This document has been produced for FS practitioners. It is designed to help practitioners decide what ICT to provide and what skills and capability pupils should have at the end of F1 and F2. It also provides information about suggested hardware and software that can be used in FS settings.

**Entitlement for the FS pupil**

When using ICT in the FS children should be

- Active
- Motivated
- Engaged

There should be a balance between adult led taught activities, adult supported activities and child initiated follow up activities.

Children should be given the opportunity to use ICT

- In play contexts
- Across all areas of the curriculum
- Both indoors and out
- In role play
- Individually, in pairs, in small groups and as a whole group

Children should also be given the opportunity to experience ICT being used in the setting and in the wider environment.

Children should begin to understand how ICT relates to their life and why it is important.
Table showing suggested expectations for ICT capability at the end of F1 and F2

<table>
<thead>
<tr>
<th>ICT SKILL/KNOWLEDGE</th>
<th>F1</th>
<th>F2</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Basic Operations</strong></td>
<td>Move the mouse with accuracy</td>
<td>Double click to start a program</td>
</tr>
<tr>
<td></td>
<td>Left click accurately</td>
<td>Select appropriate program icons</td>
</tr>
<tr>
<td></td>
<td>See appendix – how to slow down double click and make the cursor</td>
<td></td>
</tr>
<tr>
<td></td>
<td>more visible</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Suggested programs –</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Leaps and Bounds (Granada), Beep (Q &amp; D Multimedia) and Moles (</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Resource)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Use a program</td>
<td>Close a program correctly using the x in the top right hand corner of the window</td>
</tr>
<tr>
<td></td>
<td>Click and drag</td>
<td>Click and drag with more control</td>
</tr>
<tr>
<td></td>
<td>Use arrow keys to control a program</td>
<td>Start up and shut down the computer correctly</td>
</tr>
<tr>
<td><strong>Pictures and Painting</strong></td>
<td>Click and drag objects to make a picture</td>
<td>Click and drag objects with more control to create a scene</td>
</tr>
<tr>
<td></td>
<td>Suggested programs</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Make choices selecting colours and simple tools</td>
<td>Use a wider range of tools such as flood fill, spray can</td>
</tr>
<tr>
<td></td>
<td>2paint &amp; 2paint a picture</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Revelation Natural Art (Simple)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>RM Colour Magic, Splosh, Dazzle</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Use a Graphics tablet to draw</td>
<td>Use a Graphics tablet with greater accuracy to draw recognisable pictures</td>
</tr>
<tr>
<td></td>
<td>Use a paint program on an Interactive Whiteboard or plasma screen</td>
<td>Use a paint program on an IWB with greater control</td>
</tr>
<tr>
<td><strong>First Use of Computer Text</strong></td>
<td>Emergent typing, use the keyboard to type random letters and other characters</td>
<td>Use the keyboard with more control, recognising the need to tap keys lightly. Select letter and number keys.</td>
</tr>
<tr>
<td></td>
<td>Type in own name with support</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Textease, First Essentials, Tizzy’s First Tools</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Click on own name and pictures or other words recognised in a word bank to create labels</td>
<td></td>
</tr>
<tr>
<td><strong>Using ICT to Make Music</strong></td>
<td>Use simple programs to explore sounds e.g. Noisy Things</td>
<td>Use simple programs to make and record sounds and music.</td>
</tr>
<tr>
<td>ICT SKILL/KNOWLEDGE</td>
<td>F1</td>
<td>F2</td>
</tr>
<tr>
<td>-------------------------------------</td>
<td>-----------------------------------------</td>
<td>-----------------------------------------</td>
</tr>
<tr>
<td>F1 – Noisy Things</td>
<td>Explore using a Karaoke machine</td>
<td>Use a Karaoke machine for a performance</td>
</tr>
<tr>
<td>Musical Leaps and Bounds</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F2 – Minni Musical</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Monsters, 2simple Music (2Play)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Using the Internet</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Use a simple internet site such as Cbeebies.</td>
<td>Be able to select an activity from an internet site.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Be able to talk about what they are doing on the website.</td>
<td>When using a simple information website, be able to talk about something they have found out.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Using a Range of Resources</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Use a tape recorder or CD player to play and stop.</td>
<td>Use a tape recorder or CD player to move forward or backward on a tape or CD.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Explore and use remote control toys and simple control equipment.</td>
<td>Use forward and backward command to move a control toy to a position accurately. Be able to explain what they are doing.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Take a picture with a digital camera.</td>
<td>Look at photos they have taken by changing the camera to playback.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Use a simple recording device to record their own voice.</td>
<td>Use a recording device to record and playback their own voice or other sounds.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Use a digital microscope to explore.</td>
<td>Use a digital microscope to look at and observe small items. Be able to focus on low magnification.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Use a simple DV camera to record something happening. Download and playback with support.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Explore using an IWB or plasma screen especially drawing.</td>
<td>Be able to control finger stylus for emergent writing and/or drawing. Be able to drag objects on the screen.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Knowledge and Understanding</strong></td>
<td>Name parts of the computer e.g. mouse, keyboard, monitor, printer.</td>
<td>Name parts of the computer (CD drive, speakers, microphone, headphone, webcam and/or other peripherals.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Know which icon to double click to paint/write and access other programs.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Talk about own experiences with ICT</td>
<td>Talk about own ICT use at home and school</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Use ICT resources with care</td>
<td>Follow rules for using ICT resources (don’t press buttons on the computer unit etc.)</td>
</tr>
</tbody>
</table>
Entitlement of the Practitioner

