

Using ICT to Support EAL Pupils

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1. Introduction

This article aims to provide a short concise guide to ways of using ICT with EAL pupils, for EMAS teachers and mainstream teachers of EAL pupils. It does not attempt to provide a comprehensive list of all software, but rather to bring together some ideas and suggestions as a stimulus for using ICT with EAL pupils.

How can ICT help EAL pupils?

Many features of computers can assist pupils in learning English, such as: students can work at their own pace, repeat, listen, record own voice, use on-line translation facilities, have support in writing and reading, and so on. Computers can also be used in promoting and maintaining bilingualism of pupils, for example by having multilingual word processing and access to first language websites.

Practicalities

It is useful to find out what previous experience of computers a new arrival has. This will range from never having used a computer to being highly competent. Starting school using a new language is very tiring. Using the computer allows a pupil to work without anxiety about their mistakes, in a situation where they can repeat things as often as they need. A beginner pupil at upper KS2, or secondary level, can productively spend a little time (30 minutes, for example) every day on language learning activities on the computer. It is useful to have headphones available for this, and possibly also a microphone.

The widespread networking of computers in schools could be a problem when individual programs need to be set up for a particular pupil. It is helpful for these pupils to have access to a stand-alone computer, or lap-top.

ICT can be used to directly support the learning of EAL pupils at all stages of acquiring English from beginner to advanced, and at all ages from KS1 to secondary. It can also be used to support teachers in resource preparation. The following pages look in more detail at a number of areas including: resource preparation, language learning software, using the Internet, supporting literacy, using multimedia and multilingual resources.

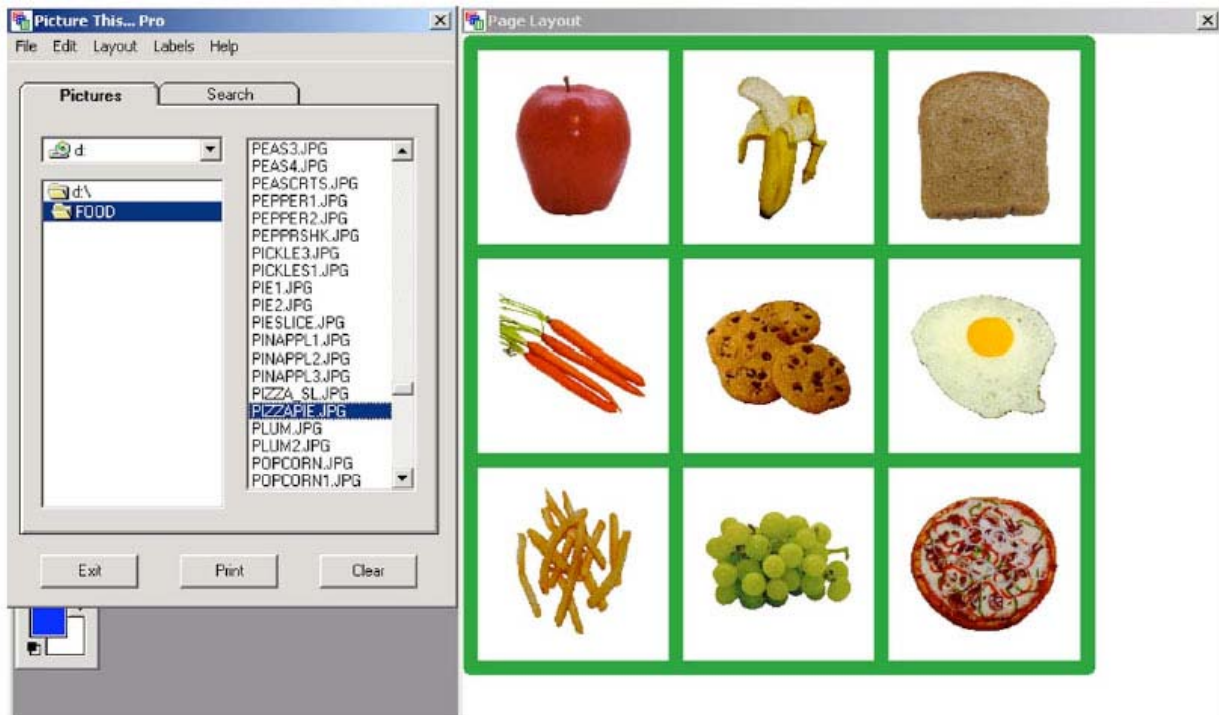
2. Resource Preparation

Using pictures

The use of ICT can enhance the rapid production of high quality visual support materials for EAL pupils at all levels. For beginners, one main area where it can be utilised is in providing pictorial support for learning basic vocabulary, for example: body parts, clothes, colours, food, prepositions, transport, and so on. For instance it can be used in making flashcards, worksheets, workbooks, picture dictionaries, games, labels and so on.

'Picture This' CD-ROM has a large picture bank arranged under categories such as actions, animals, food, prepositions, clothing, and can be used to make games and flashcards to teach and reinforce basic vocabulary. These can be used in English lessons and also for reinforcement as games in a 'Study Buddy' scheme for peers to play with the EAL learner.¹

The programme allows you to choose a category, and insert pictures of your choice into a grid, for example 'food', to make lotto games:



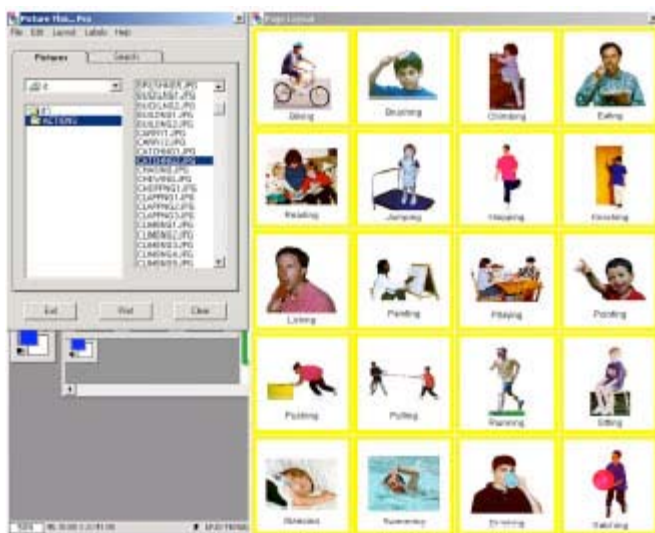
You can also print and cut out the words to match – or differentiate the game for younger learners, or older pupils without literacy skills, by using counters.

¹ A 'Study Buddy' scheme involves one or more peers supporting a new arrival, for example by setting aside a time each day to play games to help learn English, and make new friends.

Example: 'Prepositions' lotto game:



The layout can be changed, and you can choose whether to show written labels, so you can also make word/picture banks for oral/written work, for example writing sentences using verbs:



The CD-ROM is also a good source of pictures which can be put into other programmes such as MS Word or MS Publisher, and printed out to be used for labelling with or without words supplied – for example: labelling a picture of the classroom.



THE CLASSROOM

Label these things in the classroom:

ceiling	computer
paper	blackboard
poster	clock
numbers	bookcase
flag	table
chair	picture
notice board	globe
floor	desk
door	

Write: This is a chair. These are chairs.
 This is a These are

Make sentences using:

on, in, beside, under, over, next to, behind, in front of, above,
 below

The picture is above the blackboard.

Now write about YOUR classroom.

Another source of photos for making flash cards and games is Flash!Pro 2 which is a collection of over 8.500 colour photo flashcards arranged in 65 categories such as actions, body parts, food, clothing, people, furniture, vehicles and so on.

Other sources for pictures can be found on the web. The 'Google' search engine has an 'Image' search with access to a very extensive range of illustrations. However, this is a web search, and the pictures will often be copyrighted.

There are also websites for free clipart, picture banks for language learning, and photos, for example:

<http://www.clipsahoy.com/index.html>

Large collection of free clip art.

