Magic boy: letters

Learning objective

 Using and applying: Represent a puzzle or problem using statements; use these to solve the problem

Problem-solving strategies

Act it out Logical reasoning

Setting the scene

This activity is aimed at groups or paired workers.

Magic boy will perform his amazing hat trick if the children are able to solve a puzzle at three levels. Each puzzle will involve a certain amount of 'acting out' or moving the on-screen letter bricks around until they are positioned in the correct sequence.

Solving the problem

This activity relies on both acting out the problem by moving the bricks around, and applying logical reasoning by breaking the problem into small chunks. It is a case of following each step and looking for discrete clues such as 'K is on the far right' (it is the furthest letter on the right). Highlight that each brick has a logical place within the sequence, and that the children should use the instructions not just to help place the bricks, but also to prove that they have the bricks in the correct place. This will enable them to answer the question and therefore choose the correct letter to type into the answer box.

Key questions

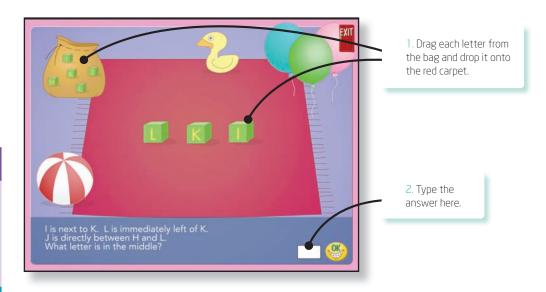
Representing: How should you record where to place the bricks? Enquiring: What key pieces of information are you being asked? Do you need to place all the bricks in order to answer the question? Is it possible to find a formula? Are you able to break the parts of the puzzle into smaller chunks?

Communicating: Do your bricks correspond to the instructions? Do they help you to answer the question?

Differentiation

Less confident: There are three levels in this activity with A being the least difficult. Ensure the children start with level A before moving on to levels B and C. Provide the children with real letter bricks to help them to visualise the problem and to manually position the bricks into the correct sequence.

More confident: If there are two groups working against each other, use a timer to add an additional element of speed versus accuracy.



Follow up

Use the alphabet block problems on page 17 to reinforce the problemsolving strategies used in this activity.

Problems bank

Page 36