

# Moving Picture Books

## Abstract

During my diagnostic practice on a PGCE primary course I worked with a Year 4 class at Stanville Primary School in the North East of Birmingham. The school follows the QCA scheme of work for design and technology and the topic the class was to follow was Unit 4B, Storybooks, with the focus on control mechanisms. The subject was to be taught in blocks of two weeks with three one and a quarter-hour sessions per week. This meant that the suggested timings in the QCA scheme of work had to be altered to accommodate this way of working.

## Preparing for teaching

My first source for information was the Internet. I found several websites that were useful in preparing for this module, in particular both the Nuffield Primary Solutions website, entitled 'Will this story surprise you', ([http://www.primarydandt.org/filelibrary/pdf/story\\_col.pdf](http://www.primarydandt.org/filelibrary/pdf/story_col.pdf)) and the Educate the Children website ([http://www.educate.org.uk/teacher\\_zone/classroom/dt/unit4b.htm](http://www.educate.org.uk/teacher_zone/classroom/dt/unit4b.htm)), as they both included ideas on translating the unit of work into lesson plans. As a paper-based source, the DATA lesson plans were also useful.

I collected a number of pop-up books to form the basis of a collection to be used with the children when evaluating a made product. These were used in the first lesson, then kept at the back of the class for them to look at when they had the opportunity. They proved to be extremely popular, especially during wet playtimes. I also made a selection of mechanisms, made from card, and the children benefited a great deal from these together with a display of different mechanisms. They played with these, took them apart and explored further whenever the opportunity arose.

## Planning

This was to be my first experience of teaching design and technology and I was given the chance to take the topic through to its conclusion. The topic was to be spread over two weeks and my initial concerns were whether the QCA scheme of work could be broken down into the time available to our class. I had to modify the lesson plans greatly from those that were available and these were mainly designed for bigger blocks of time.

Due to the limited amount of time available for teaching, I decided that the whole class would make one detailed moving picture book rather than several shorter books. This meant that the children could be split into groups of three and each given a A3 sheet of white card, folded to make a double page spread, to

design and make into a moving picture. The moving book would be based upon 'The Green Ship' by Quentin Blake, a book we had been reading in literacy and so, by the time the children came to design their mechanisms, they were familiar with the story. This helped them focus their creativity and to keep them on task.

## Session 1

The first session involved the children investigating and evaluating pop-up books. Groups were given two or three books so that they could look closely at the different levers and linkages to learn how they worked. They were then given ordinary picture books and asked to compare them. The children decided what would make a good picture book and recorded in their design and technology books how they could make the non-moving picture books move. The children were asked to concentrate on four different questions while they were investigating the moving and non-moving books. These were:

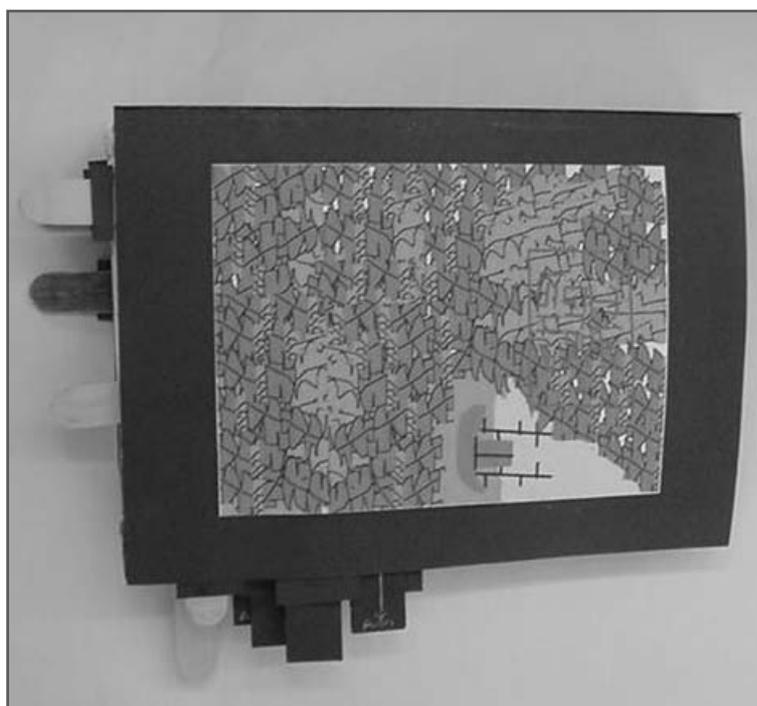
- Who is the book for?
- What are the illustrations like?
- Where would you put a moving picture in books that didn't have any mechanisms?
- What would you make move?