(To avoid the annoying pop-up advert windows, set your Internet security options to 'high' (this can be found under tools/internet options/security for Internet Explorer). Return the settings to 'medium' after use. If the slider bar to change security settings does not appear, click the 'default' button to display it.)

<http://www.langpix.com/categories/index.shtml>

Many photos of everyday objects – free to use for educational purposes

<http://www.freefoto.com/>

A selection of photos covering general subject matter – free to use for educational purposes

Alternatively, drawings can be scanned in, or digital photographs taken, and used in the same way to produce worksheets, flashcards and games in eg MS Word or MS Publisher.

For pupils beyond the beginner level, visual support can assist access to the curriculum. Clip art collections and photos of, for example, science equipment, geography and history facts and concepts, can be used to illustrate new vocabulary, lists of key words, worksheets and revision sheets.

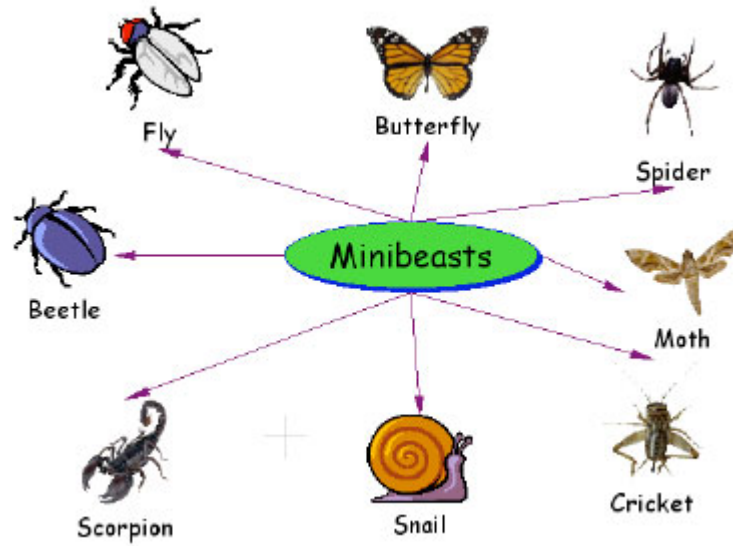
Sources of national curriculum clipart can be found on CD-ROM, for example:

Primary Curriculum Clip Art (Sherston)

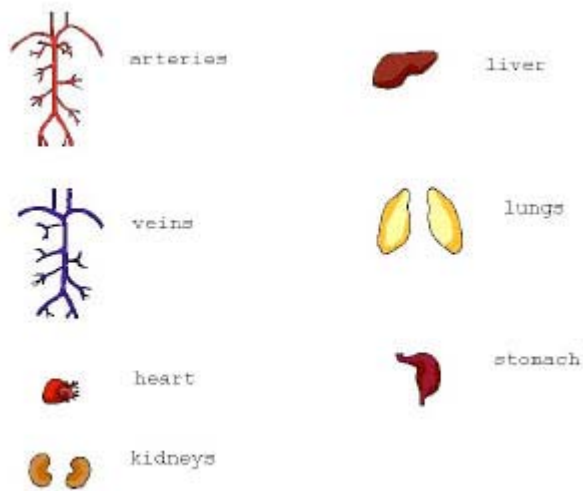
Secondary Curriculum Clip Art (Sherston)

Some useful clipart images can also be downloaded from the web, for example, Northumberland LEA have a collection of primary clipart including Greeks, D and T, Nursery Rhymes, shapes etc <http://ngfl.northumberland.gov.uk/clipart/default.htm>

Examples of curriculum related word lists using clipart images:
Minibeast vocabulary for a KS1 topic:



KS2 science key words list for body parts:



Using words

There are a number of programs available, either on CD-ROM or on the web, for creating various types of word puzzles, word searches, crossword puzzles, cloze exercises, work sheets and so on. For example:

<http://www.teach-nology.com/>

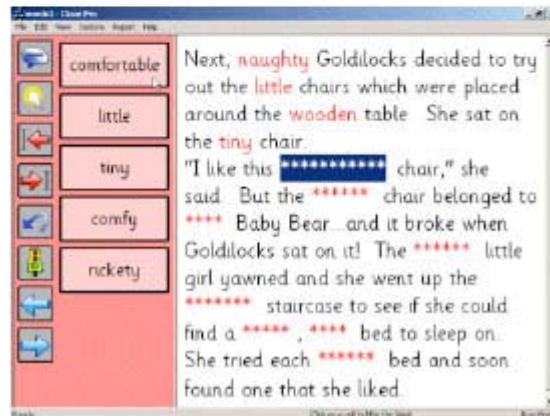
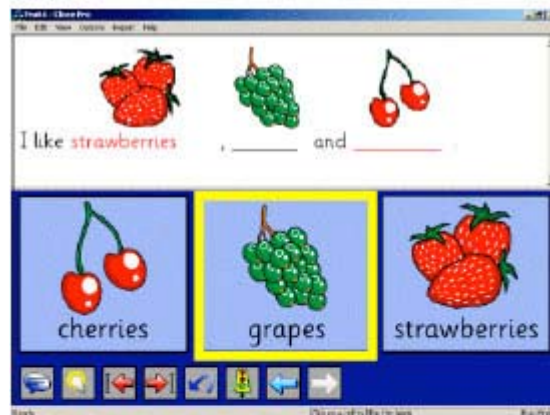
<http://www.puzzlemaker.com/>

These sites allow you to enter word lists and create your own word searches, word puzzles, and worksheets.

<http://www.bogglesworld.com/>

This site has wordpuzzles which can be printed out and used in the classroom.

'ClozePro' is a program for creating cloze activities with any text, that also included picture and speech support. Activities can be used on screen or printed off as worksheets.



'*Matchword*' is a program that allows teachers to create printable worksheets to support spelling, phonics, and word work. It has a picture library of 500 items arranged in categories, and a large dictionary. You can also add your own words. You can create and save a wide variety of word-based activities, including bingo cards, word puzzles, cloze exercises, picture word banks and spelling lists.

Using texts

The increasingly wide availability of texts in electronic form makes it much quicker and easier to differentiate materials for EAL pupils. For example, CD-ROM and web based collections of texts can be used to: simplify and shorten texts, write summaries, add notes, glossaries, pictures to class texts. Alternatively, this can be done on scanned in text.

'*Classic Library*' CD-ROM contains over 2,000 unabridged texts.

The Gottenburg Project is a large collection of texts, mainly literature.

<http://promo.net/pg/>

'*Guardian Unlimited*' has links to classic and modern e-texts.

http://books.guardian.co.uk/links/sites_for_enthusiasts/online_texts/front/0,6135,96411,00.html

'The best Children's literature (on the NET)' has links to a range of children's classics.

<http://www.geocities.com/Paris/Jardin/1630/#adults>

3. Support for Teachers and EAL Pupils

Translation and dictionaries

Free language support for teachers and pupils can be found on the Internet. On-line dictionaries and machine translators are available in a very wide range of languages, and can be a useful aid for translation – especially for new arrivals with no English. For example, they can be used to provide a basic vocabulary list, or to find out greetings and simple words in the language of a new child, to help them feel welcome. Non-Roman fonts can also be found to download. Web page translators can help older pupils use their first language in researching topics.

Below are given some sites providing links for most languages.

The translation guide

Over 520 links to free, on-line machine translation (MT) engines, translation dictionaries, translation word lists, and foreign language processing resources.

