P10: INTEGRATING ART IN ICT IN THE PRIMARY CLASSROOM

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Background

Ripple Infant's school is located within the London borough of Barking and Dagenham. It has a firmly established ethos of child-centred learning. Before Test Bed commenced at the school, the majority of art sessions in Year 2 were carried out as whole class activities, and ICT use was limited as I had only one computer in my classroom. Pupils worked in pairs throughout the week on set activities, based on the ICT scheme of work, and also did ICT linked activities to support other curriculum work. Our school does not have an ICT suite due to space limitations.

At the start of this project, our school was in the second year of being involved in the Test Bed development. The pupils in this project were in the first term of Year 2. They had good keyboard skills and a basic knowledge of some popular artists and their styles.

Aims for Test Bed Report

My classroom now has a mini computer-suite of seven new dual purpose desks with foldable computers built inside the desk top. When they are not in use, they can be folded away to create more desk space. However, they do take up one third of the classroom space. My aim therefore was to find out how to conduct whole class art activities, whilst at the same time creatively incorporating the use of the new ICT resources.

For the duration of the autumn term, I wanted to link this activity with our school's current Art and ICT schemes of work, and also identify any issues that would occur during its implementation. The information was collected through photographs, video footage and a journal of comments and observations from pupils, teachers and support staff.

Intentions and Objectives

1 - I wanted the pupils to think of different ways of developing their 3D ideas in art and also to recognise and work in the style of the British artist, Andy Goldsworthy.

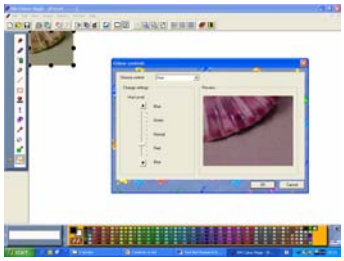
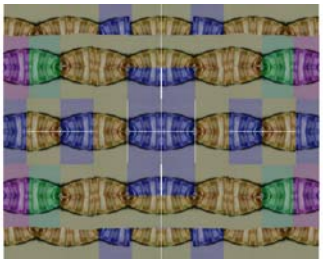
Andy Goldsworthy works with nature and natural objects to make his creations, generally using whatever he notices: twigs, leaves, stones, snow and ice, reeds and thorns. He fine-tunes each of his creations, and photographs each piece once when completed, as illustrated by these examples.

2 – It was also my objective for pupils to understand that ICT can be used to develop and manipulate images.

Outcome Objectives

1 – To produce and photograph 3D art work in the style of Andy Goldsworthy.
2 – To form a repeated and symmetrical pattern using a graphics programme manipulating the image and its colour.

It was expected that pupils would be able to independently use the graphics programme to take a segment of a digital image and use it to create repeated symmetrical patterns, manipulating the image and its colour. This process is illustrated below.

Summary of Activity

The activity was conducted in 4 main stages;

Stage 1 - Using natural objects to work in the style of Andy Goldsworthy,
Stage 2 - Using the digital camera to record their own art work,
Stage 3 - Using the graphics software, Colour Magic, to create a symmetrical pattern from their digital images,
Stage 4 – Using the *Colour Effects* tool to manipulate the image colour.

This project lent itself well to the use of ICT, as the nature of the art work involved meant that children had to digitally record their art work in order to proceed to the next stage. We used a simple graphics software package which was already installed on all PCs across the Borough.

See Appendix 2 of Part 2 of this report for materials produced in the course of this work.

Findings

Some ideas developed as the project progressed, although the overall goals remained. The graphics package has 4 levels of difficulty. Previously in Year 2, we only used simple functions at levels 1 and 2. But, in order to accomplish my goals, I had to allow pupils to access the more complex functions at level 4, as they needed to apply more sophisticated techniques to achieve the desired effects. I found that some pupils needed to be taught certain steps in smaller stages, with more practice in smaller learning groups than others. Some pupils were happy to follow the prompts offered in the drop-down menu and work independently. The software proved to be more than adequate as the project I designed had an array of activities that benefited children with differing skills. Everyone was included.

I realised that some pupils needed regular access to the computers in order to reinforce the skills that they had been taught. This would have taken longer if the children did not have continual access to the computers within their classroom. Consequently the progression of the project would have been much slower, and the pupils would not have advanced as rapidly if they only had once weekly access to one computer at the back of the classroom (as they had done previously).

The project also linked very well with maths. I noticed that pupils were gaining a better understanding of symmetry and pattern making on a more visual and practical level through copying images and repetition.

