

## Textiles improving our environment

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Chiswick is a co-educational comprehensive school which combines a sound academic tradition with the advantages offered by a modern community school. The school encourages high standards for all its pupils. It aims to foster personal responsibilities for work and behaviour through a close partnership between the community, parents, pupils and teachers.

The following are two examples of linking D&T textiles work with other curriculum areas, in particular Art & Design and IT.

### ■ 'A River Thames Quilt'

Having been given the status of a community school with a deputy head in charge of Community Education it was suggested that the pupils should produce a piece of work in conjunction with the local community. This would serve both to celebrate the occasion and to establish an understanding of the role of a community school. A working party of staff wishing to participate in the project was created, and the wall-hanging project was born.

Within the technology department the staff work co-operatively to support the curriculum needs. The staffing arrangements for team teaching are flexible in order to provide the expertise necessary for any given project. In the case of the wall-hanging, it was established that the art and textiles groups would work collaboratively. In order to purchase the resources necessary to provide pupils with worthwhile learning experiences, and to ensure a high quality end result, monies were obtained from central school funds. The total cost of the purchased resources was four hundred pounds, which supported one full term of work for 40 pupils.

Time was required to plan the project, to share expertise and to establish a common understanding of the task set. The staff directly involved met several times in the term prior to the project starting. Two cross-curricular themes for the project were identified from the National Curriculum: Education for Citizenship and Environmental Education. Pupils were encouraged to raise issues on the community and the responsibility individuals have for the environment in their community. It was decided that the project could be placed within the existing framework of the Year 8 curriculum, maintaining the planned progression in Key Stage 3. The textiles

teacher would introduce the project to the 40 boys and girls involved.

The pupils were given the following brief: 'To design and make a 30 cm square quilt to represent the local environment of the River Thames'. It was explained to the pupils that the individual sections of quilt that were to be produced would be stitched together to form a wall-hanging to celebrate the school's community status.

The pupils began the design work in their art classes. They were set observational exercises which enabled them to focus on aspects such as transport, pollution and nature during trips to the river. The pupils were set homework to research the historical use of the river and speakers from local industry came to speak to them in their environmental studies lessons. Back in art lessons pupils worked on details using the observational sketches from their visits. Final designs were produced under the supervision of a specialist art teacher and the work was assessed under Attainment Target 2 in Technology.

While the design activities were progressing, pupils were taught a range of skills in colouring fabric in their textiles lessons. They were introduced to hand painting, spray diffusing and stencilling so that they could apply the appropriate techniques to their work. Skills in machining were also introduced so that they could quilt their design in addition to applying a small range of decorative finishes.

After the initial six week period, pupils evaluated their drawings and sketches on the basis of what would be appropriate to translate into textiles. Some pupils needed to modify their designs which were then recorded in their evaluation diary.

Pupils were offered the choice of working on their own or with a partner. This provided support to those pupils with special needs and certainly contributed to the quality of the final product. Once the pupils had finalised their designs they were assessed again for Attainment Target 2. The pupils then produced a plan of work and initiated the manufacturing process.

This started with the pupils being instructed in how to transfer their design on to a 30 cm square of calico using appropriate textile techniques. A number of methods were utilised; some needed to colour the fabric,



others to apply appliqué, while a few started with hand or machine embroidery. The school has a long tradition for promoting textiles to boys as well as girls and their enthusiasm for the project was encouragingly high. They were able to express their own concerns about the environment and make clear statements of their views through their design and use of textiles. This became a very important issue throughout the project and much discussion and interest was provoked.

Many pupils felt the project was so important that they gave up their own free time to enhance and complete the work. Pupils can be extremely critical of their own work and unless they value the outcome their motivation will cease. It was therefore important to establish realistic targets that allow all pupils to succeed, but also allowed for differentiation to be implemented by the skills used. In this way, all pupils could be accommodated and assessed to maximise achievement.

Once the squares had been completed individual efforts were assessed along with their plan of work to establish Attainment Target 3. The diary that had been used to record their evaluations was used as part of the assessment of Attainment Target 4. However, in view of the proposals for the new Order it would be appropriate to assess the strands in a similar manner.

It was at this point that the adults from the community education class visited the pupils to discuss how the squares were to be arranged.

Different formats were suggested in view of the varying quality of the squares. The expertise of the adult education class was of prime importance in completing the quilts and achieving a high quality final result. This was because their machining skills were higher than those of the pupils and, as the quilt was assembled, there were a decreasing number of squares to work with and fewer people could practically be involved.

The Education Class produced two quilts to hang in the dining hall. The pupils were impressed with the quality of the quilt and how their own work had been enhanced by the collaborative effort. As the quilt had been commissioned to celebrate the school's status in the community, we arranged for an official hanging ceremony. Pupils, parents, teachers and governors were invited. The parents were particularly delighted with the outcome of their children's achievement and the quilts continue to be appreciated by other pupils at the school.