<http://mason.gmu.edu/~aross2/>

Your Dictionary.com Language dictionaries

On-line dictionaries in 260 languages

<http://www.yourdictionary.com/languages.html>

ilove languages

Guide to languages on the web

<http://www.ilovelanguages.com/>

languages on the web

Language related links and dual language stories and texts

<http://www.languages-on-the-web.com/>

University of Sussex

Less commonly taught languages - page of useful links

<http://www.sussex.ac.uk/langc/others.html#net>

foreignword.com

<http://foreignword.com/Tools/tools.htm>

translate-free.com

<http://www.translate-free.com/>

The Becta website community language pages have useful articles with links for software, fonts and use of multilingual word processors.

http://www.becta.org.uk/teachers/teachers.cfm?section=1_3_2_3&id=756

http://www.becta.org.uk/teachers/teachers.cfm?section=1_3_2_1&id=794

Information

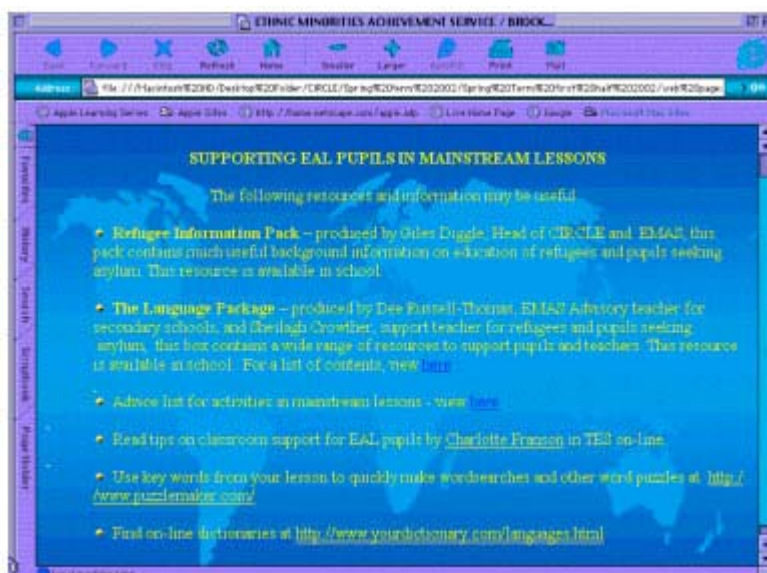
The Becta website community language and ESOL pages have a number of articles relevant to the teaching of EAL pupils in schools. For example, the SAY IT sheets translate the terminology of the computer classroom into about 30 languages,

http://www.becta.org.uk/teachers/teachers.cfm?section=1_3_1_1&id=677

and science terms in eight languages can be downloaded at:

http://www.becta.org.uk/teachers/teachers.cfm?section=1_3_2_1&id=680

The school intranet can be used as a location for information and advice for mainstream teachers and schools on EAL issues. For example, web pages can provide information, advice and reference material on teaching EAL and ethnic minority pupils, with links to useful websites. It can also be used to showcase pupils' work, to provide examples of their languages and customs and to increase linguistic and cultural awareness among other pupils.



4. Choosing and Using Software to Support EAL Pupils

A. Generic / Non-Specific Software

Suggestions for Primary Schools

There are a number of programs that are not subject specific, which can be used to support the learning of EAL pupils. Some common features of these include the use of sound to read text, the use of visual support in the form of pictures, clip art, photos, diagrams, maps, charts, animations and video-clips. Many primary schools have *RM Windows Box* on their computers. This contains a wide variety of programs and facilities that can be exploited to support EAL learners. Below, some examples are selected and ways in which these might be used to support EAL pupils identified.

Pick a picture is a data-handling program for young children, that allows pupils to create a picture

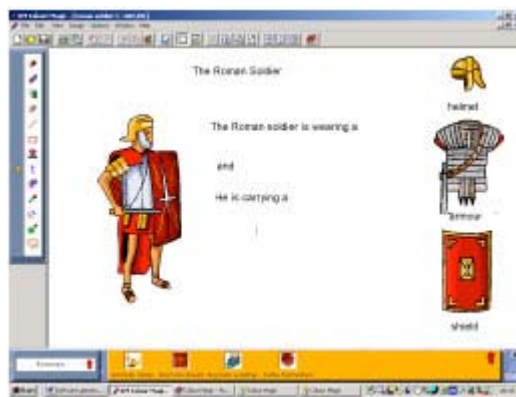


graph about themselves with very little reading, but practicing all the basic vocabulary of the first stages of learning English. This leads on to asking questions in order to build up a class data graph. Topics included are: ourselves, houses, weather and minibeasts.

RM Colour Magic has a comprehensive set of stamps and a text tool for writing captions, which makes it suitable both for individual work tailored to learning English (for example, talking and writing about playground games, food, likes and dislikes) and differentiation of a wide range of topic work.



For example pupils could choose pictures of Romans or Egyptians, and write about them in first language, or worksheets could be prepared for pupils to match captions and labels to diagrams.



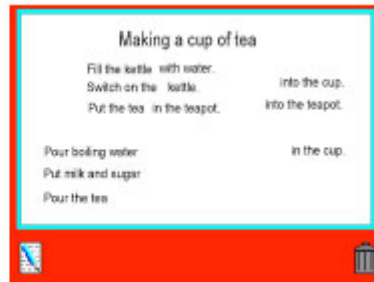
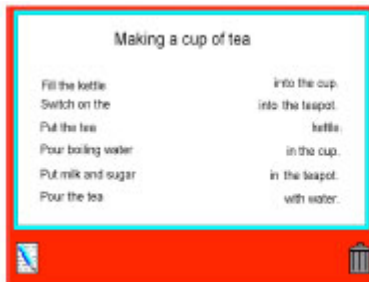
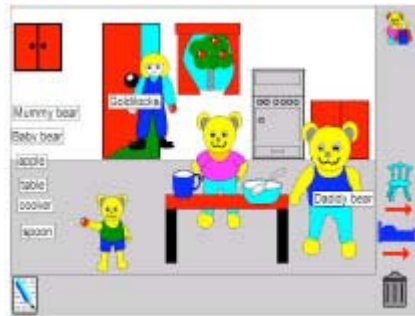
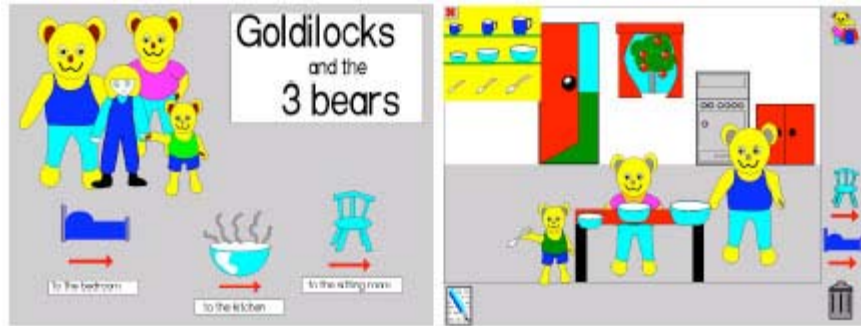
Talking First Word

This is a talking word processor, which can speak as the child types, or when they have finished. It has a topic bank of words, pictures, and sounds. As well as pupils using it as a word processor, teachers can prepare worksheets for pupils to use on the computer. It is possible to record speech onto the page. For example, a child could read their sentences or a short story aloud in English or first language, or a teacher can put spoken instructions in first language.

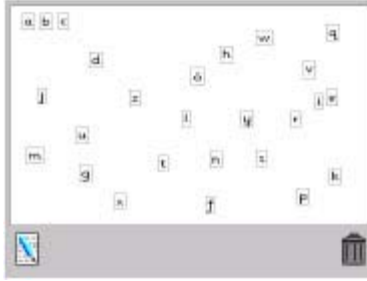
My World

This program has a large number of screens available on a wide range of topics. The screens have objects that can be moved and arranged, and text can be added. These can be used in a variety of

ways, for example, to sequence text and pictures (for Story writing, science investigations, history topics and so on), or to label pictures and diagrams.



You can prepare your own screens. You can make activities for sequencing sentences or short paragraphs, matching beginnings and endings of sentences, matching headings to paragraphs, and so on. The example below is an activity for sequencing the alphabet.