FS practitioners should be entitled to sufficient time and resources to develop their own ICT skills and capability and to develop their knowledge of ICT for FS pupils.

They should have:-

- Relevant CPD
- Time to develop own skills and capability to use ICT for planning, preparation, assessment etc.
- Access to ICT resources to support their work.

APPENDICES

1. Hardware resources (below)
2. Software and other ICT equipment with supplier details (pages 5 – 10)
3. Using ICT in role play document (pages 11 – 12)

APPENDIX 1 - Hardware resources

In order to provide the ICT entitlement for FS pupils, the following ICT resources could be available.

1 computer per 8 full time FS pupils, networked and connected to the internet with printer
An interactive whiteboard or interactive plasma screen
A graphics (drawing) tablet
Digital cameras (preferably enough for a small group of children)
Digital movie camera(s) (such as DigiBlue)
Webcam
Headphones, speakers and microphone
Programmable and remote control toys
Role play ICT equipment such as tills, washing machines etc.
Digital microscope
Sound recording devices such as talking photo album
CD player/Karaoke machine
APPENDIX 2 – Software and other resources with supplier details

Foundation Stage ICT
Software Resources

2simple Infant Video Toolkit 2
http://www.2simplesoftware.com
Contact 2simple on tel. no. 0208 203 1781

An excellent piece of early years software that allows for open ended and creative work as well as problem solving, predicting, counting and much more. It is also easy to use and has a child friendly interface.

2simple IVT is a toolkit of six programs designed for Foundation Stage and Key Stage 1. Getting to know the teacher set up options will enable adults to build in progression and yet still allow learning.

2paint, 2publish, 2count, 2go, 2graph, 2question

The first four programs are ideal for the Foundation Stage.

2paint is a really simple art package with recognisable ‘Felt tip’ colours. There are clear icons, an uncluttered screen and, inspirational software design, a print icon that disappears for a few minutes after a child has sent their work to print! There are few tools and the options are limited making it an ideal first paint package. This software is a favourite to use on interactive whiteboards.

2publish is a child friendly first word processor. For years those of us working with young children were asking for a really easy to use first word processor that would allow children to play with text in the same way that they played with writing and this is it! There are templates that children can choose from to make their own envelopes, create posters with borders and mix their own drawings with text.

2count allows mathematical data to be recorded in the form of pictograms. Adults can choose from the supplied ‘pictures’ or they can create their own picture groups. At a young age children can work together and with an adult to find out, for example, the fruit most favoured by the group. Printing the pictogram and matching real objects to the pictures reinforces counting and understanding.

