Module One based on a video interview with an EU politician.

The course has been trialled with 51 students and the results can be considered encouraging and used for further research into the application of CLIL in a tertiary setting. The clear focus of each module and the logical sequence of activities which allow students to develop their subject-specific knowledge and skills together with their English language skills. The tasks have a clear and unambiguous communicative purpose and they are structured in a way that scaffolds students' individual performance as well as their interaction and can be considered beneficial to the development of their overall written communication skills.

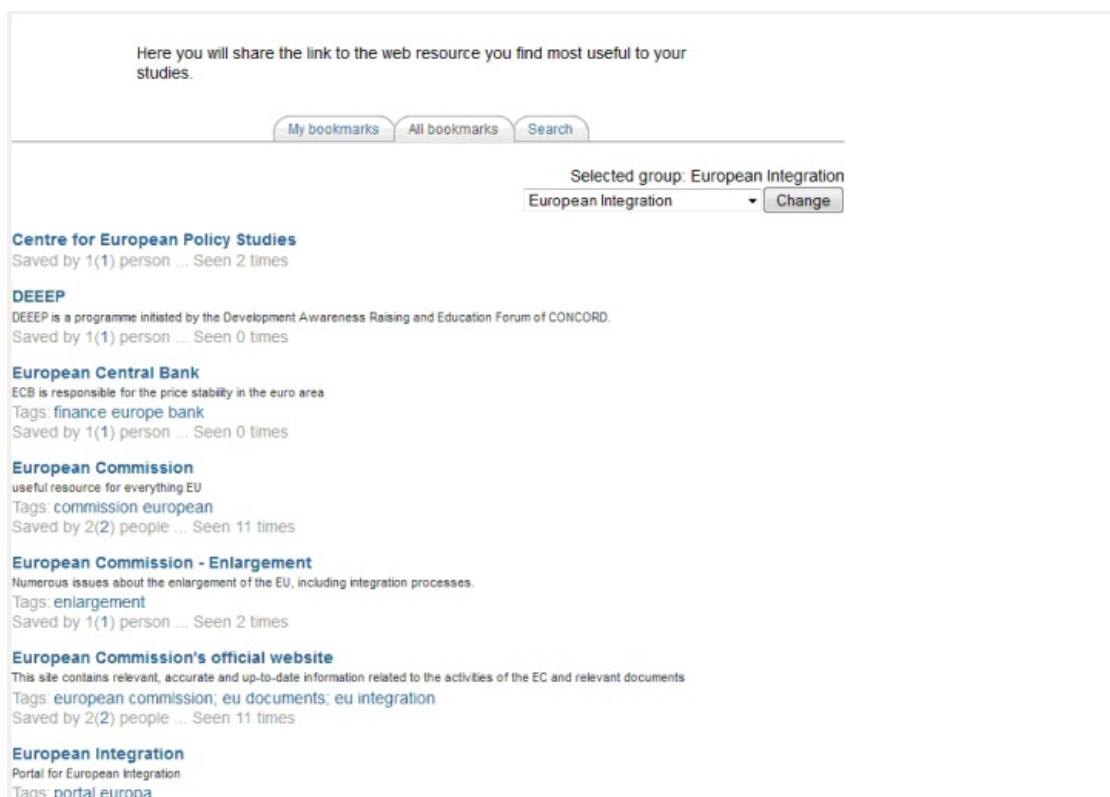


Fig. 2: Part of the social bookmark collection for Module Two – students share links to important EU-related websites and provide a brief justification of why they consider them such.

The following questions about the challenges of CLIL were raised in the follow-up discussion. The different level of content knowledge, language fluency, and various types of motivation along with suitable learning materials which can be used at university level and the lack of systematic large-scale research at the tertiary can be seen as detrimental to applying CLIL in terminology classes. However, it is suggested that a careful study of the achievements of CLIL at secondary level, the investigation into different cases of good CLIL practices and the involvement of students in generating learning content as well as the opportunities for school and university teachers to exchange ideas and practical solutions on a regular basis should be a way to successful exploitation of the benefits of CLIL across education levels and sector

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- Promoting Language Learning and Linguistic Diversity: An Action Plan 2004 – 2006* (2003). European Commission.

Websites:

- http://ec.europa.eu/languages/language-teaching/content-and-language-integrated-learning_en.htm
- http://www.cilt.org.uk/secondary/14-19/intensive_and_immersion/clil/principles_of_teaching.aspx

CLIL Projects for ELTs

Keith Kelly (keithpkelly@yahoo.co.uk)

There are any number of reasons why teachers get involved in work outside the textbook with their students. This talk looked at some of the reasons and some of the ideas teachers find when they peep above and beyond the pages of their textbooks.

- Cross-curricular opportunities

It is very true that teachers have little time to do anything but what they are expected to do – teach their subject. We need to look at how we can alleviate some of the load teachers have to carry or are expected to carry when asked to innovate in their classrooms and bring the rest of the curriculum into their language lessons.

Two suggestions can be made. Firstly, teachers need to have access to projects and resources which have already been tried and tested and which are readily available to use with very little effort on the part of a newcomer teacher. Secondly, teachers need, by default, to be able to connect with their peers. This means that teachers need to be joined to networks of same subject, like-minded colleagues seeking similar shared input, suggestions and ideas.

Projects and resources

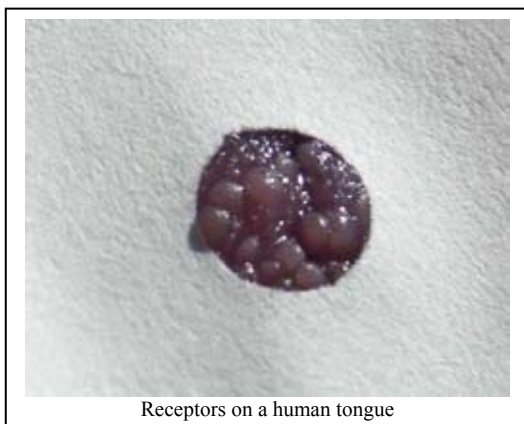
The biggest resource-based exchange programme on the internet for the last two decades has been and still is Science Across the World (¹). This programme is a bank of resources for general Science projects. It offers a global network of contacts for carrying cross-curricular exchange projects with schools in other countries. It is internet-based and exploits ICT for cross-curricular learning.

Example topics from the Science Across the World programme have included Road Safety; Genetics; Food and Drink.

The road safety project has students examining their reaction speeds with a simple speed test to be carried out in the classroom. The test is a group survey which then lends itself to graphical representation in order to be sent to partner classrooms around the world for comparison.



Bulgarian students doing a speed test



Receptors on a human tongue

In the genetics topic students examine local social issues of genetic science as well as gain an understanding of genetic heredity and variety. Countries differ widely in legislation concerning genetic modification and one of the aims of this project is to find out about food labelling, news items, as well as government policy on genetic science and food production. Additionally, students consider visible aspects of their own genetic identity, record their findings and exchange these with partner schools in other countries.

An example of the information gathered for exchange in the genetics topic is measuring the numbers of papillae on the tongues of students to count the numbers of low tasters, medium tasters and supertasters in their classes. While surveying may be a common activity in many subjects, this topic area comes from the biology curriculum. What then is the interest for the language classroom?



Doing the taster test

The language of heredity

Naming parts of the face
Eyes, nose, ears, earlobes, eyebrows, hair, chin, cheeks

Describing facial features
S/He has / has got
Her/His ... is/are ...
(brown, green, blue, blond, red, grey)
(round, thin, fat, long, short, flat, curly, straight, spiky, wavy)

Describing inherited characteristics
He gets his ... from his ...
She gets her ... from her ...
He looks like his ...
She looks like her ...
He takes after his ... with his
She takes after her ... with her
He has inherited his mother's ...
She has inherited her mother's ...

S/He has (got)	(a)	(adjective)	face
Her/His ...	ears	long	nose
He/she gets his/her	eyes	brown	hair
	nose		blue
	hair colour	is/are ...	green
		from his/her	curly
			mother
			father
			grandmother
			grandfather

The real challenge for the language teacher is having the opportunity, knowing about the content, the activity and the skills involved, since we can clearly see the relevance for the lexis and syntax of the language learning curriculum in the image here.

Another very popular project topic is 'What did you eat?' which focuses learners' attention on food and drink habits. Here, students examine data on diet and disease, consider and record data on their own eating habits for exchange with partner schools.

Finding exciting and meaningful projects for our language learners to engage in is not that difficult. More challenging is finding good partner classes to work with and make the project work an 'exchange' and therefore a focus for communication.

Food and drink diary

Food and Drink Diary

Part 1: What did I eat and drink?

Part 2: What did I eat and drink?

Part 3: What did I eat and drink?

8th Class Eating Habits

What did you eat?

What did you drink?

What did you eat and drink?

Working on the Science Across the World project 'What did you eat?'

The medium of exchange is another factor for motivation since it is essentially how students communicate with their audience. The image above shows students working on two exchange media. The first is a poster of the results of their 'What did you eat?' class survey and the second is a 3-page newsletter collating the poster and various other data on the group's eating and drinking habits.

Networking

Communication motivating innovation can happen not only between learner exchange groups, but also between collaborating teachers. Unfortunately, the relative isolation of teachers at the chalkface does not help promote interschool teacher collaboration. Though there are numerous networking opportunities available for teachers, good working exchange partners can be very difficult to find. From personal experience of over 15 years of working with in-service teacher training groups all over the world, the general impression of this writer is that

teachers do not systematically use professional electronic forums or communities when it is precisely in these groups that teachers can find motivation for innovative approaches in their work. At the time of writing, the Forum for Across the Curriculum Teaching ⁽²⁾ has over 3400 teachers globally and all with an interest in cross-curricular teaching. While it is a substantial and thriving group of teachers, its growth has relied on two factors. Firstly, teacher meetings have been a stimulus for joining the FACTWorld community, and others. Secondly, colleagues join up via word of mouth. What is needed is a mechanism in schools which systematizes such membership for it is only with being subscribed to the group that colleagues have the *opportunity* to get involved in the innovative activities shared and discussed in the communities. In short, the responsibility for getting colleagues signed up to electronic communities rests squarely with senior colleagues, department heads and managers since they are more likely to be aware and informed of the existence of such groups. The opposite, where colleagues are left to random access to these groups, means that the risk of isolation will continue.

ELTeCS, The English Language Teaching Contacts Scheme ⁽³⁾, is a global network of regionally organized sub-groups with a population of over 20,000 teachers worldwide where colleagues can find out about all manner of activity from conference to classroom level. BEP ⁽⁴⁾ or The Bilingual Education Platform, much the work of one person is a clearinghouse of news and events for bilingual and multilingual educational activity around the world. The CLIL Cascade Network ⁽⁵⁾ is a site which posts information about EU courses for integrating language and content. Your colleagues may have their own networks, perhaps even country-specific ones, subject-specific ones. Whatever networks teachers are in, keeping connected is the name of the game where innovation is concerned.

- Cross-curricular visions

How often do your colleagues get the chance to 'show-case' what they do, or to see the excellent work of other teachers and students? How frequently do colleagues get to talk with other teachers about their work, and share ideas about fantastic learning opportunities? A part of motivating colleagues to bring the curriculum into their language classroom involves being informed about what is going on in other parts of the curriculum, in the rest of the 'world' of the curriculum.

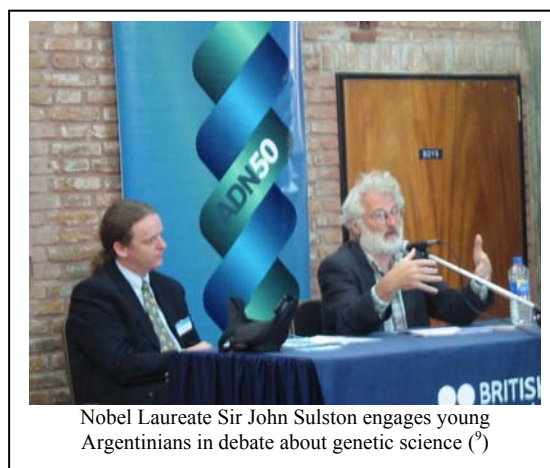
There are more places to find 'fantastic learning opportunities' than is possible to describe here. Suffice to say that once a school manager or senior colleagues begins to collect and share the information which is available, the process of encouraging and implementing innovation will have begun. Educational activity discussion groups like 'BIG', The British Interactive Group ⁽⁶⁾, with their website and discussion group dedicated to promoting discussion about innovation and excitement in education in Science, Technology, Engineering and Maths are an example of this process in action.



Chinese youngsters building solar powered toys ⁽⁷⁾



Educational and Campaign Exhibitions such as Zero Carbon City, Space UK and DNA50 are examples of exhibitions which lend themselves to add-on activities with learners through the medium of the English language.



The Young Ambassadors of Chemistry project which has young people interact with the public to engage them with Science and learning and brings Science into the public domain in a meaningful and exciting way. The last event in this genre under the auspices of the International Year of Chemistry was the Global Stamp Competition ⁽¹⁰⁾ and had young people the world over designing a stamp which integrates culture and chemistry. First prize of \$500 went to a young innovator in Bulgaria.



Schools linking projects

There are a number of opportunities for school partnerships in Europe through EU, and other, institutions and many countries have their own organizations for helping schools set up such links. One additional problem despite this, is finding the schools themselves. While the systems are there,

the willing institutions, schools and people are more difficult to identify. Where schools do not have existing partnerships in place with schools in other countries, investing time and effort in finding the right partners is essential to successful curriculum exchange projects.

The networks mentioned above are a good place to start to look for partners and it is worth casting the net as widely as possible in order to have the best chance of finding good partners. Where a school has a culture for school partnerships, there is likely to be a teacher experienced in managing such links, a good step for schools to take is to train younger colleagues to take up the role at a later stage. In the same way, schools should be encouraged to find projects to join where there are experienced partners and so this experience can be

passed on through the project itself. Again, there is a clear role here for school managers and senior teachers to think strategically about this issue and plan for identifying partners and participants, as well as coordinating curriculum links. The vast majority of postings to the FACTWorld email group at the time of writing concerns school linking partnerships and this reflects the growing desire for schools in Europe to find partners and access EU funding to develop their curriculum linking projects.

- Cross-curricular expectations

Teachers need to know what is expected of them. If we expect teachers to integrate their classrooms with the rest of the curriculum, this assumes that a plan is in place for integrating the curriculum which teachers can follow. Such a plan will highlight not only language, but also skills and concepts and how they overlap and connect throughout the curriculum. This idea suggests a good deal of effective cross-curricular coordination *before* we get teachers on board and bringing the curriculum into their language classrooms. At the moment, too many teachers are not expected to link what they do with the rest of the curriculum.

Furthermore, teachers should be accredited for what they do to integrate their language lessons with the curriculum at large. It entails work above and beyond the job description, and so they should be rewarded, plainly and openly for this effort. This may not necessarily mean financial reward, but at the very least any long-term ELT curriculum development integrating ELT with other subjects should involve time allocation for teachers working on this development.

Additionally, a dimension of curriculum integration which is not readily explicit is that language classrooms become places where cross-curricular projects are carried out by default. This aspect of the challenge of curriculum integration needs to be made explicit, and explicit to the extent that cross-curricular project work is documented in curriculum guidelines for teachers to follow. Outside the documentation of curriculum innovation, there also needs to be formalization of people interaction and coordination and this means that department meeting and discussion time be allocated to working on curriculum integration. Curriculum innovation in ELT needs openly to be on the agenda.

Lastly, but by no means least, teachers should be discouraged from taking on cross-curricular innovation and development single-handedly. Although, there may be high emotion and some success, in the long term there is a strong risk of burn-out and failure for the teacher involved.

Links and references (last accessed on 12.07.2012):

- (1) www.scienceacross.org (See section 3.6 for a free pack - What did you eat?)
- (2) <http://groups.yahoo.com/group/factworld/>
- (3) <http://www.teachingenglish.org.uk/eltecs>
- (4) <http://www.bepnetwork.com/>
- (5) <http://www.ccn-clil.eu/>
- (6) <http://www.big.uk.com/> and big-chat@yahoogroups.com
- (7) http://www.factworld.info/china/zcc_beij/ZCC%20Report1.pdf
- (8) <http://www.makeitmolecular.com>
- (9) <http://factworld.info/argentina/dna/index.htm>
- (10) http://www.factworld.info/bulgaria/IYC_Stamp_11/index.htm
- (11) <http://www.factworld.info/germany/space/index.htm>

English teachers in CLIL programmes: acquiring new skills

John Clegg (jclegg@lineone.net)

1. Introduction

English teachers have important roles to play in CLIL projects. They have skills and knowledge which are needed by subject teachers and learners working in a second language (L2). Learners need their English language skills improving, and so do some subject teachers. Subject teachers also need some of the language teaching skills which language teachers have, to make their subject lessons understandable by learners with limited L2 ability. However, in many CLIL projects, language teachers have no role or limited roles and CLIL project managers may be unsure of how they can use them. In some projects, language teachers may be unconfident about their own ability to work with the language of subjects. Their training has normally nothing to do with L2-medium subject learning and very few training opportunities exist to prepare language teachers to work in CLIL projects. The potential roles of language teachers in CLIL and the skills they need to carry them out are not well described. In this presentation, I will outline some of these roles and skills. We will focus a lot on the twin concepts of language demands analysis and language support in subject lessons. We will also look at the altered view of language which language teachers in CLIL projects need. Finally we will outline whole-school policy for CLIL projects and the contribution which language teachers can make to that.

2. Some roles which English teachers can play in CLIL projects

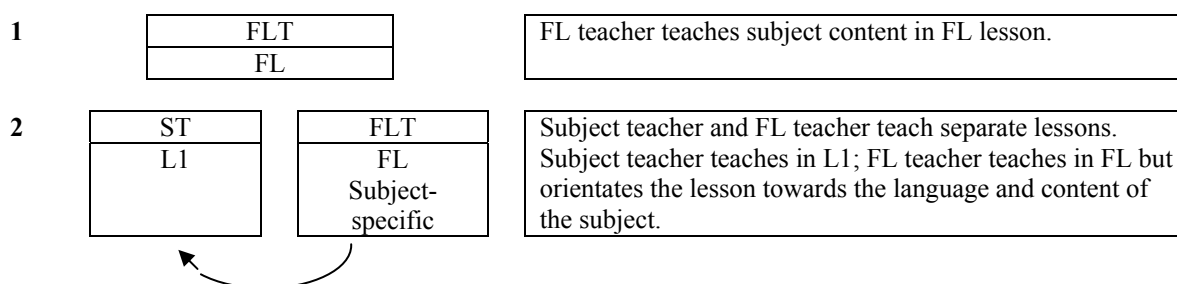
Figure 1 outlines some of the roles which language teachers can play in CLIL projects. Before we discuss them, it is important – as always in CLIL – to define what CLIL is. It is many things to many people. Here I will mention three different types of curricular activity which people sometimes call CLIL.

