

## National Unit Specification: general information

**UNIT** Supporting Information Communication Technology (ICT)  
in an Early Education and Childcare Setting (Higher)

**CODE** DM64 12

### COURSE

#### SUMMARY

This Unit is designed to introduce candidates to ICT in an early education and childcare setting. Candidates will gain knowledge and understanding of the scope of ICT, the benefits to children aged 0-12 years of using ICT and the role of the adult in supporting ICT within an early education and childcare setting. Whilst the candidate working under supervision within an early education and childcare setting will demonstrate the ability to support and evaluate ICT provision. To achieve this Unit, candidates need a suitable work placement or be employed in the early education and child care sector.

This Unit is an optional Unit in the *National Certificate Group Award: Early Education and Childcare (Higher)* but is also suitable for candidates wishing to study the Unit on its own. The Unit is suitable for candidates who wish to gain employment, or may already be employed, in the early education and childcare sector, working under supervision. They may wish to progress on to higher level early education and childcare qualifications. The workplace based element of this Unit can be integrated with other workplace based Units in the *National Certificate Group Award: Early Education and Childcare (Higher)*.

#### OUTCOMES

1. Explain ICT in early education and childcare.
2. Evaluate the provision of ICT experiences for children.
3. Working under supervision in an early education and childcare setting, support ICT provision.

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### Administrative Information

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## **National Unit Specification: general information (cont)**

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### **RECOMMENDED ENTRY**

While entry is at the discretion of the centre there are a variety of prior learning experiences which are relevant to candidates wishing to undertake this Unit.

However, candidates would benefit from having some prior knowledge and understanding of the principles of child development and have some experience of ICT.

They may also benefit from having attained one of the following, or equivalent:

- ◆ Standard Grade at Credit level in any relevant subject
- ◆ A Course or Unit in Care at Intermediate 2
- ◆ Courses or Units in any relevant subject at Intermediate 2
- ◆ Scottish Group Award at Intermediate 2
- ◆ SVQ or SVQ Units at level 2 in a related subject.

### **CREDIT VALUE**

1 credit at Higher level ( 6 SCQF credit points at SCQF level 6\*)

*\*SCQF credit points are used to allocate credit to qualifications in the Scottish Credit and Qualifications Framework (SCQF). Each qualification in the Framework is allocated a number of SCQF credit points at an SCQF level. There are 12 SCQF levels, ranging from Access 1 to Doctorates.*

### **CORE SKILLS**

There is no automatic certification of core skills or core skills components in this Unit.

## **National Unit Specification: statement of standards**

### **UNIT**      Supporting Information Communication Technology (ICT) in an Early Education and Childcare Setting (Higher)

Acceptable performance in this Unit will be the satisfactory achievement of the standards set out in this part of the Unit Specification. All sections of the statement of standards are mandatory and cannot be altered without reference to the Scottish Qualifications Authority.

#### **OUTCOME 1**

Explain ICT in early education and childcare.

##### **Performance Criteria**

- a) Define what is meant by ICT.
- b) Explain a range of ICT provision in early education and childcare.

#### **OUTCOME 2**

Evaluate the provision of ICT experiences for children.

##### **Performance Criteria**

- a) Describe the role of the adult in supporting children's learning and development through ICT.
- b) Explain the selection, layout and presentation of resources that would support ICT within an early education and childcare setting.
- c) Explain the benefits of ICT in relation to the learning and development of the child.
- d) Evaluate ICT provision in relation to the learning and development of the child.

#### **OUTCOME 3**

Working under supervision in an early education and childcare setting, support ICT provision.

##### **Performance Criteria**

- a) Whilst working under supervision, contribute to the planning of ICT provision.
- b) Whilst working under supervision, support the implementation of ICT provision.
- c) Whilst working under supervision, evaluate ICT provision in terms of the learning and development of the child.

### **EVIDENCE REQUIREMENTS FOR THIS UNIT**

Written and/or recorded oral evidence is required to demonstrate that the candidate has achieved all Outcomes and Performance Criteria.

