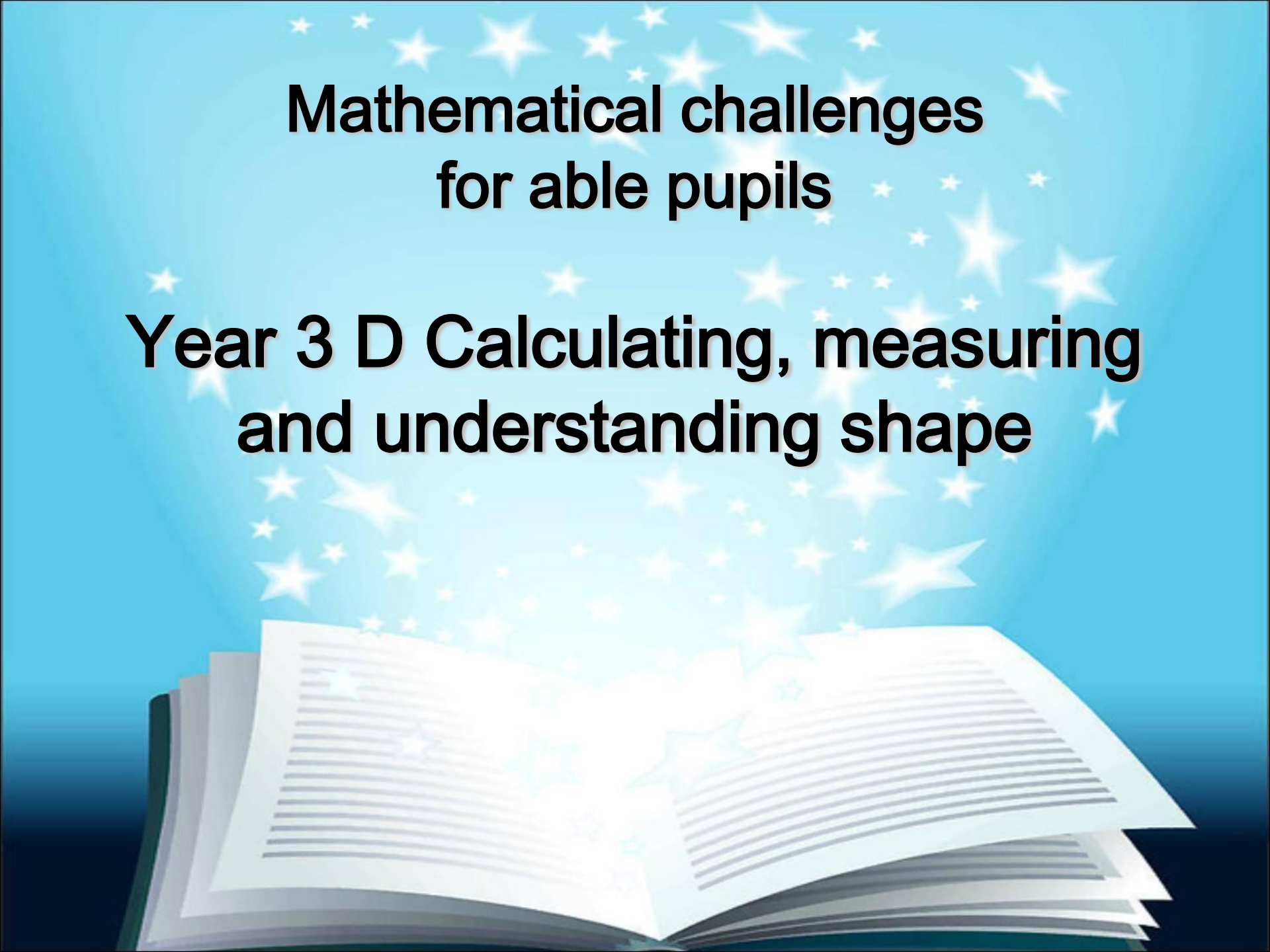
Mathematical challenges for able pupils

Year 3 D Calculating, measuring and understanding shape



Rows of coins

1. Take five coins: 1p, 2p, 5p, 10p, 20p.
Put them in a row using these clues.

- The total of the first three coins is 27p.
- The total of the last three coins is 31p.
- The last coin is double the value of the first coin.

Learning Objective:
- Solve word problems involving money.
- Explain methods and reasoning.

Rows of coins

2. Take six coins: two 1p, two 2p and two 5p.

Put them in a row using these clues.

Between the two 1p coins there is one coin.

Between the two 2p coins there are two coins.

Between the two 5p coins there are three coins.

Learning Objective:

- Solve word problems involving money.
- Explain methods and reasoning.

Rows of coins

3. Take eight coins: two 1p, two 2p and two 5p.

Put them in a row using these clues.

Between the two 1p coins there is one coin.

Between the two 2p coins there are two coins.

Between the two 5p coins there are three coins.

Learning Objective:

- Solve word problems involving money.
- Explain methods and reasoning.

Solution to Rows of coins

1. **5p, 2p, 20p, 1p, 10p**

2. **2p, 5p, 1p, 2p, 1p, 5p**, or its reverse

3. When two 10p coins are also used:

2p, 5p, 10p, 2p, 1p, 5p, 1p, 10p, or its reverse

Learning Objective:

- Solve word problems involving money.
- Explain methods and reasoning.


The end,thank you!

References and additional resources.

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Mathematical challenges for able pupils in Key Stages 1 and 2
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Thank You

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These Mental Maths challenges can be found as a PDF file at :

http://www.edu.dudley.gov.uk/numeracy/problem_solving/Mathematical%20Challenges%20Book.pdf

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These units were organised using advice given at:
http://www.edu.dudley.gov.uk/numeracy/problem_solving/Challenges%20and%20Blocks.doc