Suggestions for Secondary Schools

Textease

This is a word processor and also a multimedia authoring program. It is very simple to use, with a talking word processor, wordbank, easily imported pictures and sounds. It writes where you put the cursor, and text can be moved around the page easily. This makes it easy to reorganise text.

TextHELP! Read and Write

This program will work in conjunction with any other programme on the computer. It has a screen reader which will read aloud on-screen text. This also works with web pages on the Internet. It also has word prediction and a talking spell-checker.

Clicker 4 is a talking word processor with word and picture banks, and *Wordbar* is a wordbank for older pupils (both these programs are discussed in detail in section 6B on writing).

Inspiration

This is a program that supports pupils in the process of planning for writing. It can be used to create a brainstorm of ideas, and then convert this to an outline of headings and subheadings to help in organising writing. It has a picture bank and could be used for planning in English, first language or a combination of both. For example, a visual writing plan can then be turned into a word diagram with subheadings to aid writing essays. It can be a useful aid in explaining to students how to plan, organise and write different kinds of essays, (for example: comparison and contrast, advantages and disadvantages, and so on). It can also be used to support pupils in organising writing into paragraphs.

The example below shows planning for giving a talk about 'My Favourite Animal'.



- my favourite animal
- DOGS
- I. - history of dogs
- II. - stories
- III. - training
- IV. - different breeds
 - A. - Dog
 - B. - Dog
- V. - diet
 - A. - dog food
 - 1. - pedigree chum
- VI. - famous dogs
 - A. - iv / film
 - 1. - 101 dalmations
 - 2. - Lassie
 - B. - books
 - C. - dogs in art
- VII. - dogs in art
 - A. - statues
- VIII. - dogs in racing
 - A. - fitness/abilities of dogs
- IX. - fashion shows
- X. - guide dogs
- XI. - Miscellaneous Thoughts
 - A. -

Kidspiration is a similar program aimed at users 5-11 years, but is also suitable for older pupils with EAL.

B. Subject-Specific Software

Many of the features of multimedia, such as visual support, pictures, video, diagrams, speech, animations, ease of navigation, search facilities, and so on, combine to make electronic reference material much more readily accessible to pupils than traditional paper books. There is a wide range of titles available, of which the Dorling Kindersley multimedia titles provide good examples. *The Ultimate Human body*, for instance, allows the reader to rotate an image of the human body, and read and listen to text.



Another Dorling Kindersley title, *The Way things Work*, based on David Macaulay's book, is a program that lets children explore science and technology through looking inventions, and how they work.



In *Stowaway*, also a Dorling Kindersley publication, a vivid impression of what life at sea in the 18th century was like is created through the use of illustrations, animations, narrated stories and sound effects.

C. English Language Learning

The advantages of using English language computer programs include:

- They practise all four language skills – speaking, listening, reading and separately and in combination
- They are interactive
- They are motivating/fun/engage pupils interest
- The pupil can work independently
- The pupil can repeat as often as he/she wishes
- The pupil can work at his/her own pace
- Some programs can track progress/ print reports for teacher to monitor
- They can be used at all levels
- Some programs have instructions in a range of first languages

There are many programs available. Some are only available as CD-ROMs, others are of TEFL text books. Those listed below are some examples that successfully in Gloucestershire schools.

Listen and Learn English

These were written for teaching English to children in schools abroad, but they are suitable for KS1 and 2 pupils, and can also be used with beginners at KS3 and 4. There are three discs, each with content at three levels: 'Starters', 'Movers' and 'Flyers'.

'Starters' covers the following topic areas: numbers, colours, clothes, face, family, transport, animals, the body, classroom, sport, food and drink, furniture and rooms, moving house, fruit and vegetables.



In each topic area, the program teaches basic vocabulary, which is then tested by the pupil following spoken instructions, for example 'put some hair on the face', 'open the door', and so on.



This progresses to spelling words from jumbled letters at level 3.



The program also includes some video clips, for teaching verbs.



'Movers' covers a range of tenses, lexis and language structures.



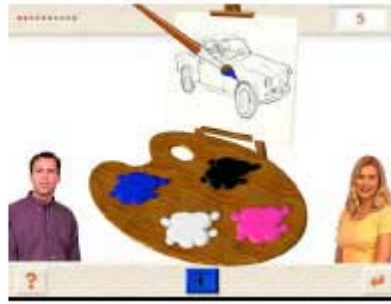
Exercises include listening and typing answers on an on-screen keyboard.

'Flyers' further extends the range of tenses, lexis and language structures.



Reward

This is a complete English course with 4 discs covering levels from beginner to advanced. It follows the format of the TEFL textbooks of the same name, but the computer version includes video, interactive activities, and a facility to record your own voice and compare with native speakers.



World Talk (Intermediate)

This CD-ROM builds on the vocabulary in 'Talk Now' and includes listening comprehension and dictation exercises, and a 'recording studio' to listen to phrases, practice and repeat.



Issues in English

This interactive CD-ROM covers eight topical issues including animal rights, gambling and environment, at 4 levels and includes video clips and printable worksheets. It is suitable for Key Stages 3 and 4.

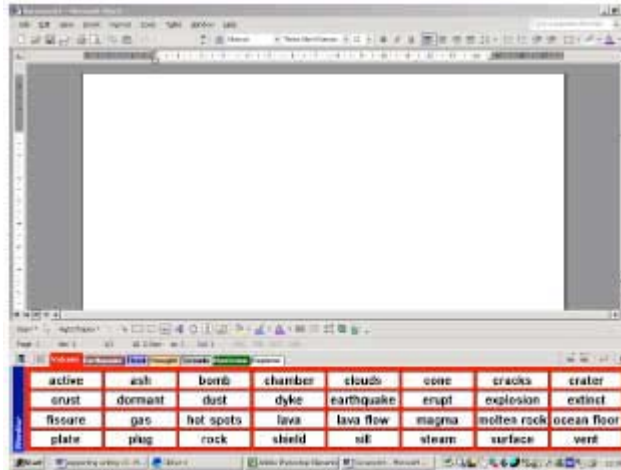
5. Using Internet Sites for Learning English

The Internet has a very large number of sites dedicated to supporting English teachers and students of EFL / ESL. These can also be used for EAL pupils in schools to provide a wide range of useful resources, ideas, on-line activities and interactive quizzes, as well as printable worksheets. (See also Section 2: 'Resource Preparation').

For example:

Listening puzzles and crosswords at:

<http://www.marlodge.supanet.com/listen/index.html>



Bilingual quizzes on a range of vocabulary areas, in 18 languages at:

<http://itesj.org/links/ESL/Bilingual/>



Bilingual stories and texts in 50 languages at:
<http://www.languages-on-the-web.com/>



The screenshot shows the 'languages-on-the-web' website. At the top, there is a logo with the text 'languages-on-the-web' and a small image of a person. Below the logo, it says 'LONWEB PARALLEL TEXTS: TURKISH'. Underneath, it reads 'DAISY STORIES by Crystal Jones © 1999 All rights reserved'. A note states 'Translated by Havva KARAKAS, a professional Turkish translator. E-mail: havvakarakas@hotmail.com'. The main content is divided into two columns. The left column is titled 'Daisy Macbeth Rolünde' and contains Turkish text: 'Daisy çok sevdiği dondurasını yerken bir taraftan da Bronzetti's mağ'azasının vitrindeki elbiselere bakıyordu. Bu dükkana bir defa bile girmemişti çünkü fiyatlar Daisy'nin ödeyebileceğinin çok üzerindekiydi. 'İtalyan tasarım elbiseler gerçekten çok...'. The right column is titled 'Daisy Macbeth' and contains the English translation: 'Daisy was looking at the clothes in the shop window of Bronzetti's enjoying her favourite three-flavour ice cream. She never went into the shop because she couldn't afford their prices. 'I must admit that Italian styles are very nice...