## ■ 'CAD Designed Tapestry and Rug'

The technology department in its development plan identified the need to introduce the use of computer aided design (CAD) in textiles and thus make a contribution to Attainment Target 5. As this was the first activity of its kind within the department, it was recognised that the future use of CAD would be significantly influenced by success or failure.

In choosing a context for the project, it was decided to combine two existing schemes of work. Year 7 were studying the environment of the dining hall, while Year 8 were already involved in researching community life in the developing world. The resulting objective of

the CAD project was to design and manufacture a tapestry and rug for the dining hall with an African theme.

There were many problems to overcome. The teacher did not profess to be computer literate. There were not enough computers in the department for a whole class. Finally, there did not appear to be any suitable software readily available for textiles projects. However, what we did have was a supportive information technology teacher who was willing to help.

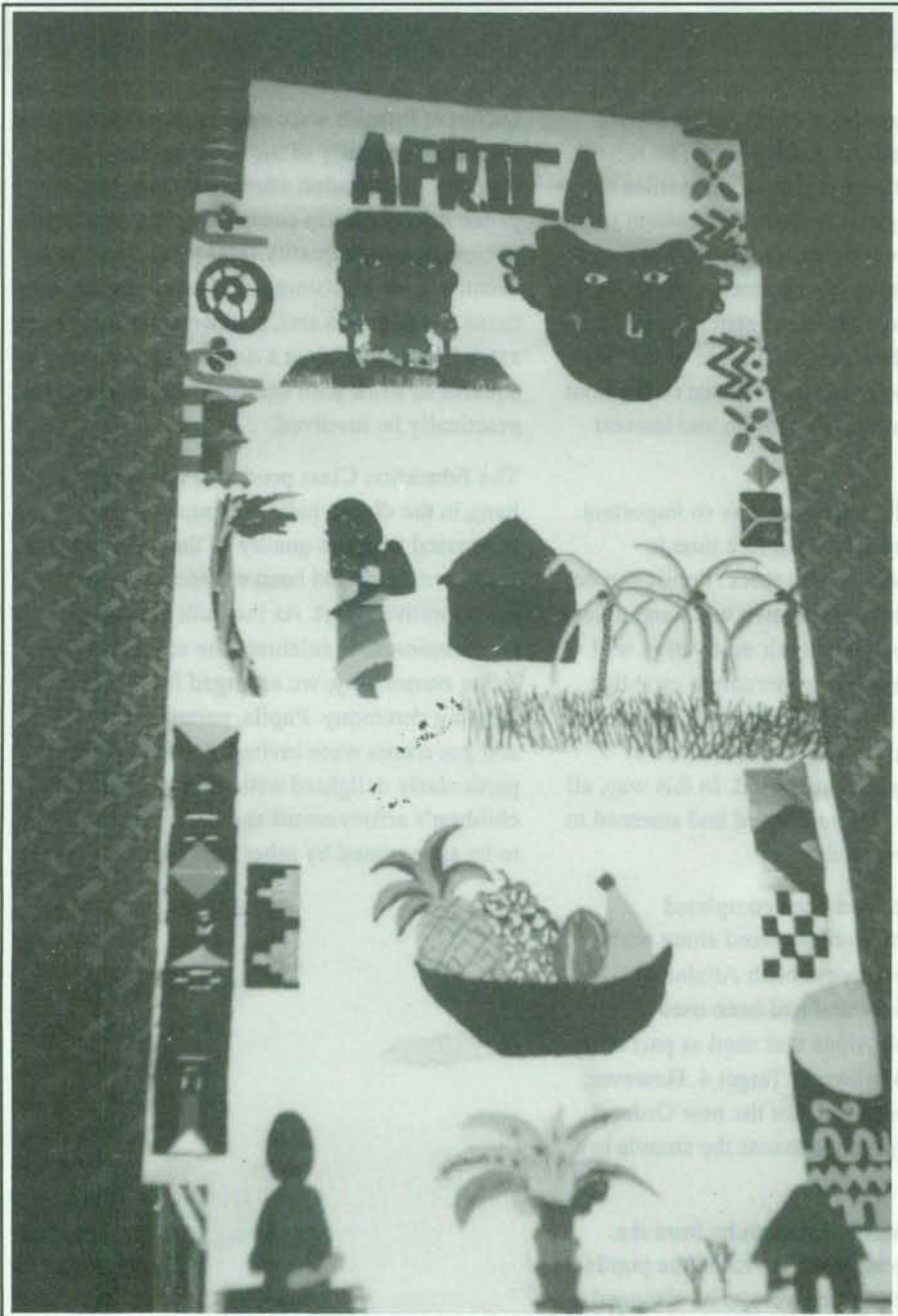
It was quickly established that, for curriculum development purposes, computers from around the school could be gathered together in order to provide 12 Archimedes machines with one colour printer. The most suitable software package to hand was Art Pax, which is a very flexible art package.

