Does the dwarf have a red coat?

Sorting Game

This game challenges children to answer questions involving the use of key words to describe objects. In the 'Play' mode children must answer questions with either 'yes' or 'no'. In the 'Make a Game' option children must devise their own questions. The game can be downloaded for use offline.

URL: **http://www.mape.org.uk/kids/ sorting_games/index.htm**

Relevant to the following:

QCA ICT Scheme of Work

Unit 1D – Labelling and classifying

Unit 2E – Questions and answers

A Year 1 teacher worked with the whole class using a data projector. She showed the first screen and asked the children to decide what the weather was like by choosing one of the on-screen options.

The next screen displayed a selection of objects and the class discussed which would be suitable to take to the park in various weather conditions. The teacher invited different children to come to the front of the class to make the choices on screen, giving reasons for their choices.

The teacher discussed with the children some of the differences between the simulated choices and those they might make in real situations.

Any of the recommended websites can be bookmarked and used offline. Some also provide facilities to download software.

A Year 1 teacher used the Seven Dwarfs game in 'Play' mode. The activity was carried out with the whole class using a laptop computer linked to a large-screen TV. The teacher spent some time discussing the various attributes of the dwarfs with the class, emphasising the key descriptive words. She then asked one child to come out and choose one of the dwarfs by clicking on it. Everyone was asked to remember which dwarf had been chosen.

The class then discussed each of the questions and chose either 'yes' or 'no' as the answer. The children were surprised that the computer was able to guess their choice.

Unit the Robot from Star Tower

In this activity an on-screen robot can be controlled with a series of instructions entered on a keypad.

URL: **http://www.mape. org.uk/startower/unit/ index.htm**

Relevant to the following:

QCA ICT Scheme of Work

Unit 1F – Understanding instructions and making things happen

A Year 1 teacher used this website as part of the ICT unit of work on 'Understanding instructions and making things happen.' She also included physical activities in PE, cookery using recipes, and sequencing episodes from well-known stories in English.

Pairs of her Year 1 children used this program, choosing the 'balloon popping' option in 'practice' mode. They experimented with the control icons to find out how the robot moved and tried to pop all the balloons.

Their challenge for the next lesson was to work in 'program' mode and write a set of instructions to pop all the balloons in one go. They were able to refine their program by trial and error – making changes where things did not work and testing the results of their changes.

A Year 2 teacher in the same school also used this activity – this time in 'Make a Game' mode. The children worked in groups and made their own Breakfast or Mittens games. They tried to formulate different questions from those used in the 'Play' mode and they tested their games by inviting other groups to play them.

All the examples stress the need for teacher intervention, even where the main task is carried out by a group or pair of children working independently.

You can view all of the web-based resources online at:

www.ictadvice.org.uk/webbasedresources

Greenfield Road census Data

The data set contains about 850 records of census data from a single road between 1841 and 1891. The activity presents a set of questions, which can be answered by making appropriate searches.

URL: **http://www.mape.org.uk/kids/index.htm**

Relevant to the following:

QCA ICT Scheme of Work

Unit 5B – Analysing data and asking questions: using complex searches

A Year 5 teacher used this website as part of their work set in the context of historical study of the Victorian times.

Before using the activity with children, she read through the teachers' notes and also read the article 'Getting the Most from Census data' to be found in the Curriculum Support (History) section of the MAPE website.

The teacher showed the class one record and discussed the meaning of each of the fields. She explained how to make a search of the data using more than one criterion. Children then used the activity in pairs to answer specific questions based on the data displayed.

Library of digital images

A rich source of digital images for use in multimedia presentations can be found on this website. Use the search facility and untick the 'Rights Managed' box to find just Royalty Free images. These can be downloaded and used without payment in a form that has the Corbis watermark. This is perfectly adequate for most classwork. For 'clean' images it is necessary to become a member by making a one-off payment.

