

The skills children need for problem solving:

- reading the problem, highlighting crucial words, numbers and information in charts and tables, ignoring irrelevant words and numbers;
- using a diagram to show the problem if possible
- making an estimate of the answer
- breaking a problem down into a series of steps, including changing measurements to same units if necessary;
- recognising the mathematics that can be used to solve it;
- applying mathematical skills, deciding what calculations to do and in which order;
- choosing the best ways of carrying out the calculations (method) - for example, mentally, written or using calculator;
- checking and deciding whether the answer makes sense; and
- giving the answer in a way that relates it to the problem asked - for example using appropriate units of measurement

In school children use the following strategy to help them remember all this - **RUCSAC**

Read the problem carefully. Use a diagram or picture to help to represent the problem to make it easier to understand.

Underline the keywords/numbers.

Choose the best calculation/s to use. Make an estimate of the answer.

Solve the calculation. Which is the best method to use?

Answer the problem. Re-read the problem and answer the original question

Check it. Does the answer make sense/seem sensible? Can you use inverse calculation?