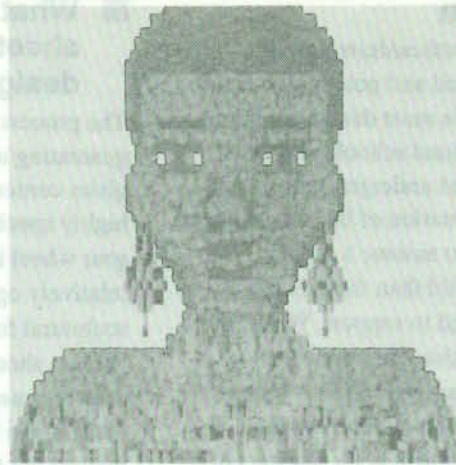
With the co-operation of senior management it was agreed that we would pilot the project towards the end of the summer term so that it could be implemented into the new school year in September. It was decided that the pupils would be withdrawn from their timetable for one day. They would then be introduced to the software in the morning session and have the remaining time in the afternoon to design. This would be followed by a second day later in the term to make up their design in textiles.

As a result of the success of a previous exercise, Nottingham Educational Supplies agreed to sponsor the project with suitable materials such as a 3m x 1m canvas for a tapestry, a 1m x 1m rug canvas and a range of tapestry wools.

Again the cross-curricular themes to be developed were environmental education and citizenship from the National Curriculum. Given that all the design work was to be of a collaborative nature, pupils had to understand and co-operate with each other. Thus they experienced the importance of positive participation and the motivation necessary to complete their part of the project.

A group of 15 boys and girls who would be prepared to complete a set of additional homework based on the observation studies for the design and would be interested in completing the design into a tapestry and rug was identified. Care was taken to ensure that the pupils involved had a range of abilities. The project was outlined to the group during a lunchtime meeting and they were given a list of





homework that had to be researched and sketched. This had to be completed before they could be released from the timetable for a day's work on the computer. Surprisingly, not one of the pupils wanted to drop out of the activity at this stage. In fact the use of the computer for a day was in itself motivating. Pupils were able to take away resource materials such as slides, photographs and pictures and to return to the teacher for support when needed.

On the morning of the first session the information technology teacher prepared the small classroom with additional computers on loan from various departments. When the pupils arrived their homework was checked to ensure the working partnership had been established. The information technology teacher led the morning session, taking the pupils through the software while his lessons were covered by the textiles teacher. By the end of the morning pupils were surprisingly confident and wanted to start their African designs. In the afternoon, therefore, the information technology teacher returned to his normal timetable and the design of the tapestry and rug was supported by the textiles teacher. All the initial fears disappeared. The pupils were highly motivated and enthusiastic and, given the size of the group, any problems that arose were easily overcome.

It was decided that the use of a colour printer was helpful although not essential. All the work was printed after the session and then enlarged on the colour photocopier. In order to minimise the time taken to assemble the tapestry, pupils worked on either side of the canvas which was laid out on one long table. A very simple tracing technique was used to transfer the designs on to the canvas. Pupils then used long stitch to carry out the work.

There was one abstract design which was particularly suitable for the rug. The design was enlarged to A3 and transferred on to the rug canvas in the same manner as the designs for the tapestry. The pupil who designed it worked on the rug with other pupils who wished to take a break from their tapestry and to learn a new skill. The rug was eventually completed by Year 7 pupils after they had completed their own tapestry.

Once the work was finished the tapestry and rug were evaluated and it was decided that the project could be continued with another class. It was clear that the tapestry was going to be a quality project and that pupils in Year 7 could complete the work for the school environment project in technology. Initially the pupils were overcome by the high quality of Year 8's work and nervous about placing their own work on to the tapestry. However, once they were reassured that their work would be of an equal quality they responded well to the responsibility and task.

Owing to the number of pupils involved, it was not possible for Year 7 pupils to have access to computers for design. Given that the tapestry was based on an African village pupils investigated African patterns and methods of designing. They used a resource pack from the Commonwealth Institute which contained fabrics as well as worksheets. Pupils were encouraged to explain their own African religions and customs. They produced several designs and were taught techniques to build blocks of pattern. They experimented with different colour-ways and investigated symbolic use of colour. Pupils then selected their best design and give reasons for their selection. The designs were transferred on to the tapestry and worked in long stitch.

Once the tapestry and rug were complete the community education class agreed to stitch a backing on to the work so that it could be hung on the wall. This special relationship with the community education class enabled pupils and adults to appreciate each other's skills and allow projects such as this to work.

The tapestry, rug and design work are now on display in the dining hall. Pupils, parents and staff who supported the project were invited to an official viewing to acknowledge the quality of work and to recognise the high level of pupil achievement.