URL: **http://www.corbis.com/**

Relevant to the following:
QCA ICT Scheme of Work
Unit 6A – Multimedia presentation

Year 6 children were learning to create a multimedia presentation. Each group chose a subject for their presentation and identified a suitable audience. They planned the presentation identifying the images required.

A variety of sources of images was used including scanner, computer microscope, digital camera and pictures created using a paint package. As a further source of images the teacher introduced the children to the bookmarked website.

The children discovered that, as this was a US site, they had to choose their search word carefully – 'football' produced images of American football – the word 'soccer' had to be used instead.

Becta
British Educational Communications and Technology Agency

Millburn Hill Road
Science Park
Coventry CV4 7JJ
Tel: 024 7641 6994
Fax: 024 7641 1418
Email: becta@becta.org.uk
URL: http://www.becta.org.uk

11/2003-04/239/a/NP/10k

# Using **web-based resources** in Primary ICT
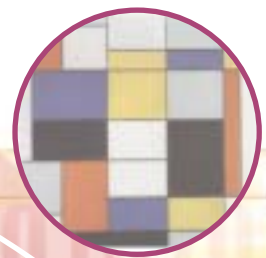
Using web-based resources in Primary ICT

As they progress through primary school, pupils should develop skills in using a wide range of ICT tools. Most of the ICT curriculum at Key Stages 1 and 2 can be taught using a set of basic software tools:

- **A word processor with word bank and the facility to integrate pictures and text**
- **A paint package**
- **A multimedia authoring package**
- **An object-based graphics package**
- **Graphing software**
- **A database**
- **A spreadsheet**
- **Logo**
- **An email package.**

Often they will be learning both about ICT (how to cut and paste pictures and text, for example) and through ICT, by using it as a tool to enhance their learning in other areas. With the exception of Logo – a version can be downloaded free from the MSWLogo website [http://www.softronix.com/logo.html – these tools are not available on the web. However, there are many web-based resources to support the tool-based work, and to complement it by providing specific context or support for the few areas of the ICT curriculum not covered by the tools. When teaching ICT, specialised equipment may be required for activities such as data logging and control technology. Many manufacturers' websites have printable worksheets and other support materials and instructions on how to use equipment (even the most organised schools misplace manuals occasionally) which teachers will find useful.
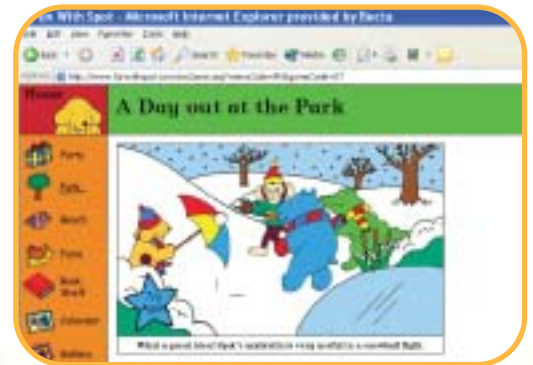
Fun with Spot

This is a website with interactive screens which allows children to make choices.

URL: **http://www.funwithspot.com**
From the home screen, click on the window to go to the park.

Relevant to the following:
QCA ICT Scheme of Work
Unit 1A – An introduction to modelling

The Missing Pencil

This is an electronic book from the Little Animals Activity Centre on the BBC website.

URL: **http://www.bbc.co.uk/schools/laac/story/sbi.shtml**

Relevant to the following:
QCA ICT Scheme of Work
Unit 1C – The information around us
Key idea: that computers use icons to provide information and instructions

Although literacy was the main focus of a Year 1 lesson, the teacher took the opportunity to revise aspects of the ICT curriculum at the same time. She loaded 'The Missing Pencil' big book and read the story with the whole class, presenting it using a data projector.

She drew children's attention to the icons on the screen and asked what information or instruction each one provided. When a response was required she called a child out to the front to click in the appropriate place.

After completing the story she discussed with the children the differences between an electronic book and a paper book.