- Language teachers import subject contents into conventional language teaching. This is content-related or content-based language teaching. It is sometimes called CLIL, but I prefer not to give it that name.
- Subject teachers and language teachers collaborate to teach subjects to learners in L2. This often happens – though by no means always – in contexts in which subject teachers may not feel competent enough to teach the subject in L2 on their own. In some of these hybrid versions of CLIL, only part of a subject (say 1 of 3 hours per week) may be taught in L2, and for only a limited period (say 20 weeks). The main purpose of such projects is often to increase the foreign language (FL) ability of learners and I refer to them therefore as FL-led projects.
- Subject teachers teach the whole of the subject curriculum for some time (say 1 to 3 or more years) in L2. While an important purpose of these projects is to increase the FL ability of learners, their primary focus is to achieve good levels of subject knowledge; if they do not deliver this, they will normally close. I refer to these as subject-led projects.

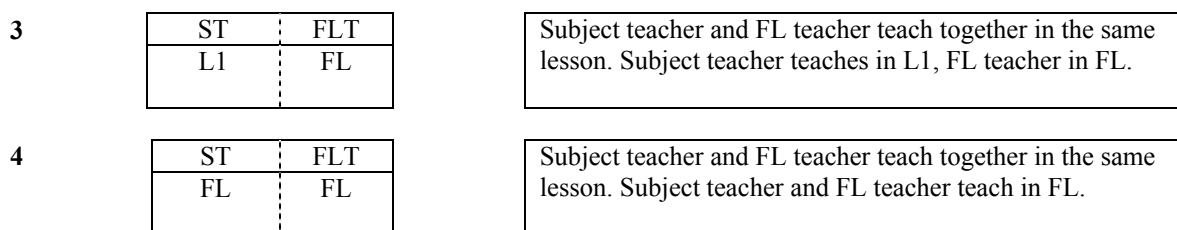
Figure 1: CLIL: structure of collaboration between subject and language teachers

Key: FL: foreign language
ST: subject teacher
FLT: foreign language teacher
LSRW: listening, speaking, reading, writing

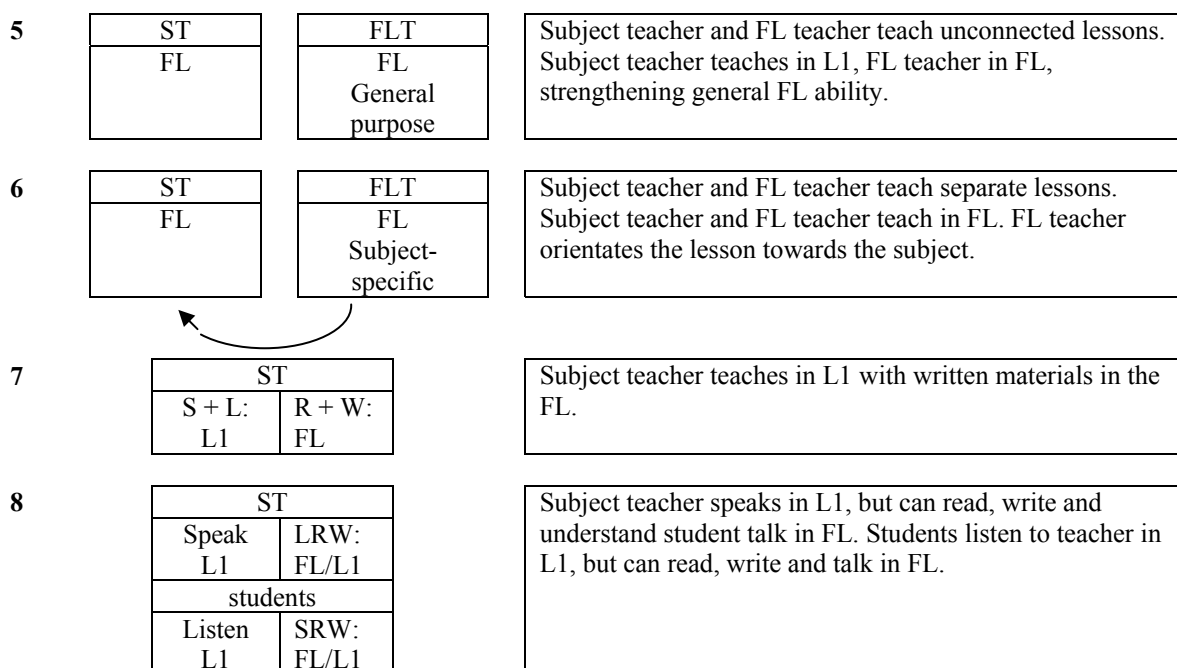
Normally seen in FL-led projects



Seen in subject-led or FL-led projects



Normally seen in subject-led projects



9

ST
FL

Subject teacher teaches alone in the FL.

Adapted from Clegg (2003)

Notes on the types of teaching activity

1. This is conventional content-based language teaching, conducted by the language teacher without reference to a subject teacher.
2. In this form of collaborative CLIL, the subject teacher teaches in L1, because s/he has not sufficient L2 competence, and the language teacher teaches subject contents in L2, according to the subject syllabus followed by the subject teacher.
3. Language and subject teachers teach cooperatively in the same lesson, with the subject teachers teaching part of the lesson in L1 and the language teacher going over the material in L2.
4. Language and subject teachers teach cooperatively in the same lesson, with both teachers teaching in L2, the language teacher helping learners with the language of the subject.
5. The subject teacher teaches in L2. The language teacher teaches a course of extra English, but of a general-purpose kind unrelated to the subject and involving little collaboration between the teachers.
6. The subject teacher teaches in L2. The language teacher teaches a course of extra English, related to the subject and involving a good deal of collaboration between the teachers.
7. The subject teacher and learners talk in L1, with written materials in the FL.
8. The subject teacher teaches in L1, but the learners talk, read and write in L2. This occurs when the teacher is not confident in oral English, but does understand it, while learners are sufficiently fluent.
9. The subject teacher teaches in English. This is by far the most common form of CLIL in schools in which levels of learner and teacher English are sufficiently high to learn and teach the subject effectively – and often takes place in countries where societal levels of English language ability are high.

3. Teaching language

Language teachers can of course help CLIL programmes by simply doing their job – teaching language. Many CLIL programmes require learners to have a specified level of L2 ability before using it as a medium for learning subjects. To reach that level, they may need language booster courses, which language teachers will provide (see Figure 1 No 5). These are normally general-purpose courses which language teachers are qualified to offer. However, language teachers can also offer courses which are intended to teach learners some of the language which they need within L2-medium subject lessons (see Figure 1 No 6). These courses are tailored, to a degree, to the language demands of the subject and require some collaboration with the subject teacher. They do not normally teach subject-specific language, which is the specialist domain of the subject teacher. They do, however, teach general academic language (see section 7) which is not common in social intercourse, but frequent in the language of learning across the school curriculum. Language teachers may have more difficulty teaching these courses than general-purpose courses and, partly as a consequence, they are not common. The difficulty is twofold: firstly, language teachers are not trained to teach the language of school learning. Secondly, it is difficult to find materials for such courses – outside for example the literature on language for academic purposes which is normally aimed at the tertiary sector; this kind of language is also not well described – it is even difficult to find sources of language description, for example word lists and lists of

cognitive functions (see section 7 and Appendix). General academic language, however, does need teaching and it can be done by language teachers, perhaps better than by subject teachers.

4. Working with subject teachers on subject teaching

Language teachers can collaborate with subject teachers working in L2. We can see this in items 2-8 (with the possible exception of 5) in Figure 1. They can also collaborate with them in other ways outside the classroom. This kind of liaison takes time. It is often unpaid, which is both morally unacceptable and in the longer term unsustainable. The better schools provide for it with time on the teachers' timetables, say 1 hour per week. Collaboration takes place, for example, with the following focuses.

- Language teachers observe subject lessons: this is useful occasionally if the language teacher needs to get an idea either of the subject, the subject language, the subject teacher's language ability, or the subject teacher's teaching style in L2 etc.
- Subject and language teachers co-plan CLIL subject syllabuses.
- Subject and language teachers co-plan individual CLIL subject lessons to be taught by the subject teacher; the language teacher's advice on the language of the lesson and on the types of language-supportive subject activity (see section 6 and Figure 7) are useful.
- Subject and language teachers co-prepare CLIL subject materials.
- Subject and language teachers co-assess CLIL subject programmes; this is important if the assessment assesses language as well as subject ability.

Language teachers may also carry out other roles within CLIL projects. They may manage the project, especially if they have had a key role in setting it up. They may similarly evaluate the project. They may also run language improvement courses outside teaching hours for subject teachers.

5. Finding out about subjects and lessons

The crucial thing which language teachers in CLIL projects have to do is to learn new skills. These skills have largely to do with:


- analysing the language demands of subject lessons
- providing language support in subject lessons
- learning the language of subjects and subject learning

a) Analysing the language demands of subject lessons

Language teachers are trained to teach the language of social interaction and literature. They are not trained to teach the language of subjects and subject learning. This kind of language is often new to them and I look at it in some detail in section 7. Language teachers in CLIL projects often have to become familiar with this language and to lose any fear they might understandably have of engaging with subjects and subject language which they may not immediately understand. Most language teachers working in CLIL or other L2-medium forms of subject teaching such as immersion or minority education find after initial worries that they can function well as lay persons within the subject.

To show what the language of subjects and subject learning looks like, we will look at a subject lesson in chemistry (see Figure 2). In doing so will use the two key pedagogical

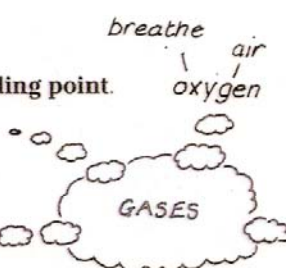
Figure 2: A chemistry lesson



What a gas!

Gases are all around you.
 The air you are breathing is a gas.
 Gases fill any space they are put into.
 Gases are made when liquids boil.

LIQUID $\xrightarrow{\text{boils}}$ GAS
 $\xleftarrow{\text{condenses}}$



Gases

- hydrogen
- oxygen
- air
- nitrogen
- carbon dioxide
- chlorine
- helium
- neon
- ozone
- carbon monoxide

The temperature when a liquid boils is called the **boiling point**.

► Some gases are listed in the box opposite.
 What do you know about them?
 Make a patterned note to show your ideas.
 You could start like this:

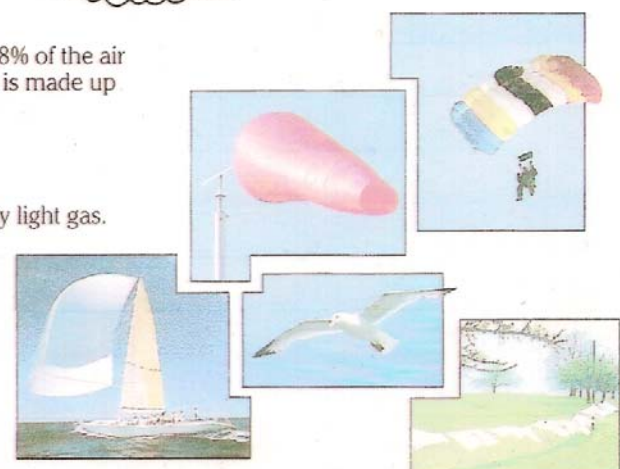
Ask your teacher for books if you need help.

Two important gases make up most of the air. About 78% of the air is **nitrogen**. About 21% is **oxygen**. The rest of the air is made up of other gases such as carbon dioxide and helium.

Gases are much lighter than solids and liquids.
 Different gases have different masses.
 Nitrogen is slightly lighter than oxygen. Helium is a very light gas.
 Carbon dioxide is a heavy gas.

Where is the air?

► You cannot see the gases in the air.
 How do you know the air is all around you?
 Discuss this in your group.
 Use these photographs to help you with your ideas.



Where is the air?


Does air expand when it is warm?

Predict what you think will happen in this experiment.

Take a flask fitted with a stopper and a glass tube.
 Run cold water on to the outside for 3 minutes.

Put the glass tube into a beaker of water.
 Warm the outside of the flask with your hands.

Now try the experiment.
 Explain what you see.



procedures which are at the heart of CLIL: the analysis of the language demands of subject lessons and the provision, on the basis of this analysis, of language support for the learning of subject contents. Neither of these procedures is normally familiar either to language or subject teachers: and while language teachers have an advantage in that they understand about language and language teaching, they normally have no experience in applying this knowledge to the learning of subjects in L2 in these specific ways. To work in CLIL projects, they will have to grasp these two central CLIL concepts.

Language demands analysis refers to what the subject teacher (or language teacher if working in a supportive role) has to do before teaching a lesson in L2. The lesson will make language demands on the learners – different demands on different learners. In other words, to learn the subject matter – in L2 as in L1 – the learners have to engage in the specific language skills and deploy the specific knowledge of language which the subject matter and the subject learning activities require. If they can do this, they can learn the subject; if not, they can't, or more commonly they learn it slowly and ineffectively – the danger which many CLIL lessons face. If subject teachers don't perform this analysis, however superficially, they will not foresee the language problems which their learners will have with the lesson and which will thus prevent them from learning.

Language support is the other side of the coin of language demands analysis. It describes the pedagogical strategies which the subject teacher uses – on the basis of his/her analysis of potential language problems – to help learners compensate for gaps in their language knowledge. It prevents the cognitive overload which is often characteristic of CLIL lessons, when learners have to learn new concepts using new language. It does this by reducing the amount of new language to be used, or by supporting learners in their use of new language, or sometimes (but hopefully not often) by reducing the cognitive demands of new subject matter.

Figure 3 shows an analysis of the language demands of this lesson. Columns 1 and 2 show what the teacher and the learners do in the lesson. Column 3 shows the form of interaction (plenary, group/pairwork or individual), column 4 the language in which learners and teachers prefer to operate and column 5 the main language demands made by the lesson on learners – in terms of vocabulary, grammar, function or discourse. Vocabulary is a key demand when learners are listening to the teacher, grammar far less so. Grammar becomes important when learners need to talk or write and thus attend to the accuracy of sentence construction. Discourse becomes important when learners have to deal with text, for example when reading or formulating a written description of what they have done.

In this lesson, vocabulary demands are subject-specific, such as the vocabulary of gases or words like *stopper* and *flask*; or general academic words such as *contain*, *make up*, *fill*, *space*, *explain* etc. Grammatical demands are made when learners have to respond orally to teacher questions or write up the experiment and have to produce such sentences as:

Air contains oxygen
The air is carrying the parachute
The air in the flask will expand
The air in the flask expanded

Functional demands are made when learners have to express specific thinking skills, such as predicting (e.g. *We think the air in the flask will expand*). Discourse demands are made when

Figure 3: Language demands of a science lesson

Key: BB = board

The teacher...	The students...	Interaction	Language choice	Language demands
Introduces the topic	Listen, respond	plenary	L2	vocabulary

Spidergram

Monitors spidergram work	Make a spidergram Talk to each other	groups	L1	vocabulary
Puts spidergrams on BB	Describe spidergrams listen, respond	plenary	L2	vocabulary grammar

Air question

Introduces 'air' question	Listen, respond	plenary	L2	vocabulary
Monitors	Discuss the 'air' question	plenary	L2	vocabulary grammar

Experiment: prediction

Introduces experiment	Listen, respond	plenary	L2	vocabulary
Monitors	Predict the experiment	groups	L1	vocabulary
Gets SS to report predictions	Report predictions	plenary	L2	vocabulary grammar function

Experiment: execution

Monitors	Do the experiment Talk to each other	groups	L1	vocabulary
Gets SS to report results	Report results Listen, respond	plenary	L2	vocabulary grammar function
Draws conclusions	Listen, respond	plenary	L2	vocabulary

Writing up

Monitors writing	Write	groups individual	L2	vocabulary grammar discourse
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learners have to focus on the structure of texts, such as when the teacher lists the sequence of what they have to do in the experiment or when they write short paragraphs about what they have done (see the writing frame in Figure 5).

Developing a view of language support in subject lessons

The point of analysing language demands is to be able to provide linguistic and cognitive support. Thus Figure 4 shows in column 5 the forms of support which the teacher provides to help learners deal with the language demands in each section of the lesson. Figure 5 gives examples of some of these forms of support. Forms of support in general are described in more detail in section 6 and Figure 6. Language teachers are often familiar with these forms of support – though not with all of them. What they are not familiar with is applying them to the learning of subjects. Language teachers who become skilled at analysing the language demands of lessons and providing language support, are ultimately able to do it both quickly and accurately.

Figure 4: language support in a science lesson

Key: BB = board

The teacher...	The students...	Inter-action	Language choice	Language support
Introduces the topic	Listen, respond	plenary	L2	T-talk; T highlights vocab. in talk and on BB

Spidergram

Monitors spidergram work	Make a spidergram Talk to each other	groups	L1	Vocabulary on BB
Puts spidergrams on BB	Describe spidergrams listen, respond	plenary	L2	Prompts vocabulary and grammar

Air question

Introduces 'air' question	Listen, respond	plenary	L2	T-talk; T highlights vocab. in talk and on BB
Monitors	Discuss the 'air' question	plenary	L2	Prompts vocabulary and grammar

Experiment: prediction

Introduces experiment	Listen, respond	plenary	L2	T-talk; T highlights instructions, puts vocabulary on BB
Monitors	Predict the experiment	groups	L1	Prompts vocabulary and grammar
Helps SS to report predictions	Report predictions	plenary	L2	Sentence starters

Experiment: execution

Monitors	Do the experiment Talk to each other	groups	L1	Vocabulary on BB
Helps SS to report results	Report results Listen, respond	plenary	L2	Sentence starters
Draws conclusions	Listen, respond	plenary	L2	Vocabulary on BB

Writing up

Monitors writing	Write	groups individual	L2	Writing frame
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Figure 5: language support tasks in Figure 4**Sentence starters:****For predicting**

We think the hands will...
 We think the water in the beaker will...
 We think the air in the flask will...
 We think we will see...

For reporting

The hands...
 The water in the beaker...
 The air in the flask...
 We saw...

A writing Frame:**Describe the experiment****Apparatus**

We used...

Procedure

We ran...
 Then we put...
 We warmed...

Results

We saw...

Conclusion

This shows that...