#### **Specific Advice**

##### **Outcomes 1 and 2**

The evidence for these Outcomes will be gathered through a single question paper lasting no more than one hour with both extended and restricted response questions as illustrated in the National Assessment Bank item for this Unit. It should be taken under controlled supervised conditions. This single question paper should be taken upon the completion of the Outcomes. Achievement can be decided by the use of a cut-off score.

## **National Unit Specification: statement of standards (cont)**

### **UNIT**        Supporting Information Communication Technology (ICT)                   in an Early Education and Childcare Setting (Higher)

#### **Outcome 3**

The evidence for this Outcome shall be through two records of personal involvement describing the candidate's support of a variety of ICT provision in the work place as exemplified by the relevant Instrument of Assessment within the NAB material for this Unit. Each record of personal involvement shall be signed and dated by the candidate's workplace supervisor as verification of actual practice and marked by centre staff. The supervisor must be eligible for registration with the Scottish Social Services Council at practitioner level. These records of personal involvement should be word processed and could include audio/visual evidence of the provision. Each record of personal involvement shall include evidence of:

- ◆ Planning: including consideration of the selection, layout and presentation of resources.
- ◆ A description of the possible role of the adult.
- ◆ An explanation of the possible benefits to the child.
- ◆ Evidence of the implementation of the planned provision, including where possible audio/visual evidence.
- ◆ An evaluation of the experience in relation to the planning and potential benefits to the child.

## National Unit Specification: support notes

### UNIT Supporting Information Communication Technology (ICT) in an Early Education and Childcare Setting (Higher)

This part of the Unit Specification is offered as guidance. The support notes are not mandatory.

While the exact time allocated to this Unit is at the discretion of the centre, the notional design length is 40 hours.

#### GUIDANCE ON THE CONTENT AND CONTEXT FOR THIS UNIT

The focus of this Unit is not to develop the ICT skills of candidates, although this may be an added extra, but to promote candidate awareness of the scope of ICT provision with early education and childcare settings and to allow candidates to develop the confidence to support ICT provision effectively.

##### Outcome 1

Candidates should be given a broad definition of ICT that includes a variety of audio visual and every day technologies. ICT is often defined narrowly only including desk-top computers and their peripherals. Appropriate ICT resources for children have the characteristics of communicating information and promoting interactivity. Some examples are:

##### Communicating Information

- ◆ Cameras, digital still and video
- ◆ Audio cassettes
- ◆ Internet
- ◆ Mobile phone
- ◆ E-mail

##### Promoting Interactivity

- ◆ Musical keyboard
- ◆ Activity centres
- ◆ Digital interactive TV
- ◆ Children's web-sites
- ◆ Karaoke machines
- ◆ Cash registers
- ◆ Interactive whiteboards.

Through investigation, candidates will be expected to add to these lists.

Candidates could also investigate ICT in the child's community such as:

- ◆ Bar codes
- ◆ Microwaves
- ◆ ATM machine.

##### Outcome 2

##### PC (a)

Adult interactions with children are important in promoting high quality ICT provision in early education and childcare settings. Adults should work alongside children to help them solve

## National Unit Specification: support notes (cont)

### UNIT Supporting Information Communication Technology (ICT) in an Early Education and Childcare Setting (Higher)

problems, develop new ideas and learn new things about themselves and their world. When supporting ICT provision, as with any other provision, candidates should consider their wider role and not just the role of being a trouble shooter. However they should be aware that like other electrical equipment, ICT equipment can malfunction and care should be taken to prevent breakdown by checking cables and keeping equipment dry. Other trouble shooting points to consider are:

- ◆ ICT equipment should be stored away from excessive heat and dust.
- ◆ Keep equipment clean, using a soft cloth.
- ◆ When using a computer keep the mouse clean by cleaning regularly and using a mouse mat.
- ◆ Children and adults should make sure their hands are clean and dry prior to using ICT equipment.
- ◆ CD-Roms, DVD and floppy discs should be stored in proper disc boxes and replaced after use
- ◆ Magnets should not be placed near ICT equipment, particularly computers.
- ◆ Avoid eating and drinking near ICT equipment.
- ◆ Follow the correct procedure for switching equipment on and off and failing all else refer to manufacturers' instructions.
- ◆ Don't panic.