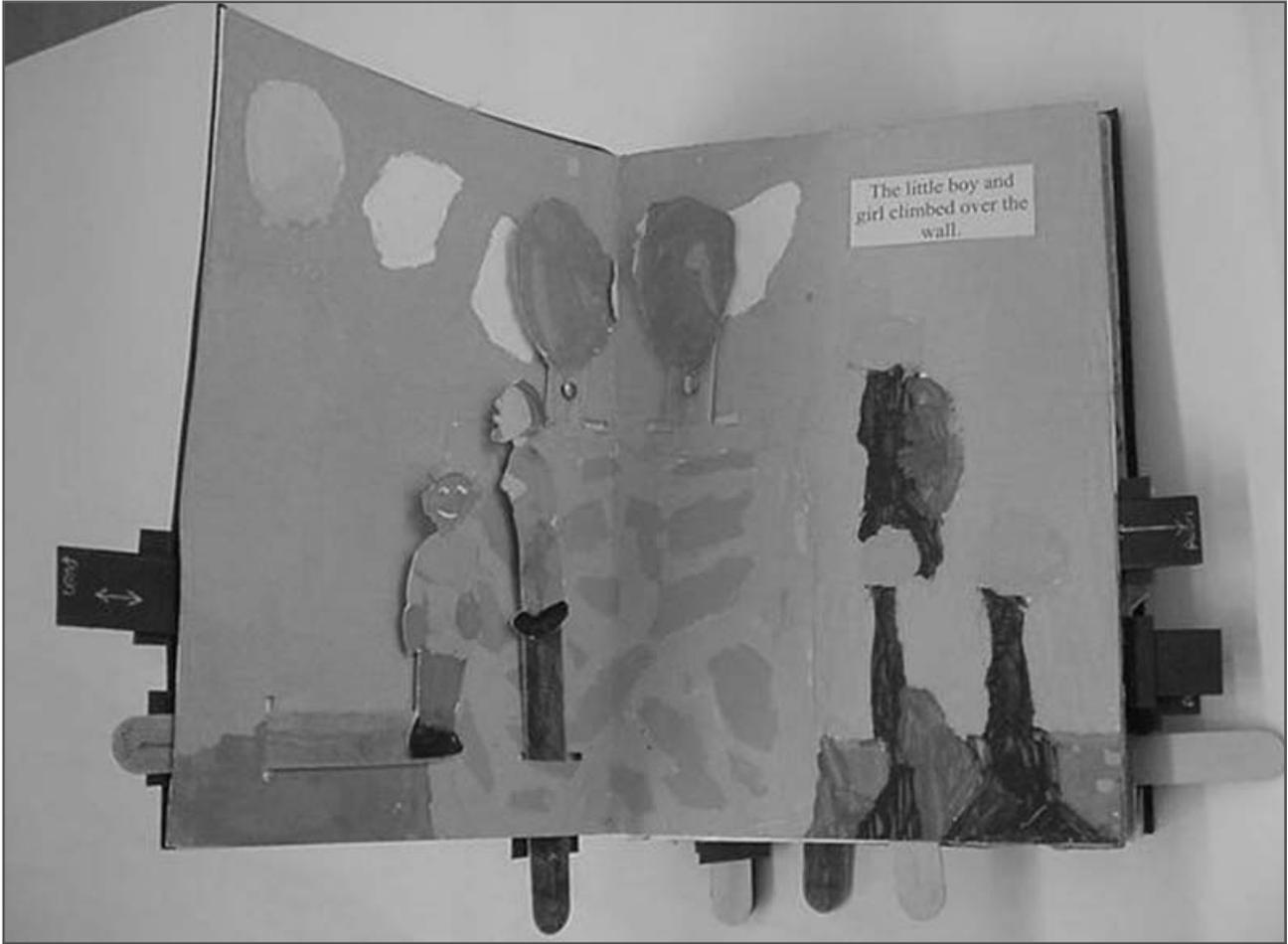
## Session 2

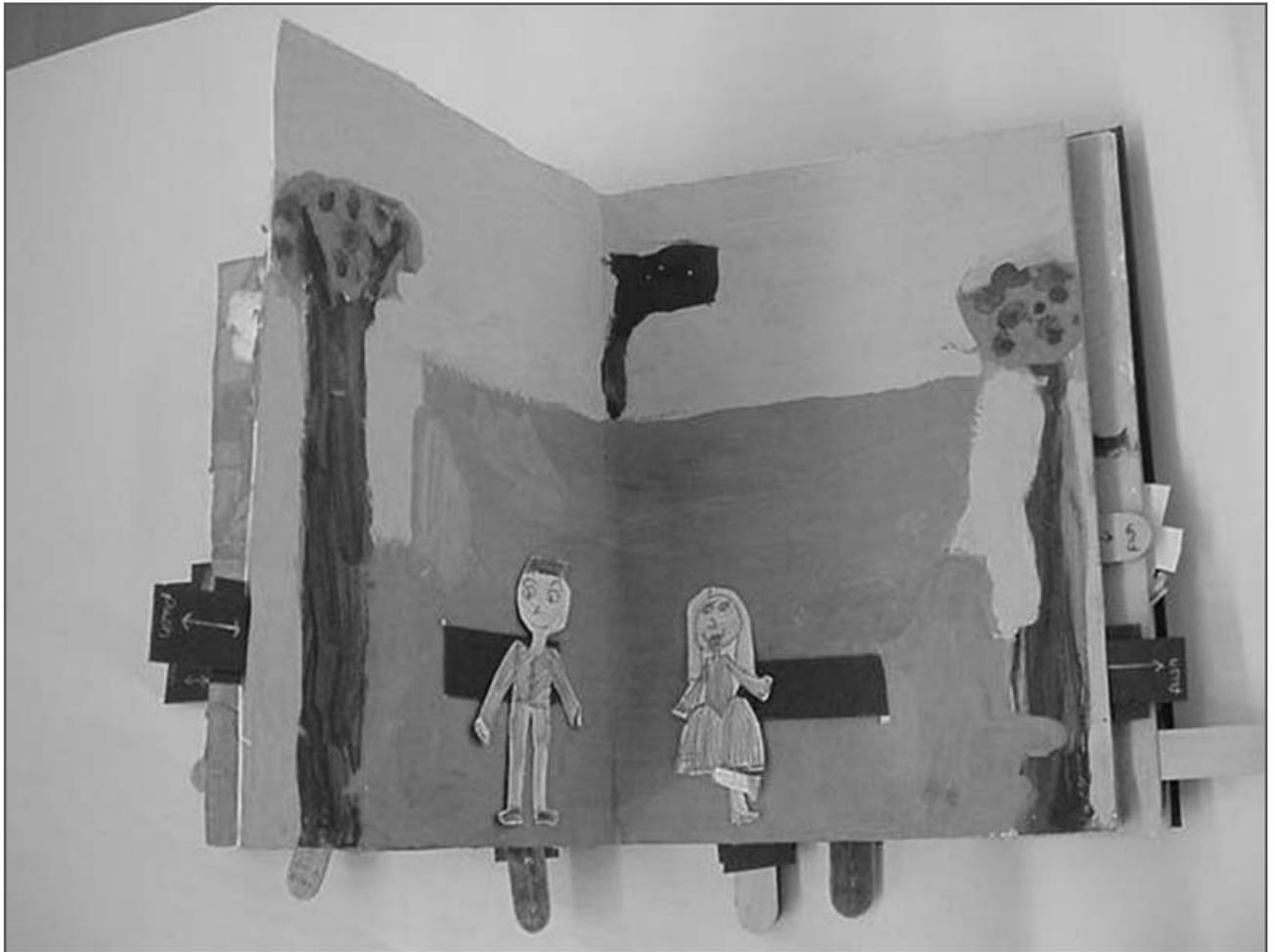
In the second session the children were asked to investigate different levers and linkages. This was done by each child having strips of card and access to a single hole-punch, drawing pins and pieces of thick card. The children were shown a number of different mechanisms and shown how the repositioning