The examples given here describe a number of lessons in which websites are used effectively to support the teaching of ICT in Key Stages 1 and 2. In these examples some applications are used with a projector and whiteboard or a large-screen monitor for whole-class teaching, whilst others are used by groups of children, working independently or with a teacher. In some cases pupils work in pairs discussing and sharing ideas with their partner.

All web addresses have been checked and were correct at time of printing

Project Gutenberg

This website gives access to the texts of thousands of published books that are out of copyright. Searching for 'children's literature' should find around 95 entries.

URL: **http://www.gutenberg.net/**

Relevant to the following:

QCA ICT Scheme of Work

Unit 2A – Writing stories: communicating information using text; key idea: that ICT can be used to improve text and make a message clearer

Classic Reader

Classic Reader is a similar resource.

URL: **http://www.classicreader.com/**
Select the 'Children' option from the left-hand menu to find around 120 entries.

Relevant to the following:

QCA ICT Scheme of Work

Unit 4A – Writing for different audiences

A Year 2 teacher asked her teaching assistant to help prepare an activity. The teaching assistant connected to the website and found an extract from a children's book appropriate to the age and interest of the pupils. She copied the extract and pasted it into a word processor. She printed an original copy and then altered the electronic version by replacing all the full stops in the extract with the word 'and'.

The teacher showed the changed passage to the class using a digital projector and discussed the way in which the use of the word 'and' made the text repetitive and difficult to read. She demonstrated how to delete the 'and' and replace it with a full stop and change the following letter to upper case. The children worked in pairs to edit the prepared text. They then compared their work with the original version.

A Year 4 teacher took an extract from 'Heidi' by Johanna Spyri and discussed with the children how it would need to be changed if the genders of Heidi and her grandfather were reversed – if the child became a boy (Harry) visiting his grandmother. She demonstrated how 'find and replace' could be used to change 'she' to 'he'. Children then worked on the text using find and replace and manual changes until they were satisfied with the revised version.

Northumberland Grid for Learning

This site has some excellent resources for teaching and learning including an interactive unit on graphical modelling which is fully supported by teachers' notes.
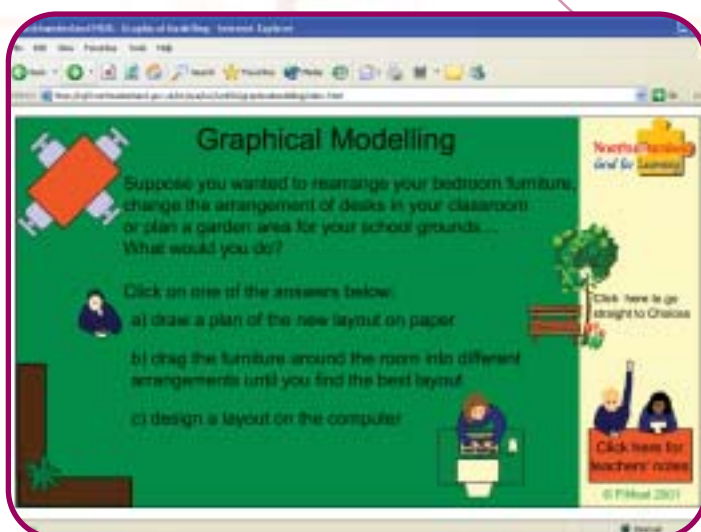
The drawing toolbar of Word can be used for graphical modelling if a specialised package is not available.

URL: **http://ngfl.northumberland. gov.uk/ict/qca/ks2/unit5A/graphical modelling/index.html**

Relevant to the following:

QCA ICT Scheme of Work

Unit 5A - Graphical modelling

She sat with her prize by the front door waiting for someone to come home. No one came for hours so Cassie, tired of waiting, trotted back upstairs to sleep on Katie's bed. As she pushed open the bedroom door Panda took his chance and hurled himself off the shelf into the middle of the room.