These words will help you

flask, bubble, expand, beaker,
 stopper, tube, warm

6. Sources of language support in subject classrooms

The main ways in which teachers provide support in the subject classroom are firstly through the way they talk and secondly through the language support tasks they provide either on the board or on handouts. Figure 6 lists ways in which teachers help learners to understand them by using a highly accessible form of teacher talk – including supporting their talk with visuals – and by prompting them to respond to their questions in the plenary classroom.

Figure 6: Language support through teacher talk

When working from the front of the class, help learners understand using the following strategies:

a) Be clear

- Number topics
We're going to do 3 things
Firstly we're going to...
Secondly...
- Summarise
OK what have we done?
We've...
- Use short, simple sentences
Chlorophyll is a chemical in leaves. It turns sunlight into sugar
Plants use the sugar as food
- Repeat
OK? Chlorophyll is a green chemical
You find it in leaves.
- Paraphrase
It turns sunlight into sugar
It makes sunlight into sugar
OK? chlorophyll helps sunlight become sugar

b) Use supports

- Use a diagram, chart on the board, on ppt etc
Look at this diagram of digestion
It shows the main organs
You can see the oesophagus, the stomach, the small intestine, the large intestine...

c) Put key words on the board

- *oesophagus, intestine*

d) Help learners respond

- Ask short-answer questions
What is the first part of a food chain? (a plant)
What do we call an animal that eats only plants (herbivore)
- Prompt (help the students answer)
Enzymes in the stomach break up...(proteins)
- Ask long-answer questions and, if necessary, prompt
What happens in the small intestine?
The blood absorbs...(nutrients)
- Ask a student to respond in L1 (but if you do this regularly, learners may expect it and stop responding in English)
Say it in ...

d) Check that learners understand

- Check they understand
Do you understand?
Christina do you understand?
- Ask for an L1 translation of a word
What is 'oesophagus' in ...?
- Say a sentence in L1 when you think learners don't understand (but if you do this regularly, learners may expect it and stop listening to your English)

Figure 7 lists common language support tasks which can be applied to teaching subjects in L2. Language teachers are often familiar with many of these task types, but not with applying them to subject learning in L1. Subject teachers need to be able to use some of these tasks themselves, but will need to learn them from language teachers, which requires collaboration (see Figure 1).

Figure 7: Language support through task design

Tasks for supporting reading and listening

- Fill gaps in a text
- Match, e.g. word with definition, picture with sentence, sentence beginnings and endings
- Fill in a chart, e.g. tree-diagram, matrix, flow-chart
- Pictures/diagrams/maps: Read/listen and draw/label
- Read/listen and make notes (linear, spidergram, etc)
- Sequence: pictures, sentences, words in sentence
- Sort cards: Classify, sequence, match, etc
- Texts: Mark (e.g.: underline, box, colour-code, etc)

Tasks for supporting talking and writing

- Use a list of words/phrases
- Complete sentences using sentence starters
- Writing frame: Headings, sentence starters, etc
- Use pictures/diagrams/maps as support for writing/talk
- Use a substitution table
- Finish an incomplete text

7. The language teacher's view of language

Language teachers working in L2-medium subject teaching need to be aware of the language of subjects and subject learning. One can divide this language crudely into that which is specific to the subject, and low-frequency, on the one hand and that which is general in its use across the subject curriculum, and high frequency, on the other. Subject-specific language often takes the form of very specific vocabulary items; it is known and understood by subject teachers: they recognise it and teach it explicitly. Language teachers are less familiar with it and may not understand it well. Examples from Figure 2 are the names of gases and words such as *stopper, flask* etc. General academic language takes the form of phrases which signal thinking processes, vocabulary, specific grammatical formulations and discourse markers. This language is very frequent in subject learning and not very specific to subjects. It is, however, less well understood and often not taught by subject teachers. Language teachers are well placed to teach it – as is common for example in language teaching for academic purposes at tertiary level – but school FL teachers are not familiar with it. In this section we will look at some examples of general academic language.

Figure 8 shows key language functions – or thinking processes – which are required of native-speaker candidates for a public mathematics examination at age 18 in the UK.

Figure 8: Thinking processes in mathematics

Using and applying mathematics: the investigative process and its assessment

When students are working on the investigative coursework, teachers are advised to make the students aware of the need to:

- Show that they understand the problem, with teacher help
- Try some sensible simple and special cases
- Clearly record any observations or strategies
- Use appropriate methods to record results or data
- State any conjectures and ways of testing or justifying
- Make generalisations, preferably expressed in symbolic form, particularly at the high levels
- Explain the reasoning behind these generalisations
- Make appropriate justifications
- Examine and explain any results
- Try to offer proofs

While these thinking processes are shown in relation to mathematics, they are nevertheless used across subjects. One might ask whether these native speaker learners know the forms of words which we use to signal these thinking processes. They may well not. L2 users may be even less familiar with them and someone must teach them. A list of school thinking processes is given in the Appendix. Language teachers are unlikely to be familiar with the language of these processes; but if they work in CLIL programmes, they will have to acquaint themselves with them. They can include them in any language teaching they do which supports a subject programme, or they can help the subject teacher teach them.

Figure 9 shows examples of general academic language in the form of phrases for broad academic concepts which occur across the curriculum – in this case ‘increase’. Broad concepts such as this are extremely commonly used across the subject curriculum, but subject teachers are unlikely to be very aware of them.

Figure 9: Broad academic concepts: e.g. ‘Increase’

Quality of increase

rise go up increase	slowly gradually fast sharply suddenly considerably a lot very much dramatically
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Increase in time

.....	is rising is going up is increasing	currently now at present
	has risen has gone up has increased	since 1800 for 200 years
	rose went up increased	in 1800 before 1800
	will rise will go up will increase	in the next...years/months after 2004 in 2004

Increase in amount

...has risen	a lot very much considerably a great deal enormously
--------------	--

	little a little slightly
--	--------------------------------

Figure 10 also shows vocabulary in the form of high-frequency academic words. This is a list of the 150 most widely used academic words used by a group of academics which David Corson (1997) surveyed in North American universities. None of them is subject-specific. A similar list of words could be compiled for secondary school subject learning, showing the most common words which learners need to use in subject learning. The key features of these kinds of academic vocabulary in Figures 8-10 are that all learners need them to learn subjects, but teachers – either subject or language teachers – teach them either in L1 or L2. In L2-medium subject teaching, language teachers need to take some responsibility for this vocabulary.

Figure 11 shows examples of the grammar of sentences in academic discourse, indicating how formal academic grammar can position vocabulary at different places in the sentence. Learners need to write such sentences in L2-medium science lessons. Science teachers working in L2 are normally not competent to help them do this. Language teachers, because they teach grammar, are; but they may not know about the specific ways in which sentences in writing about subjects tend to be constructed. This is also something which they will need to find out about. Finally Figure 12 shows a list of common discourse markers which learners learning subjects in English need to be familiar with when following discourse organisation in subject textbooks and teacher-talk, and in constructing their own texts in speaking and writing. Language teachers can normally teach these items, and in CLIL programmes they will find that they need to focus even more on them.

8. Language learning strategies

Language teachers sometimes (not always) know about language learning strategies. Learners need these strategies in particular when learning subjects in L2. They need, for example, to:

- develop vocabulary within the subject
- follow new subject concepts in listening/reading
- plan and execute a piece of writing about the subject in L2
- work in groups
- research a topic
- use the internet
- monitor their own progress within the subject

Learners in CLIL programmes need to be good at using strategies. This is partly because they have a lot to do in the L2-medium subject classroom, learning new language as well as new concepts, and need the extra degree of learning efficiency which good strategy use can offer. It is also because they are on their own: subject teachers do not tend to know about language learning strategies and learners have to be good autonomous users of them. Language teachers, however, can teach these strategies in the language classroom, with a view to their learners taking them with them into the L2-medium subject classroom. This also requires a degree of collaboration with the subject teacher.

Figure 10: University word list

accelerate	dimension	minimum	structure
achieve	distinct	modify	subsequent
adjacent	distort	negative	suffice
affect	element	notion	sum
alternative	emphasize	obtain	summary
analyze	empirical	obvious	technique
approach	ensure	occur	technology
approximate	entity	passive	tense
arbitrary	environment	period	theory
assert	equate	perspective	trace
assess	equivalent	pertinent	tradition
assign	establish	phase	transmit
assume	evaluate	phenomena	ultimate
authorize	evident	portion	undergo
automatic	expand	potential	usage
chapter	expose	precede	valid
compensate	external	precise	vary
complex	feasible	presume	verbal
complicate	fluctuate	prime	verify
comply	focus	principle	vertical
component	formulate	proceed	
comprehend	function	publish	
conceive	generate	pursue	
concentrate	guarantee	random	
concept	hypothesis	range	
conclude	identify	react	
consequent	ignore	region	
consist	illustrate	require	
constant	impact	respective	
construct	implicit	restrict	
consult	imply	reverse	
context	indicate	role	
contrast	individual	section	
contribute	inhibit	segment	
convert	initial	select	
create	innovation	sequence	
criterion	intense	series	
crucial	interpret	shift	
data	intuitive	signify	
define	involve	similar	
definite	isolate	simultaneous	
demonstrate	magnetic	sophisticated	
denote	magnitude	species	
derive	major	specify	
design	manipulate	stable	
devise	mathematics	statistic	
devote	method	status	

Figure 11: Grammar in academic discourse

Vocabulary in the subject and object noun phrase

(Describing outer shell and reactivity relationships in science)

The noble gases These elements The halogens Alkali metals	are reactive / unreactive have similar properties	because their atoms have	full outer electron shells. just one reaction short of a full outer shell. 7 electrons in the outer shell. 1 electron in the outer shell.
A full outer electron shell One reaction short of a full outer shell	makes an atom	unreactive / reactive.	


Vocabulary in the verb and adverb phrase

(Describing reactivity processes in science)

Lithium Sodium Potassium Hydrogen	react(s) float(s) melt(s) burn(s) catch(es) fire	only very slowly with much less vigorously with most easily with violently with quickly in	water iron chlorine	to give	(hydrogen) and an (alkaline solution). a (bright) flame.
--	---	--	---------------------------	---------	---

(with acknowledgements to Keith Kelly)

Figure 12: Discourse markers in academic text

Language template 11a	
Key connecting words or phrases	
 <p>Consider which of these connectives (words that signpost the direction of a discussion/piece of writing) are fundamental to expression within your subject area. These need to be taught and students need to practise speaking then writing them.</p>	
<p>When comparing – for differences</p> <ul style="list-style-type: none"> <input type="checkbox"/> in contrast/alternatively <input type="checkbox"/> compared with <input type="checkbox"/> in comparison with <input type="checkbox"/> is different from <input type="checkbox"/> on the other hand/instead of <input type="checkbox"/> yet the other <input type="checkbox"/> however/otherwise <input type="checkbox"/> whereas/unlike <p>– for similarities</p> <ul style="list-style-type: none"> <input type="checkbox"/> is similar to <input type="checkbox"/> similarly <input type="checkbox"/> like/likewise <input type="checkbox"/> equally <input type="checkbox"/> in similar manner <input type="checkbox"/> as with <input type="checkbox"/> moreover <input type="checkbox"/> just as <input type="checkbox"/> in the same way 	<p>When adding to a point</p> <ul style="list-style-type: none"> <input type="checkbox"/> in addition <input type="checkbox"/> furthermore <input type="checkbox"/> besides <input type="checkbox"/> also <input type="checkbox"/> still/anyway <input type="checkbox"/> and, in addition <input type="checkbox"/> and/but, furthermore <input type="checkbox"/> and/but, besides <input type="checkbox"/> but also/but still/but anyway <input type="checkbox"/> too <p>When signalling contradiction</p> <ul style="list-style-type: none"> <input type="checkbox"/> on the other hand <input type="checkbox"/> alternatively <input type="checkbox"/> a counter-argument is <input type="checkbox"/> from a different perspective <input type="checkbox"/> from a different point of view
<p>When signalling cause and effect (causal)</p> <ul style="list-style-type: none"> <input type="checkbox"/> therefore/thus <input type="checkbox"/> as a result/owing to <input type="checkbox"/> because/thanks to <input type="checkbox"/> consequently/so <p>When introducing evidence and examples</p> <ul style="list-style-type: none"> <input type="checkbox"/> for example <input type="checkbox"/> as illustrated by <input type="checkbox"/> in the case of <input type="checkbox"/> for instance <input type="checkbox"/> such as/as shown by 	<p>Connectives relating to time (temporal)</p> <ul style="list-style-type: none"> <input type="checkbox"/> at first <input type="checkbox"/> until <input type="checkbox"/> at length <input type="checkbox"/> meanwhile <input type="checkbox"/> up to that time/point <input type="checkbox"/> from that point/time onwards <input type="checkbox"/> in the interim <input type="checkbox"/> later on <input type="checkbox"/> eventually <input type="checkbox"/> finally
<p>When changing direction/qualifying</p> <ul style="list-style-type: none"> <input type="checkbox"/> despite <input type="checkbox"/> although/nevertheless <input type="checkbox"/> even so <input type="checkbox"/> however <input type="checkbox"/> unless/except <input type="checkbox"/> if/yet <input type="checkbox"/> as long as/apart from 	<p>When signalling emphasis</p> <ul style="list-style-type: none"> <input type="checkbox"/> most of all <input type="checkbox"/> least of all <input type="checkbox"/> most importantly <input type="checkbox"/> above all <input type="checkbox"/> especially <input type="checkbox"/> significantly <input type="checkbox"/> in particular

9. School CLIL Policy

Finally language teachers in CLIL programmes need to learn to operate not only outside their subject but also outside the classroom. They need to become familiar with working within the framework of whole-school policy. CLIL programmes tend to involve whole-school thinking. School managements are involved in allowing and encouraging CLIL programmes; parents are involved in the medium of instruction which their children and how it might affect achievement; the school as an institution might be involved in school-wide considerations such as entry conditions to the programme, materials purchasing, equitable assessment strategies and teacher professional development. Language teachers, as we have seen, may be particularly active in extra-classroom liaison activities with subject teachers. All this constitutes school CLIL policy and may take language teachers outside the boundaries of their classroom towards co-managing programmes at a whole-school level. Contributing to CLIL programmes can thus give language teachers a new lease of life, taking them into new adventures in subject classrooms, giving them a new view of language and involving them in matters which affect the school community as a whole. Many language teachers find this broadens their horizon and refreshes their career.

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Appendix: Language for thinking

This list contains language for expressing thinking processes which secondary age learners are required to engage in in lessons. Each category is divided into question which teachers ask learners, and statements. Some of the items are too formal to use with young children: they are in italics.

1. Defining

Teacher questions

What is a...?

Give me definition of a...

How would you define a...?

Who can define/give me a definition of...?

Can anyone give me a definition of...?

What do we call this?

What is the name/(technical) term for this?

Statements

(A)	is a	(generic term) place person thing concept entity device instrument tool etc	where who which that
				for	...-ing ...

... is called/said to be ...
The term/name for this is...
We call this...

2. Classifying

Teacher questions

How would you classify...?
How many kinds of ...are there?
Who can classify...?

Statements

There are	three	kinds types forms classes categories	of	
.....	fall		into	three	kinds types classes categories
	can be	divided classified			

We/you/one can classify ... according to ...criteria
This class has...characteristics/features

3. Illustrating/Exemplifying

Teacher questions

What is an example of this?
Give me an example (of this)?
Who can give me an example (of this)?

Statements

Let's take an example
Let me give you an example
One example of this is...

For example
For instance

4. Contrasting

Teacher questions

In what way/how is ...different from ...?
How does ...differ from...?
How can one/we/you distinguish ...from...?
What is the difference between... and ...?

Statements

...	is	unlike different from	...	in that insofar as	...
One can distinguish		... from		in ... respect(s).	(Firstly, etc)

...although... (subordinate clauses)
...though... (ditto)
...whereas... (main clauses)
... but.... (ditto)

However
But
Nevertheless
On the one hand, on the other hand

It is true that... Nevertheless...
Admittedly... Nevertheless

5. Comparing

Teacher questions

In what way is ...similar to...?
What similarities are there/can you see between...and ...?
Can you see any similarities between ... and ...?
Is... like/unlike/the same as...?

Statements

...is like/the same as ... (in that/in so far as.../because...)
...is similar to... (in that/in...)
...and ...are similar/the same (in that/in so far as.../because...)

6. Giving reasons

Teacher questions

Why?
Why does/did...?
Who can tell me why...?
What is/was the reason for that?
Give me a reason for that
What will/would happen if...happens/happened?

Statements

This is/was because...
The reason for this is that...
There are three reasons for this.

This is/was due to...
This is/was the cause of...
This causes/caused ...

If...happens, (then) ... will happen.
When...happens, (then)... will happen.
Because...happens, then ...will happen.
This means that...will happen.

So
Therefore
Thus
For this reason
That is why

7. Predicting

Teacher questions

What will happen...?
What do you think will happen?
What is going to happen?

Statements

I predict/think that ... will happen.
... will happen.

If...happens, (then) ... will happen.
When...happens, (then)... will happen.
Because...happens, then ...will happen.
This means that...will happen.

... will not happen, unless ...happens.
... will not happen, if ... does not happen

8. Summarising

Teacher questions

Who can summarise (what we have said)?
What have we said/learned?
What are the main points we have made?

Statements

So what we have said is...
So let's summarise/sum up
Let me summarise/sum up
So...
So you see...
So, we have said...
The main points we have made are...

9. Hypothesising

Teacher questions

What will happen, if ...happens?
What would happen if...happened?

What could/might happen, if ...happened?
What would have happened, if ...had happened?

Statements

If ...happens, ...will happen (future, certain)
If... happens, ... may/might/could happen (future, possible)
If ...happened, ...would happen (future, possible)
If ...had happened, ...would have happened (past, speculative)
Unless ... happens, ...will not happen.
If... does not happen, ...will not happen.
Assuming...happened, ...would happen.
Imagine (you are/there is...etc)

10. Time sequence/process

Teacher questions

What happened/happens?
What happened/happens then?
And then/after that...?
When does/did...happen?

Statements

First
Then, after that, next
The next day/week/month/year etc
Eventually
Finally
In the end
At last

11. Listing

Teacher questions

How many...?
What comes first/next?
Another/next point?

Statements

I want to make three points.
There are three reasons/types/etc ...

Firstly, secondly, thirdly, fourthly...finally/lastly
First, second, third, fourth...finally/last

12. Adding

Teacher questions

What else?
And...?

Statements

Moreover
Furthermore
In addition
Besides that

And...
And another thing...

13. Apposition

Teacher questions

What's another way of saying/putting...?
Give me another way of saying/putting...
How else can we say/express this?

Statements

Let me/let's say/put this another way
Another way of saying/putting this is...

