First Level – Exploring Number
Number Processes Homework Cards

NP 1.1 I can talk about how numbers are used all around me

Story time Ask children to find one of their favourite story books and make a list of every time a number is used. They talk with an adult or friend about what each number tells them.

NP 1.1 I can talk about how numbers are used all around me

Recipes Ask children to cut out a recipe from a magazine or copy one out of a book. They annotate the recipe, drawing arrows to show whether each number is used to say 'how many' (e.g. 3 eggs), 'how much' (e.g. 300g or 200ml) or for other reasons, such as indicating 'how hot' or 'how long'.

NP 1.2 I can count on and back in sequence, use this to help me accurately count a group of objects and know if my answer makes sense

Make a puzzle Ask children to write a sequence of about 8-10 numbers on a strip of paper. These could be numbers of any size. Children then cut the strip into pieces to make a jigsaw puzzle. Children could time how long it takes them to put the numbers back in order.

NP 1.3 I can use numbers to describe the order of items

Football league Ask children to find a football league table from a local paper, the TV or a newspaper. They cut out or copy the table and then write headlines to say which teams are in which positions in the league.

NP 1.3 I can use numbers to describe the order of items

Phone number search Using a local telephone directory, ask children to search for and identify a name and number given its page and position, such as, Find the fortieth number in the second column on the twenty-third page.

NP 1.4a I can discuss the digits in a number, their position, their value and I know why zero is important – Up to at least 100

Digit shuffle Ask children to write the last three digits of a phone number (their own or a friend's). The three digits must be different. They write all the different 2-digit numbers that they can make with the digits. For each number, they partition the digits and give their values, e.g. 24 = 2 tens and 4 units = 20 + 4.

NP 1.4a I can discuss the digits in a number, their position, their value and I know why zero is important – Up to at least 100

The digit 3 Ask children to investigate how many numbers between 0 and 100 have the digit 3. They list all the numbers and say whether the digit 3 is a tens digit or a units digit (include the number 33 that has both). How many numbers do you think would have a different digit such as 7?

NP 1.4b I can discuss the digits in a number, their position, their value and I know why zero is important – Up to at least 1000

Digit shuffle Ask children to write the last three digits of a phone number (their own or a friend's). The three digits must be different. They work out and write the six different 3-digit numbers that can be made with the digits. Then for each number, they partition the digits and give their values, e.g. 249 = 2 hundreds, 4 tens and 9 units = 200 + 40 + 9.

NP 1.4b I can discuss the digits in a number, their position, their value and I know why zero is important – Up to at least 1000

The digit 6 Ask children to investigate how many numbers between 550 and 600 have the digit 6. They list all the numbers and say whether the digit 6 is a hundreds digit, a tens digit or a units digit or a combination of these.

NP1.4c I can discuss the digits in a number, their position, their value and I know why zero is important – Beyond 1000

Digit shuffle Ask children to choose four different digits and the digit zero, e.g. 4, 8, 2, 6 and 0. They write at least 10 different 4- or 5-digit numbers using the digits. For each number, they partition the digits and give their values, like this: 8046 = 8 thousands, 0 hundreds, 4 tens and 6 units = 8000 + 40 + 6.

NP1.4c I can discuss the digits in a number, their position, their value and I know why zero is important – Beyond 1000

House prices Ask children to find different house prices from adverts in the local paper or the internet. Children list up to 10 prices in their learning logs and identify, by underlining, which digit represents the thousands (or ten thousands) in each house price, e.g. £98 000 or £375 000.

NP1.5 I can count on and back in steps of 1, 10 and 100 and can describe how this changes the digits in the number

Show what I know Ask children to write a page of a maths book to explain how to count on or back in 1s, 10s or 100s to help another child learn what to do. Encourage them to use appropriate key words and to include diagrams, tips or examples to help explain the concept.

NP1.5 I can count on and back in steps of 1, 10 and 100 and can describe how this changes the digits in the number

Great grid blank *10 × 10 grid per child* When explaining the activity ask children to write a 2-digit number into the bottom left-hand section of a grid, e.g. 43. Then they draw an arrow to the right across the bottom of the grid and label it 'Add 10' and an arrow up the left-hand side of the grid and label it 'Add 100'. At home children complete the grid adding 10 when moving to the right and adding 100 when moving up. Ask children to write notes on the patterns they see.

NP1.6a I can recognise and record numbers in different formats – Up to 100

Money matters Ask children to draw sets of coins with totals under £1. They write the total amount in each set, in pence, in words and in figures next to the pictures of the coins.

NP1.6a I can recognise and record numbers in different formats – Up to 100

Learning logs Ask children to cut out examples of numbers from newspapers or magazines and stick them into their learning logs. Numbers can be written in words, numerals, pictures, graphs etc. and beside each example they show that number in a different way, e.g. if it is in figures they draw a picture, if it is written in words they write it in figures.

