

Overview

- This unit builds on other work completed in Year 7 and also work from Year 6.

Main purposes are:

- To develop pupils' ICT capability through:
 - Understanding how data can be organised within a database
 - Learning the types of data and data capture
 - Searching a database using simple and advanced methods
 - Creating methods to display the records in a 'user friendly' way
 - Creating methods to print selected data
- To provide a framework for teaching and learning.
- The Pathways section offers some suggestions on ways to access these materials depending on your experience.

Also included:

- A tour of the pupil area showing the various sections and support material
- The aspects of the 'yearly objectives' covered by this unit of work

Pathways

Pathways are: Routes for teachers to access these materials

These materials are designed to be used by staff that have a wide range of ICT experiences, as a result some staff may wish to browse the materials before doing anything else while others may prefer a more structured approach. Whichever method you prefer you will at some stage need:

- Access to a computer with sound capability
- Printing facilities if you need to print any of the teaching notes or resources (The premium version of Digit Strategy provides all resources ready to photocopy)
- Relevant software to look at the teacher and pupil resources

Please select the most appropriate experience level for a few guidelines on how best to access these materials.

Head of Department	ICT Teacher	Non ICT Specialist	Newly Qualified Teacher
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Head of Department

Guidance if you are: The Head of Department or ICT Co-ordinator

These guidelines assume that you are familiar with the new ICT Strategy and its Framework.

If you also teach ICT in your school you will inevitably need to look at the guidance for the teaching and learning materials - please refer to the 'ICT Teacher' pathway for this.

These materials make some assumptions, which may not apply or be achievable and you may need to amend them:

- Pupils have suitable access to IT equipment, ideally one each
- Teachers have the means to show presentations to large groups
- Pupils receive a 1 hour ICT lesson per week throughout the year
- Your school has suitable software and peripherals
- All teachers should have a copy of the teacher notes and resource materials. You can make these available by:
 - Photocopying the pages from the folder (Premium version of Digit Strategy only)
 - Printing directly from the CD
 - Sharing the files over your network / intranet
 - Making a copy of the CD (your site licence allows you to copy this CD for teacher use only)
- All rooms should have an area to display the key language for the lesson
- Homework can be set. It may be beneficial to provide some form of after school workshop to allow pupils access to computers if they do not have one at home

Before starting this unit of work ensure that all staff are confident with its content, teaching outcomes and possible demonstrations. Included within the pupil area are demonstrations of key skills that some teachers may find beneficial to watch.

A better solution is to provide an opportunity for collective staff training on issues such as software, hardware, scanning, digital photography and printing.

Where your resources are limited:

- It may be possible to change the order that the lessons are taught
- Provide the resource in a central area
- Allow pupils to move between rooms
- Have after school access

It is unlikely that you will be able to deliver this unit without adequate preparation beforehand. You probably have a method already in place to ensure that any new teaching scheme is implemented correctly; the following is only offered as a reminder:

- Distribute the teaching notes and ask each teacher:
 - To become familiar with the various sections
 - To raise possible problems at an early stage
- Ask the teachers to experience the pupil activities for themselves to:
 - Provide you with a list of resources that they may wish to supplement their lessons
 - List the training that they may require to deliver the unit
 - Make themselves aware of what the pupils are being asked to do - they may also benefit from producing a finished piece of work themselves
- Discuss the possible outcomes and how the work will be assessed and moderated
 - Ask your teachers to keep evidence so that a department portfolio of work can be assembled at the end of the unit. This will assist moderation and be of particular help to new or inexperienced staff
- Where possible have a regular slot at your department meeting to discuss how the work is progressing
 - You may ask your staff to show example pupil presentations
 - Share experiences and good practice
- Have agreed policies on such things as:
 - Printing, use of external resources, use of floppy disks, and others such as e-mail, etc
- Ask your staff, if appropriate, to help with after school ICT workshops to provide computer access for those who do not have this at home

ICT Teacher

Guidance if you are: An ICT Teacher

Practising teachers of ICT should be familiar with much of this material. It provides a structured approach to deliver some of the yearly objectives within the ICT Framework. It has an emphasis on pace, requiring pupils to complete activities each week or lesson. The teacher notes are divided into several sections and provide a lesson-by-lesson breakdown, while the pupils work through matched activities.