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of a pivot could change the entire direction of movement. The children were then able to play with different positions of their fixed pivot and drew the direction of movement using a simple diagram and arrows. The children were then taught some technical vocabulary and input and output processes. This session proved invaluable as, although I felt hesitant at first in spending a whole session playing with different mechanisms, this saved time in the future as the children were aware of the different movements possible. It also gave them inspiration regarding their own design specifications.

**Session 3**

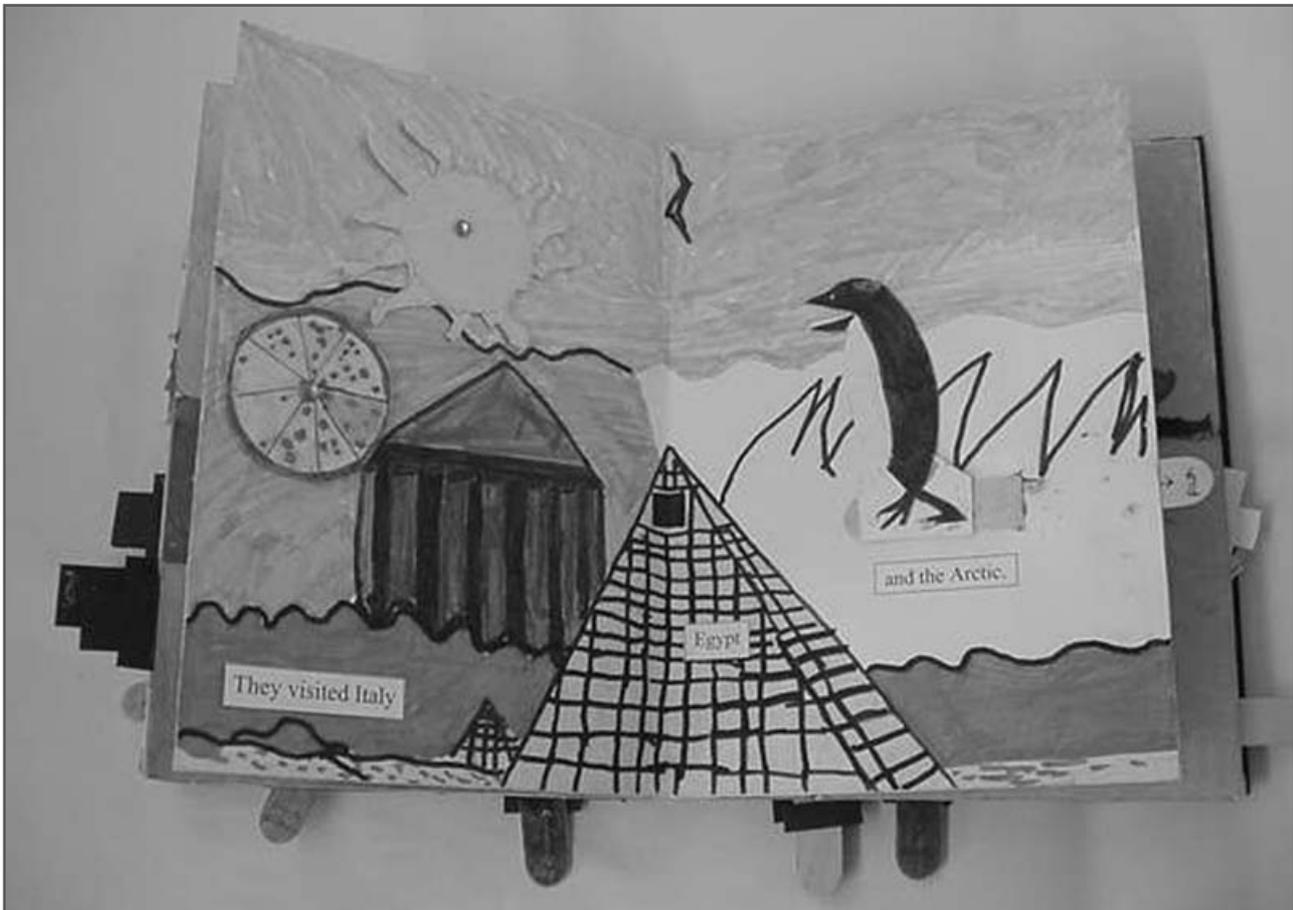
In the third session the children were able to detail in their specification sheet what their page would look like. They were split into groups of three and each given a double page spread. They were able to choose which section of the book their group would concentrate on, then set about designing what their page would look like and which parts would be moving. They were told to aim for two or three mechanisms on each page. As a class, we brainstormed how each page could look, what would be involved and what would move.