My teacher colleague also followed the lesson plans, (See Appendix 1) and we had to learn rapidly about the more advanced level 4 in the software. These skills are really intended for use at Key Stage 2. This was not previously covered in our Year 2 scheme of work for ICT or Art. We are now modifying our schemes of work for both Art and ICT to incorporate more Key Stage 2 skills.

One useful observation here was the capability of one of my more-able pupils in demonstrating how to use the graphics package to the other Year 2 class. This was particularly useful for my teacher colleague to observe in order to hear explanations in the child's own language and to experience this child's amazing level of competency and degree of understanding.

Below are some examples of comments and outcomes from each stage of the project which illustrate the benefits of this approach. The impact has greatly benefited the pupils' skills in both Art and ICT.

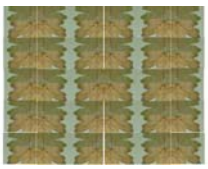
Regarding this approach of creating art as illustrated here, one pupil commented: *"It's great to work like this because you can make the pattern and size to be whatever you want, but you can't keep it like that because you have to tidy it all away."*

My teacher-colleague said: *"I was impressed that their skills had developed so quickly and also at what the pupils already knew about the software. Their confidence when demonstrating the task to each other proved to be useful, especially as the more confident ones supported the less confident by using their own language to explain the task to each other*."

During the third stage of the activity, our head teacher commented that she noticed a pair working independently and asked them to explain what they had to do. They proceeded to close the programme and began to explain their work from the start, giving clear details about each stage of the activity.

This comment from a pupil demonstrates the ease with which ICT skills developed. *"It's easy to find our own photos in the computer,"* commented a pupil. "*The steps-sheet did help us, but after a while we didn't need to use them because we knew how to tell the computer what we wanted it to do."*

The classroom assistant, also involved in the practical management of the project said *"It was easier to work with each child individually rather than in groups, especially as those with special needs had difficulty holding the camera steady, and also when guiding the mouse with their chosen selection to the position they desired."*

The complexity and subtlety of these results are very pleasing. Pupils have not only wanted to work independently on their work during their 'free' computer-time, but they have also learned other social skills such as sharing opinions, ideas and resources.

The display areas in our school, classrooms and local town hall, also show off the pupils successful achievements. This has highly raised our schools' overall ambiance and appearance.

It was obvious that pupils' ICT skills in using the advanced software levels to manipulate their images did get better as the project progressed. This would not have occurred so rapidly in the classroom without the availability of the equipment.

Problems Incurred

Within the early stages of the project the computer task was too teacher-intensive for a whole class to complete in one sitting. I found I was unable to successfully monitor and teach the whole class of Year 2 pupils who were actually acquiring Key Stage 2 ICT skills within one session.

Initially I was not sure if the graphics package was capable of accomplishing what I wanted it to do, and I believed a more professional graphics package would be needed. Our Test Bed project manager explained that these were not compatible with our school network. Our LEA were unable to provide support and solve the issues involved, such as acquiring a network licence or providing the technical support required to install the new software. However, the graphics package we had access to proved to be more than adequate for the necessary ICT skills.

It was essential to be clear about the learning intention at the outset and reiterate these before any pupil began a task, as pupils associated computer activities with playing games. This changed over time as they became more involved in the project.

Breaking the project down into a progression of small attainable steps was difficult. We had to find some way of remembering the steps in order to practice the skills being taught. Finally we assembled a list of step-by-step instructions, which proved useful, and eventually became memorised.

Understanding the classroom organisation is an important issue when integrating ICT within an Art lesson. I would advise teachers to carefully consider how to facilitate newly acquired ICT resources in the classroom, and also to carefully consider how to integrate ICT skills within the general curriculum. I realised that non-ICT based activities would need to take place within the same lesson, in order to manage the project successfully, and also to allow classroom support assistants to be deployed effectively. This relates to the adult/pupil/hardware ratio within the classroom.

Future Possibilities

Adapting consolidation outcomes: modifying lessons to successfully integrate ICT – providing a non-ICT based activity that links to the learning intention.

It is important to acknowledge in our future planning for ICT, Art, or indeed any other curriculum subject, that children *will* advance quite rapidly as sufficient support to reinforce the skills being taught is provided.

The newly acquired skills, combined with the open-ended nature of the task, lends itself to further extension activities – such as pupils searching via an on-line search engine for images to manipulate in the same manner.