In other words
Namely

14. Drawing conclusions/deducing

Teacher questions

What can we/you/one conclude/learn from this?
What do we/you conclude/learn from this?
What conclusions can we draw from this?
What does this mean?
So?

Statements

If...is (the case), what must ...be/do etc?
If this was (the case), what must...have been/done etc?

I/we conclude from this that...
I/we/one can conclude...
One can draw (two) conclusions from this... (Firstly,...)

If ...is (the case), ...must be ...
If...was (the case),...must have been ...
If...is not (the case), ...cannot/can't be...
If ... was not (the case), ...cannot/can't have been...

Science Across the World - An Introduction

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I first became thoughtful about content in my language classroom when I was introduced to the Science Across the World programme (www.scienceacross.org) in the mid 90s of the last century. Even though it feels like a century ago now, it certainly changed the way I look at language teaching and, though I do say it myself, has ever since helped me keep my language classroom up to date with what goes on the rest of the content curriculum for my students.

Science Across the World is not just about Science as it sounds in the title, it is about communication between young people the world over about their lives. The programme has young people investigate their daily lives on a local basis in their homes and communities, on a national basis within the country where they live, and on an international level by exchanging and communicating with partner schools around the world studying the same project topic.

The Science topics are all very accessible to language teachers, and if you focus on the 'communication' as the name of the game, you can always find a way around the science that you don't feel totally comfortable with. In any case, it gives a perfect opportunity to teachers to work together with the Chemistry or other subject teacher dealing with any deep content issues you come across and the language teacher taking care of the communication.

What did you eat? has always been, as far as I know, the most popular exchange topic in the programme around the world. It is for this reason that we offer it in full here with kind permission from Marianne Cutler and colleagues at the Association for Science Education in the UK, the parent organization and now adopted home of the resources.

Over the next few pages you will find four things to do with 'What did you eat?':

- 1) Teacher's notes
- 2) Students' pages
- 3) Information sheets
- 4) Exchange form

It is always important to point out when talking about this wonderful programme to teachers that as well as 'what to do' (this makes me think of Phil Ball's anecdote '*La Abuela del Montevideo*'), you also need 'someone to do it with'. If you have a good partner school, that is a place to start and get them involved in a Science Across the World exchange. You may also have your own electronic networks where you can appeal for a partner. If you don't, try <http://groups.yahoo.com/group/factworld/> where you will find 3400 teachers all interested in CLIL and many interested in Science Across the World and curriculum exchange projects.

Additionally, browse through the history pages of FACTWorld (the Forum for Across the Curriculum Teaching - www.factworld.info) where you will find a host of examples, tips and support for carrying out your Science Across the World exchange with your class and another somewhere else on the planet!

SCIENCE ACROSS THE WORLD

What did you eat?

Date

To
(teacher's name)

School

Address

Telephone
(with international dialling code)

Fax

E-Mail

Web address of school

From
(teacher's name)

School

Address

Telephone
(with international dialling code)

Fax

E-Mail

Web address of school

Time of day	Activities	Meals/Snacks eaten
04.00		
05.00		
06.00		
07.00		
08.00		
09.00		
10.00		
11.00		
12.00		
13.00		
14.00		
15.00		
16.00		
17.00		
18.00		
19.00		
20.00		
21.00		
22.00		
23.00		
24.00		

1 Breakfast

- a For breakfast most students eat:
- b We think that eating a good breakfast before going to school is: important/not important because:

2 Eating habits

- a The sort of snacks and sweets we eat during the day are:
- b The arrangements for meals during the school day are:
- c The people who choose and prepare our food are:
- d Traditional beliefs about diet in our country are:
- e The ways in which eating habits are changing are:

3 Diet and health

a We think that most members of our class eat:

☐ a balanced diet

☐ too much salt

☐ enough dietary fibre

☐ too much sugar

☐ enough fruit and vegetables

☐ too much fat

b Suggestions for improving our diet are:

c Our main concerns about diet and health are:

PART 6 INFORMATION SECTION

Diet and disease

Certain diseases, such as coronary heart disease, breast cancer and bowel cancer are more common in some countries than in others. It is thought that some of these diseases may be linked to diet. Below is some information about them.

Obesity

People who weigh 20% more than the ideal are overweight. They have a shorter life expectancy and are more likely to suffer from diseases that include heart disease, diabetes, gallstone, high blood pressure, arthritis and varicose veins.

Some people put on weight easily. The reasons are not understood. They do not necessarily eat more than other people, but they eat more than they need and lay down the excess as fat.

Tooth decay

Tooth decay (dental caries) has been linked to diets high in sugars. Your mouth contains bacteria that break down sugars to make acids. Acids attack tooth enamel, making it more porous. Tooth decay begins as the enamel wears away.

Heart disease

Death rates from coronary heart disease are often higher in countries where people eat diets high in 'saturated' fats such as butter, red meat, milk and cheese (see figure 2). A high fat diet can raise the level of cholesterol, a fat-like substance in the blood. Your body needs cholesterol, but when it collects on the inside of blood vessels you have a greater risk of heart attacks.

High blood pressure

High blood pressure is a condition that may lead to ill health. Doctors may advise patients to eat food without added salt, and avoid processed foods and ready meals which tend to be high in salt.

Cancer

People in different countries tend to suffer from different types of cancer. Scientists think that diet could be a major factor. It is difficult to be sure, because countries collect their statistics in different ways, so that the figures given here may not represent exactly the same thing. New studies should give more reliable statistics by the mid-1990s.

Breast cancer is increasing in many countries. Its cause is not known, but in figure 3 cancer rates are compared with how much fat people eat in different countries.

Some scientists suspect that many people could avoid getting stomach cancer if they ate fruit and vegetables every day. Cancer of the bowel may also be linked to a diet high in fat. Eating enough dietary fibre may help to reduce the risk of bowel cancer.

Alcoholic drinks may be linked to cancers of the mouth and gullet (oesophagus) as well as to cirrhosis of the liver and high blood pressure.

Figure 4 shows the death rates for cancer of the oesophagus in different parts of Europe.

Country	Deaths per 100,000 population	Country	Deaths per 100,000 population
H	621	GR	376
CZ	596	S	372
PL	580	DK	365
YU	553	N	351
M	490	B	*342
IRL	456	I	324
SF	433	IS	324
D	421	E	*323
A	413	NL	302
L	411	CH	296
UK	389	F	224
P	387		(*1984)

Figure 2:
Deaths from heart and circulation diseases per 100,000 population (1988)

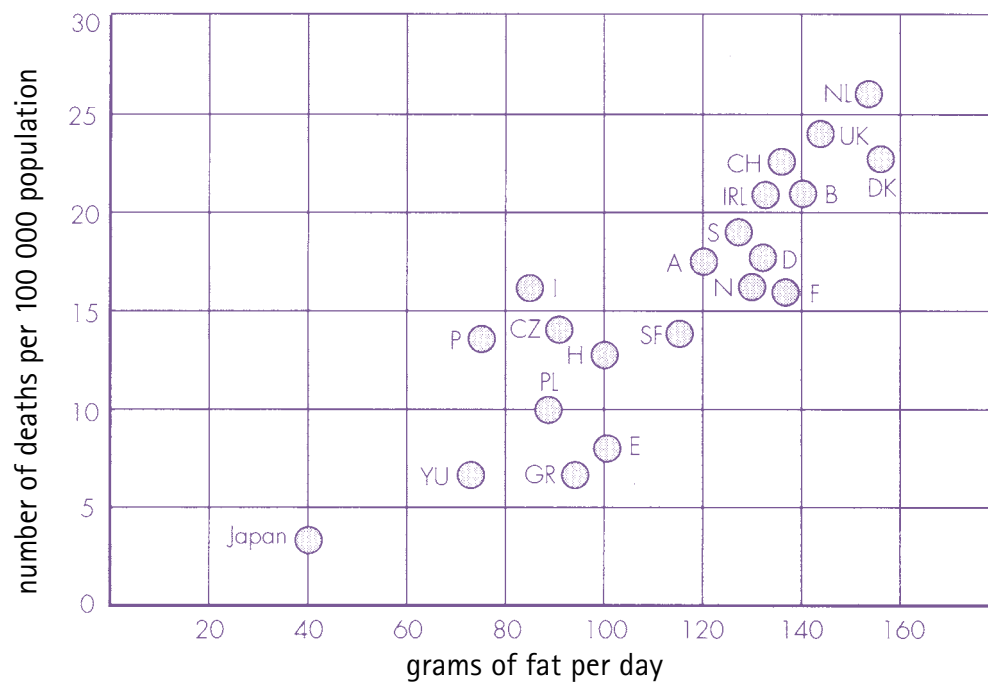


Figure 3: Deaths from breast cancer per 100,000 people plotted against fat in the diet (1980s)

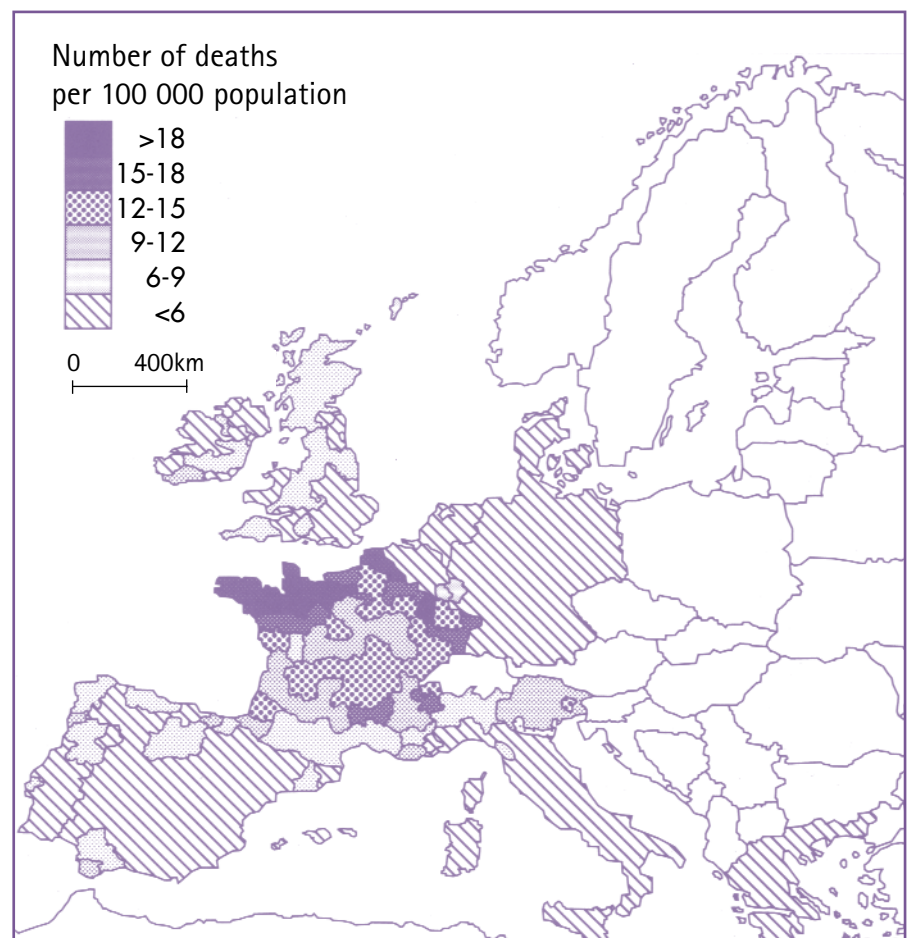


Figure 4: Deaths rates from cancers of the gullet (oesophagus) in men (1970s)

	Protein/g	Fat/g	Carbohydrates/g	Energy/kj
Orange juice	0.6	0.0	9.4	161
Apples	0.3	0.0	12.0	197
Bananas	1.1	0.0	19.2	326
Oranges	0.8	0.0	8.5	150
Tomatoes (fresh)	0.8	0.0	2.4	52
Cornflakes	7.4	0.4	85.4	1507
Muesli	10.5	8.1	67.1	1552
Bread (wholemeal)	9.2	2.5	41.6	914
Bread (white)	8.0	1.7	54.3	1068
Rye/black bread	6.4	1.0	52.7	950
Crisp bread	10.1	1.4	79.0	1461
Plain cake	6.0	24.0	49.7	1785
Milk (full fat)	3.3	3.8	4.8	274
Skimmed milk	3.5	0.1	4.8	142
Low fat curd cheese	17.2	0.6	1.8	142
Cream cheese	14.6	30.5	1.9	1415
Yoghurt (natural)	5.0	1.0	6.4	224
Eggs (chicken)	12.3	10.9	0.0	612
Butter	0.5	81.0	0.0	3006
Margarine	0.2	81.5	0.0	3019
Low fat spread	5.8	40.5	0.5	1605
Vegetable oil	0.0	99.9	0.0	3697
Ham (cooked)	24.7	18.9	0.0	1119
Salami	19.3	45.2	1.9	2031
Beef	18.1	17.1	0.0	940
Chicken	20.6	5.6	0.0	578
Pork	16.4	25.0	0.0	1218
Herring	17.3	18.8	0.0	1017
Jam	0.5	0.0	69.2	1116
Honey	0.4	0.0	76.4	1229
Sugar (white)	0.0	0.0	99.5	1680
Coffee (without milk)	0.3	0.1	0.8	21
Tea (without milk)	0.1	0.0	0.4	8
Coca Cola	0.0	0.0	10.5	168
Chocolate	19.2	24.5	43.6	1252
Ice cream	3.6	9.8	24.4	814
Milkshake	2.9	3.2	13.2	379
Mars bar	5.3	18.9	66.5	1853
French fries (chipped potatoes)	3.3	15.5	34.0	1174
Potato crisps	5.0	37.6	49.3	2275
Pizza (cheese and tomato)	9.0	11.8	24.8	984
Beefburger	20.4	17.3	7.0	1099

Table 1: Nutritional values of some foods per 100g edible portion

WHAT DID YOU EAT?

This topic enables you to investigate how students in different countries fit eating into a busy school day. It begins by asking you to survey your own eating habits. To keep the task simple you will focus on just one day.

PART 1 WHY FOOD?

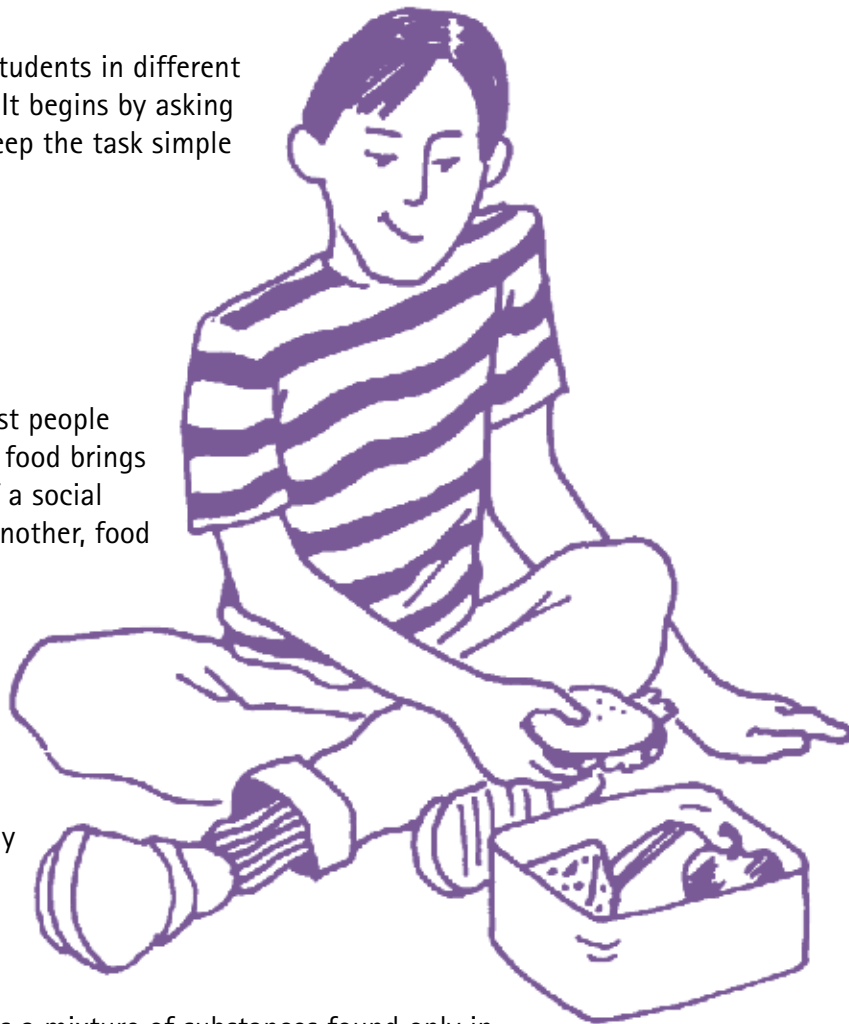
Everybody has to eat and drink. But for most people food isn't just a matter of survival. Sharing food brings people together. Food may be the centre of a social event like a family gathering. One way or another, food is an important part of your lifestyle.

Food contains five groups of nutrients – proteins, fats, carbohydrates (starches and sugars), vitamins and minerals. Each of them is essential. The body uses the nutrients to provide itself with energy, for growth and repair and to help regulate body processes such as digestion and temperature control.

Water and dietary fibre are also important.

Water is essential for health. Dietary fibre is a mixture of substances found only in plants. Some types help food pass more quickly through the intestines, some may help to lower blood cholesterol.

You need nutrients in the right amounts to grow and stay healthy. The best way to balance your diet is to eat a wide variety of foods. What you eat and when is part of the pattern of your daily life.



The average consumption (litres) of ice cream per person per year (1989)

Sweden	14.9	The Netherlands	6.9	Austria	4.8
Denmark	9.1	Germany	6.5	Spain	4.1
UK	8.4	Belgium	6.3	Greece	3.8
Switzerland	8.0	Italy	5.2	Portugal	2.9
Ireland	7.5	France	4.9	USA	22.0

Figure 1: How much ice cream do we eat?

Discussion points

Look at the information in figure 1.

- 1 Do people eat ice cream as a food or to keep cool?
- 2 Can you think of reasons for the differences between countries?

PART 2 WHAT ARE YOUR EATING HABITS?

Copy Questionnaire A. Fill in the columns

Activities

Fill in the time you get up, start school, have lessons, eat meals, finish school and what you do for the rest of the day.

Meals eaten

Say what sweets/snacks/meals you eat during the day.

Where you eat

Where you eat "At home", "in school dining room", "in restaurant", etc.

Who chooses your food?

"You", "the school", "your mother", etc.