A suggested route to familiarise yourself with these materials:

- Read the pupil introduction to the unit (this is the home page for pupils)
- Read the delivery section for lesson 1, make a note of the following:
 - What you will be required to teach
 - Any demonstrations that you may need to give. The pupil area has a series of skills based tutorials for reference
 - The equipment to teach the lesson, e.g. large screen
- Look at the matching pupil activity, make a note of the following:
 - What each pupil will be required to do
 - The online resources available to the pupils
 - Other areas of the software, e.g. progress, store and language
 - Will you require pupils to print?
 - Will you use the other resources available, e.g. wordsearches?
- Read the other sections for lesson 1, make a note of the following:
 - Work to be differentiated
 - The resources available (these can be viewed, saved or printed)
 - Resources you may already have to support an activity of this type

Repeat this for other lessons.

Make yourself aware of the objectives and decide how you will record pupils' achievements.

Non-ICT Specialist

Guidance if you are: A non-ICT Specialist

As a practising teacher you will be aware of the key elements for delivering a lesson. These materials provide a framework for each lesson together with pupil activities and resources.

You will soon realise that there is an emphasis on pace, requiring pupils to complete activities each week or lesson. The teacher notes are divided into several sections and provide a lesson-by-lesson breakdown, while the pupil works through matched activities.

As a non-ICT specialist you may wish to use the suggested route below to familiarise yourself with these materials. The text in *italic* may be of particular importance to you:

- Make yourself aware of the objectives.
 - *Ensure that you understand what these mean*
 - Further explanation can be found in the full ICT Framework document
- Read the pupil introduction to the unit (this is the home page for pupils).
 - *Highlight any areas that you may not understand from an ICT perspective*
- Read the delivery section for lesson 1, making a note of the following:
 - *What you will be required to teach*
 - List any technical terms that may require explanations
- Any demonstrations that you may need to give
 - *The pupil area has a series of skill-based tutorials for reference*
 - *Ask another teacher to show you relevant skills*
- The equipment to teach the lesson, e.g. large screen
 - *Arrange for these to be set up in advance or be shown how to do it for yourself*

- Look at the matching pupil activity, making a note of the following:
 - *What each pupil will be required to do*
 - Could you do what the pupils are expected to do?
 - Go through the activity for yourself
 - The online resources available to the pupils
- Other areas of the software, e.g. progress, store and language
- *Will you require pupils to print?*
 - Do you know how to set the printer on pause or print multiple documents on a single page
- Will you use the other resource materials available, e.g. wordsearches?
 - Do you know where to find the answers to these resources?
- Read the other sections for lesson 1, making a note of the following:
- Work to be differentiated
 - Do other staff have ideas on how you differentiate materials.
- The resources available (these can be viewed, saved elsewhere or printed)
- The resources that you may already have to support an activity of this type

Repeat this for other lessons.

Newly Qualified Teacher

Guidance if you are: A Newly Qualified Teacher

As a newly qualified teacher you should be familiar with many of the skills required to teach this unit of work. As with all preparation, familiarise yourself with these materials first as you will soon realise that there is an emphasis on pace, requiring pupils to complete activities each week or lesson. The teacher notes are divided into several sections and provide a lesson-by-lesson breakdown, while the pupils work through matched activities.