Big Book Maker

This is a resource that allows children to make their own on-screen Big Books. Once created, books are saved to local disk to be used offline.

URL: **http://www.mape.org.uk**

Big Book Maker can be found in the KidsMAPE section of the site. There are also some ready-made Big Books in KidsMAPE and also in the Owl and Panda Project.

Relevant to the following:
QCA ICT Scheme of Work
Unit 3A – Combining text and graphics

Year 3 pupils in one school used a word processor to write a series of stories about the adventures of two finger puppets. They used Big Book Maker to transform the stories into on-screen books for younger children. They specified a text width of 50% of the page to leave room for pictures.

They created an illustration for each page of the story using scanned collage images, digital photographs or scanned drawings. These were saved into a folder where they were automatically picked up by the software and presented alongside the text.

They invited groups of Year 1 and Year 2 children to visit their classroom and they helped the younger children read their electronic books.

Year 5 children used the graphical model for Class Design 1 provided on the website. They worked in small groups and were challenged to produce a layout suitable for an expanded class of 25, then 30 children. They reorganised the furniture and added all the children to see how crowded the room appeared. They printed out their arrangements and used a plenary session to justify their solutions.

The children then used the school graphics package to carry out the tasks described in the teachers' notes section of the site. They each produced a collage of overlapping shapes, which was printed for display.

ePALS

This is a website for teachers wishing to set up email pen pals for their pupils.

URL: **http://www.epals.com/**

Relevant to the following:
QCA ICT Scheme of Work
Unit 3E – E-mail

The Big AI Game

The BBC website has a section to support the television series Walking with Dinosaurs. It contains a wealth of resources including the Big AI game. This is an adventure game/simulation in which players take the role of a newly hatched dinosaur.

URL: **http://www.bbc.co.uk/dinosaurs/ games/index.shtml**

Relevant to the following:
QCA ICT Scheme of Work
Unit 3D – Exploring simulations

A Year 3 teacher introduced her class to the Big AI adventure. She explained that they would take the part of a hatchling male Allosaurus. They were to explore the environment to find enough food to grow into an adult in order to survive to mate with as many females as possible. They were to find the appropriate food for their size and age and be sure to avoid predators.

The teacher demonstrated the main features of the simulation and showed the children how to make choices. She then allowed the children to explore the simulation in pairs. In a plenary session she discussed with the children what they had found out and asked them to evaluate the simulation activity.

Artchive

This website provides an archive of the work of over 200 different artists. The pop-up banner adverts are an inevitable feature of many free access sites and there are no adverts over the pictures. It may be worth asking the children to consider why there are pop-up banners on this site and not others.

URL: **http://artchive.com/ftp_site_reg.htm**

Relevant to the following:
QCA ICT Scheme of Work
Unit 2B – Creating pictures
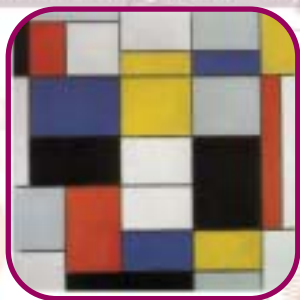
A Year 3 teacher used the ePALS website to find a school to communicate with using email. She looked in the 'Find Classrooms' part of the site and searched for an English-speaking class of children aged 8-9 to match the age of her own pupils. She thought it would be interesting to communicate with a school in another country so she searched for schools in Canada and Australia. When she had found a suitable match she contacted the teacher through the website to set up the partnership.

The teacher also looked at the 'Projects' section of the site. She found a project that involved children sharing descriptions and pictures of their pets and investigated how her children could join in with this work.

Soho Art

Soho Art is a website selling art reproductions. Images and details of each of the paintings are available. There are 30-40 pieces by Andy Warhol in the archive, four of which use multiple images.