2go is a flexible program that, when used with adult support, encourages the use of directional language, estimation, prediction, making and following a sequence of instructions. Seemingly simple until one discovers its hidden depths! Look at the teacher options for built in progression and try importing your own backgrounds. Link the work with drawing away from the computer and with programmable toys such as Pixie.

The toolkit also contains over 60 short videos, which give real examples of how the programs can be used with young children. These make a fantastic contribution and should not be missed, do take the trouble to look at them.
Revelation Natural Art:
www.logo.com
Contact Logotron – Tel. no. 01223 425558

This is a complex art program that can be configured on a simple level for early years. It has a rich range of realistic effects that allow for work with the same tools on the computer that children have already used away from the computer; such as crayons, felt pens and paints.

Pixie
http://www.swallow.co.uk
Contact Swallow Systems – Tel no. 01494 813471

PIXIE is a small robot. It is less that 6 inches across and has only 7 buttons. Its simplicity makes it excellent for using in early years education. PIXIE uses a counting system for entering programs. If you want to use several units of movement you just press the button the relevant number of times. This makes PIXIE extremely valuable in learning to count, and rehearsing the relationship between counting and number in the context of a purposeful activity. Using a Pixie gives children experience estimating, predicting, experimenting and observing the effects of their commands. PIXIE can also be used in play and story weaving making it an excellent resource for supporting early learning goals across areas of learning.

Bee-Bot
www.bee-bot.co.uk
Tel. no. 0800 318686

New programmable floor robot. Very simple to use and much cheaper than Pixie. Lots of resources available to go with it.

Role Play ICT Toys and Dance Mats, Karaoke Machines and Keyboards:-

Microwave, kettle, iron, phone and answering machine, electronic toaster, bar code scanner, till, washing machine etc.

TTS – www.tts-shopping.com
Tel. no. 0800 318686

Early Learning Centre http://www.elc.co.uk
Tel. no. 08705 352352

Casdon Toy Company http://www.casdon.co.uk
Tel. no. 01253 766411

http://www.toysrus.co.uk
Tel. no. 01628 414108

Lego Remote Controls and Intelligent Bricks
Lego constantly change their products but it is worth looking on their website for technology toys made of Duplo bricks. Some have remote controls, others have ‘intelligent bricks’ that make a sound or light up. Try [www.commotiongroup.co.uk](http://www.commotiongroup.co.uk) for the Duplo remote control cars or

**Digital Microscope**
[www.tts-group.co.uk](http://www.tts-group.co.uk)
Contact TTS group for their Active and Early Years Catalogues.

**More Than Computers**
By Iram Siraj-Blatchford and John Siraj-Blatchford (2003)
[www.early-education.org.uk](http://www.early-education.org.uk)
Tel. no. 020 7539 5400

This book identifies principles of good practice for ICT for children. It identifies how practitioners and parents can support children’s development in this area and looks at the issues that should be considered for a healthy, balanced approach to this aspect of the modern world.

**Early Years ICT Series**
**Smart Learning**
[www.smart-learning.co.uk](http://www.smart-learning.co.uk)
Tel. no. 01223 477550

CD designed to help Foundation Stage make better use of ICT across the areas of learning. Topic based interactive activities showing progression from F1 to F2.

**Living Books: Sheila Rae the Brave, Grandma and Me and The Cat in the Hat**
These can be found at local PC shops like PC World.

Living Books, like these above, are interactive stories on CD Rom. They encourage further pleasure in stories and increase children’s confidence at finding things out for themselves on computers. They can be picked up from most software high street shops at a low price or from above. Any other onscreen books such as Oxford Reading Tree or Clicker Planet Wobble etc.

**At the Café, At the Doctors, At the Vets etc.**
[www.granada-learning.com](http://www.granada-learning.com)
Tel. no. 0161 827 2927

CD Roms designed to support role play. Children can take the part of vet, doctor or waiter; taking patient details, diagnosing problems, prescribing treatment and taking orders. Extra titles include At the Garden Centre, Post Office and Toy Shop.
Leaps and Bounds and Musical Leaps and Bounds  
www.granada-learning.com  
Tel. no. 0161 827 2927

Leaps and Bounds are thoroughly engaging and enjoyable CD Roms. They encourage language and exploration. Often their use results in sudden giggles and pleasure from children discovering together as they collaborate over the CDs.