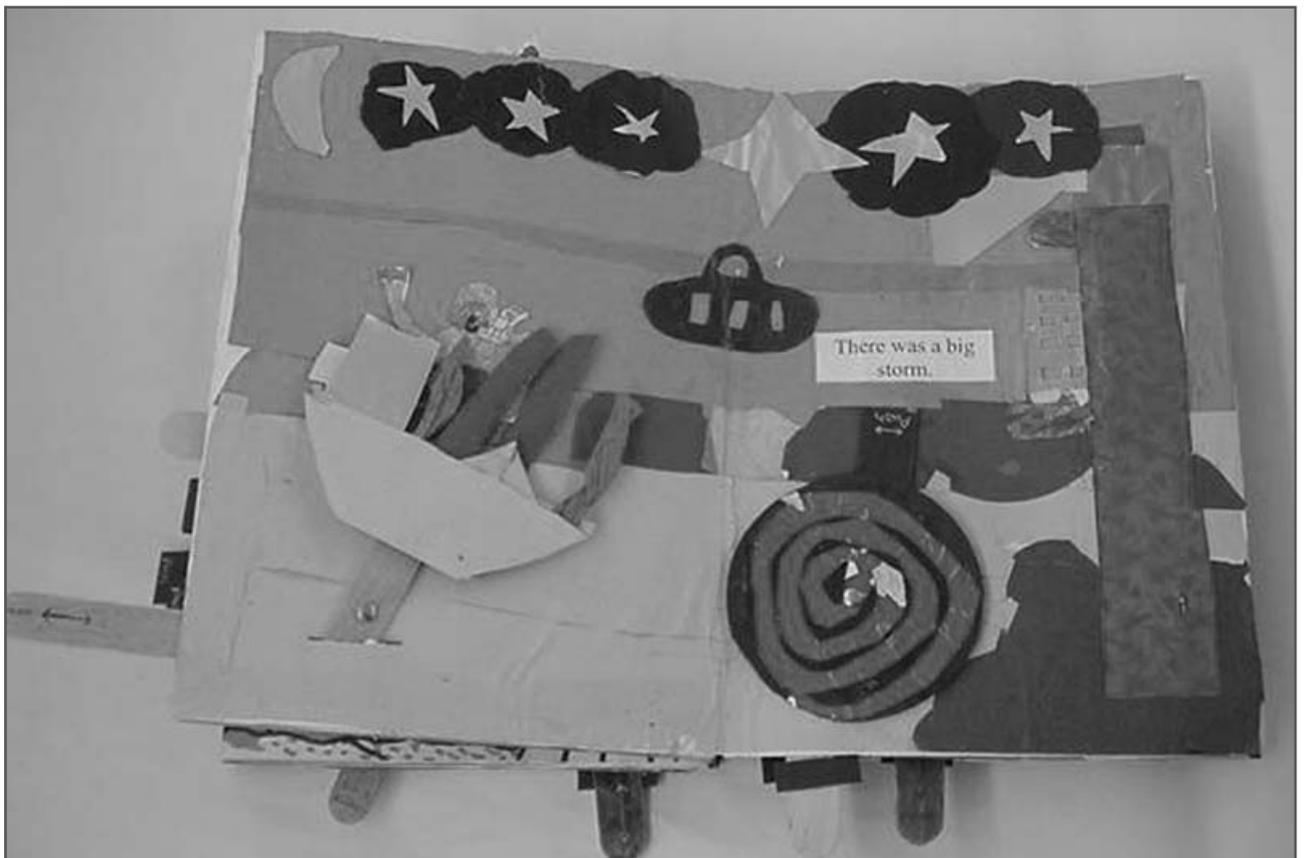
**Session 4**

In the next session the children firstly decided on the finish they would choose for their page. The children mainly opted for paint, which I initially thought would not create a nice finish due to its feel when dry. Some other children chose collage so were prompted to think of some of the disadvantages in using collage with moving parts. The children thought that the small pieces of material might catch and so decided to be extra careful in sticking down the corners of their pieces. Some chose felt tip pen for the brightness the finished effect gave. The children spent this session and the next on their backgrounds, but responded well to a strict time limit. They were told that they had to finish their backgrounds by the next session.

**Some useful strategies**

As soon as some children had drawn, cut out and finished their moving parts, the children were called over in small groups to make their mechanisms. Because the children had access to the mechanisms on display, they needed less reminding of how the mechanisms worked when it came to making their own. The children needed more adult intervention at this stage than previously. By drawing the children away from their background at suitable moments, such as when the paint was





drying, the children were able to benefit from greater teacher guidance. They were able to choose from a variety of mechanisms. Finished mechanisms included sliders, pop-ups, levers and linkages, with four out of eight finished pages having three mechanisms.