URL: **http://www.soho-art.com/Andy-Warhol.shtml**

Relevant to the following:
QCA ICT Scheme of Work
Unit 4B – Developing images using repeating patterns

## Interactive Teaching Programs from the Standards Site

This is a set of programs that allow teachers to demonstrate various aspects of mathematics. Amongst the programs is one on data handling.

URL: **http://www.standards.dfes.gov.uk/ numeracy/publications/#Interactive%20 Teaching%20Programs**

Relevant to the following:

QCA ICT Scheme of Work

Unit 4D – Collecting and presenting information: questionnaires and pie charts
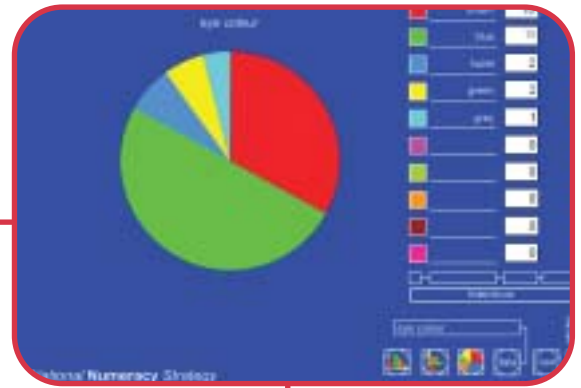
A Year 4 teacher wanted to revise children's understanding of bar charts. She loaded this program and first clicked on the hide/show box below the white boxes. This hid the numerical data, forcing pupils to interpret the graph directly. 'Olympic medals' was selected from the available datasets and the teacher chose to view a block graph. She asked the children questions about the graph such as:

Which country won the most/least medals? How do you know? How many medals did each country win? How do you know?

She then presented the data as a pie chart and asked the same questions – the children appreciated that a pie chart was not so useful for this data and these questions.

The teacher then demonstrated some of the other datasets investigating where pie charts were more useful (eye colour, for example).

The class surveyed their own eye colours and the teacher typed in the data first for just the brown-haired children. A pie chart readily showed that the majority of this group had brown eyes. The data was then changed to show the eye colours of the fair-haired children – the bar chart now showed far fewer with brown eyes and a majority with blue eyes. Pie charts were thus shown to be useful tools to make comparisons between populations. Bar charts for the same data were less easy to interpret.

A Year 2 teacher used this website to access the work of artists to show to the children. She searched for Mondrian and looked at several of the pictures with the children (using a large-screen monitor), pointing out the use of horizontal and vertical lines, primary colours and white space. The picture illustrated is 'Composition A: Composition with Black, Red, Gray, Yellow, and Blue – 1920.' She then showed the children how to use the school's paint package to draw straight lines and geometrical shapes. She showed them how colours could be used to fill in the shapes. The children then worked to create their own pictures in the style of Mondrian.

A Year 4 teacher used a commercial art website to find images of Andy Warhol paintings. She showed these to the class using a digital projector focusing on the works which used multiple images, such as Mickey (p.1), Mercedes Benz (p.4), and Nine Marilyns and Mona Lisa x4 (p.6). She demonstrated how a computer graphics package could be used to create similar effects using the stamps and copy tools. Children then produced their own multiple-image pictures, experimenting with different colours and backgrounds.

MSW Logo

This site offers a free downloadable version of logo. There are also downloadable teaching resources and links to other sites.

URL: **http://www.softronix.com/logo.html**

Relevant to the following:

QCA ICT Scheme of Work

Unit 4E – Modelling effects on screen

In preparation for a Year 4 unit of work using screen turtle graphics, the ICT support technician downloaded MSW Logo and made sure that it was working on all stations on the school network.

The children worked in pairs with the software to solve challenges such as drawing a square, writing a procedure for a square and exploring how this would have to be modified to produce any other regular polygon. They also investigated what happens if the size of the angle is doubled holding all else constant in a variety of different polygon procedures. The class teacher intervened where appropriate and used a plenary session to establish what the children had found out about giving instructions for drawing polygons.