A variety of activities can be found at 'Interesting things for ESL students'

<http://www.manythings.org/>

Printable board games, song lyrics and other resources are available at:

<http://www.esl-lounge.com/>

Links to further sites can be found at the following:

<http://iteslj.org/links/>

There are also a limited number of sites dedicated to providing free English language tuition. These include : '*English space*'. This site provides over 60 hours of interactive lesson materials specifically designed for UK EAL newly arrived immigrant, refugee, and pupils seeking asylum of secondary school age.





The British Council has an English language learning site which also includes a children's section, with stories to read and listen to, games and interactive quizzes.

<http://www.learnenglish.org.uk/>



In addition, subscription sites often also have some free resources, for example, 'English To Go' has reading exercises based on Reuters news articles which are free, and added to weekly.

http://www.homeschool-educator.com/english/sample_lessons.cfm

A useful resource for younger children is this picture dictionary in English + six other languages.
<http://www.enchantedlearning.com/Dictionary.html>



This is a small selection to show the range of material available on the Internet that can be used for English language learning by pupils at all ages. Advantages of utilising these resources include factors such as interactivity, selfmarking, listening practice. Also, an activity that could be done on paper, can simply be more fun on the computer. On the other hand, it can be very time consuming to locate exactly what you want to match pupils' needs.

6. Literacy

A. ICT for Supporting and Developing Reading Skills of EAL Pupils

Learning to read in another language requires a number of different skills. Reading schemes on CD-ROM (such as Oxford Reading Tree, Wellington Square, Planet Wobble) can provide practice in these, and also in listening and pronunciation. They include exercises based on the stories, and some will also track pupils' progress. Oxford Reading Tree stories are available on a set of 6 CD-ROM's, levels 1-7. Each CD has between 6 and 18 stories with animations and related activities which include a facility to record and play back their own reading.



Wellington Square stories have 6-8 books on 5 CD-ROM's



As well as Reading schemes, there are other talking books available, such as 'Rainbow Stories' which has 18 talking books, and songs, narrated by well known personalities.



'Inside Stories' is a set of stories and activities based on traditional tales suitable for KS1 and KS2. There are 8 stories featured including Goldilocks, The gingerbread man, The three billy goats gruff, Cinderella and Jack and the bean stalk. They can support EAL pupils during the literacy hour, or as independent reading books.



B. ICT for Supporting and Developing Writing Skills of EAL Pupils

EAL pupils at all levels need support in attempting independent written tasks. They can be helped by:

- prior modelling of the kind of text they are expected to produce
- oral rehearsal of what they are going to write
- provision of word and / or picture banks to reinforce and extend vocabulary and support correct spelling
- provision of phrases and sentence beginnings, and use of writing frames, to support learning lexis and language structures and their appropriate use.

When pupils are writing on the computer, there are programs available that can provide all the above types of support for word processing. The most versatile programme available is *Clicker 4*. It can be used with all pupils and ages, and is an inclusive resource which allows differentiation to individual pupil's needs, for EAL and SEN, while also being suitable for use by the rest of the class.

Clicker 4 is a program that has two parts: Clicker Grid and Clicker Writer. Clicker Writer is a simple talking word processor. Clicker Grid is a word/picture/sentence/ bank that sits at the bottom of the page, and can 'send' the contents of grid cells to Clicker Writer, by a mouse click. You can also use the keyboard to enter text into Clicker Writer.

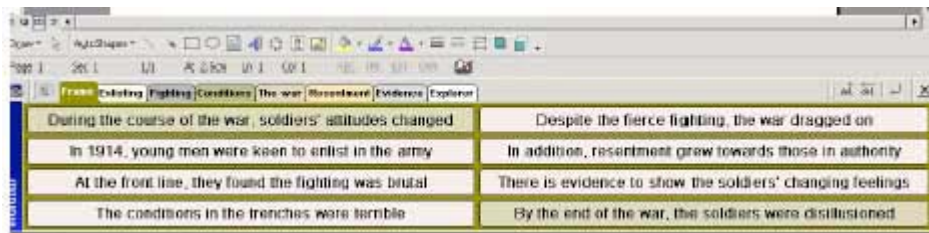
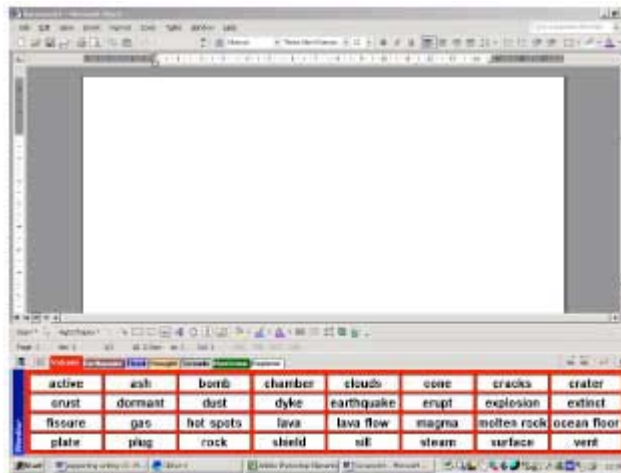
You can hear the words in the grid boxes (right click the mouse) then send them (left click the mouse). You can listen to what you have written in the word processor, and use a spellchecker that includes picture support to find the correct spelling. Clicker Grid also contains wordlists, which can be used to build up pupils' own personalised wordbanks.

The program comes with many ready made grids, and there is also a website (Clicker Grids for Learning) where teachers share resources. These can be downloaded free, or you can buy them on CD-ROM. The Clicker website also has a new EAL section, for sharing ideas and resources. For example, a list of grids specifically selected for their appropriateness for EAL learners, and 'wacky sentences': a grid containing some common words, which can be used for writing sentences in English, while the Gujarati translation of individual words can be listened to by clicking on the word.

Making your own grids is very simple. There are ready made templates to use, or you can make your own. There is a large picture bank, or you can insert pictures from another source. The program is suitable for use from Reception to secondary level, where it is especially useful for working with older pupils with no previous literacy skills. Some examples of grids at different levels are given below.



'Wordbar' is another program produced by the same company. This is designed for older pupils, doesn't have picture support or a talking word processor, but you can listen to the words in the grids. It is a smaller grid that sits at the bottom of any word processor programme, for example, MS Word. You could use it in conjunction with TextHELP!Read and Write 2000 to listen to what you have written. It comes with a collection of ready made grids from the secondary curriculum, and again, more are available on the CGFL website, and continually being added to. For example, below are a word bank for geography / natural disasters / volcanoes, and a writing frame to support discussion of the causes of the First World War.



By writing directly onto a computer, (not drafting on paper then word processing a 'good' copy), teachers and pupils can exploit features of technology which can provide support for the writing process itself, thus enhancing the overall writing skills of EAL pupils. It will allow all writing skills to develop apace and hence improve writing proficiency – whereas pupils' writing development might otherwise be held back from learning global writing skills until all the individual elements – vocabulary acquisition, spelling, knowledge of sentence structure and word order, and so on, have slowly developed. These skills will be transferable to pupils' independent writing.

Thesaurus and dictionary

There are other features of word processors, such as MS Word, which can support pupils in their writing. For example, older pupils can be encouraged to use the thesaurus and dictionary to extend their English vocabulary. MSWord 2000 and 2002 have bilingual dictionaries in some European languages, and others can be installed. Some pupils may be able to use these instantly to look up and insert a word

not know in English. If they have access to the Internet, they can also translate sections of text by accessing on-line machine translation engines. However, the latter method needs to be treated with caution as accuracy can be variable.

Talking word processors

Younger learners can benefit from hearing their text read back to them – a facility available in ‘Talking First Word’, a word processor very widely used in primary schools.

Spelling programs

There are many spelling programmes available, which are suitable for use by EAL pupils, for example *Wordshark*, *Starspell*, *Reader Rabbit*.

7. Multimedia and Multilingual Talking Books

Features of multimedia, such as being multi-sensory: having sound effects, still and moving pictures, interactivity – mean that they can cater to a range of learning styles. This range of media also supports bilingual learners because the reader can control the pace, and replay as often as they like. It is easy to go back and forth, and revisit pages to check things. Links to other pages, further information and word glossaries are easily incorporated, and text can be differentiated for different reading levels.

