

# Easy as 1, 2, 3...



Nothing surprises kids these days, right? Wrong, as **Andrew Sanderson** discovers when he takes a class of schoolchildren out into the playground with a bunch of shoeboxes, biscuit tins and whisky-bottle tubes

**OPPOSITE** This picture was taken with Andrew's homemade 10x8in pinhole camera, showing his six-year-old daughter Lily's tricycle. 'If you look at the detail in the centre of the image, you will see how remarkably sharp it is,' he says

**RIGHT** A selection of cameras made by the children

**BELOW** The serious business of exposure

**R**ECENTLY I WAS invited by my local council to do a series of art and photography classes at several junior and infant schools in the area. I had no idea what to expect but accepted the challenge and only found out after doing a few of them that the facilities were rather limited, to say the least. The nearest thing to a darkroom available was a storeroom cupboard with a small sink at one end. There were no cameras to speak of, just a handful of low budget, low quality digital cameras scattered randomly through the education system.

My options were limited. I could just about teach digital photography – but most of the children were familiar with the digital cameras that they had at home or in their mobile phones. Then



again, I could do photograms on cyanotype; I tried this at some schools and it went down well, but I ended up spending quite a lot of time coating the paper for use the

day before.

In the light of all this, I decided that the easiest option was to do a pinhole camera workshop because, even though there was no darkroom, the students could get involved in almost every stage of the process from sourcing the appropriate container to exposing the final image. I envisioned that a simple process and contact job by me would be all that was needed to complete the project.



The pinhole cameras the children made were constructed from coffee tins, Pringle tubes, whisky-bottle tubes, shoe boxes, biscuit tins and small plastic film containers. The image sizes varied from 4x4cm to 20x25cm.

**D**ue to limited classroom time – just one hour – and the large number of students, it took three separate lessons to make the cameras and ensure there were no light leaks. I ended up taking the cameras home in binliners and loading them with Multigrade resin paper in my spare time – so much for it being easier than cyanotypes...

I produced the loaded cameras the following week and the children were led outside to (in theory) be guided by me towards the best positions and

'The children came outside to (in theory) be guided by me towards the best viewpoints. What actually happened was that they scattered in all directions'

viewpoints. What actually happened was that they scattered in all directions and I found that as I was the only one with a second hand on my watch, I was confined to helping only one child at a time. Towards the end of the lesson, having helped about half the class, I hunted around for the rest and found that some had been patiently waiting for me, while others had just given it a go. Of those, a few had given the two minutes ▶

# STEP-BY-STEP TO PINHOLE SUCCESS

**1** Pinhole cameras can be made from any light-tight container and in any size. The method I would suggest to a beginner would be to use a biscuit tin about 12in square or a shoe box. These are quite sturdy, are pretty light-tight and will take a full sheet of 10x8in paper.

**2** For best results, cut down on internal reflections by lining the tin with black paper; this can be attached with rolled-up Sellotape, sticky side out, or double-sided sticky tape.



RIGHT The lined box

**3** A small section of the central area of the lid should be cut away to permit a piece of tinfoil to be taped over it with black electrician's tape and punctured carefully with the tip of a sharp needle. With a tin, a hole can be made in the lid itself, but it takes a bit longer...

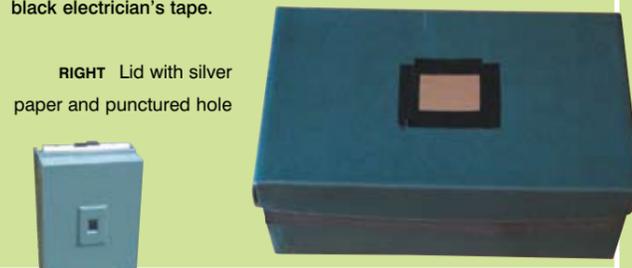
First, place the lid on a pile of old magazines or newspapers on a hard surface, with the outside facing down. Find a large nail or screw, and place it point-down in the centre of the lid. Strike once with a hammer to create a dimple, but not hard enough to puncture the metal. Rub down the dimple with fine emery or sandpaper until it is thin enough to puncture with a needle point.



RIGHT Box with hole cut

**4** After loading with photographic paper (secured with Sellotape loops or double-sided tape), seal the lid around the edge with black electrician's tape.

RIGHT Lid with silver paper and punctured hole



**5** Your camera is now ready for use.

Exposure is influenced by hole size, distance from hole to paper and light conditions. As a rough guide, try exposures between five seconds (bright sun) and one hour (dull day).

Byron James Bignall has a useful chart on his website at [www.pinhole.org/make/exposure.cfm](http://www.pinhole.org/make/exposure.cfm). I haven't used it, so I can't vouch for it, but it should give a good starting point for total beginners.

Negatives can be either contact-printed or scanned and inverted to give a positive image.



◀ that I had suggested, some had not listened and had given less than a second, and others had made more than one exposure. One lad handheld his camera for nearly 10 minutes!

Throughout the week before the next lesson I unloaded all the cameras, then processed and contact-printed all of the images to show to the children. It's always surprising how long these little projects take – and how much black sticky tape there is to remove...**B&W**

■ *Andrew Sanderson is now leading workshops at his own darkroom in West Yorkshire. Subjects available include pinhole, fine printing, hand colouring, night photography and still life. Workshops are either one-to-one or in small groups and are conducted in a relaxed, informal and inspirational way. Call 07979 430676 or e-mail [apsanderson@waitrose.com](mailto:apsanderson@waitrose.com) for details*

## THE RESULTS

The photographs that worked looked great – some looked as good as pictures I have seen on the web – and these were by children who had never even heard of a pinhole camera a few weeks previously. Unfortunately, the kids disappeared with some of them before I had time to scan all the prints!

The results were obviously very varied; some had no image to speak of, the 10-minute handheld shot was a very light grey abstract and others had, despite our best efforts, become fogged. However, a few of the children had produced well exposed and reasonably sharp pictures which became the talk of the class.

The children got a lot more from it than I had expected and the level of excitement as I handed out the images took me by surprise. They were amazed that pictures could be made with just a cardboard box. Having enough time to do more shots after they had seen what the cameras could do and while they were still feeling so enthusiastic would have been great.



LEFT This portrait by Nicky Sharples was taken with a shoe-box pinhole and Ilford Multigrade IV resin-coated paper

ABOVE A coffee tin was Lily Sanderson's camera of choice. Its curved shape gives the picture its strange perspective

RIGHT Niall Stacy-Grant found this spot on his grandmother's patio particularly appealing and set up a shot with a shoebox camera and X-ray film