As part of the wider role, candidates should consider their level of interaction with children when using ICT. Points to consider may be:

- ◆ Finely tuning the experience to meet the needs of individual children
- ◆ Giving positive feedback to children
- ◆ Asking and answering questions
- ◆ Encouraging turn taking
- ◆ Helping children to be aware of the needs and choices of others
- ◆ Encouraging the children to explore and experiment with the provision
- ◆ Celebrating success
- ◆ Valuing the children's choices and interests
- ◆ Valuing children's learning with and through ICT.

Candidates should be aware of the need to observe, record and assess the children's use of ICT as part of the routine planning cycle of play provision. Reflective candidates will consider the best ways to engage children in learning. They will plan experiences that take account of each child's stage of development and individual needs. This will include the selection of appropriate ICT provision. Candidates could consider the use of ICT to support the planning cycle of play provision through the setting, not just ICT.

Children should see adults using ICT in everyday life, such as word-processing notices for parents, searching the internet in response to a child's question or recording a favourite story or poem. ICT does not necessarily need to be a planned experience but used spontaneously in response to the interests and needs of the child.

#### PC (b)

When considering the selection, layout and presentation of ICT resources candidates should apply the same standards to ICT as they would to other provision.

## National Unit Specification: support notes (cont)

### UNIT Supporting Information Communication Technology (ICT) in an Early Education and Childcare Setting (Higher)

The following should be taken into account when planning ICT provision:

- ◆ Room layout: ICT presents the best learning opportunities to children when used through the setting and not just in a 'technology corner'. Issues to be borne in mind often relate to practicalities such as the positioning of power points, appropriate furniture, floor space and telephone lines for internet access. ICT provision should be considered flexibly when planning room layout.
- ◆ Available resources: not every setting has an infinite range of ICT resources and ICT should be considered when purchasing material.
- ◆ Children playing together: ICT resources should give children the opportunity to work together as well as independently. Seating and availability of space should be considered.
- ◆ Observing and recording: Opportunities for staff to observe and record children's learning when using ICT should be incorporated into current practice and where appropriate links should be made with current national curricular guidelines.
- ◆ Health and safety: Health and safety issues should be considered as with other resources and appropriate risk assessment carried out.
- ◆ Access for all children: All children should have appropriate ICT experiences and as with other resources a diversity of cultures should be reflected in the provision. Stereotypical gender views often related to technology should be considered by candidates.

#### PC (c)

Candidates should be aware that ICT within early education and childcare setting can:

- ◆ Enhance the present learning of the child, with the use of sensitive feedback and dynamic presentation
- ◆ Support and extend children's development
- ◆ Assist children to generalise concepts and skills
- ◆ Engage children in self directed learning
- ◆ Promote inclusion
- ◆ Raise children's self esteem.

Children can use any resource to promote their leaning and development in two ways:

1. They can learn about the resource
2. They can use this knowledge to learn with it.

Candidates should consider the use of ICT to promote both of these aims. For example, by learning about ICT the child develops an understanding of the uses of ICT through observation and talking about it. Children may develop skills in various aspects of technology. They may learn to:

- ◆ Programme a Roamer
- ◆ Use a digital camera
- ◆ Switch on a cassette player.

Learning through ICT involves children using the technologies as tools for learning. They can then use this information to support and promote other leaning. They may, for example:

- ◆ Use a digital camera to record what happens when seeds are planted
- ◆ Listen to stories recorded in a home language
- ◆ Park a remote control toy bus.

## **National Unit Specification: support notes (cont)**

### **UNIT** Supporting Information Communication Technology (ICT) in an Early Education and Childcare Setting (Higher)

Candidates should be aware that learning with and through ICT should extend across all areas of provision and not be restricted to areas that relate particularly to technology. They should involve children in a variety of situations: independently, in groups, during free-play and adult led activities.

#### **PC (d)**

Candidates should now be able to evaluate a range of ICT provision in relation to the learning and development of the child taking into account the points raised above, particularly evaluating provision that encourages children to ‘learn with and through’.

