# Diagnostic Assessment Toolkit: Year 6 



This is a companion guide for the Diagnostic Assessment Toolkit: Year 6 created by the Cambs Maths Team. The featured activities can be carried out to assess children's understanding of their prior learning, from Year 5.

## Diagnostic assessment activities you could try:

- Show me - Ask children to position numbers on a number line and round them to the nearest $\mathbf{1 0 0}$ or $\mathbf{1 , 0 0 0}$. For example, you could try a) $\mathbf{2 , 0 5 5} \mathbf{b )} \mathbf{7 2 , 4 8 0}$ and c) 271,210.
- Compare - Look at a selection of positive and negative numbers, then ask children to order them from smallest to largest and talk about the difference between them.
- What do you notice? - Ask the children what they notice when they try counting on or back in 10s, 100s and 1000s. For example, counting on in 10s from 950; in 100s from 4,510; in 1,000s from 65,005; back in 100,000s from 903,000. Which digits stay the same and which ones change?
- Multiple Choice - What could the missing numbers be in this sequence: 2 , $\qquad$ 8 _ ? a) 5 and 11; b) 4 and 16; c) 4 and 6; d) something else.


## Place Value and Number

## Show me

Show me where you would position these numbers on a number line: a) 2055 b) $\mathbf{7 2 , 4 8 0}$ and c) 271,210.


Can you round each number to the nearest 100 and to the nearest 1000?

## What do you notice?

Continue each sequence with the next three numbers.
A) 950, 960, 970, 980, ... . ... . ...
B) $4510, ~ 4610, ~ 4710, ~ 4810$, ... , ... , ...
C) 65,005 , 66,005 , $67,005,68,005$,
D) $903,000,803,000,703,000,603,000, \ldots, \ldots, \ldots$

What do you notice about the digits as the numbers increase/decrease?

## Compare

Order these positive and negative numbers from smallest to largest.


Find the difference between two numbers in this list.

## Multiple Choice

What could the missing numbers be in this sequence:
20 , $\qquad$ 80 , $\qquad$
or, d) something else?

## Show me

Show me where you would position these numbers on a number line: a) 2055 b) $\mathbf{7 2 , 4 8 0}$ and c) 271,210.


Can you round each number to the nearest 100 and to the nearest 1000?

## Compare

Order these positive and negative numbers from smallest to largest.


Find the difference between two numbers in this list.

## What do you notice?

## Continue each sequence with the next three numbers.

A) 950, 960, 970, 980, ... , ... , ...
B) 4510 , 4610 , 4710 , 4810 , ... , ... , ...
C) 65,005 , 66,005 , $67,005,68,005, \ldots$, ... , ...
D) $903,000,803,000,703,000,603,000$,

## What do you notice about the digits as the numbers

 increase/decrease?
## Multiple Choice

What could the missing numbers be in this sequence:

$$
\begin{aligned}
& 20,80, \\
& \begin{array}{lll}
\text { a) } 50 \text { and } 110 & \text { b) } 40 \text { and } 160 \text { c) } 40 \text { and } 60 \\
\text { or, d) something else? }
\end{array}
\end{aligned}
$$

