



Unit: Data Handling

ICT Year 1

Overview of this Unit:

Children will be able to find information from a variety of sources, will learn that computers store information and understand that sounds, pictures, numbers and text can give information. They will learn that a pictogram can be used to show information and make their own pictograms and talk about what it shows. They learn how to enter data into a pre-prepared database, make a graph and answer simple questions. They will sort objects using more than one criteria using a set of key words to describe the objects and learn how to use key words to label and classify objects.

Expectations at the end of this unit:

Most pupils will be able to: understand that sounds, pictures, numbers and text are a source of information and can be stored on a computer. They are able to sort objects using more than one criteria and create a pictogram and use it to answer questions. They are able to enter data into a pre-prepared database and answer simple questions and make graphs.

Some pupils will only be able to: enter data into a pre-prepared database and answer questions with help. They can create a pictogram with support and can sort objects using one criteria.

Some pupils will also be able to: find information from a variety of sources. They will generate pictograms and graphs and enter and use information in a pre-prepared database to answer questions with increasing independence. They identify sets of key words and can sort objects using a range of criteria. They can talk about the advantages of using ICT to create graphs.

KEY:

Personal and Social Development, Well-Being and Cultural Diversity (PSDWBCD)	Welsh Language Development (WLD)	Creative Development (CD)
Language, Literacy and Communication Skills (LLC)	Knowledge and Understanding of the World (KUW)	Outdoor Play (OP)
Mathematical Development (MD)	Physical Development (PD)	Role Play (RP)

Teacher Assessment: The skills demonstrated by the children should form part of continuous assessment. Tracking and recording pupils' progress should be done in line with the schools assessment policy and used inform future planning. Recording sheets are provided for schools as an optional part of this Scheme of work.











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Year 1 Find and Analyse Information



Data Handling














ICT Skills	Areas of Learning	Suggested Activity	Vocabulary	Resources	Skills across the Curriculum
Can find information from a variety of sources.	 PSEWBCD LLC KUW WLD	Using the children's own experience, ask them where we might go to find information and introduce the idea of a variety of sources e.g. Books, websites, CD ROMS, media. Appropriate Welsh vocabulary could be considered e.g. <i>book – llyfr, computer – cyfrifiadur, TV – teledu etc.</i>	Find Search Look for Information	Websites CD Roms Books	
Know that computers store information.	 KUW	Demonstrate to the children how to save their work and recall it when they revisit the computer. Talk to them about the reasons why it is desirable to save their work. Draw their attention to the work loaded is exactly the same as what was saved.	Save Recall Load File Folder	Computer Pupil folders	
Know that sounds, pictures, numbers and writing can give information.	 LLC MD WLD KUW	Show the children pictures, including photographs, representational drawings, abstract pictures, signs and maps. Ask the children to describe what each picture is 'telling' them. <i>Appropriate Welsh questions and answers could be considered.</i>	Signs Maps	Range of Photographs, drawings, pictures, signs and maps.	



ICT Skills	Areas of Learning	Suggested Activity	Vocabulary	Resources	Skills across the Curriculum
<p>Can make a pictogram and knows that a pictogram can be used to give information.</p>		<p>Collect images relating to a theme or topic (which may later be displayed and used electronically). Ask the class to select the printed images and arrange them as a pictogram, e.g. How children travel to school, eye colour, favourite colour, pets etc. Encourage the children to count in Welsh.</p> <p>Use a picture or scene e.g. a street scene, which may be displayed electronically. Ask them how many people they can see travelling by bicycle, car, bus, or walking. Use the images of modes of transport to produce a pictogram. Appropriate Welsh vocabulary could be considered e.g. <i>car, bws, tren, beic, cerdded</i> etc</p>	<p>Pictogram Sort Arrange Interpret</p>	<p>Variety of images</p>	
<p>Can make a pictogram using the computer.</p>		<p>Ask each child to choose his/her favourite colour from the colours of the spectrum. Demonstrate to the class how to move blocks of colour on the screen to sort them into a Pictogram. Encourage the children to use <i>Dw i'n hoffi ... coch, melyn, etc</i></p> <p>This can be repeated using pictures on a variety of topics.</p> <p>Some software will allow the children to enter information and will produce a pictogram for children to interpret.</p>	<p>Colour Spectrum Data Pictogram</p>	<p>Computer program that allows images to be arranged as a Pictogram</p> <p>Pictogram software</p>	

