

# Chapter One

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# Finding all the possibilities

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**Finding all the possibilities is an open-ended strategy that involves children in searching for more than one solution to a problem. It requires the children to be flexible and inventive in their thinking, trying out different routes and paths to reach the same end point. This is extremely valuable practice, because children begin to understand that there can be more ways than one to crack a nut.**

Searching for more than one answer demonstrates that while the outcome of a problem is the desired end result, it is the process and procedures that the children adopt to get there that matter. Children need to see this for themselves, and an analogy, such as a shopping analogy, can help them to understand. For example, Mrs Green goes to the shops every day, but how does she get there? Her destination is the same, but there is more than one way of getting there: walking, bicycling, bus, car, taxi, train, underground, plane and so on. The shops are the same shops at the end of the journey, but her method of transport to get her there could vary a great deal. Some systems of transport might be more reliable than others. Some might take longer. Explain to the children that it is the same with problems.

'Finding all possibilities' is about going on a maths safari in search of some treasure. There are likely to be problems and obstacles that test and frustrate along the way, but it's about persevering and searching for ways through the undergrowth, while confronting uncertainties head on. Above all, it is making children comfortable with the idea of taking risks in their work. They need to feel secure enough to know that if something doesn't work out, then it needn't lead to tears.