We found using lolly sticks as levers very useful when it came to testing the mechanisms, as they proved to be much stronger than card. Problems were faced when the lolly sticks were not long enough for the position of the mechanism. This was overcome by scoring and folding thick card and sticking with PVA glue to reinforce and strengthen it. Next, the mechanisms were positioned and any protruding split pins were covered with masking tape and then the A3 sheets of card were positioned in order back-to-back and glued to the next page with PVA glue.

The children then set about evaluating their completed book using some key questions taken from the Nuffield Primary Solutions booklet. They were able to do a detailed evaluation of their own page then a brief evaluation of the whole book by answering the questions in their design and technology books. All the children were pleased with

their work and thought the finished book worked well. One comment that did come up from a number of pupils was that they were disappointed they couldn't take their work home.

I feel that making the book as a whole class worked well and enabled all the children to support each other with ideas. Having the cross-curricular aspect of combining literacy with design and technology was invaluable. The children came to the topic with a sense of purpose about what the book would be about and what characters and themes would be involved so we could concentrate on the design and making of the book. I would definitely do this topic again as a whole class book rather than in small groups.

The children were pleased with their finished book and were delighted when the finished book was shown to the rest of the juniors at the end of term assembly and some of the children were asked to explain what they had been doing in design and technology. The book was then placed in the library alongside the original book, 'The Green Ship' by Quentin Blake, so that all the children could look at the moving book and compare it to the original.