Beep, Beep Beep, Noisy Things and Mini Musical Monsters  
Q + D Multimedia  
www.q-and-d.co.uk  
Tel. no. 01332 364963

Great independent activities for Foundation Stage, great fun! Good practice for mouse skills.

Number Run  
Q + D Multimedia  
www.q-and-d.co.uk  
Tel. no. 01332 364963

Numbers activities, 0-5 or 0-9.

Fizzy’s First Numbers  
www.sherston.com  
Tel. no. 01666 843200

Fizzy helps children recognising numerals 1 to 9, recite the correct sequence of number names, count sets of objects, find the correct set for a given number name and more. Sherston produces consistently high quality software for early years with excellent teacher controls.

Clicker5  
www.cricksoft.com  
Tel. no. 0845 121 1691

Clicker is a talking word processor that enables children to write with whole words, phrases or pictures. It can be tailored for early years and many uses, supporting all areas of learning.

Kid-tough Digital Camera or Digital Blue ‘Snap’ Education Camera  
Available from www.tts-group.co.uk amongst other places.  
Tel. no. 0800 318686

Two of a number of child friendly digital cameras now available. Has a viewing screen and USB connection for downloading onto a computer. Comes with software.

Digital Movie Creator
Low priced DV camera, easy to use, great for recording evidence of children’s learning or for children to use.

2simple Music  
http://2simplesoftware.com  
Tel. no. 0208 203 1781

The 2simple Music Toolkit includes six programs for Key Stage 1 and Key Stage 2 but can be used for early years. It introduces concepts of rhythm, pitch, melody, temp, harmony and composition in an interactive and creative way.

Play and Learn, Reading and Counting  
These can be found at local PC shops like PC World

This software is simple for young children to use so that they can explore independently. It has no voiceover and children can move freely around the screens. It is full of early discriminating, matching and sorting activities that children thoroughly enjoy. This can be picked up from most software high street shops at a low price or from above.

Millie’s Maths House  
www.taglearning.com  
Tel. no. 01474 357350

An old favourite that still is greatly enjoyed by young children. They are able to explore maths concepts in a playful and humorous way. They count critters, build mouse houses, create crazy-looking bugs, make jellybean cookies for Harley the Horse and find just the right shoes for Little, Middle and Big.

The Little Book of ICT by Andrew Trythall  
Our in the popular ‘Little Book’ series, full of activities including the use of computer paint programs; music making and movie making, using ICT in role play, dance and visits. The breadth will encourage children’s learning in all areas of development. Available from Featherstone Education.  http://featherstone.uk.com/smooth

Communication in Print 2  
www.widgit.com  
Tel. no. 01223 425558

Excellent special needs software for making grids to support children’s communication of choices or to help them timetable their activities. Can also make books, easily import photographs in a drag and drop environment.
Talking Photo Album
www.liberator.co.uk
Tel. no. 01476 550391

The talking photo album is a simple, easy to use device that has many potential uses for communication. You can record four minutes of speech, 10 seconds at a time, in any language of your choice. You can use photos, book cut-outs, drawing on each of its 24 pages. You can use it for instructions, to tell stories, to record information, to facilitate daily conversation and for scores of other purposes. An excellent example of low technology put to really appropriate use.

Childlock
www.childlock.com
Contact Visionsoft on tel. no. 01274 610503

Protects your computer. The control panel, documents and programs you choose can be locked away from children but accessed instantly with a password.

Learning and Teaching using ICT in the Foundation Stage CD Rom
Contact DCFS Publications on 0845 6022260 – Ref. No. 0384-4004 GCDI

The CD Rom includes a set of video clips and supporting documentation, an outline of how ICT can be used as a tool to support children’s learning across the Foundation Stage and a series of helpful ‘How to…’ sheets.