Multimedia talking books which are also multilingual provide excellent resources for bilingual learners. However, few are available commercially at present. The '*Hounslow Talking Stories Project*' CD-ROM has three traditional stories: '*The man, the boy and the donkey*', '*The hare and the tortoise*', and '*The fox and the crane*'. Each story is in 9 languages (Albanian, Arabic, Bengali, Gujarati, Hindi, Portuguese, Punjabi, Somali, Urdu) plus English. There are also symbol and BSL video versions.



These stories can be used with pupils of any age both for whole class teaching and individual work.

Multimedia multilingual talking books can be made by teachers as resources for EAL pupils. There are a variety of multimedia authoring programmes available, for example *PowerPoint*, *Clicker 4*, *Hyperstudio*, and *Fabula*.

Clicker 4 is being used by Gloucestershire EMAS to make bilingual talking books for pupils. These include additional language versions of the Hounslow stories – in Korean, Greek, Turkish Kurdish, Polish, Czech and Tamil.



'The fox and the crane' in Korean



'The man, the boy and the donkey' in Turkish

Another example, is a resource book for studying Benin at KS2.



But multimedia can also be used to make books with pupils, for example bilingual stories written by pupils for a younger audience. These can be illustrated with photos, clipart or drawings.

'Grandma's gift' in Croatian and English.



'A story for Hamza' in Arabic and English.

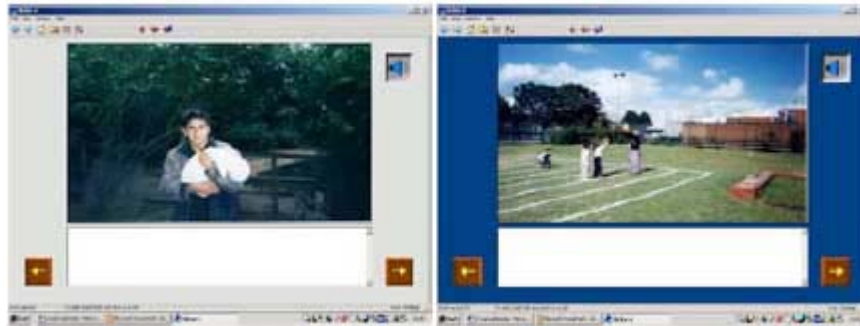


Pupils can also make books about their extended visits abroad, using photographs taken with disposable cameras. These books can provide a valuable personalised curriculum resource for the classroom for instance for a topic on Bangladesh.



Producing work in multimedia format can support a pupil in giving an oral presentation, by providing visual aids - and thus developing speaking skills. This can allow even a beginner at English to develop confidence in speaking - because the audience can see the words as well as hear them.

Multimedia can be used to provide visual support for written tasks – for example work experience accounts.



Bilingual pupils can also be supported by using multimedia for some whole class activities, such as recounting school trips, and making class topic books. Revisiting an event through photographs and oral rehearsal and discussion before writing supports EAL pupils in learning and remembering new language, lexis, concepts and information.

A visit to Cirencester museum(Y3)



For more detailed information on making and using multimedia multilingual talking books see the case study 'Talking books' on the Becta website:

http://www.becta.org.uk/teachers/teachers.cfm?section=1_3_1_4&id=620

8. ICT Skills and Learning English

There will be a great variation in the computer skills of newly arrived pupils, depending on such factors as the education system in their country of origin, age and home circumstances. It is important to find out what skills a pupil possesses, as the computer can be an important aid to learning English. A lower case keyboard may be useful for pupils unfamiliar with the Roman alphabet, and familiarising pupils with the use of symbols (for example for open file, save, print etc in MS Word) can help them to use the computer independently from an early stage.

Facilities for multilingual word processing can help students produce work bilingually in first language and English. Pupils may need to be shown suitable fonts, and how to find keyboard shortcuts necessary to produce the accented characters necessary for their home language. This is especially important if their own name contains accents (eg ç ü ê) or non-Roman letters. Becta produce a useful resource for teaching ICT ' Say IT in ...' vocabulary sheets in 13 languages. These are available to download at: http://www.becta.org.uk/teachers/teachers.cfm?section=1_3_2_1&id=2625

Learning ICT skills can enhance English language learning. For example, secondary age students may be able to work relatively independently from an early stage for a CLAIT qualification in ICT.

'Steps in ESOL' is a program available as a CD-ROM which teaches ICT skills and English language together.



9. Using ICT across the Range of Key Stages (KS1 to Sixth Form): Some suggestions

ICT can be used to provide opportunities to:

- support beginners at all Key Stages in the initial stages of acquiring English
- support more advanced bilingual pupils in continuing to develop and extend their use of English
- promote use of pupils' first language in school
- promote inclusion of ethnic minority pupils

Beginners and newly arrived pupils

The tables 1-4 give in summary form various programs, many of which have been previously referred to in earlier sections of this article, with some suggested examples and activities for their use with beginners to English at the different Key Stages.

Continued support for bilingual pupils

Using ICT can facilitate and extend ways of working which are inclusive and have always been considered good practice for EAL pupils but also benefit all pupils.

Suggestions for Primary Schools

Interactive whiteboards

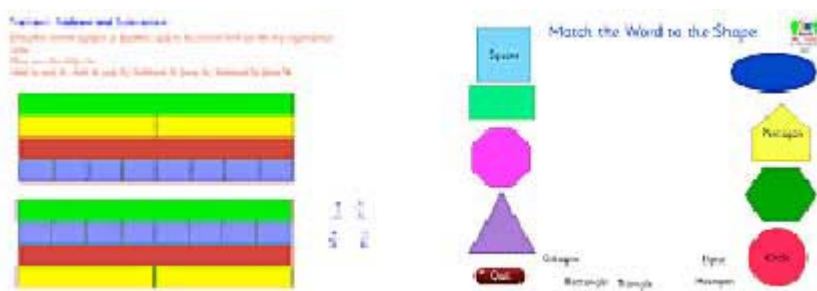
These are becoming a more familiar feature of equipment in schools. Their use in whole class teaching supports EAL pupils in all subjects and at all stages by providing visual support, with features available such as picture resources and video clips. Typed instructions are much clearer for pupils to read, but you can also handwrite on the board. For literacy lessons, for example, books can be used which incorporate a strong visual element, including animations. Kingscourt McGraw publish a linked series of traditional tales in electronic 'Big Book' format and as ebooks for pupils to read independently, as individuals or group work by EAL pupils on the class computer.

For example, these 'big book' pages for the interactive whiteboard, allow text to be listened to and sequenced, text to be deleted and rewritten by the class, speech bubbles to be added to characters, and many more features.



The interactive whiteboard allows the teacher to manipulate and highlight text in order to clearly demonstrate features such as spelling patterns, punctuation and parts of speech.

In numeracy lessons, visual resources are available that can assist pupils in learning concepts, for example shape, time and fractions.



Using an interactive whiteboard in all subjects allows teachers to easily incorporate visual prompts in explanations and instructions for science, history and other topics.

Video

Using video can support EAL pupils by contextualising for example, extracts from novels. Watching a complete film, or using video clips from DVD on the interactive whiteboard can provide background information for culturally and historically unfamiliar topics and literature.

Audiocassettes and talking books

Using reading schemes that are accompanied by computer talking books will support the individual independent reading development of EAL pupils. Listening to audiocassettes or CD's to accompany fiction and non-fiction reading is also a supportive practice for independent reading. There is a large choice available commercially, and Mantra publish a range of CD titles to accompany their dual language story books, which are available either as a collection of stories in one language , or as individual titles with up to 12 languages on a single CD.

