urious questions

olve problems involving addition, subtraction, ultiplication and division

Work with a partner.

- Together, choose the curious question you would like to find a solution to.
- Together, think about the following:
  - What do you already know that can help you find the solution?
  - What do you need to find out and use to help you?
  - How will you go about finding the solution? (There might be more than one way!)

  Choose the best option and try it.
- Make sure you stop to review the process as you work through the question.
- When you've found a solution:
  - Carefully check what you have done.
  - Think about how well you did. Could you have done it a better way?
  - Write a report giving your solution and describing the process you went through to arrive at your solution.
  - Write a statement about what you have learned from this.
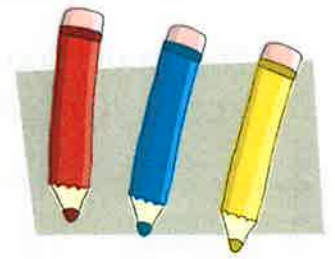- If there's time, choose another curious question to investigate.

Challenge 1

500 000

1 How long is 500 000 seconds?

2 How far is 500 000 centimetres?

3 How many cups would 500 000 millilitres of water fill?

4 How long would it take to write your name 500 000 times?

Challenge 2

1 000 000

1 How far would 1 000 000 pencils laid end to end stretch?

2 How long is 1 000 000 minutes?

3 How high is a stack of 1 000 000 ten pences?

4 How long would it take to count to 1 000 000?

5 How far is 1 000 000 paces?

6 Write a curious question for others in your class to solve. Write a statement justifying why it would be of interest to your class to find a solution to this problem.

Challenge 3

2 000 000

1 How old would you be if you have lived for 2 000 000 minutes?

2 What size container would you need to hold 2 000 000 beads?

3 How far would 2 000 000 paperclips laid end to end stretch?

4 How long does it take for your heart to beat 2 000 000 times?

5 Research some curious questions that mathematicians have spent time working out.

What can you find out about Fermat's last theorem? How long did it take to solve it?