Time of day	Activities	Sweets/Snacks/ Meals eaten	Where you ate?	Whose chose your food

Questionnaire A

What is the nutritional value of your food?

Copy Questionnaire B.

In the left column make a list of the foods you have eaten and drunk for breakfast and if possible what you ate at school, and during the rest of the day.

The other columns in the table list nutrients, water and dietary fibre. Tick the important components of the food you had, Do not tick more than three for each food. For example, bread is rich in starch, apples are mostly water with some dietary fibre, and cheese is rich in protein and fat.

The table on page 8 lists the nutritional values of some common breakfast foods. You may also find the nutritional information on food labels helpful.

Foods eaten	Energy	Protein	Fats	Carbohydrate		Vitamins (specify)	Minerals (specify)	Water	Dietary fibre
				(starch)	(sugars)				

Questionnaire B

PART 3 DIET AND HEALTH

Here are some questions for you to discuss. Decide answers that represent a typical student in your group or class.

1 Breakfast

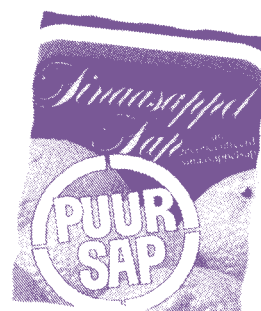
- What do members of your group eat for breakfast?
- Do you think it is important to have a good breakfast before going to school?

2 Eating habits

- Do you consider snacks and sweets to be 'food'?
- Who chooses and prepares your meals and snacks?
- Do you have meals during the school day? If so, do you go home, does the school provide a meal, do you bring food from home, do you buy food from a shop, etc. ?
- Do people in your group have traditional or religious beliefs about foods?
- Are eating habits in your country changing? For example, are young people eating foods different from those their parents ate at the same age? Are more people eating fast food? Are more people buying ready-made meals to cook at home? Do families get together for meal times?

3 Diet and health

- What do you think of the diet of students in your class?
Do they eat:
 - a balanced diet
 - enough dietary fibre
 - enough fresh fruit and vegetables
 - too much salt
 - too much sugar
 - too much fat
- Are there ways you can improve your diet? Are there any foods you would be better without?
- Are people concerned about certain foods and the effects they may have on health? If so, what concerns do they have?



PART 4 WHAT DO STUDENTS EAT?

Most people in western Europe have enough to eat and drink. Some people even eat too much. Others have 'unbalanced' diets, that often means too much fat and sugar or too little fresh fruit, vegetables and dietary fibre.

Find out how your eating habits and concerns compare with those of other students. Your teacher has a list of classes that are studying the same topic and would like to exchange information with you.

Use the Exchange Form to make the exchange of information simple. Patterns of daily life may be different in other countries, so your class will need to describe a typical school day on side 2 and give information about eating habits on sides 3 and 4.

You will need to decide how to provide this information so that it is typical of students in your class. You could decide as a class what information to provide or select a 'typical' student to give his/her answers.

It is interesting to compare food labels from your country with those from other countries. Send food labels with your exchange form and you may receive some in return. Choose labels from foods and drinks such as:

- milk
- bread
- flour
- margarine
- cooking oil
- biscuits
- Coca Cola
- Fanta

as well as some specialities from your region.

SCIENCE ACROSS THE WORLD
What did you eat...?

Date: _____
To: _____
(teacher's name)
School: _____
Address: _____
Telephone: _____ Fax: _____
(with international dialling code)
E-Mail: _____
Web address of school: _____

From: _____
(teacher's name)
School: _____
Address: _____
Telephone: _____ Fax: _____
(with international dialling code)
E-Mail: _____
Web address of school: _____

Exchange form page 2

Time of day	Activities
04.00	
05.00	
06.00	
07.00	
08.00	
09.00	
10.00	
11.00	
12.00	
13.00	
14.00	
15.00	
16.00	
17.00	
18.00	
19.00	
20.00	
21.00	
22.00	
23.00	
24.00	

Exchange form page 3

3 Diet and health

a. We think that most members of our class eat:

<input type="checkbox"/> a balanced diet	<input type="checkbox"/> too much salt
<input type="checkbox"/> enough dietary fibre	<input type="checkbox"/> too much sugar
<input type="checkbox"/> enough fruit and vegetables	<input type="checkbox"/> too much fat

b. Suggestions for improving our diet are:

c. Our main concerns about diet and health are:

1 Breakfast

a. For breakfast most students eat:

b. We think that eating a good breakfast before going to school is: important/not important because:

2 Eating habits

a. The sort of snacks and sweets we eat during the day are:

b. The arrangements for meals during the school day are:

c. The people who choose and prepare our food are:

d. Traditional beliefs about diet in our country are:

e. The ways in which eating habits are changing are:

PART 5 EATING HABITS – A COMPARISON

Group discussion activities

Compare the information from other schools with that from your class.

- 1 Compare:
 - the pattern of daily life: when other students get up, start school, etc.,
 - who chooses and prepares the food,
 - what is eaten for breakfast,
 - snacks and sweets eaten,
 - arrangements for meals during the school day.
- 2 Do students think that eating a good breakfast is important?
- 3 What do you think is responsible for the similarities and differences in the foods eaten by students in different countries?
- 4 Did you learn of any traditional beliefs about foods? Can they be explained by science?
- 5 Are eating habits changing? If so, how?
- 6 Do you think that most students eat a balanced diet?
- 7 Are people concerned about the links between diet and disease? If so, do their concerns differ from country to country?
- 8 Compare food labels from other countries. how is the nutritional value of the food shown? Do the same foods contain the same ingredients?
- 9 What suggestions can you make for improving the diet of your class?

WHAT DID YOU EAT?

THIS TOPIC IS IN SIX PARTS

Part 1 WHY FOOD?

A review of the nutritional and social aspects of food.

Part 2 WHAT ARE YOUR EATING HABITS?

Students survey their eating habits and food intake.

Part 3 DIET AND HEALTH

Discussion of the results of part 2.

Part 4 WHAT DO STUDENTS EAT?

Collation of class information, collection of food labels and exchange of information with other schools.

Part 5 EATING HABITS – A COMPARISON

Discussion of the information collected.

Part 6 INFORMATION SECTION

Information and data on diet and disease; nutritional values of common breakfast foods.

This topic may be used to complement work on health and nutrition.

The topic focuses on the nutritional aspects of food and looks at links between diet and health.

Students start by surveying what they eat for breakfast and during the school day. This information is collated by the class and exchanged with schools in other countries. The information collected should enable students to make comparisons and hence reflect upon their own diet.

The work is suitable for lessons in chemistry, biology and home economics. It may be extended to link with studies in foreign languages.

THE AIMS OF THIS TOPIC ARE:

- To revise and extend work on diet and nutrition.
- To enable students to reflect upon their own diets by comparing them with those of students in other countries.
- To create awareness of the links between diet and good health.
- To raise students' awareness of the lifestyle and traditions of people in other countries.
- To raise students' confidence in using a variety of languages.

PRIOR KNOWLEDGE AND SKILLS

The material is intended for students aged 13 to 17.

Students should understand how proteins, fats, carbohydrates, vitamins and minerals contribute to a balanced diet and their importance for growth and good health. They should be able to identify the nutrients in common foods and recognise those rich in dietary fibre.

INSTRUCTIONS FOR TEACHERS

REQUIREMENTS

Before beginning the lesson:

- Copy the student pages for the class.
- Make a few copies of the Exchange Form.
A transparency for overhead projection would be useful for part 4.
- Collect labels from foods and drinks, for example, milk, bread, flour, margarine, cooking oil, jam, Coca Cola, Fanta etc., as well as foods typical of your region.

When you have received Exchange Forms from other schools:

- Copy the Exchange Forms you received and the class' own Exchange Form for analysis.
- Copy the map of Europe if required.

TEACHERS NOTES

Part 1 Why food?

This introduces the topic with a review of the nutrients in food.

The data on ice cream consumption is interesting and should signal to students the differences in eating habits between regions or countries. If the figure do indeed show a pattern, it seems that countries with cold climates consume more.

Part 2 What are your eating habits?

Part 2 is intended for individual work by students. Although the survey includes the whole day, the focus of the topic is on breakfast.

Encourage students to collect labels from foods. These may be used when completing the questionn-aire and exchanged with schools in other countries.

Questionnaire A

This is worded so that students may insert data for 'today' or 'yesterday'. Students taking 'today' as the example, may begin to fill in the questionnaire during the lesson and then complete it at home.

Questionnaire B

This is intended as a quick dietary analysis and teachers may wish to limit the list students give to foods eaten for breakfast. The nutritional data given in part 6 is for common breakfast foods. Additional information from food labels and other food tables may be helpful.

Part 3 Diet and health

This activity follows the work done in part 2. The class may be divided into groups to discuss the questions, with a spokesperson from each group reporting the groups' answers to the class towards the end of the lesson.

Part 4 What do students eat?

This part involves exchanging information with other schools. The class will need to enter information based on the discussion questions in part 3 on the Exchange form. The information must provide an overall impression of the diets and concerns of class members. Teachers may find collating information from the whole class too time consuming and prefer to select a 'typical' student to provide his/her individual answers on the Exchange form instead.

If the class contains ethnic or religious groups with different dietary habits, you may wish to provide Exchange forms representing each group.

Part 5 Eating habits – a comparison

This discussion activity enables students to compare their eating habits with those of students in other countries and to recommend possible changes in their own diet.

Part 6 Information section

The information may be used as needed with parts 2, 3 and 5.

- Diet and disease: notes on obesity, tooth decay, heart disease, high blood pressure and cancer including cancer of the breast and of the oesophagus .
- Nutritional value of foods per 100 g: data on common foods eaten for breakfast.



GlaxoSmithKline

CLIL Subject projects for language teachers

This section shows topics which can be taught as CLIL by language teachers. Most CLIL is done by subject teachers. They teach their subject in L2. However, some CLIL is done by language teachers. This work has a topic focus like subject-led CLIL, but covers smaller, manageable topics which language teachers tend to know about. Such a topic may not be dealt with in the detail which a subject specialist could bring to it, and covering it will normally only take a limited number of lessons. Typical topics which a language teacher could handle might be: aspects of diet, climate change, local geography, community development and history, etc. The *Science Across the World* topic developed in section 000 – xxxxx – is typical. The topics covered by the following units were devised by Keith Kelly and John Clegg for language teachers to use and deal with the topics of ‘Flight’ and ‘Waste in School’.

When they teach such topics, language teachers do need to apply certain CLIL principles, which means that their lessons will be different from conventional language lessons. They will, in particular, need to understand topic-led work and the use of language support, both concepts which John Clegg covers in section 000. The idea of topic-led teaching means basically that the topic comes first: it constitutes the main purpose of lessons and teachers and learners focus on it. Language is important, but it does not determine the content of lessons; instead, language is taught at the point of need in order to facilitate the handling of the topic. Language teachers who teach in this way need first to establish the sequence of tasks which they will present to the learners in order to teach the topic. They may not know the language content of the lesson sequence until it emerges from this task sequence.

The next thing that the teacher has to do, once s/he knows roughly what the sequence of tasks is, is to analyse their language demands. S/he is likely to think of these language demands in terms of skills (do they require learners to engage in listening, speaking, reading and writing?); grammar (what sentence structures do they require learners to use?); vocabulary (what words do the learners have to know?) and text (to what extent do learners have to follow or construct sequences of text?). The topics shown below give practice in variety of language skills. ‘Flight’, for example, requires learners to plan their experiment and hypothesise about it and thus asks them to use modals *will* and *could*. It asks them to present their project to the class orally and in writing and thus to use the past simple and to structure a continuous oral or written text. It also requires them to use a considerable subject-specific physics vocabulary to do with flight.

Finally the language teacher has to provide language support to enable the learners to perform the tasks. Thus the learners learn language in order to learn about the topic, not vice versa. The language teacher provides this support using the range of task types s/he is familiar with in language teaching. In the ‘Flight’ project, the teacher provides, for example, a writing/talking frame and a matching activity. In the ‘Waste’ project, the learners are helped by substitution tables, charts and a reading support activity.

Language teachers can teach a CLIL topic on their own without reference to other colleagues. The topics can fit nicely into a conventional language syllabus. For instance the ‘Waste’ project would give practice in, for example, reading, letter-writing, the past simple and *could*. On the other hand the language teacher might like to collaborate with a subject teacher. It could be that the subject concepts which emerge in the CLIL topic are those which a subject teacher is also teaching, perhaps in L1, at roughly the same time. For example, the ‘Flight’ topic could be taught by a language teacher in parallel with a physics teacher working on a similar topic, obviously in more subject depth, in the L1. Working with a subject teacher in this way enables the language teacher to feel comfortable that any gaps in her/his subject knowledge can be dealt with by the specialist colleague. It also allows the concepts to be well reinforced in the learners’ minds, and the familiarity of the topic which arises from its being covered in subject lessons allows learners to learn it more easily in L2.

1 The Magic of Flight: UFOs

In this project you are going to get students to build and fly their own UFO.

Time for project: minimum 3 x 40 mins

PROJECT MAP

TASK 1: BACKGROUND INFO ON FLIGHT

- Step 1 classifying things that fly
- Step 2 explaining propulsion and flight
- Step 3 reasoning on improvements

TASK 2: HOW DO THINGS FLY?

- Step 1 describing how things fly
- Step 2 choosing and researching a UFO

TASK 3: UFO DESIGN AND TEST FLIGHT

- Step 1 deciding on test parameters
- Step 2 predicting and hypothesising on flight
- Step 3 testing, observing, recording
- Step 4 retesting

TASK 4: PRESENTATIONS AND EVALUATIONS

- Step 1 preparing slideshow content
- Step 2 presenting your UFO
- Step 3 Evaluating UFOs

Flight Fectoids:

François Laurent le
Vieux d'Arlandes
and Jean-François
Pilâtre de Rozier
made the first
manned free balloon
flight on 21
November 1783



TASK 1 Background info - Things that fly

In this task you warm students up getting them to brainstorm about flying objects.

Step 1

With students working individually, get them to think of as many flying things and objects as they can in one minute.

Accept all manner of flying objects from space ships to litter.

Pair students up and get them to quickly compare their lists but don't let them get into a discussion. This is just to see anything they haven't thought of.

Step 2

Group the pairs into fours and get students to label their lists with a word or two saying how they fly.

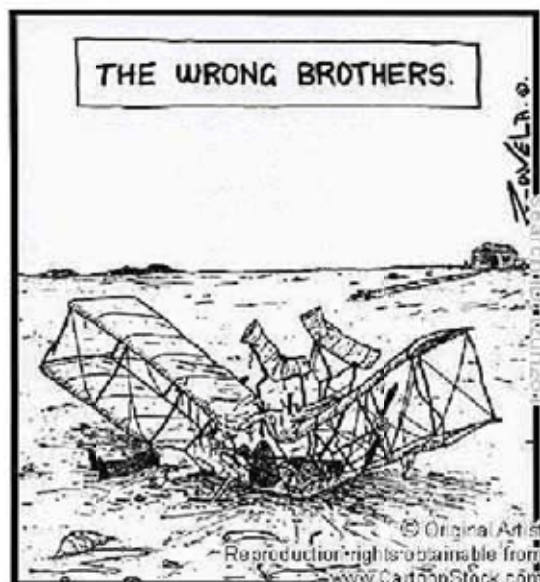
This may be simply writing 'wind', or 'muscle', or 'gravity'. Don't give too much help, let the students discuss and find explanations themselves.

Check the lists and means of flight as a whole class.

Step 3

In their groups, get students to choose one flying object from their list and discuss how it could be improved.

Give a prompt such as 'Think about weight', or 'Think about where it is going to fly' but don't give too much help.



What things fly, and how do they do it?

TASK 2 How do things fly?

In this task you consolidate what students have discussed about how things fly. Students choose one flying object to investigate further.

Step 1

Direct students to Task Sheet 000 on p.000 and match the different flying objects with the means to fly.

Get students to do this individually and tell them that some of the flying objects actually exploit a number of factors to help them fly.

Get students in pairs to practice the question 'What factors does ...x... rely on in order to fly?'

Step 2

In their groups, get students to choose one object from their discussions so far.

Groups should carry out research into their chosen object. The aim is that they will build a model of their chosen object so they should choose carefully!

If necessary, set this as a homework.

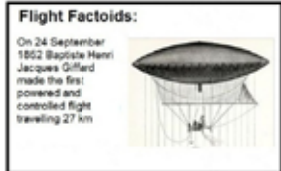
Research Tips

There are many websites with information on building flying objects in the classroom.

- Middlesex University resource for rocket building
http://www.middlesex.ac.uk/physics/physics/rocket_factory.pdf
- School Project on aeroplanes and flight
<http://www.dorset.sch.uk/~aeroplanes/>
- Website dedicated to building paper aeroplanes
<http://www.paperairplanes.co.uk/>

NB - sites accessed 21.09.2010

Additionally, prompt students to search the web for hits on school flight projects and related topics, for example 'Balloon rockets'.



TASK 3 Design, build and test fly your UFO

In this task students do the practical work and carry out their observations. It's a good idea to wander and facilitate in groups by stressing key language for use later.

Task Sheet 000 is given on p.000 as a guide structure for carrying out and writing up their project.

Step 1

Students have chosen which UFO to design.

Have a brief whole class discussion on what the test parameters might be, prompt with 'See how far it can fly', 'See how high it can fly'. Get students to decide what aspect of the flight they will test and how they will test it. Encourage students to make these decisions while they are designing their UFOs. Spend some time with each group to assure they have concrete test parameters.

Step 2

Now get students to predict how they think the UFO will perform and why. Get them to write a statement or two about their predictions, such as 'We think the rocket balloon will fly for 15 metres in a straight line.'

Step 3

Get students to test their UFOs three times, record observations, hypothesise what will happen if they make changes.

One possible problem with a rocket balloon, for example, is getting it to fly in a straight line. Student might decide to alter their test by attaching the rocket balloon to a string so that it can only travel in a straight line along the string and then retest to measure distance travelled.

TASK 3 Design, build and test fly your UFO**Step 4**

Students make adjustments; retest their UFOs and record observations.

Encourage students to write down exactly what happens after the alterations have been made.

TASK 4 Present your UFO**Step 1**

Agree with the class what the evaluation criteria for your UFOs should be. You can do this in plenary with one classmate or teacher writing comments on the board.

Pair up the project groups so that each group is evaluated by one other group, Group 1 evaluates Group 2; Group 3 evaluates Group 4 etc.

Use a simple evaluation frame to make notes on the presentation. Some criteria are given here, but use any suggestions from the students.

Evaluation criteria:

Language

Content

Overall

Any other suggestions

Step 2

Get groups to talk about presenting their project and results to the class. Direct them to the Presentation Frame on p.000.

