## Diving into Mastery - Diving

## Adult Guidance with Question Prompts

Children are introduced to the two times table. Children use pictures to count in twos and complete calculations and sentences.

How many pairs of socks are there?
What are the missing numbers in the calculations?
How many socks are there in total?
Can you count in twos to help you?

Count in twos to complete the sentences.

$\times 2=$ $\qquad$

There are $\qquad$ socks in total.
There are $\qquad$ footballs in total.
$2 \times$ $\qquad$ $=$ $\qquad$ and
$\times 2=$ $\qquad$

There are $\qquad$ fish in total.

## Diving into Mastery - Deeper

## Adult Guidance with Question Prompts

Children use reasoning to investigate multiples of two on a number track and explore whether multiples of two are odd or even.

What do you notice about the number track?
Is it counting in ones?
How do you know?
Look at the numbers Harpritt has written. What has he done wrong?

What numbers should he have written?
How can you check you are correct?
What are the odd numbers?
What do they end in?
What are the numbers that are not odd called?
What do even numbers end in?
Do you think multiples of two are all odd, all even or a mixture?
Can you prove it?

The 2 Times Table

Harpritt has filled in the blanks on this number track.

| 2 | 3 | 6 | 8 | 10 | 11 | 14 | 16 | 17 | 20 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

What mistake has Harpritt made? Explain your answer.

What should he have written?

When I say the multiples of 2 , I won't say any odd numbers.


Do you agree with Harriet?
Prove it.

## Diving into Mastery - Deepest

## Adult Guidance with Question Prompts

Children find all the possible combinations of numbers to complete a calculation, using the clues and multiplying by two. They will need to use their knowledge of place value and odd/ even numbers in this activity. Encourage children to work in a systematic way, following the pattern of the numbers.

What shall we do first?
Can you read all the clues?
What does 'even' mean?
What is a 'two-digit number'?
What is the smallest number that could go in the circle?
What would the number in the square be in that case?
We know that $2 \times 4=8$. Could 8 be in the square? Why not?
What could you try next?
How many different possibilities have you found?

Find all the possible calculations using the clues.

$$
2 \times \bigcirc=\square
$$

The number in the circle is greater than 3.
The number in the square is less than 24.

## Both numbers are even.

The number in the square is a 2-digit number.