Dictionaries and Encyclopaedias

Using dictionaries and encyclopaedias on the computer is much quicker for pupils than using these in traditional book form, and there are some which are available in many languages, for example for younger pupils, Mantra publish a talking dictionary on CD-ROM which is available in 20 languages (in combinations of 5 per CD-ROM).



Differentiation

Using ICT to create printable or online worksheets for pupils can save time in differentiation of work. For example, using programmes such as Clicker 4, Cloze Pro and Talking First Word, an activity can be prepared and exercises easily created at different levels for all to access. These programs also allow pupils to listen to the text, while working. The 'Find Out and Write About' series to be used with the Clicker4 program cover several KS1 and KS2 topics, including minibeasts and Ancient Greeks, and have 3 levels of difficulty which can support EAL pupils.

Suggestions for Secondary Schools

Interactive whiteboards

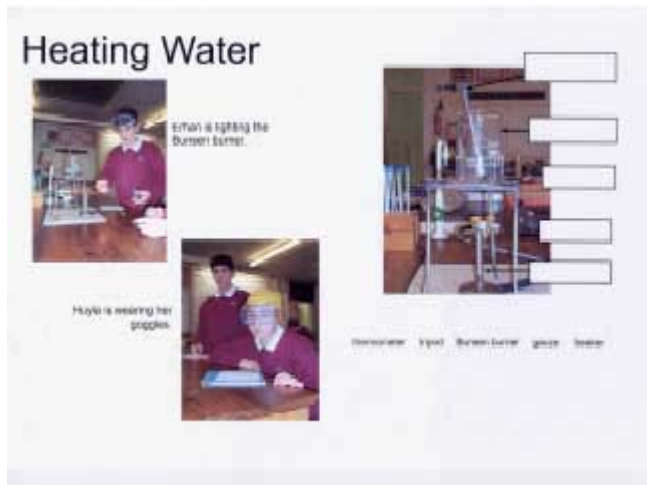
These are becoming a more familiar feature of equipment in schools. Their use in whole class teaching supports EAL pupils in all subjects and at all stages by providing visual support with features available such as picture resources and video clips. Typed instructions are much clearer for pupils to read, but you can also handwrite on the board. Flipcharts can be saved – so content on the board can be revisited if pupils need to refer back to instructions. In science and maths, for example, equipment, methods and instructions can be clearly shown in visual form. Pictures, key words and glossaries can be displayed alongside a text.

Writing some simple sentences based on key vocabulary can be used to:
match beginnings and endings of sentences
sequence short texts
match and sequence short sentences to illustrations, for example, to describe an experiment

All of the above can be used to make printable worksheets or be used on the computer. The latter allows these to be used in conjunction with talking word processors and headphones to support independent work by EAL pupils.

Digital photography and video

Digital cameras are available that can transfer pictures very quickly and easily to a computer. Some will save photos directly onto a floppy disc. These can be used in lessons to record practical processes such as science experiments and Design and Technology demonstrations, and can then be used in a number of ways. For example, for pupils to label equipment and to sequence photos. Video can be used in the same way. Video and photographs will allow pupils to revisit work for fuller comprehension, and a resource bank can be built up for use with new pupils.



Multimedia

Using multimedia (eg Clicker4, Hyperstudio or PowerPoint) as a format for producing work can also support EAL pupils who are still developing writing skills in a second language. This allows them to include visual elements, and demonstrate their understanding of concepts, while developing their written skills.

Audio cassettes and talking books

Encouraging wider independent reading for older bilingual pupils in English of a range of text types is very important for them to continue to develop their knowledge and use of English, so that for example they continue to extend their vocabulary and understanding of forms such as idiom, metaphor and colloquialism. A wide range of audio cassettes is available for full length fiction and non-fiction, and also for abridged stories, and shortened texts with restricted vocabulary. These can encourage bilingual pupils at all levels of English acquisition to read outside the requirements of the curriculum. Listening to native speaker recordings can add greatly to their understanding of a text, with features such as intonation, word stress, and pronunciation facilitating comprehension.

Some lessons or parts of lessons, for example involving long explanations will be suitable for recording on audiotape, which can allow pupils to listen again, for homework.

Dictionaries and Encyclopaedias

Using dictionaries and encyclopaedias on the computer is much quicker for pupils than using these in traditional book form. Many bilingual dictionaries are available on-line. Electronic bilingual dictionaries and spell checkers for individual use can help pupils work quickly and independently, and encourage them to look up the meaning of new words, and continue to improve their vocabulary and spelling.

Word processing

Beginner pupils at secondary can be supported by using grids made in Clicker4. Pupils beyond the beginner stage will need continued support with their written English. Using the computer to wordprocess their work, pupils can be aided by using Wordbar. This program will extend pupils' use of lexis and structures, by the use of on screen word and phrase banks. It also allows pupils to utilise writing frames and have access to the vocabulary required for the various genres that they are expected to use in written English.

Older pupils can be better supported with the process of writing, when they wordprocess their work, because this provides greater opportunities for teacher intervention and support in helping them to improve and advance their written skills in English. By marking written work on the computer, rather than on a typed or hand written manuscript, the teacher can demonstrate how to improve the global writing skills of organisation, structure, paragraphing and so on in a way that is much clearer for the pupil to understand and learn from. This leads to direct and transferable improvement in language and writing skills. For example, by using the *'comment'* tool in MSWord, and *'track changes'*, remarks can be

made at relevant points in the text, making it easier for students to access detailed observations from the teacher on content and sentence structure. Suggested alterations can be made in a different colour font - this effectively highlights errors and improvements to the pupil, and helps them to recognize for instance, correct use of articles, verb forms, modals and so on. Text can be moved and reorganised, thus helping pupils to learn how to organize overall content, and make correct use of paragraphing. Pupils can then redraft their text on the computer, making direct use of teacher's comments.

email support

Using email to offer support to older pupils (KS4 and sixth form) is an effective way of continuing EMAS support to pupils, targeting their particular needs, and using marking techniques described above to extend and support their written English skills.

Using the Internet

Older pupils can be encouraged to seek information and homework help from Internet sites. There are many curriculum related sites on the Internet, for example, the BBC website has a site where pupils of all ages can email a teacher for help, revision guides for primary and secondary, and a peer support network.

<http://www.bbc.co.uk/schools/>

<http://www.bbc.co.uk/schools/communities/sosteacher/>

<http://www.bbc.co.uk/schools/revision/>

Hutchinson publish a comprehensive guide to GCSE websites which is a very useful aid to finding help on the Internet.²

² The Hutchinson Guide to GCSE Websites' ISBN 1-85986-358-2

10. Using ICT to Support EAL pupils who also have Special Educational Needs: Some Suggestions

It is important to recognize the specific language needs of all bilingual pupils, inclusive of those who also have SEN, and it is of particular importance for these pupils that the use of first language alongside English in school is encouraged and promoted. ICT can support good practice in this area. There is much information and a wide range of resources - both hardware and software - available to support pupils encompassing the full range of special educational needs, both in mainstream education and in special schools.³

Many of the ideas already mentioned in this article will be supportive of EAL pupils who also have SEN in mainstream classes. For example, programs such as Clicker 4, Cloze Pro, spelling and phonic programs, using speech in English and first language in programs and on-line activities, and visual support with interactive whiteboards for whole class teaching.

In particular, using multimedia⁴ can support the inclusion of pupils with a wide range of needs, while including support in and promoting use of their first language, alongside English. Stuart Randall, Newfield School, Blackburn, using Clicker 4 has created an access system to an e-library of talking books, including bilingual books. He has provided the following suggestions on how multimedia, and in particular the access features of the Clicker4 program can be exploited for the inclusion of pupils, including bilingual pupils, who may have a range of disabilities. For motor-impaired (MI) pupils, e-books allow them to read independently, turning pages at their own pace, and if these have been structured properly, they can move around the book in the same way as other readers do. The scanning facility in Clicker4 allows them to choose a book via grids in an e-library, or alternatively to choose a CD, radio or TV station to listen to or watch. (This could also be used for pupils to choose Internet sites, including first language sites, for example the BBC World Service site has news in 43 languages, including some news articles as audiotracks.) Switch boxes allow a range of switching devices (eg wrist switches, pressure pads, movement sensors) so that a common resource is accessible by pupils with a wide range of disability.

