

## 'Marion Bird' type lessons

The 'Marion Bird' approach may need some further explanation. Marion produced a series of books in the 1980s and 90s. Her approach seems to me to be located mid-way between lesson types 1 and 2 above. She presented children with a mathematical situation and asked them to formulate questions. Subsequent discussion around these questions was relatively well structured by her. I briefly outline two of her activities below. See:

- Bird, M. (1991) 'Mathematics for Young Children: An active thinking approach.' Routledge, London
- Bird, M. (1983) 'Generating mathematical Activity in the Classroom' West Sussex Institute of Education, re-printed by the Mathematical Association.

### Circle arrangements

The following gives the bare outline of Marion Bird's activity with four 5 year old pupils.

The circle sheet **fig 1** (at the end of the document) was handed out to the children who were asked the question 'What can you say about what you have got?'

There was a good deal of discussion about numbers and arrangements. Marion then showed the pupils the sheet **fig 2** (at the end of the document) and said 'Have a look at what I have done.' The children remarked that some circles had been coloured in. They noticed that three circles had been coloured in each set but in different arrangements. After further discussion she asked the children to choose a number of circles to colour and make some patterns. They spent some time in groups deciding how many circles to colour in and how to do so to create different patterns. Marion Bird goes into some detail about the discussion and activity which followed. When they had 'finished' their patterns she photocopied these sheets to keep for the next session.

For the following session Marion Bird cut up all the sheets into their nine rectangles and returned them to the children with a large sheet of blank paper and glue. She asked them if they could sort them in another way. On a later occasion Marion asked the children to look at each others' arrangements and see if they could work out how they were arranged.

Marion Bird analyses the children's responses to the activities in some detail. What is striking about their work is the amount of conjecture, spontaneous questioning and suggesting, collaboration and negotiation of meaning which ensues. As Marion notes: 'no matter how 'far behind the others' I view particular children, all children starting in a reception class already have tremendous capabilities.' ( Bird, 1991, p123)

### A stick of cubes

This was a ten minute activity with a group of five-year olds. Marion Bird showed the children **fig 3** (at the end of the document) and said 'I'd like you to have a look at this.' Marion asked the children if they would like to change the stick. Much discussion followed about whether there should be three white and three blue cubes, which would mean removing a cube, and how those remaining should be arranged.

After some discussion she produced a number of blue and white cubes and some hats, asking children to make their own and explain how and why they made them.

The following are a list of suggestions about starting mathematical activities which emerge from Marion Bird's work:

**Marion Bird Pointers to getting started on an activity that develops mathematical and thinking skills**

1. Present something with which pupils can engage quickly.
2. Make sure the activity is accessible to all and 'makes sense' to them in terms of their own experiences.
3. Avoid too much initial structure, use pupils' own ideas to build on.
4. Be careful about your opening remarks.
5. Build in a rich variety of possibilities, ie ensure that there are possibilities for 'what if...?' questions.
6. Think carefully about your interventions and questions.

**References**

- Bird, M. (1991) 'Mathematics for Young Children: An active thinking approach.' Routledge, London
- Bird, M. (1983) 'Generating mathematical Activity in the Classroom' West Sussex Institute of Education, re-printed by the Mathematical Association.

FIG 1

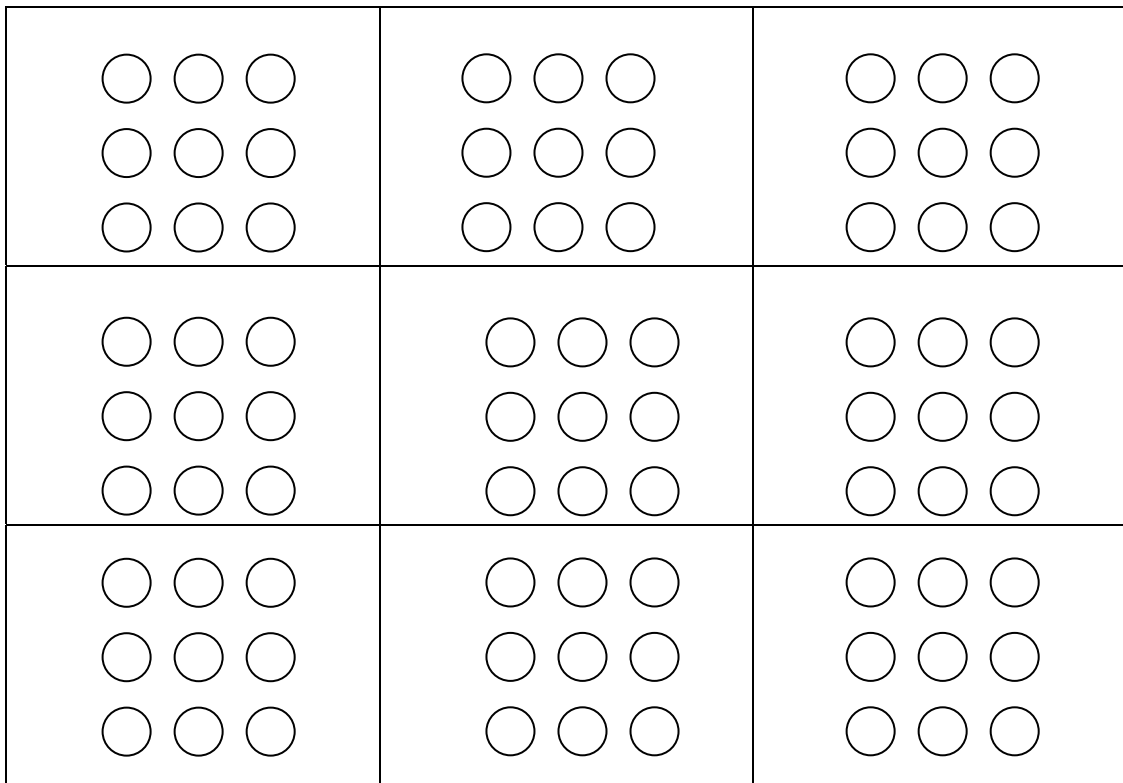


FIG 2

