THE MATHEMATICAL
ASSOCIATION OF VICTORIA

PUZZLERS

Teachers can photocopy this page to use in class

▶ FOUNDATION
WHY IS IT ALWAYS FIVE?

Think of a number
• Add five
• Take away your original number
• Is your answer five?
How does this work?

Note: This is similar to *Mindreading Maths* for Years 3 and 4.
Can you see how?

https://nrich.maths.org/1051

▶ YEARS 1 AND 2
X-RAY VISION WITH DICE

Hold up a dice to your partner so they can see the face in front of them but you can't. Tell them you will be able to say what number they are looking at by using your X-ray vision to see through the dice.

Look at the face opposite their face and subtract this from 7 and you can tell what they have! For example, you hold the dice showing your partner a face and the face opposite this that you can see shows 4. If you take 4 away from 7 you get three and this is what is on the face your partner can see.

▶ YEARS 3 AND 4
MINDREADING MATHS

• Think of a number.
• Double it.
• Add 10.
• Halve it.
• Take away you original number.
• Is your answer five?

Try this with a different starting number. Did you get a different result? Why does this happen?

▶ YEARS 5 AND 6
MONEY IS IN YOUR POCKET

Without giving you any information, ask a friend to count the value of some coins and write the amount on a piece of paper. Then ask your friend to:
• Double the amount.
• Add the first odd prime number to the new total.
• Multiply the result by 1/4 of 20.
• Subtract the lowest common multiple of 2 and 3.
For the grand finale, you ask for the final answer. Take off the last digit and you will be able to work out how much the coins are worth!