It started with a letter home. Over one week, each class in turn would have a morning devoted to science, and children were invited to bring one adult to share the practical activities with them. On the day allocated, mum and dad were both working, so granddad got the job. The letter said that, instead of wearing uniforms, the children could come dressed for going camping and it asked if children could bring certain items:

- A pair of binoculars
- A small teddy bear
- A torch
- Wellington boots
- A cagoule
- A used foil baking case

There was also an appeal for small tents (play-tent or beach shelter) of the freestanding type to go in a garden that could be erected indoors or out, and sleeping bags (only a few of each needed – certainly not one per child – so there was a warning ‘Please don’t go out and buy one specially’). Dimple Well Infant School in Ossett, West Yorkshire, is surrounded by houses and small businesses, but has two green areas, each with about a dozen mature trees. One is grassed and the other has woodland features (Figure 1), including a small area enclosed by a wicker fence. This ‘woodland’ had been little used in the winter but about two weeks before our event, a piece of curtain was pinned across the entrance to the wicker-fenced enclosure. Quite suddenly, this area was interesting. It seemed as though every child wanted to look behind the curtain as they came and went. At first there was nothing to see, but then someone reported that birdseed had been scattered.

Going camping

On the morning of my visit, the children lined up as usual when the traditional hand-bell was rung. The row of adults (mostly mothers and a couple of dads, but a few – male and female – from the previous generation) casually lined up alongside. As the children went to their classroom, we were ushered into the hall, where tents and a few tables were spread around, with a large...
model campfire in the centre. We had come to camp!

The class teacher and deputy head (Kate Dilworth) briefly outlined the morning’s activities, while in their classroom the children were given ‘passports’. These consisted of a single piece of paper divided into boxes (each with the title of an activity) and cleverly folded so that each part was easy to read. We could choose what we wanted to do, and in what order, apart from bird watching which had an allocated time.

**Cooking first**

Grandson wanted to do the stargazing, but there was only space for three and it was already full, so we tried the cooking that was set up in their own classroom (Figure 2). Pieces of bread about 4 cm square were provided. These had to be buttered, and then a piece of cheese cut and used to make a sandwich. The challenge was to produce a toasted sandwich or ‘toastie’. The sandwich was placed in a foil baking case to be held using a wooden clothes peg over a tea-light. Slowly we got a result and it was edible – we both tried it to make sure! We also had a kebab stick and some marshmallows to toast. I think the verdict was triple S: sweet, sticky and sooty! It left me thinking about a couple of questions. ‘Why did the marshmallow become sooty and the foil black underneath?’ and ‘How much heat should cooking really need?’ There is so much in the media about carbon footprints and the waste of energy resources. I hoped that this practical experience would enable such discussions to be understood and constructively criticised sometime in the future.

**Bird watching**

By the time we cleared up it was our allocated slot for bird watching. We took our binoculars and went out to the wicker-fenced square where the curtain was closed. Now we knew what the preparations had been about: to get the birds accustomed to looking for food in this area. Then the instructions were to keep very quiet and look up into the trees using our binoculars. These varied from toy versions to some that looked expensive and too heavy to hold (I was surprised parents had let them be brought in!). Although we were given a tick sheet with 10 birds to look for, we only saw a blackbird, two crows and a magpie, but we were assured that the previous group had also seen pigeons (no surprise) and a goldfinch (very unusual). Blue tits, a black-headed gull and a chaffinch were also seen by later groups. Maybe we were not quiet enough?

The children became bored but the follow-up quiz restored their interest. We were given a list of characteristics such as size, colour, habitat, ‘what they eat’ and song or call of 10 birds, and we had to identify them. Pictures of each bird and its name had been placed on the trees and bushes, some more noticeable than others, and the challenge to fill up the sheet became like a treasure hunt (Figure 3). The answers were available in the school hall.

**Stargazing**

Back inside, we went for the stargazing. In a fairly dark corridor, a cubicle had been set up with curtain access on both sides so that the interior was dark. On the floor in the centre was a small projector that produced a star pattern on the roof. The sleeping bags on the floor were there for us to lie back, study the ‘sky’ and try to recognise a few constellations, using a torch to read the star charts and books provided. There was only space for three adults and three children, but it gave us a taste of what could be done at night time when camping in the countryside.