Suggestions are given here for basic information but encourage groups to be creative and come up with their own ideas

- What your UFO is
- How and why you chose it
- How you designed and built it
- Describe briefly the UFO
- Give your test hypothesis / es
- Give observations and results, explain what happened make suggestions for improvements.

Flight Factoids:

The first human spaceflight was accomplished on April 12, 1961 by Soviet cosmonaut Yuri Gagarin.

**Step 3**

Have a presentation session where groups present their UFO project to the class.

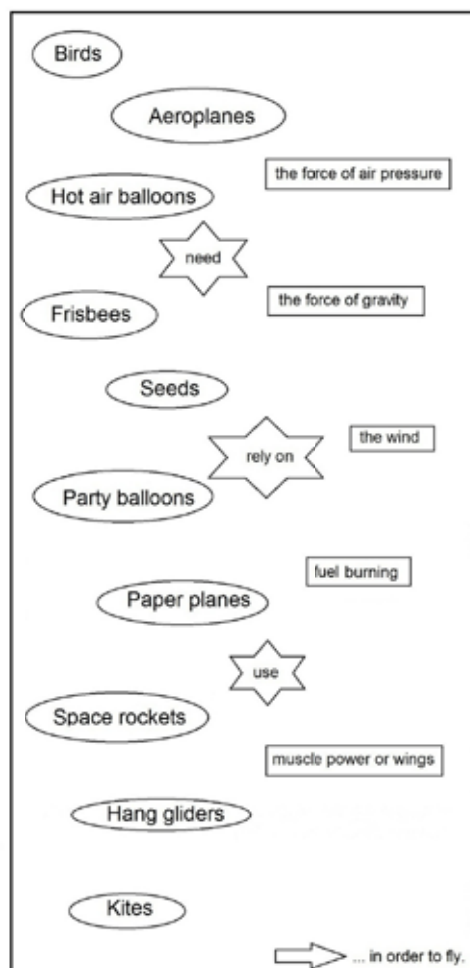
Carry this out formally, with a chair and with evaluation done carefully and with thought.

Step 4

When all the presentations have been carried out, students join their partner evaluation group and share feedback with each other.

Task Sheet 000

Make sentences about how these different flying objects fly and then ask and answer questions with your partner.



1 The magic of flight: UFOs 4

Task Sheet 000

Use the Investigation Frame here to help you carry out your tests and write your observations and results.



UFO INVESTIGATION

Equipment used (list your equipment)

Characteristics of our UFO

- size
- shape
- weight
- materials

What to control

We will keep (the launch height) the same for each test.
(the air pressure)
(size of the paper)
(circumference of the balloon)

What to measure

We will measure (the time it takes to land)
(the distance flown)
(speed, height)

What to change

We could change (the weight of the UFO)

Hypothesis

We think that if we ... it will make ... (quicker, further)

Procedure (describe steps taken in designing, building and testing)

Step 1 – First of all, we...

Step 2

Step 3

Results

Describe your observations

Give any measurements you have (present in chart, graph, diagram)

Sketch any illustrations you need to show what happened

UFO Flight Results

1st flight	2nd flight	3rd flight	4th flight
12 metres	10 metres	11 metres	17 metres



changes made here

Task Sheet 000

Use the Presentation Frame here to help you prepare and deliver your project presentation to the class.

Our UFO

Group members: (John, Keith, Kay)

What our UFO is

- How and why we chose it

How we designed and built it

- Brief description of our UFO

Our test and hypothesis

- Describe your test
- Give your hypothesis

Observations and results

- Procedure
- What we saw, measurements
- Results

Conclusions and suggestions

- Give conclusions to your investigation
- Make suggestions about how it could be improved

Presentation tips:

((Give links to websites with advice on preparing and delivering presentations to classmates.))

2 Reduce, Re-use, Recycle

In this project students are going to find out how much waste the school produces and make a plan to reduce it.

Time for project: minimum 4 x 40 mins

PROJECT MAP

TASK 1: FIND OUT ABOUT WASTE

Step 1: doing a quiz

Step 2: reading facts about rubbish

TASK 2: MEASURE WASTE IN SCHOOL

Step 1: carrying out a waste audit

Step 2: calculating how much waste school produces

Step 3: presenting data in a bar chart

TASK 3: COULD SCHOOL TAKE ACTION?

Step 1: discussing data

Step 2: suggesting action

Step 3: getting ready to report

TASK 4: PRESENT TO CLASS AND SCHOOL

Step 1: reporting back

Step 2: creating a poster

Step 3: writing a letter to headteacher



Is our world drowning in rubbish?

Waste Factsoids:

On average, every person in the UK throws away 7 times their body weight! That's 800kg of rubbish every year!



TASK 1 Find out about waste

In this task students will read about waste and what is done with it.

Step 1

Get students to work in pairs and discuss the questions. Then they check with the key. Ask them if the picture is different in your country.

- How many tonnes of waste does one family produce per year?
- If you throw something away, where does it go?
- How much food waste do we throw away?
- How much waste do we recycle?
- What's the main source of household waste?

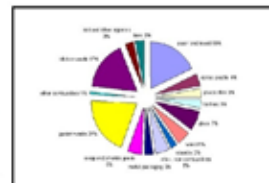
Step 2

1. What do we throw away? Get students to look at the diagram on p.000 of what is in a typical household bin in the UK and talk about it with a partner.

Ask students if it is what they expected or if anything surprises them. Get students to compare with their experiences in their home country.

Give these phrases to help:

I expected/didn't expect... to be...%
I thought there would be more/less...
In our country there would be more/less/the same amount of...
In our family we throw away a lot of ...



2. Students read the text on p.000 about rubbish and fill in the chart.

Check as a whole class.

☐ 2 Reduce, Re-use, Recycle

TASK 2 Measure waste in school

In this task students will find out how much waste their school produces in one day.

Step 1

Do a waste audit

Arrange for students to measure all the waste which the school has produced in one day. Be careful: students should wear gloves and look out for sharp objects. Get students to work in groups and sort the material into types shown on the recording sheet on p.000.

Step 2

Get students to calculate how much waste the school produces in a year using the chart on p.000.

Step 3

Students present the data in the form of a bar chart. Get them to construct a bar chart to show how much waste the school produces in a year. On the horizontal axis, make a bar for each type of waste. Measure the amounts for each type in kg on the vertical axis.

Research Tips

Encourage students to use visuals on their diargams, such as images to represent the types of waste as well as colouring. Students could take some photographs of the waste to put on a poster (Task 4).

TASK 3 Could school take action?

In this task students discuss how much waste the school produces and suggest what action could be taken to reduce it.



Step 1

Get students to discuss the data they have collected as a whole class. Either make a handout or show on screen the following language to help:

In	classroom 1 the office the kitchen ...	there	were ...g of	white paper coloured paper cardboard plastics metal glass food	waste
			was a total of ...g of	waste	
The school	throws away	...g of	white paper coloured paper cardboard plastics metal glass food waste	waste	per year

Step 2

In groups students discuss how they could reduce the amount of waste the school produces, on one of the following topics: paper and cardboard; plastics; metal and glass; food. Cut up the discussion cards and let each group pick one blind.

<p>reduce re-use recycle</p> <p>Paper and cardboard</p> <p>Think about:</p> <ul style="list-style-type: none"> • packaging • exercise books and paper • electronic communication • copies <p>students teachers office kitchen</p>	<p>reduce re-use recycle</p> <p>Food</p> <p>Think about:</p> <ul style="list-style-type: none"> • size of portions • composting <p>students teachers office kitchen</p>
<p>reduce re-use recycle</p> <p>Plastics</p> <p>Think about:</p> <ul style="list-style-type: none"> • packaging in the kitchen • packed lunches • plastic cups etc <p>students teachers office kitchen</p>	<p>reduce re-use recycle</p> <p>Metal and glass</p> <p>Think about:</p> <ul style="list-style-type: none"> • cans • bottles <p>students teachers office kitchen</p>

Tell students to discuss what action the school could take, thinking about how the school could reduce, re-use, or recycle. Students should also think about what the different people could do: learners; teachers; office workers; kitchen staff.

Step 3

Get students ready to report their discussion to the class. Tell groups to decide what they want to say, like this:

We could	reduce re-use recycle	white paper coloured paper cardboard plastics metal glass food	if we... (past simple tense)
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TASK 4 Present to class and school

In this task students report the results of their discussion to the class, present it on a poster for the whole school to see, and write to the headteacher with suggestions.

Step 1

Report your discussion to the class. Use the language support in task 3 step 3.

Step 2

1. Get students to work in a group to produce a group poster on waste in school. They need to decide what to write on a group poster. They could write about:
 - aims: what they wanted to find out; what they did: how they measured the waste; their results: what they found; their suggestions: what the school should do.
2. Get students to design their poster. They should decide:
 - a title: colour, font, size; sub-titles: colour, font, size; texts: how many? where? font?; visual information: tables? bar chart?; other visuals: illustrations? photographs? clipart?
3. In their group, students write the texts for their poster. They need to:
 - share out the texts; draft them; exchange them and revise them
4. Have students construct the poster and display it with the others in the classroom. Later, have students display their posters in the school where everyone can see them.

Step 3

Give students the letter template on p.000.

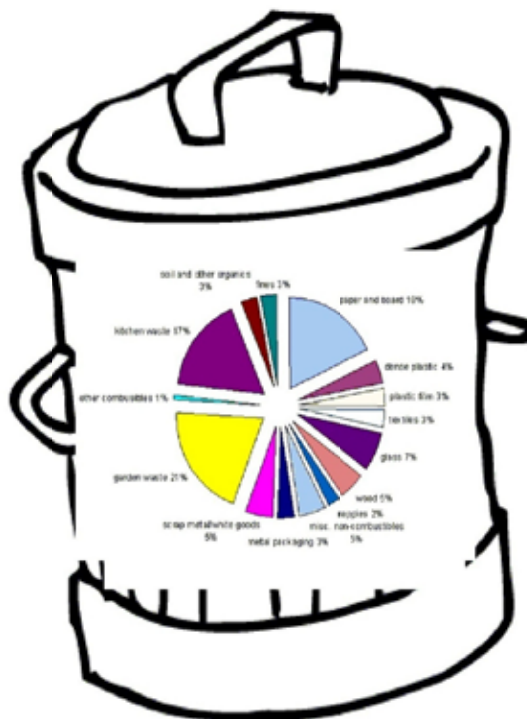
Students write a letter to the school headteacher. In the letter students should report on their audit and suggest how the school could reduce the waste it produces.

Waste Factoids:

60% of the rubbish we throw into the dustbin could be recycled.

**Task Sheet 000**

The average contents of a UK dustbin:

**Task Sheet 000**

Use the letter template to write to your headteacher:

Dear...

Reducing school waste

In our class we have been studying waste. We have measured the amount of waste which the school produces every year. This is the result of our work

(Insert your bar chart)

We think the school could reduce the waste it produces. We would like to suggest the following action plan.

1. The school could reduce the amount of ... it uses if we...
2. The school could re-use...if we...
3. The school could recycle...if we...

We hope you will support some of these ideas and look forward to hearing from you.

Best wishes

Class...

☐ 2 Reduce, Re-use, Recycle

Task Sheet 000

Read about rubbish and make notes in the grid below:

a) Where does the rubbish go?

Most of the U.K.'s waste goes into landfill sites – large holes in the ground which, over time, are filled up with rubbish. About 67% of rubbish in the UK goes into landfill sites. About 23% is recycled or composted. Once a landfill site is full, it is covered over. The materials in the site can't be used again. Also, people don't like living near landfill sites. Now, we have used up almost all the space available to create new landfill sites. So we're going to have to think about something else to do with our waste.

b) What happens when things are recycled?

Materials collected for recycling are taken to a Materials Recycling Facility. Here they are sorted into different types of material. Then they are sent to places where the different materials are processed. Paper is pulped; plastics are granulated – made into small grains; metals and glass are melted. After that these materials are made into new products, such as bin bags, paper or furniture.

Some waste material is biodegradable – that means it will break down naturally. Kitchen and garden waste, paper and card are biodegradable. These materials can be composted and the result is a compost that can be used as fertilizer.

Some materials are incinerated – that means they are burned. The energy released from burning the rubbish is often used to generate electricity. However, incineration also burns things which could be re-used. Also, some people don't like living near to incinerators, because they can see them as a potential health risk.

c) Why recycle?

If we reduce, reuse and recycle things instead of throwing them away, we don't need to mine raw materials or grow raw materials so much, to make new things. In many parts of the world, mining and growing new plantations have damaged the natural environment and wildlife habitats and caused environmental and health problems for local people. In addition, most of the resources that we use in manufacturing products cannot be replaced: they will eventually run out.

Recycling also uses less energy than making new things from raw materials. For example, a lot of oil is used to transport raw materials around the world. In addition, Recycling also uses less energy than producing goods from raw materials: making aluminium cans from old ones uses only one twentieth of the energy needed to make them from raw materials. Every can made from recycled aluminium saves enough energy to power a TV for 3 hours.

Recycling can also reduce pollution. Recycling old bottles, instead of making them from new, can cut pollution by up to 20% and reduce the demand for water by half. Making bags from recycled polythene rather than raw materials produces only a third of the sulphur dioxide and half of the nitrous oxide as well as only using one eighth of the water.

Make notes on what you have read.

Three disadvantages of landfill
a)
b)
c)
Two methods of recycling
a)
b)
One other method of dealing with waste
a)
Four advantages of recycling
a)
b)
c)
d)

Task Sheet 000

Use the table below to measure waste in your school

[illegible]

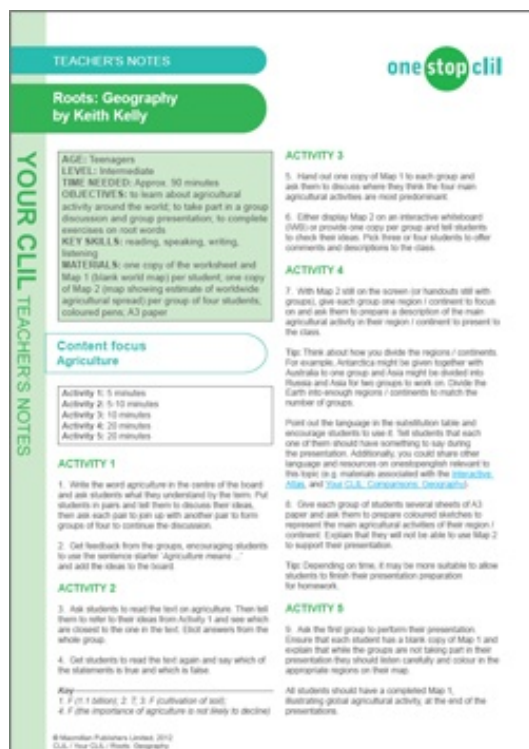
Task Sheet 000

Calculate the amount of waste your school produces in one year

Material	School total per day (kg)	School total per week (x5) (kg)	School total per year (x38) (kg)	Percentage of total material
White paper				
Coloured paper				
Cardboard				
Plastic				
Glass				
Metal				
Food				
Other				
Total				100%

Your CLIL - Introduction

Your CLIL is a collection of phrase lists and lesson plans which focus on general academic curriculum language. These lesson plans and word lists are the result of analysis into the language of the content subjects: geography, biology, chemistry and physics.



Each lesson plan contains step-by-step teacher's notes, and student worksheets divided into content- and language-focused activities. The first instalment in this reinvigorated series is [Roots: Geography](#), which is available to all onestopenglish users.

This pages of the section to follow offer you one phrase list on root words, as well as one Geography lesson to do with Agriculture around the world. Make sure to visit the website to check out the ever growing archive of language and lessons.

Available word lists

The functional language areas in geography and science that we have covered so far include among many others:

- making comparisons
- describing cause and effect
- classifying and grouping
- describing a process
- hypothesizing
- measuring and talking about numbers

The aim of the word list is twofold: on the one hand, we hope to provide one-page summaries of key functional language for the content teacher to use as reference material and, on the other hand, the materials provide a wealth of information for the language teacher alongside content teaching colleagues working through the medium of English. In short, Your CLIL can help you integrate what goes on in the language classroom with work in the content classroom, better then ever before!

<http://www.onestopenglish.com/clil/clil-teacher-magazine/your-clil/>

Roots: Geography

By Keith Kelly

Keith Kelly provides a comprehensive lesson plan with both a language and content focus accompanied by an alphabetical list of root words used in forming words from the area of geography.

To download the accompanying lesson plan, please click on the link to the right of the screen.