Multicoloured Lowercase Keyboard
Available from www.tts-group.co.uk
Tel. no. 0800 318686

An excellent keyboard for early years. The keyboard is multicoloured and keys have both upper and lower case letters. Very reasonably priced.

Picture This: 50 Exciting Ways to use a Camera
Helen Bromley
Lawrence Educational Publications
ISBN 1 930670 22 5
Contact Lawrence Educational Publications on: 01922 643833
APPENDIX 3 – Using ICT in Role Play in the Foundation Stage

- Use ‘dead’ computer equipment to role play with (there is usually plenty of this around!)
- Use old mobile phones as part of role play inside and outdoors (phone the police! Or just stand around chatting!)
- Make a ‘monitor’ from a cardboard box (the children could help to make this by checking the real thing for the details that need to be put on).
- Make a ‘scanner’ (for a shop) – strong box, with hole covered in red cellophane (make your own beep!)
- Make a ‘photocopier’ from a large cardboard box with a flap on the top (make sure they have experienced the real thing and what it is used for first).
- Have the real computer near to the role play area – use specific role play programs or just have available for typing in ‘patients’, checking stock in warehouse, looking for cheap flights etc.

Ideas for Role Play areas including ICT

**Doctors Surgery/Dentist**
Receptionist – computer for booking appointments, computer made grids to fill in with times of appointments etc.
Doctor – Computer for patients records and prescriptions (give copy to patient who takes to onsite dispensary to pick up prescription).
Use ‘At the Doctors’ program.

**Argos** – as part of shop – to check what is in, till with swipe card, boxes/packaging with barcodes, waiting area with the machine your number comes up on, pick up goods. Warehouse – barcodes/homemade hand held scanner to check stock levels, re-order as necessary on the computer. (You could have a bank ‘cash machine’ near the shop – old cards to put in a slot, check your balance, take out cash from a drawer).

**Boots** – scanner at till (have some 3 for 2 offers on!), have some old ‘plastic’ as well as play money and purses. Have a ‘monitor/touch screen to check your Advantage points and for special offers (pretend to have automatic doors!). For any shop set up, use the real computer with the children to make price labels, signs and notices.

**Catalogue Office** – have catalogues/phones/junk mail order forms/’credit’ cards/calculator at one end (Home) at the other end have phones/keyboard/monitor/copy of the catalogue (Office). The catalogue office staff can order the items, check if they have it in the right colour/size etc, ask for your card number, check delivery date and so on. The products that the catalogue is selling can change to go with your current topic (e.g. clothes, household goods, tools/DIY, bulbs/plants).

**Travel Agents** – Office set up with lots of brochures, posters, tickets, luggage labels and a globe. Have a computer for checking availability, flight times, booking tickets etc. Have a photocopier to use, have some ready printed out details to give out. Have a fax (old phone sitting on top of a tray of paper). The travel agents could be extended by having a little shop selling suncream, flip flops, sunglasses etc.).

**Library** – this could be set up around an existing book corner. Hand held scanner for recording books that have been taken out, list of all books on the computer when new books arrive these have to be added in, database of lenders names/addresses/phone numbers/how much they owe in fines etc.
House Corner – Phone, mobile phone, TV/video/stereo remote controls (old ones/made ones), tape recorder (have music for the baby’s room, story tapes), update your washing machine (make a control panel to stick on!) toy microwave, toaster, boil and pour kettle, steam iron with sound effect (ELC for these), calculator. Old keyboard and homemade monitor for ‘online shopping’ (if you have a role play shop at the same time – someone can pick and pack the order and be the Tesco delivery person!)

Spaceship – Old control/joystick/steering wheel, old headphones/mouthpiece to speak to control on the ground – take messages and pass them on to other crew members. Lots of buttons to press on the control panel.

Emergency Services – phones, fax, computer to log details of accident, crime number, address, number of vehicles sent out. Have mobile phone on a role play ambulance (linked to hospital role play) so the paramedics can give details of the casualty they are bringing in and to check that there are beds available and so on.