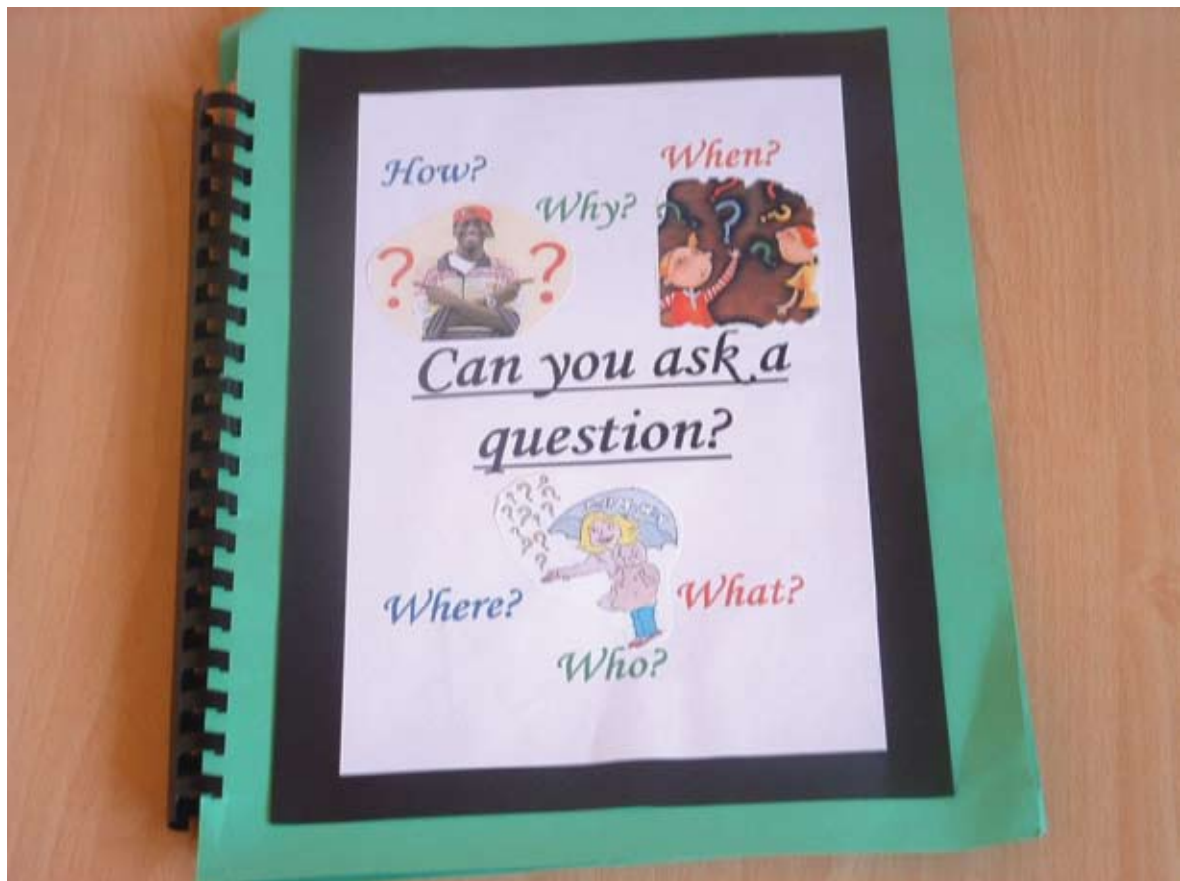


Frances Field and Nalini Randall explain strategies they use to enhance the abilities of children in primary school to learn through questioning

The Question Tree

The idea of having a question tree in our classroom developed partly after a visit to our school by Ian Gilbert of Independent Thinking Ltd. Ian worked initially with a group of children from year 2, and the school staff also had a 'taster' session with him. We then invited him to come back and work with the whole school, holding discussions in small groups, with the teachers having an opportunity to observe him.

In one of the activities he gave the children an answer statement and they, in turn, had to suggest a relevant question. The children found this hard and only a few of them got the precise question. We had noticed that, during the above sessions, the children who usually said very little were much more willing to contribute as there was no right or wrong answer and everybody's contribution was valued – we wanted to build on this.



Powerful learning

We wanted the children to take ownership for their learning, using thinking skills and working in a non-threatening environment. During previous staff discussions we had realised that learning through asking questions was powerful and needed to be developed.

Hot-seating a child as a Viking or a Roman at the end of the history topic, while the rest of the class asked questions, had always proved successful and very enjoyable. However, the drawbacks were that it was only really useful as a recall exercise and a very shy child would feel put under the spotlight and say very little.