The terms in the table are listed alphabetically for ease of reference but it's a good idea to encourage learners to create their own connections and groupings related to content as well as form.

root word	meaning	example
agri-	field	<i>Agriculture</i> is hampered by rocky mountainous land and by droughts in the summer months.
anti-	against	<i>Anticyclones</i> tend roughly to be oval in shape. <i>Anti-trade</i> winds are warm because they blow from lower latitudes.
archae-	primitive	<i>Archaeologists</i> use aerial photographs to identify ancient settlements not visible at ground level.
auto-	self	The factory has become so heavily <i>automated</i> that it now employs only 50 workers.
bio-	life	<i>Biomass</i> is a renewable energy source from material from living, or recently living organisms.
-cide	killing	Developments in fertilizers and <i>pesticides</i> help to produce heavier and healthier crops. Inputs of farms include artificial fertilizers and chemical <i>herbicides</i> and <i>insecticides</i> .
contra-	against	Places with different population structures show <i>contrasting</i> population pyramids. Does the information given tend to confirm or <i>contradict</i> this statement?
eco-	dwelling	Rich nations form <i>economic</i> trading blocks so they are able to dominate world trade.
en-	in	Mudslides and debris from flash floods <i>entombed</i> the houses at the foot of the valley.
epi-	above	The earthquake is normally strongest at the <i>epicentre</i> which is the surface area directly above the focus.
extra-	beyond	Fibre-optic telephone lines provide <i>extra</i> -rapid internet services to the factory.
geo-	the earth	Study your atlas and the <i>geological</i> map of North America to complete the activity.
-graph, -graphic	write	Aerial <i>photographs</i> provide useful and interesting <i>geographical</i> information. The <i>Demographic</i> Transition Model suggests that world population growth will eventually alter.
herbi-	plant	<i>Herbicides</i> are used in farming for killing weeds.
hydro-	water	As part of a <i>hydroelectric</i> scheme, a dam was built across the river valley.

root word	meaning	example
inter-	between	<i>International</i> trade in coffee illustrates the exploitation of poor countries today. Soil is produced by the <i>interaction</i> of factors including weathering, erosion, climate, vegetation and people.
iso-	the same	Widely-spaced <i>isobars</i> indicate light winds or calm conditions.
-itis	inflammation	Deaths from diseases like gastroenteritis have declined with improvements in public health.
-log, -logy	study	Meteorologists observe, measure, record and chart the weather in order to produce weather forecasts. Modern <i>technology</i> has enabled modern fishing fleets to catch far too many fish.
mega-	large	Calcutta is alone among Asian <i>megacities</i> with a minus net migration figure.
meta-	after	Existing rocks can be changed into hard, <i>metamorphic</i> rocks such as marble.
micro-	small	<i>Micro</i> -organisms help to break down plant litter to form humus.
-morph	form, shape	<i>Metamorphic</i> rocks can be formed in a number of ways including tectonic processes.
opt-	sight	Superior, fibre-optic telephone lines provide extra-rapid internet services to the factory.
ped-	foot, leg	Traffic management makes the area more attractive for <i>pedestrians</i> and cyclists.
peri-	around	Many <i>peripheral</i> regions are unspoilt scenic areas.
photo-	light	Does this <i>photograph</i> suggest a high or low birth rate?
pro-	forward	<i>Promontory</i> forts were built on hilltops or knolls for greater protection. Spits are sections of coastal land which protrude out from the shore.
quad-	four	The world's population <i>quadrupled</i> in the twentieth century.
stat-	stability	The population grew slowly, became <i>static</i> and is now beginning to decline. Aid programmes focus on health, education, the environment, human rights and the <i>status</i> of women.
sub-	under	The British government gave <i>subsidies</i> to the steel industry in order to fight rising unemployment in the Midlands. The <i>suburbs</i> of Paris have grown steadily larger as residents left the high-rent city centre.
super-	above	You might be able to take part in a <i>supervised</i> field study of a local factory. Some countries such as Spain have many <i>super</i> trawlers in a huge fishing fleet.
syn-, sym-	together with	Weather maps are <i>synoptic</i> charts based on the weather information previously gathered. Textiles, such as clothes, are made from cotton and <i>synthetic</i> materials. Many features are shown on OS maps by means of <i>symbols</i> .
therm-	heat	Electricity demands led to large scale use of peat in <i>thermal</i> power stations in the Midlands.
tom-	cut	A <i>tombolo</i> is a narrow ridge of sand or shingle joining an offshore island to the mainland.
tox-	poison	Acid rain leaches out <i>toxic</i> metals from the soil and damages the fine root-hairs through which a tree takes up nutrients.
trans-	across	Travel and <i>transport</i> was carried out mainly on waterways. Cologne is an important <i>transhipment</i> point for cargo brought from Rotterdam.
tri-	three	A catchment is the area drained by a river and its <i>tributaries</i> . Deltas are <i>triangular</i> -shaped tracts of land which form at the mouths of rivers.
uni-	one	An air mass is a large body of air with <i>uniform</i> temperatures, pressure and humidity.

Roots: Geography by Keith Kelly

AGE: Teenagers**LEVEL:** Intermediate**TIME NEEDED:** Approx. 90 minutes**OBJECTIVES:** to learn about agricultural activity around the world; to take part in a group discussion and group presentation; to complete exercises on root words**KEY SKILLS:** reading, speaking, writing, listening**MATERIALS:** one copy of the worksheet and Map 1 (blank world map) per student; one copy of Map 2 (map showing estimate of worldwide agricultural spread) per group of four students; coloured pens; A3 paper

Content focus Agriculture

Activity 1: 5 minutes**Activity 2:** 5-10 minutes**Activity 3:** 10 minutes**Activity 4:** 20 minutes**Activity 5:** 20 minutes

ACTIVITY 1

1. Write the word *agriculture* in the centre of the board and ask students what they understand by the term. Put students in pairs and tell them to discuss their ideas, then ask each pair to join up with another pair to form groups of four to continue the discussion.

2. Get feedback from the groups, encouraging students to use the sentence starter '*Agriculture means ...*' and add the ideas to the board.

ACTIVITY 2

3. Ask students to read the text on agriculture. Then tell them to refer to their ideas from Activity 1 and see which are closest to the one in the text. Elicit answers from the whole group.

4. Get students to read the text again and say which of the statements is true and which is false.

Key

1. F (1.1 billion); 2. T; 3. F (cultivation of soil);

4. F (the importance of agriculture is not likely to decline)

ACTIVITY 3

5. Hand out one copy of Map 1 to each group and ask them to discuss where they think the four main agricultural activities are most predominant.

6. Either display Map 2 on an interactive whiteboard (IWB) or provide one copy per group and tell students to check their ideas. Pick three or four students to offer comments and descriptions to the class.

ACTIVITY 4

7. With Map 2 still on the screen (or handouts still with groups), give each group one region / continent to focus on and ask them to prepare a description of the main agricultural activity in their region / continent to present to the class.

Tip: Think about how you divide the regions / continents. For example, Antarctica might be given together with Australia to one group and Asia might be divided into Russia and Asia for two groups to work on. Divide the Earth into enough regions / continents to match the number of groups.

Point out the language in the substitution table and encourage students to use it. Tell students that each one of them should have something to say during the presentation. Additionally, you could share other language and resources on [onestopenglish](#) relevant to this topic (e.g. materials associated with the [Interactive Atlas](#), and [Your CLIL: Comparisons: Geography](#)).

8. Give each group of students several sheets of A3 paper and ask them to prepare coloured sketches to represent the main agricultural activities of their region / continent. Explain that they will not be able to use Map 2 to support their presentation.

Tip: Depending on time, it may be more suitable to allow students to finish their presentation preparation for homework.

ACTIVITY 5

9. Ask the first group to perform their presentation. Ensure that each student has a blank copy of Map 1 and explain that while the groups are not taking part in their presentation they should listen carefully and colour in the appropriate regions on their map.

All students should have a completed Map 1, illustrating global agricultural activity, at the end of the presentations.

Roots: Geography by Keith Kelly

Language focus Root words

Activity 1: 5-10 minutes

Activity 2: 5 minutes

Activity 3: 5-10 minutes

ACTIVITY 1

Get students to match the prefixes in the left column with the word endings on the right to make words to do with agriculture. Ask students not to look at the reading text from the Content focus section of the lesson. When they have finished, tell them to check their answers with a partner then check against the text.

Tip: One of the words in column one is used twice.

Key _____

1. *h*; 2. *d*; 3. *f, g*; 4. *a*; 5. *b*; 6. *c*; 7. *e*

ACTIVITY 2

Tell students to look at the definitions of prefixes on the left side of the table and write the correct prefix from Activity 1 next to it.

Key _____

1. *eco-*; 2. *agri-*; 3. *pro-*; 4. *en-*; 5. *uni-*; 6. *syn-*; 7. *sub-*

Tip: You can give students more contextualized examples of root words from [Your CLIL: Root words: Geography](#).

ACTIVITY 3

Get students to think about negative forms of the words in Activity 1. Tell them to look at the information in the table and write the full word in the centre column.

Key _____

1. *antonym*; 2. *insubstantial*; 3. *uneconomic*;
4. *disproportion*; 5. *disengaged*

Roots: Geography by Keith Kelly

Content focus Agriculture

YOUR CLIL WORKSHEET

ACTIVITY 1

What do you understand by the term *agriculture*? Talk with a partner for a few minutes. Now share your ideas in a group of four.

ACTIVITY 2

Read the text about agriculture and see if your definitions are close. Which is the closest?

AGRICULTURE

By far the most widespread and universal activity on the planet is agriculture. Although the 20th century brought us a vast range of technological advances, more of the world's population is engaged in the sphere of agriculture than in any other economic activity. Around 1.1 billion people in the world are involved in agriculture, with over 70% of India's population in agriculture. While the proportion of agricultural workers varies from region to region, it is much bigger in Less Economically Developed Countries (LEDCs) than in More Economically Developed Countries (MEDCs). It is estimated that almost 30% of the Earth's land surface is made up of agricultural land or land which is cultivated or grazed.

Agriculture, in the strictest sense of the term, means 'the cultivation of the soil' but the word is more widely used as a synonym for the word *farming*. The current understanding and interpretation of the term is much broader and incorporates not only the growing of crops but also different forms of livestock raising, and includes the use of natural vegetation for animal feed and the harvesting of crops, for subsistence or for sale. A simple definition of the term *agriculture* is 'the looking after of crops and livestock'.

Use of machinery is gradually leading to a decrease in the agricultural population on the planet. Nevertheless, the importance of agriculture is not likely to decline and will still affect a significant proportion of the Earth's surface. After all, the population is growing, and we all need to eat!

Read the sentences and decide which are true (T) and which are false (F), according to the text above.

1. The number of people involved in agriculture around the world is 2.1 billion.
2. Thirty per cent of the Earth's land surface area is dedicated to farmland.
3. A strict definition of agriculture is 'the culmination of the soil'.
4. The importance of agriculture will decrease as the use of machinery increases.

Roots: Geography

by Keith Kelly

ACTIVITY 3

In groups, discuss where the main agricultural regions are on Earth. Look at Map 1 to help your discussion.

Consider the following:

- where there is non-arable (e.g. desert) or forest land
- where there are mainly cereal crops
- where there is mainly livestock grazing
- where there is mainly mixed farming

ACTIVITY 4

Prepare a short description of the agricultural activity in one region of the world.

Use the substitution table below to help you make your description.

e.g. *In South America ...*

non-arable or forest land livestock grazing mixed farming cereal crops	is / are found is / are located can be found is / are situated	mainly largely for the most part	in	the north the north and ... (south, west, east) coastal areas
			on the coast	

Prepare a sketch of your region using coloured pens to represent the agricultural activity there. Use Map 2 to help you.

ACTIVITY 5

As a group, present your region to the class.

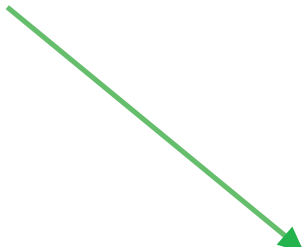
While your classmates are presenting their regions, use coloured pens to sketch the information they present on Map 1. You should have a completed world agricultural map similar to Map 2 by the end of the presentations.

Roots: Geography by Keith Kelly

Language focus Root words

ACTIVITY 1

Without looking at the reading text, match the prefixes on the left with the word endings on the right to make words to do with agriculture. The first one has been done for you. Note: one of the prefixes is used twice.

- | | |
|----------|--------------|
| 1. agri- | a. -versal |
| 2. syn- | b. -gaged |
| 3. sub- | c. -nomic |
| 4. uni- | d. -onym |
| 5. en- | e. -portion |
| 6. eco- | f. -sistance |
| 7. pro- | g. -stantial |
| | h. -culture |
- 

ACTIVITY 2

Read the definitions in the right-hand column and write the correct prefix from Activity 1 in the left-hand column.

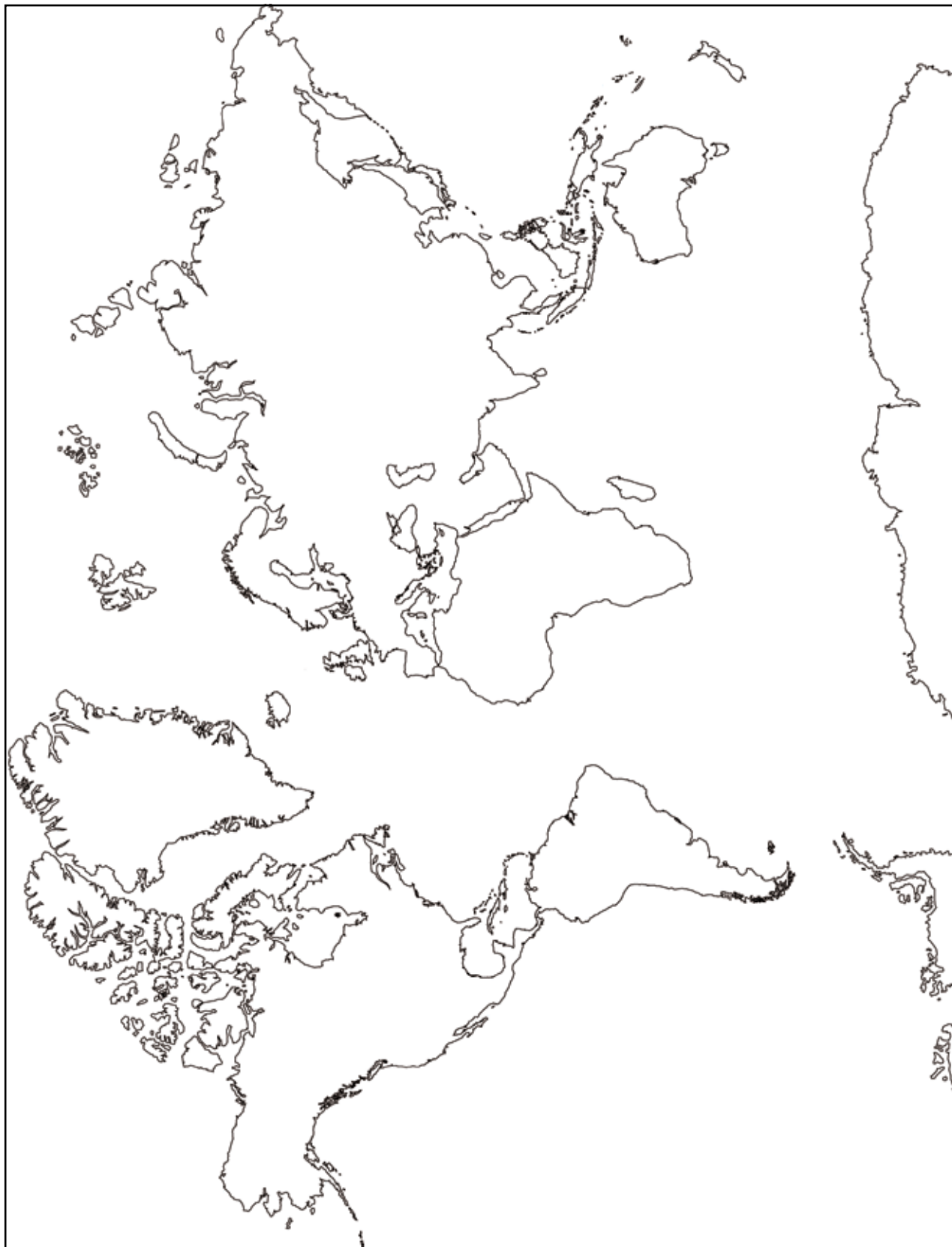
	prefix	definition
1		dwelling or habitation
2		field
3		for
4		in
5		one
6		together with
7		under

ACTIVITY 3

Use the negative prefixes in the table to make negative forms of the words in Activity 1 that match the definitions in the right-hand column.

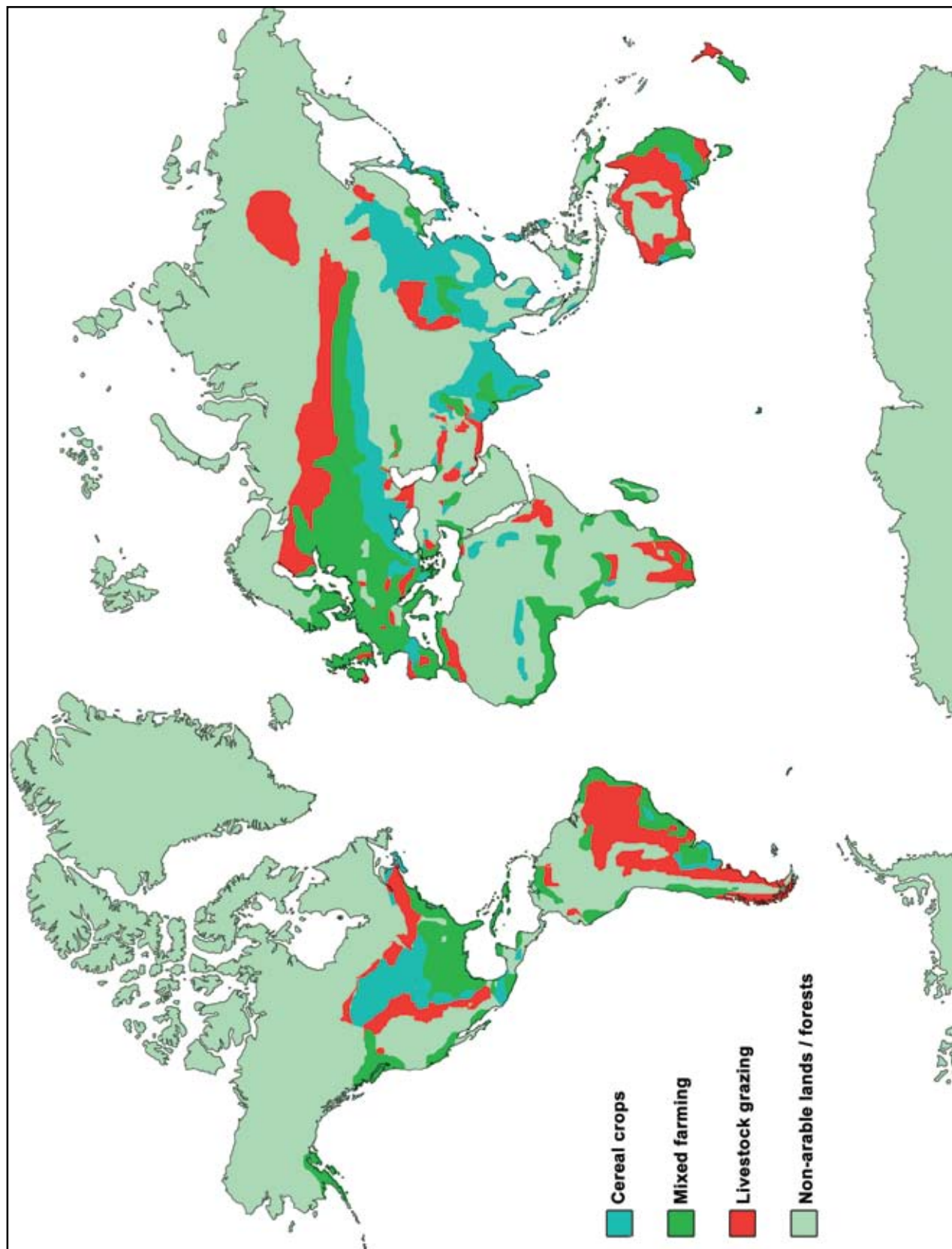
	negative prefix	whole word	definition
1	ant-		noun; the opposite of another word
2	in-		adjective; not very large, solid or strong
3	un-		adjective; not making a profit
4	dis-		noun; lack of equality
5	dis-		adjective; to be separated from, be withdrawn from

Roots: Geography
by Keith Kelly



Roots: Geography
by Keith Kelly

YOUR CLIL MAP 2



Basque CLIL for ELT

Eleanitz multilingual project in the Basque Country

Phil Ball (ball.philip6@gmail.com)

This project is the culmination of the multilingual project in the Basque Country (Eleanitz) where the students have been involved from the infant stage. The original objectives (1991) clearly stated that English would eventually be used ‘as a vehicular language in order to study a subject at school.’ The schools are Basque-medium ‘Ikastolas’ (‘house of learning’ in Basque), and there are 72 involved in the project.