ICT Skills	Areas of Learning	Suggested Activity	Vocabulary	Resources	Skills across the Curriculum
<p>Can find information from a pictogram.</p>		<p>Use the IWB to discuss the pictograms and ask and answer suitable questions or print the pictograms and ask the children to answer simple questions and talk about the information displayed.</p> <p>Discuss how pictograms show information at a glance. Ask the class to use the pictogram to answer questions e.g. How many children walk to school? How many children like red? <i>Appropriate Welsh questions and answers could be considered.</i></p>	<p>Pictogram Interpret Questions Answers</p>	<p>Picture of street scene Variety of Pictograms</p>	
<p>Can tell people how the pictogram was made and what it shows.</p>		<p>The children could visit a different class or another adult in the class with their pictogram on colour etc. and explain how the pictogram was made and what it shows.</p> <p><i>Incidental Welsh may be used to refer to colours, numbers and subject matter.</i></p>	<p>Pictogram</p>	<p>Prepared pictogram</p>	

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<p>Know how to enter data and into a pre-prepared database and use information stored to answer simple questions.</p>		<p>The children could enter data into a ready made data base program by selecting different options in each field. They could then use the data base to ask and answer simple questions about the information stored there, e.g. How many aliens have 3 legs? How many children have a house with a garage, etc. <i>Appropriate Welsh questions and answers could be considered.</i></p>	<p>Enter Delete Select Create Questions</p>	<p>Database software (pictorial based)</p>	
<p>Can make a graph and interpret the data.</p>		<p>The children could use the data that has been entered into a data base program to ask questions about the data and produce graphs. They could then look at the graphs that have been produced and talk about what they represent. Incidental Welsh may be used to refer to colours, numbers and subject matter.</p>	<p>More Less The same as</p>	<p>Database software</p>	

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<p>Can explain why it is better to use ICT to create graphs.</p>		<p>Display a graph produced using ICT and another which has been produced without the use of ICT. Discuss how each graph was made and the advantages of using ICT. Ask the class to use the graph to answer questions.</p>	<p>How many? More Less</p>	<p>Database software</p>	

ICT Skills	Areas of Learning	Suggested Activity	Vocabulary	Resources	Skills across the Curriculum
<p>Can sort objects using more than one criteria using a set of key words to describe the objects.</p> <p>Know why some objects go in one group and others in another group</p>		<p>Prepare a collection of objects e.g. 2d shapes. Ask the children to group the objects e.g. Shapes according to number of sides. This should be done as a 'concrete' activity in the first instance. </p> <p>The children should then be encouraged to sort the objects on screen and explain how they sorted them. They should experiment and present them in a variety of forms e.g. Venn diagrams, pictograms or block graphs. The different forms should be compared and discussed.</p> <p><i>Appropriate Welsh vocabulary could be considered e.g. sgwar, triongl, cylch, petryal</i></p> <p>The children could use a sorting activity on the IWB, The internet, a CD or appropriate software which requires them to group objects, letter, words, numbers etc. and talk about the reasons for their choices.</p>	<p>Objects</p> <p>Block graphs</p> <p>Pictograms</p> <p>Venn diagrams</p>	<p>2d shapes</p> <p>Database software</p> <p>IWB</p> <p>CDROM</p>	    
<p>Know how to use key words to label and classify objects.</p>		<p>A set of objects could be hidden in the school grounds. The children ask questions about what the objects look like before going out on an object hunt. Children can photograph objects when they are found. </p> <p>Discuss how some ways of describing the objects might be better than others. In class, find ways of sorting the found objects and make labels.</p> <p>Objects can be hidden in a feely bag for the children to develop their thinking skills. The objects should be described and sorted as they are retrieved from the bag.</p>	<p>Key words</p> <p>Label</p> <p>Classify</p>	<p>Variety of objects</p> <p>Digital camera</p>	   

ICT Skills	Areas of Learning	Suggested Activity	Vocabulary	Resources	Skills across the Curriculum
		<p>Teacher could consider using a Welsh rhyme/song e.g. <i>'Beth sy yn y bag?'</i></p> <p>A number of objects could also be placed on the floor/table/ playground for the children to find the "Odd one out", giving reasons for their choice. </p> <p>Ask children to pretend that they have lost an object and get them to describe it to the class so that other children can help them find it. Discuss how some ways of describing it might be better than others.</p>			
Can sort objects into sets using key words.		<p>Prepare a word bank containing the names, shapes, sizes and colours of objects. Explain to the class that each of them will choose an object on screen and then give some information about it. Ask children, one at a time, to choose an object and then to click on the appropriate name, size and colour in the word bank. Print the information onto labels and ask each child to label their object. The objects could then be displayed.</p> <p><i>Incidental Welsh may be used to refer to colours, numbers, size and names. Word banks could also be created in Welsh.</i></p>	<p>Name</p> <p>Size</p> <p>Colour</p> <p>Shape</p> <p>Describe</p>	<p>Word processor</p> <p>Word bank</p>	