In our class once or twice a week we have a 'show and tell' session when children have the opportunity to share news and show items that they have brought from home. It was here that we initially encouraged the children to ask questions of each other. They started with simple questions such as: Did you enjoy sleeping at your nan's? Who bought the toy for you? Does your brother fight with you? As teachers we posed questions such as: Why do you think your mum might not want you to have a puppy? How did you feel when moved up a group in your tennis club? What could you have done to stop your sister irritating you?

Developing questioning skills

We began to use other opportunities to develop children's questioning skills. If during the day we had five or ten minutes to spare, maybe just before lunch or play, or at the end of the day, we would write a keyword on the whiteboard, usually the name of an adult who works in our school or a character from a book. The children then had a short 'brainstorming' session to come up with questions that they could ask that person. As the children asked the questions, they would be jotted around the word. When all the questions were displayed we had a quick vote to decide on the question of the day. This was then written on a leaf along with the child's name and placed on the Question Tree. Children were often heard saying with pride to their friends or their grown-ups, 'That's my question!' On one occasion the headteacher's name was chosen as the keyword, and some of the questions asked were: Does she like her job?

Does she live in a flat? (The child who posed this question actually lives in a flat.) She is the boss of the school, but who is her boss?

The next morning the headteacher came and answered some of their questions. To show that all of the children's questions were valued, even though they were not on the tree, we decided to make a class book called 'Can you ask a question?' This was a record of all the questions asked by children with their names alongside. The children are free to go and look at this book during their quiet reading time.

Children at our school are provided with fruit to eat at break time. On one occasion the children had bananas and

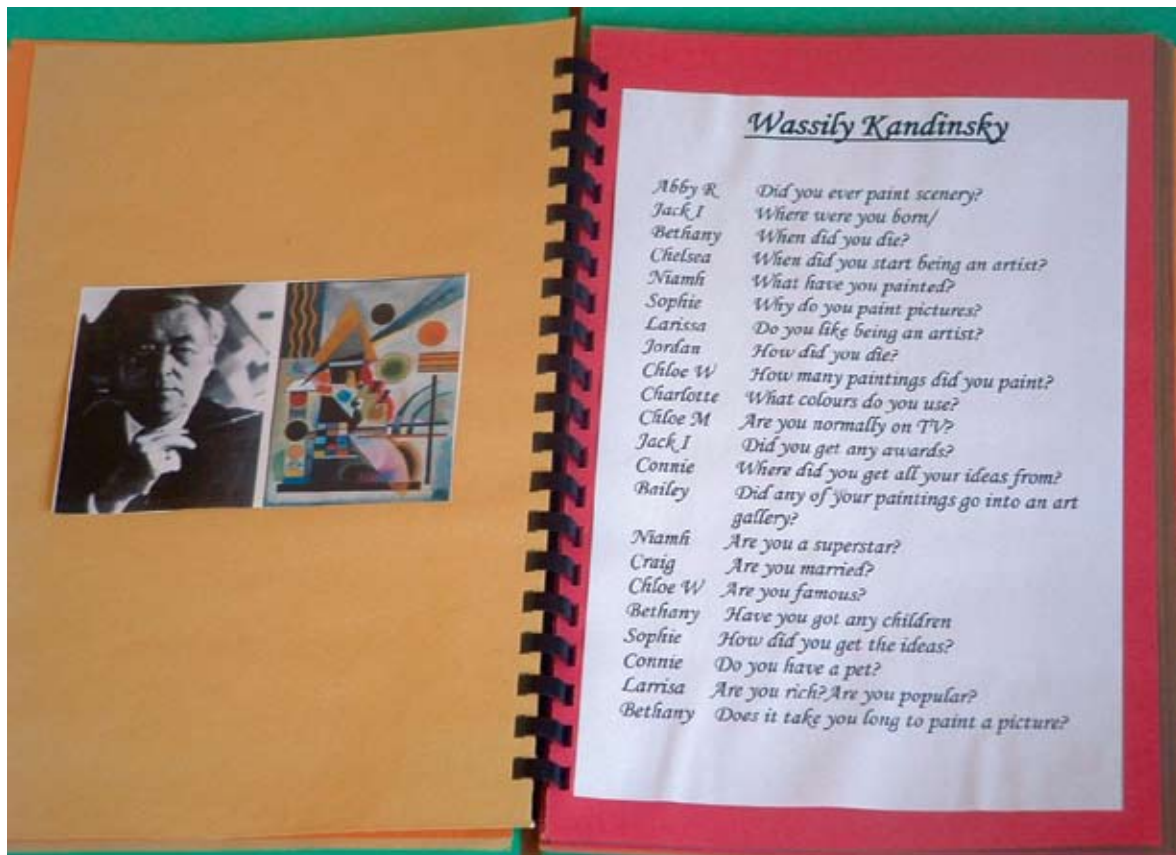


so we chose this as our question keyword. These are some of the questions the children wanted to ask the banana:

- What do you taste like?
- Does it hurt you when I bite?
- Do you grow on a tree?
- Do you grow from seeds?
- When do you rot?
- How do you feel when you are in somebody's tummy?
- Do you grow with your family?

After break we decided to spend some time seeing whether the children themselves could answer any of the questions. Someone said, 'I know they grow from trees because I have seen black seeds in my banana.' Another child found a book with an illustration of banana trees. Some children thought a banana wouldn't feel anything in somebody's tummy because it was dead!





Our science topic for the half term was 'Magnets' so, as an introduction, the children sat in a circle and experimented with different types of magnets, from a small wand magnet to a big horseshoe magnet and a ring magnet. The children then had the opportunity to ask as many questions as they liked and these were jotted on the whiteboard. Here are some of the questions:

- How are magnets made?
- Do magnets stick to radiators?
- Can magnets stick to glass?
- Do they ever run out of stickiness?
- Why are these magnets shaped like a horseshoe?

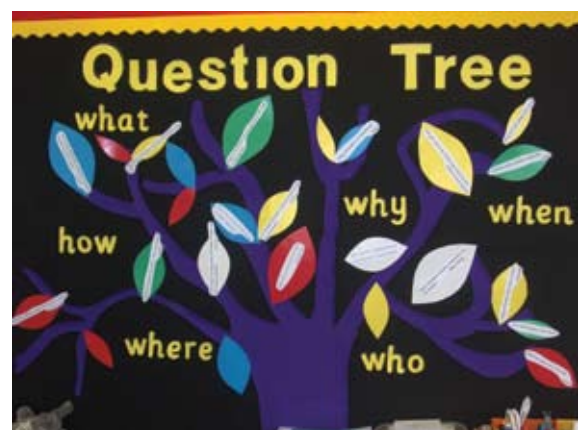
The children went on to find the answers through discussion, investigation and looking in books and on the internet throughout the topic.

This technique also proved very successful in art. We approached the study of the life and works of Wassily Kandinsky through questions. The previous term we had studied the art of Barbara Hepworth so the children were already familiar with words such as 'abstract', 'impressions', etc. They also had previous experience of recording information in the form of a mind map.

We asked the children what they would ask Wassily Kandinsky if he was in the classroom with them. Some of the questions they came up with are given below. The last two were voted onto the question tree:

- Did you ever paint scenery?
- Where did you get your ideas from?
- Did any of your paintings go into an art gallery?
- Does it take a long time to paint a picture?
- Do you paint abstract or impressions?
- Did you like painting at school?

We were able to find most of the answers to their questions and many other interesting facts using books and the internet. The children created their own mind maps to display what they had discovered. They seemed to find this way of learning fun, and we have been amazed at their level of understanding and the amount of detail they were able to recall.



The one moment that really stood out for us was when we were looking at the topic of 'Changes' in science. In particular, we looked at how milk changed into butter. Prior to making our own butter using creamy milk in jam jars, the children made a list of questions. A very shy boy who usually needed encouragement to participate asked, 'Is butter man-made or natural?' We were delighted that he felt secure enough to speak out confidently. The quality of the discussion that followed reaffirmed the success of these questioning sessions. Finally, the children concluded that butter was both man-made and natural.

The most effective time for a questioning session proved to be at the beginning of a topic because:

- It highlights previous knowledge
- Children have the opportunity to direct their own learning

- Children can share ideas and knowledge of the subject with others
- Discussions follow in which children have to support their answers with reasons

Activities which encourage younger children to ask questions also take place throughout the school, e.g. Yes/No questions to determine 'Guess Who?' characters, and asking lots of questions about a book before reading.

We are determined that 'The Question Tree' will continue to grow in our classroom, especially as we know that children learn just as much, if not more, from asking a question than from answering it.

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Teaching Thinking & Creativity Consultancy & Training

Steve Williams, editor of Teaching Thinking and Creativity, is able to provide training and consultancy to schools, groups of schools and LEAs in many aspects of thinking skills and creativity. His courses include:

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