The project has developed a methodological approach and a set of materials that aim to prepare the students for this final phase of obligatory schooling in which they attempt an entire academic year studying one subject in English. In this sense, the SSLIC materials are a logical continuation of the previous two-year phase (Subject Projects) in which the students worked on a variety of didactic units based on content matter from various school disciplines. The subject chosen for this ‘culmination phase’ was Social Science, but the use of other subjects, such as Science in Bachiller, is being developed.

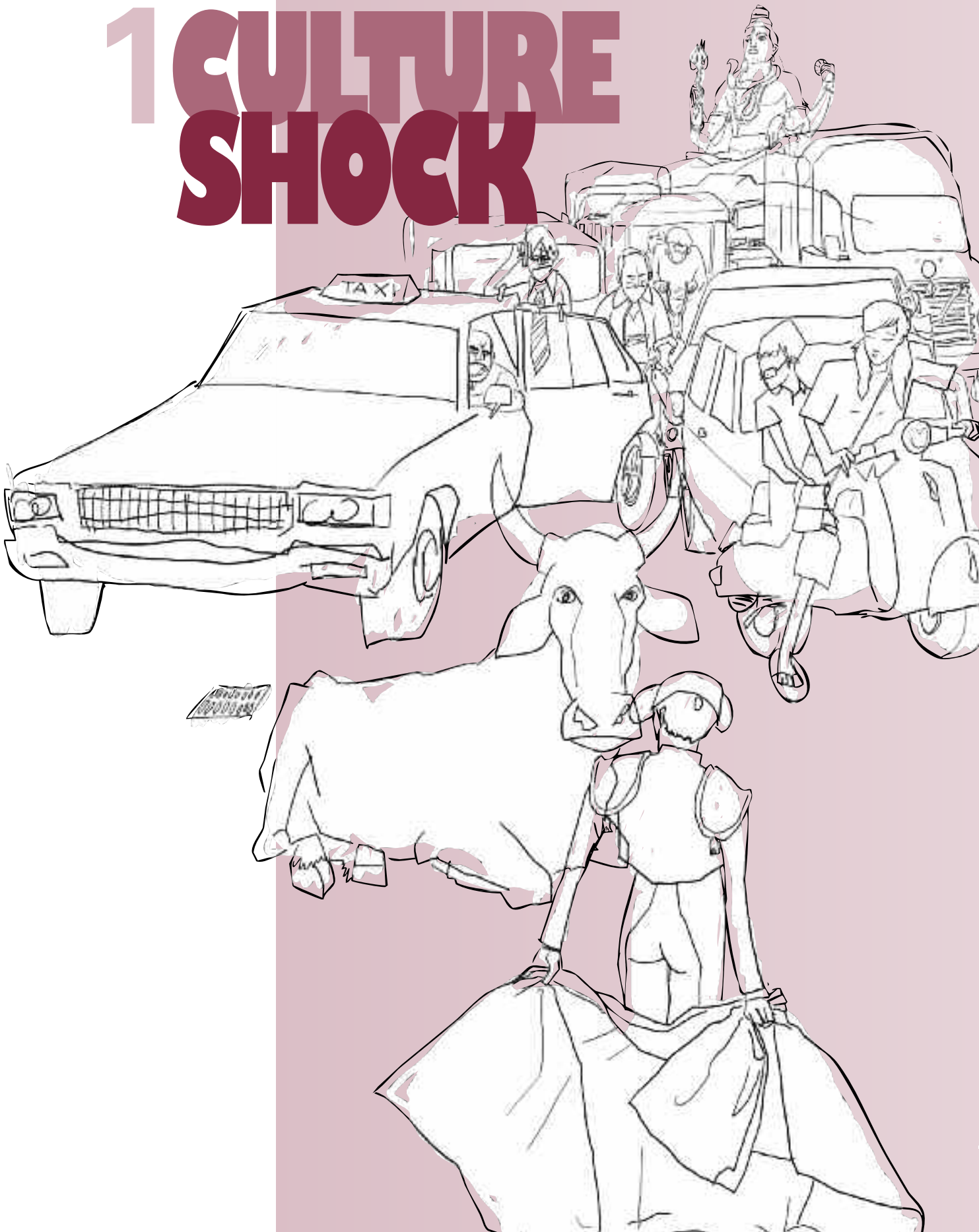
The aim of the project is for the students to follow the same curriculum as their peers, but by studying the official Social Science programme through English. The Geography materials (14-15) represent a carefully designed CLIL-based version that tries to maintain the balance between the register of the social science discourse and the language level of the students. Uniquely, the students follow a parallel English Language course, with sequences of work based on the text types, items, structures and competences that most commonly appear in the Social Science materials. The model required by the project is that the students dedicate 3 hours per week to the study of Social Science and 2/3 hours per week to English Language.

What you will find over the following pages is an example of the textbook material used in these English classes which comes from the ESO 3 textbook (14-15 yrs), of the unit ‘Culture Shock’. It’s designed to support a Geography unit that deals with a research-based comparison between two different towns in two different socio-economic and climatic areas. The kids have to gather the stats, and then make sense of them - basically trying to draw conclusions on **significant** differences and similarities, which is a standard social science competence. They have to present their findings both orally and in written form.

This material is designed to help the kids with the language of contrast and comparison - the linguistic link is obvious. But if you look at the Objectives on page 4 of the document, you’ll see that they’re couched in **procedural** terms. ‘Culture’ is simply a vehicle in order to practise ‘Select and organise relevant information’ and ‘Identify differences and similarities’, **using the appropriate discourse**.

What is interesting, in CLIL terms, is that you could say the same about the Geography. The two-town comparison is merely a vehicle for a higher-order (sub)competence.

1 CULTURE SHOCK



objectives

1. To identify differences and similarities between cultures by reading and comparing the content from various relevant texts.
2. To select relevant information and organise it in order to write a comparative text, using the appropriate discourse.

INTRODUCTION

- What is 'culture'?
- What is Basque culture?

COMPARING CULTURES

Comparing and contrasting differences and similarities between cultures.

ANALYSING MODELS

Analysing a model text and producing short texts.

FINAL TASK

Writing a comparative essay which compares two cultures, then correcting and assessing it.

activities

- 0.** Objectives, contents map and activity list.
- 1.** Identifying the main components of any given “culture”.
- 2.** Identifying the main components of Basque culture.

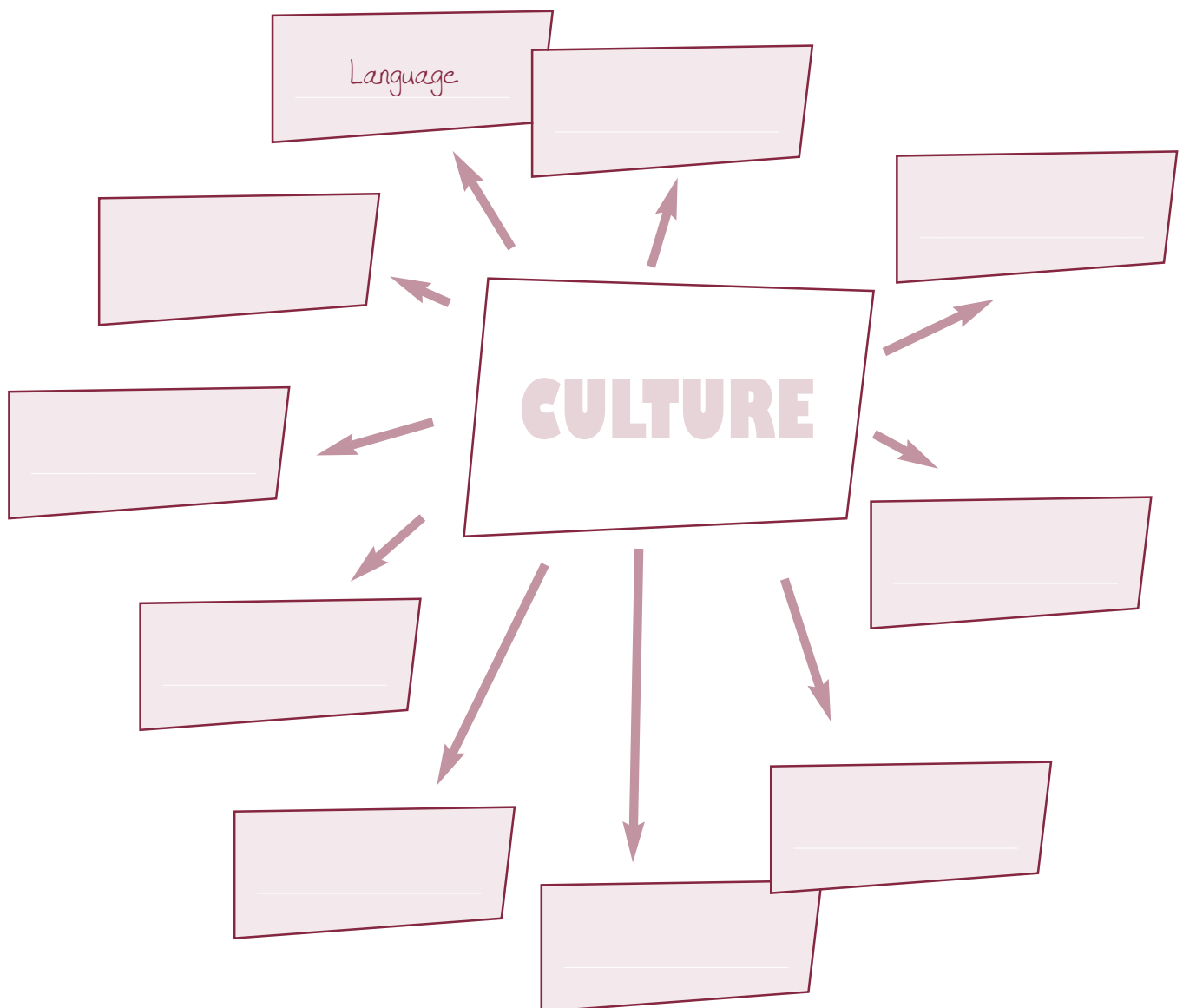
- 3.** Comparing and contrasting pictures.
- 4.** Locating cultures - identifying a geographical area using the cultural clues given by pictures.
- 5.** International birthday party: analysing and comparing cultures.
- 6.** Survey comparing Basque and Bulgarian culture.
- 7.** Exchanging information on Basque and Bulgarian culture and writing a brief opinion.

- 8.** Analysing 'cases' and speculating on cultural factors.
- 9.** Confirming the speculation, then practising expressions of comparison & contrast.

- 10.** Practising essay structure by comparing and contrasting cultural information.
- 11.** Working on a checklist for the final production task.
- 12.** Watching video clips and noting down information onto a 'Cultural Information Search Card'.
- 13.** Choosing the essay outline.
- 14.** Writing the comparative essay.
- 15.** Let's play teacher: peer correction and reflecting on language.
- 16.** TINTI TIME – reviewing peer corrections. Things I Need to Improve.
- 17.** Speed Reading. Reading other essays in small groups, noting down important facts then sharing them with the rest of the class.

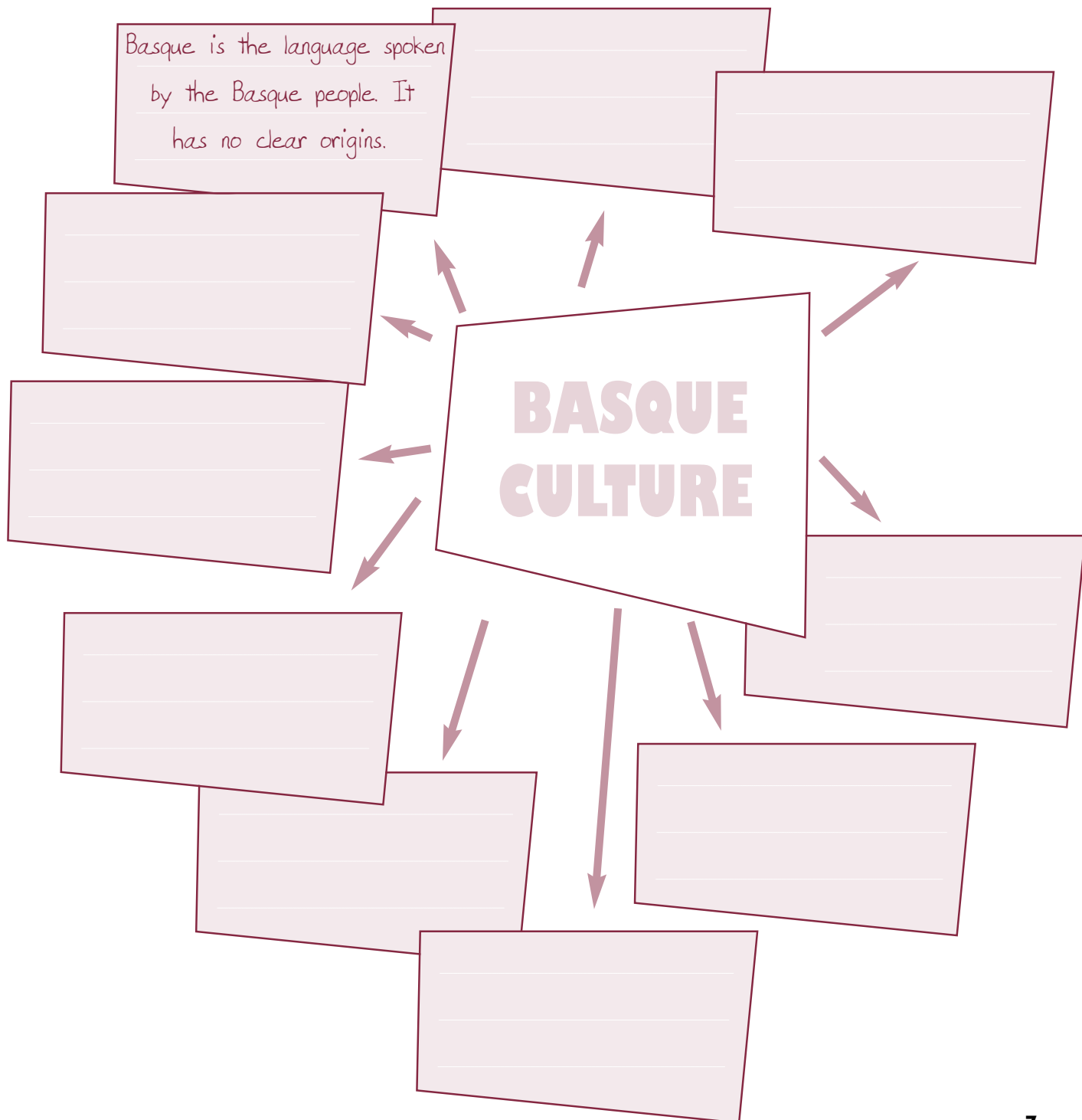
WHAT IS CULTURE?

Fill in the mind-map below with some of the components of a "culture".



2 AND WHAT ABOUT BASQUE CULTURE?

Fill in the mind-map but this time using the example of Basque culture.



3 COMPARING PICTURES



Work in pairs. Your teacher will assign you a pair of pictures. Look at them and write down at least two differences and two similarities between them. **For example:**

Picture five shows a policeman directing traffic, whereas in picture six the traffic looks chaotic.

Both pictures show...

4

LOCATING CULTURES

- 1) Locate all the pictures geographically. In which country do you think each one was taken? Justify your answers. **For example:**

We think that picture 1 was taken in because

- 2) Link each picture to as many “components of a culture” (from the concept map in Activity 1) as possible. Justify your answers.

5 INTERNATIONAL BIRTHDAY PARTY

- 1) Read the following letter written by Audrey telling her friend Sharon about some “strange” people she met at a birthday party.

Hi Sharon!

How are you? I'm great! Malta is a wonderful place and I'm meeting lots of people from very different countries. Last weekend, I was invited to a birthday party at a friend's apartment and I had a lot of fun, although some people were a little strange.

Did I tell you it was a birthday party? Well, I bought a wonderful present for the birthday girl but when I gave it to her, she didn't open it! She took it to her room and left it there! I was so disappointed ... then, a boy came to the party and took his shoes off at the door. Can you believe it?

Later, I went into the kitchen and I saw two girls sitting by the table. I sat with them for 15 minutes and they didn't say a word! So I left for the living room again. I saw some Italians dancing and I joined them, they were very nice people and now we go together everywhere. Then, the strangest thing happened. A boy asked if anybody was hungry and brought some food. Do you know what it was? Chicken hearts! Really strange, isn't it?

But more weird things happened. Some people arrived at the party two hours late!! Not only that, they said the party was boringdidn't they realise that the party had finished and we were going home?

As I told you, some people were very unusual but it was interesting. What about you? How is school?

Lost of kisses for everybody and see you soon!

Love,
Audrey

- 2) Now answer these questions using Audrey's letter:

- How many “strange” people did Audrey meet at the party?
- Why did she find them strange?

- 3) Write down a possible explanation for each of those people's behaviour. **For example:**

'Maybe that person comes from a culture where...'

- 4) Try to identify the six cultures mentioned in the letter.



SURVEY TIME!!

- 1) Fill in the survey sheet that your teacher gives to you.
- 2) Walk around your classroom and conduct the survey given to you by your teacher.
- 3) Go back to your group and convert the answers you've collected into percentages.

For example:

Group A

In the first question 50% of students said

- 4) Once you've finished, your teacher will give you the answers given by some Bulgarian teenagers. Compare the percentages with those given by the Bulgarian teenagers. Are they similar or different to yours? Use the sentences below to help you compare and contrast.

- We have been working on 'classroom behaviour'.
- One significant difference is...
- We are similar to the Bulgarians in the way that...

7 GATHERING ALL THE INFORMATION.

1) Listen carefully to your classmates and fill in the following table.

	SIMILARITIES	DIFFERENCES
CLASSROOM BEHAVIOUR		
SOCIAL BEHAVIOUR		
EARLY, ON TIME, OR LATE?		
DATING CUSTOMS		

2) Do Bulgarian and Basque teenagers behave differently? Write a brief paragraph giving your opinion about both cultures.

