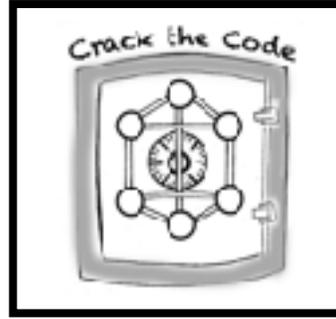




The Big Picture

Recommended for year 2
 Strategy A - Act it Out/Make a Model.
 Children will solve the problem by physically interacting with it

A5 Crack The Code



NC Objectives

Using materials and a range of representations, pupils practise...solving a variety of related problems to develop fluency. (Notes and guidance Year 2, Place Value)

Stickability

Given a number, identify one more and one less (year 1, number and place value)

Can solve problems by applying their mathematics ... and persevering in seeking solutions. (NC main aim number 3)

Key Questions

How will you start? Explain why you chose that?
 How will you make sure that consecutive numbers are not next to each other?
 Can you find more than one solution?
 Where are the odd and even numbers?

Resources

Digit cards 1-6.
 Large templates of the problem for group or paired work.

Problem based learning

Children should use a trial and error approach to finding a solution.

Children may realise or deduce that separating odd and even numbers is the key to solving this problem, since odd numbers cannot be consecutive, for example.

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LEARNING SEQUENCE

HOOK

Ask children who wants to help crack a code to open a safe!

Teacher Led

Introduce the PitSTOP 2 problem to the children and discuss/model how to place numbers in the circles to arrive at a working solution. Are there any other solutions?

Student Led

Children to attempt PitSTOP 3 in pairs or individually. Encourage them to look for more than one solution.

Support: PitSTOP 1

Teacher Led

Tell children that we have a safe with a more difficult code to crack. Show PitSTOP 5. Allow children time to discuss and come to the board to model a solution.

AFL & Independent

Based on children's responses so far, give out PitSTOP 5, 6 or 7 for children to complete independently.

PLENARY

Did you find more than one solution?

Did you think about odd and even numbers?