**Boat building**

Back in the hall, one challenge was to make a plasticine boat for one of the ‘little men’ (plastic models) to float across the pool (Figure 4). There were already quite a few at the bottom from failed attempts. The plasticine did not float. The plastic men didn’t quite sink but could float with just the top of the head above water, just like most humans (useful for a lesson about swimming). With my boating background, I realised that success was more likely if the plasticine could be made thin, but it was quite hard, so how could we flatten it? I got grandson to put a piece on the floor and use his pencil as a rolling pin. Once we had a disc about the size of a
CD (though slightly thicker), we could make it into a rather wide canoe shape. Success! One push and our little man floated across the pool.

**Tent making**

At a nearby table, the challenge was to make a tent for your teddy using the paper, straws and sticky tape provided. Whether it could be done easily depended on the size of the teddy, but I estimated it might just be possible for us. So we drew shapes and cut out the pieces.

**Finale**

We were still working on the tent when the head teacher (Helen Williams) called the children together to provide a finale to the morning by entertaining their guests with a couple of campfire songs. The first was a well-known action song. I was sitting at the table with my back to the action, completing the tent, whilst grandson joined the group. I had the impression that they managed to get a few mothers to join in the song. Finishing the tent, I turned to the group for the second song. The children got going and my many years of experience as a scout leader came to the fore and I simply joined in. Suddenly I felt rather conspicuous as 30 little faces turned my way, aware of not just the only man’s voice, but the only adult voice apart from the head teacher. Still, to quote from a well-known TV programme, I adopted the philosophy ‘I’ve started, so I’ll finish’ and completed the song with them. Nobody backed me up! Perhaps no one else knew the words.

We missed out some activities in the tents spread around the hall. One was set out as a first-aid post, and I saw several children being taught how to use bandages. There was also a word-matching game using cards spread out on picnic rugs, involving words that were all about the camping theme (Figure 5), a tent with sleeping bags and books to read a bedtime story, and another with catalogues of campsites and camping equipment to study. There were also areas for a barbecue, washing up and laundry. Outside, we missed the ‘welly walk’. The challenge was to put on cagoules and wellingtons, go outside to find four marked locations and choose (with reasons) which one was best to pitch a tent on.

**The verdict**

By having flexible timing, and more than enough choices, there was plenty to keep us busy, and no queuing or waiting. The effort made to set out the hall with tents and campfire, together with the mix of indoor and outdoor activities gave it all the feel of a special occasion. It was a cool day, and I must commend the lady who stayed out all morning patiently encouraging the bird watching. In addition to the class teacher and their regular teaching assistant, a few classroom volunteers were available to support the activities or be there to work with any child who could not bring a parent or tame grandparent.

And did the children enjoy it? This was perhaps the shortest response when the children were asked to write about what they enjoyed most, but the enthusiasm is clear: the best bit was all ov it.

**A few of granddad’s thoughts**

As our children grow up, they will see much in the media about waste of materials and energy, and will probably have to vote on policies concerning such matters. We all need food, water, warmth, shelter, transport, medicine … . The list could go on, but I thought that this camping theme provided an excellent way of introducing the science behind some of the basic things we need to conduct the lives we take for granted. If you have to carry a day’s water supply from a distant tap using a water carrier, or search in the woods to collect sufficient dry sticks to cook a three-course meal on an open fire, it sharpens the understanding of our use of resources.

Those who heard the presidential address by Professor Robin Millar at the ASE Conference in Liverpool in January 2012 will be aware of his support for this idea: that during the years of compulsory education, science lessons should be more about human life than about leading students too rapidly towards the details of modern research, appropriate only for those who wish to specialise in the study of sciences (Millar, 2012).

**Reference**


**Geoff Auty** is a retired teacher of physics in a 6th-form college and editor of the ASE’s *School Science Review*. Email: gnv.auty@gmail.com