You may wish to use the suggested route below to familiarise yourself with these materials. The text in *italic* may be of particular importance to you:

- Make yourself aware of the objectives
 - *Ensure that you understand what these mean*
 - Further explanation is in the full ICT Framework document
 - You may like to find out any prior learning for your class
- Read the pupil introduction to the unit (this is the home page for pupils)
 - *Highlight any areas that you may not understand from an ICT perspective*
 - Ask if there are any similar examples of work already in the department for you to look at
- Read the delivery section for lesson 1, making a note of the following:
 - *What you will be required to teach*
 - How will you organise the room for certain activities
 - Any demonstrations that you may need to give
 - The pupil area has skill-based tutorials for reference
 - Ask another teacher to show you relevant skills
 - *The equipment to teach the lesson, e.g. large screen*
 - Arrange for these to be set up or be shown how to do it

- Look at the matching pupil activity, making a note of the following:
 - *What each pupil will be required to do*
 - Have an idea how long you will allocate for each part. (There is some guidance on the quick view for each lesson)
 - Go through the activity for yourself. This will highlight any potential problems
 - The online resources available to the pupils
 - Other areas of the software, e.g. progress, store and language
 - *Will you require pupils to print?*
 - Do you know how to set the printer on pause or print multiple documents on a single page?
 - How will you organise the whole class to print?
 - Will you use the other resource materials available, e.g. wordsearches?
 - Do you know where to find the answers to these resources?
- Read the other sections for lesson 1, making a note of the following:
 - *Work to be differentiated*
 - Do you have any teaching support staff with you? If so, then you may need to prepare some work for them
 - *The resources available* (these can be viewed, saved elsewhere or printed)
 - The resources that you may already have to support an activity of this type

Repeat this for other lessons.

Framework (Yearly Objectives)

The following are objectives for Year 7; those covered by this unit are highlighted

Finding information

Using data and information sources

- use information from primary or secondary sources
- create information from data for specific purposes and audiences, and recognise how the presentation of information can affect its validity and bias

- **combine and refine information and data sources to answer and pose questions**

Searching and selecting

- select information for a task from a range of sources and be aware of the relative strengths and weaknesses of these sources

- **frame searches in an appropriate and considered way in relation to the required results**
- **search for information, altering and developing the search as appropriate, checking findings for plausibility**
- **use search terms correctly**

- acknowledge sources and recognise copyright

Organising and investigating

- ***save files using appropriate file names and organise files in a hierarchical folder structure***
- ***identify the significant data required to solve a problem***

- develop closed questions which will lead to specific answers in a suitable form – e.g. text, numbers – and act safely and responsibly in seeking information

- **design a questionnaire or data-collection sheet to collect relevant data**
 - **recognise the structure and format of data that can support checking and correcting to remove errors after entry; recognise that data may not be plausible and that this affects results**
 - **generate simple queries using AND/OR operators applied to data items within fields**
- use graphs to represent information; show all key features; justify their choice of chart or graph; produce a report from the information and check the accuracy of their conclusions

- **consider examples of electronic databases in everyday life**
- **check whether the ICT tools they use are appropriate for the task**

Developing ideas

Analysing and automating processes

- represent simple processes as diagrams to plan the task

- **use automated processes to support consistency of style and presentation**

Models and modelling

- **recognise the difference between data, text and formulae in a computer model and organise these so that the model is fit for purpose**
- use a model to predict an outcome
- explain how rules govern a model
- obtain information from a model and check this for plausibility

Sequencing instructions

- rationalise a set of instructions by repeating sections
- plan and implement sets of instructions, predicting outcomes before execution

Communicating information

Fitness for purpose

- recognise the common layouts and conventions used in different types of communication and how these address intended and familiar audience needs
- **recognise the limitations and opportunities of different layout formats and use these appropriately**

Refining and presenting information

- use ICT to improve their work through drafting and refining
- combine text, images, tables and sounds from a number of sources to convey meaning
- ***match the content and style of their work to the audience and purpose***
- import and export data in appropriate formats

Communicating

- capture, store and exchange information digitally by a variety of means
- use digital communication to share information and collaborate with others for a purpose
- **recognise the risks associated with the sharing of personal information digitally and to take actions to protect themselves**

Evaluating

Evaluating work

- **select ICT tools which will support the development and accuracy of their work, and learn the benefits of checking, correcting and refining their work as it progresses**
- agree and use simple criteria and understand how to improve their work
- **explain the reasons for choices they have made**
- act purposefully on feedback
- **understand when to use ICT to solve a problem**