Visually impaired (VI) pupils are supported by the speech facility of multimedia, which can be in dual language. Also, Windows applications have accessibility options such as Magnifier, to enlarge the text box to suit the user, and speech options, to read aloud instructions as the mouse passes over them.

Hearing Impaired (HI) pupils can be included by the use of video, for example the BSL versions of stories such as the Hounslow Talking Stories Project, or Makaton⁵ or lip-reading versions of books which can be made in different languages. In Clicker 4, the home language can be used to give instructions and information that builds the confidence of EAL learners who also have special needs.

Videoconferencing

This could be used to link isolated bilingual pupils with a range of special needs, to receive support from bilingual peers who share a first language in another school. It allows for pupils to communicate in a number of ways: lip-reading, speech in first language, signing, and to share, for example pupils work, photos, video.

³ See Sally McKeown 'Unlocking potential: How ICT can support children with special needs' The Questions Publishing company Ltd ISBN 1-84190-041-9

⁴ see this article, section 7: 'Multimedia and multilingual talking books'

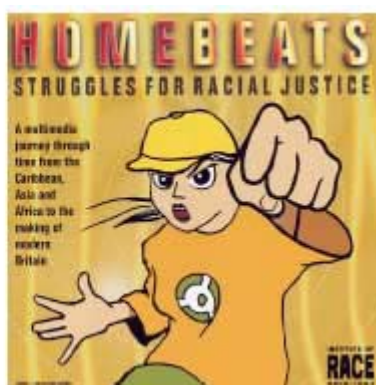
⁵ Makaton is a simplified version of British Sign Language that has been specifically adapted for people with learning difficulties. There is a written version, using symbols (Widget software) that can be used to support literacy learning on the computer.

11. The Role of ICT in Inclusion of EAL and Ethnic Minority Pupils

Previous sections have outlined some of the ways in which ICT can support EAL pupils by both supporting learning English as an Additional Language and by making the curriculum more accessible. The use of electronic resources (on the internet and CD-ROM) can also contribute to raising the attainment of EAL and other ethnic minority pupils through supporting provision of a relevant curriculum, and promoting race equality and anti-racist attitudes. Below are just a few examples from the extensive range now available.

CD-ROMs:

Encarta Africana CD-ROM - a multimedia encyclopaedia of black history and culture. *Homebeats* CD-ROM - a multimedia journey through time from the Caribbean, Asia and Africa to the making of modern Britain.



Internet sites:

Channel 4 blackhistory map - a gateway to websites about Black and Asian history across the British Isles.

<http://www.channel4.com/history/microsites/B/blackhistorymap/>

Links to West Indian websites can be found at:

http://www.becta.org.uk/teachers/teachers.cfm?section=1_3_1_1&id=710

Links to various community websites can be found at:

http://www.becta.org.uk/teachers/teachers.cfm?section=1_3_2_1&id=802

Shap Calendar online - a comprehensive calendar of religious dates and festivals.

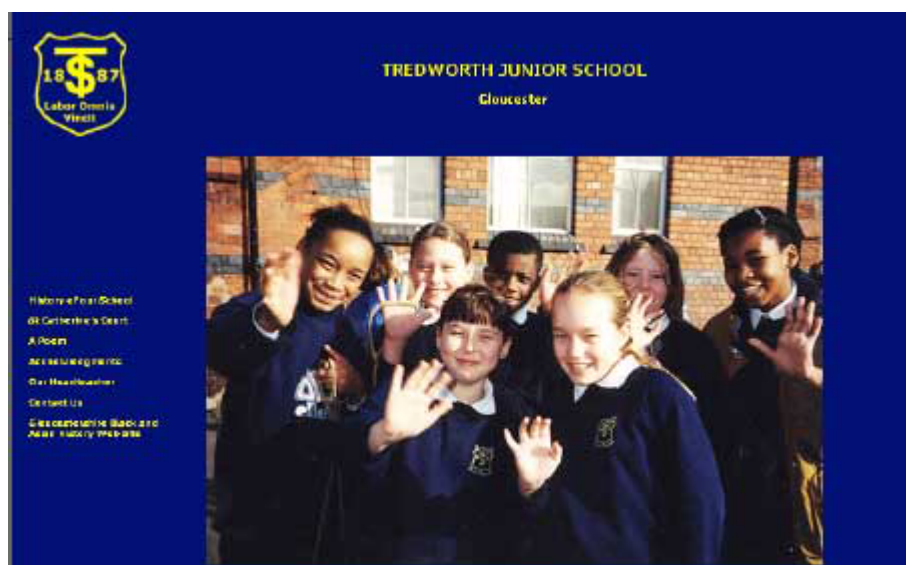
<http://www.support4learning.org.uk/shap/index.htm>

Britkids – a website about race, and young people’s lives in multicultural Britain.
<http://www.britkid.org/>



Annual events such as ‘Black History Month’ and ‘Refugee Week’ are well supported by web-based resources.

ICT can be used to make links between schools with isolated ethnic minority pupils through websites and videoconferencing. Pupils can share and publish their project work on a website, for example, Tredworth Junior school’s oral history project - part of the Channel 4 Black and Asian History map.
<http://www.csad.ox.ac.uk/Tredworth/>



12. Finding software and websites

Educational software is being published at a rapid rate, as are educational websites, while existing websites change and add to their content frequently. It is not possible to attempt to give a definitive list as it would be unmanageably long, and would quickly become out of date. However, there are a number of places to look at for reviews of software. In particular, there are two comprehensive software databases which are regularly updated, (teem and Becta), and there are educational suppliers who specialise in digital content.

teem (teachers evaluating educational multimedia)

<http://www.teem.org.uk/>

Becta educational software database

<http://besd.becta.org.uk/>

Becta community languages and ESOL pages

http://www.becta.org.uk/teachers/display.cfm?section=1_3

TES Online (EAL section)

Includes regular reviews of software

http://www.tes.co.uk/your_subject/subject_index.asp?subject=EAL

Resource catalogues for educational software

Granada / SEMERC

<http://www.granada-learning.com/school/>

AVP

Educational software and video

<http://www.avp.co.uk/>

13. Appendix: Software and Publishers

The following software is available from Inclusive Technology:

<http://www.inclusive.co.uk/>

Cliker4
ClozePro
Flash! Pro 2
Kidspiration
My world 3
Picture This ... Pro
Rainbow Stories
Wordbar

The following software is available from R-E-M:

<http://www.r-e-m.co.uk/>

National Curriculum Clipart
Oxford Reading Tree
Rainbow Stories
Reader Rabbit
Starspell
Talk Now
Textease
TextHELP! read and write
Wellington Square
World Talk

Crick Software produce a range of software, and Clicker Grids for Learning can be downloaded from their website, which also has an EAL section:

<http://www.cricksoft.com/>

Clicker4
Find Out and Write About
Planet Wobble
Wordbar

Protea Textware

<http://www.proteatextware.com.au/index.html>

Issues in English

Vektor Education
<http://www.vektor.com/>
Listen And Learn English (Starters, Movers, Flyers)

Kingscourt McGraw-Hill
<http://www.kingscourt.co.uk/>
Inside Stories
Matchword

Mantra
<http://www.mantralingua.com/>
Picture Dictionary in a range of languages

Dorling Kindersley multimedia titles are available from Global Software Publishing:
<http://www.gspna.com/>
The Way Things Work
The Ultimate Human Body

Reward is published by MacMillan
<http://www.reward-english.com/>

Steps in ESOL (J&K Software) is available from:
<http://www.avantibooks.com/>

Institute of Race Relations
<http://www.irr.org.uk/publication/CD-ROM/>
Homebeats: Struggles for Racial Justice