

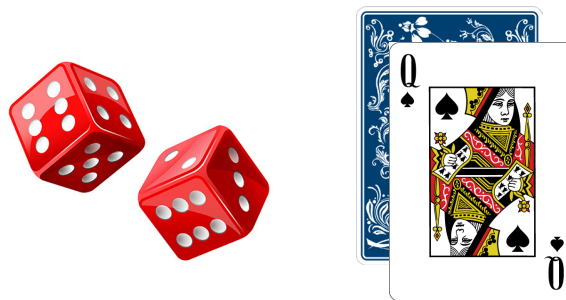
➤ Notes for parents. Activity next page.

**The purpose of this task is to have your child:**

- design and carry out two short experiments to test their theory about a probable outcome in simple games of chance

**Think about this:**

- Uncertainty and probability are part of our daily lives.  
What is the probability that it will rain? What's the chance of meeting someone you know at the supermarket?
- In the first task, as your child collects and collates the results of their dice rolls, talk about the number of rolls they need to convince you of their findings. Essentially, the more rolls (the greater the sample/the more data) the more convincing their findings are.
- In their second experiment, your child is collecting data to test the theory that they will not get a heart card 2/5 of the time.  
Once again, the more tests they do, the closer their findings will be to the theoretical probability.
- Together you might come up with another experiment they could do with dice or cards.



Marie and Arlo are playing dice and card games.

Marie says, "You've got an equal chance of getting any of the numbers when you roll a dice."

Arlo says, "You are likely to get a 6 more often other numbers. That's why games often say, 'Roll a six to start'."

Who's right?

**Carry out an experiment that can show why.**

Think about:

- How you are going to record your results.
- How many rolls you need to do for your findings to be 'convincing'.
- How you will explain to someone why this happens.

Three of these five cards are hearts.

What is the chance that you will choose the card that is **not a heart**?

What is the chance expressed as a fraction?



**Carry out an experiment that can test this theoretical probability.**

Think about:

- How you are going to record your results.
- How many times you'll need to shuffle and draw out a card for your findings to be 'convincing'.
- How you will explain to someone what happens and why.