#### **Outcome 3**

Under supervision, the candidate should support a range of ICT experiences in an early education and childcare setting. These should be across a range of ICT provision that promotes both the communication of information and interactivity. They should support experiences that are both planned and spontaneous, free-flow and adult led.

When planning, implementing and evaluating experiences, candidates should take into account the planning model used within their setting. If appropriate, they should make reference to any curriculum framework used within the setting. Plans should be agreed with the placement supervisor and/or other colleagues and parents. Candidates may need guidance on:

- ◆ Different types of planning models
- ◆ Curriculum frameworks used and the links to ICT
- ◆ What they intend the child will learn with and through the provision
- ◆ The possible role of the adult
- ◆ Recording observations of children’s involvement during the experiences
- ◆ The evaluation of the experience in relation to the agreed plans.

### **GUIDANCE ON LEARNING AND TEACHING APPROACHES FOR THIS UNIT**

Teachers/lecturers should be comfortable working within an ICT context. In the delivery of this Unit teachers/lecturers should:

- ◆ Recognise and take into account the expertise and experience of group members
- ◆ Encourage group members to recognise and value their own contribution
- ◆ Encourage members to reflect on their own practice and the practice of others.

This can be done using some of the following methods:

- ◆ Workshops to explore and experiment with ICT provision
- ◆ Small group exercises with or without feedback to the main group
- ◆ Case studies
- ◆ Individual research including the use of appropriate websites, eg. Learning and Teaching Scotland ([www.LTScotland.org.uk](http://www.LTScotland.org.uk))
- ◆ Video/audio material
- ◆ Visiting speakers involved in the promotion of ICT
- ◆ Examination of current local and national ICT policy and practice.



## **National Unit Specification: support notes (cont)**

### **UNIT**        Supporting Information Communication Technology (ICT)                   in an Early Education and Childcare Setting (Higher)

To enable candidates to understand the scope of ICT, the benefits to the child and to gain confidence, an interactive approach should be taken to learning and teaching. Candidates should have the opportunity to explore a wide range of suitable ICT resources for children in workshop situations. The focus should be away from desk top computers and on the wider range of ICT discussed previously. This may have resourcing implications for centres.

Candidates will need input on how to observe children during ICT experiences. They should practice this skill during placement and by using video case studies. This Outcome may be integrated with other Units within the *National Certificate Group Award: Early Education and Childcare*, for example: *Experiential Approaches to Early Education and Childcare*, *Supporting a Curriculum within an Early Education and Childcare Setting: Workplace Experience*, *Supporting Playwork Practice: Workplace Experience*, and *Play in Practice*.

Centres should offer placement experiences to candidates according to principles of best practice or in an appropriate setting. To complete this Outcome, placements could be offered to candidates who are not already employed across the early education and childcare sector, including the local authority, private and voluntary sectors. Centres should ensure that placements offer high quality ICT provision. This may be assured by placing candidates in settings that have partnership agreements with local Childcare Partnerships or who have established ICT policies and practices. Workplace supervisors should be eligible for registration with the Scottish Social Services Council at practitioner level and ideally have undergone appropriate ICT training. Candidates should have enough time in placement to ensure that all relevant Performance Criteria are met. Candidates should be able to complete the Unit in a placement that only provides part day provision, e.g. playgroup, private nursery.

### **GUIDANCE ON APPROACHES TO ASSESSMENT FOR THIS UNIT**

The assessment for this Unit is laid out clearly in the Evidence Requirements section of the Statement of Standards of this specification. The standard to be applied is exemplified in the National Assessment Bank item for this Unit. If a centre wishes to design its own assessments for this Unit, they should be of a comparable standard.

A holistic approach should be taken with assessment across Outcomes of this Unit and, where appropriate with other Units of the *National Certificate Group Award: Early Education and Childcare (Higher)*.

### **CANDIDATES WITH ADDITIONAL SUPPORT NEEDS**

This Unit Specification is intended to ensure that there are no artificial barriers to learning or assessment. The additional support needs of individual candidates should be taken into account when planning learning experiences, selecting assessment instruments or considering alternative Outcomes for Units. For information on these, please refer to the document *Guidance on Assessment Arrangements for Candidates with Disabilities and/or Additional Support Needs* (SQA, 2004).