NP1.6b I can recognise and record numbers in different formats – Beyond 100

Learning logs Ask children to cut out examples of numbers from newspapers or magazines and stick them into their learning logs. Numbers can be written in words, numerals, pictures, graphs, etc. and beside each example they show that number in a different way, e.g. if it is in figures they draw a picture, if it is written in words they write it in figures.

NP1.6b I can recognise and record numbers in different formats – Beyond 100

Mass matters Ask children to look in the cupboards at home for tins and food packets with amounts shown in grams or millilitres, such as 440 g, 125 ml, etc. They write eight different measurements as shown on the packet or tins and then record each amount in words using the number names.

NP1.7a I can compare numbers and put them in order – Up to at least 100

Make a football quiz Ask children to find a football league table from a newspaper. They cut out each row of the table and stick the rows in a mixed-up order to bring to school to be used as a quiz. Children decide the correct order of the teams by comparing and ordering the number of points.

NP1.7a I can compare numbers and put them in order – Up to at least 100

Join the dots Children make a simple join-the-dots puzzle using 2-digit numbers. They draw a simple outline in pencil without taking the pencil off the paper. Then, using pen, they write numbers in order (not every number needs to be used, but they must be in order). Then they rub the shape out to leave a puzzle to solve.

NP1.7b I can compare numbers and put them in order – Up to at least 1000

Phone line Ask children to draw a long straight line across a piece of paper. They write the last six digits of their phone number as two 3-digit numbers, e.g. 318 and 225. They write the smaller number at the left-hand end of the line and the larger at the right-hand end. Along the line children write at least 12 different numbers so that all the numbers are in order from left to right.

NP1.7b I can compare numbers and put them in order – Up to at least 1000

A mass list Ask children to look at the tins and packets in their kitchen cupboard. They list the mass of at least 8 different items in grams. Finally, they write the amounts in order, from smallest to largest.

NP1.7c I can compare numbers and put them in order – Beyond 1000

Over the years Children ask friends and family members to tell them the year that they or anyone they know were born. Alternatively, if there is a relevant historical project underway, ask children to use books or the internet to find dates of events. Children make a list of at least 12 different years and write them in order.

NP1.7c I can compare numbers and put them in order – Beyond 1000

Great grid Children draw a large 5 × 5 grid. They ask a friend or family member to write a different 4-digit number in every cell of the grid (in random arrangement). Children try to find a route from one side of the grid to the other or from top to bottom where all the numbers are in order. If it is not possible, how few numbers need to be changed?

NP1.8a I can use symbols to help me to describe number relationships – Up to at least 100

Who wants to be a millionaire? Each child makes up several 'Who wants to be a millionaire?' questions using the symbols from the lesson in each answer. The questions are either: Which one of these four statements is true? or Which one of these four statements is false? Answers could be in the form A: 48 < 7; B: 37 = 30 + 7; C: 5 × 4 = 25; D: 35 < 30 + 9. They bring their questions to class and have the quiz.

NP1.8a I can use symbols to help me to describe number relationships – Up to at least 100

Guess my number The child chooses a number from 0-50. An adult asks questions with yes/no answers to guess the number. How many questions does the adult need to ask?

NP1.8b I can use symbols to help me to describe number relationships – Up to at least 1000

Who wants to be a millionaire? Each child makes up several 'Who wants to be a millionaire?' questions using the symbols from the lesson in each answer. The questions are either: Which one of these four statements is true? or Which one of these four statements is false? Answers could be in the form A: 478 < 487; B: 9397 = 9400 – 3; C: 338 < 383 < 388; D: 120 ÷ 6 < 180 ÷ 10. They bring their questions to class and have the quiz.

NP1.8b I can use symbols to help me to describe number relationships – Up to at least 1000

Write a guide Ask children to write a small guide or leaflet to explain the use of the <, >, = and ≠ signs to help someone else to understand them. Encourage them to use appropriate key words and to include useful tips (such as the greedy crocodile) to help explain the use of the signs.

NP1.9a I can round numbers up or down – Nearest 10

Number round up Ask children to find as many examples as they can of numbers being rounded up or down to make them easier to work with. Examples could be found in newspapers or magazines. Or maybe they hear someone at home round up or down, e.g. 'There's about 2 litres of paint left.' They draw, stick or write about them in a page for the learning log.

NP1.9a I can round numbers up or down – Nearest 10

Dice game Ask children to play this game with someone in their house. They will need a dice. Player 1 has the numbers 10, 30 and 50. Player 2 has 20, 40 and 60. Roll the dice to form a 2-digit number and round it. The player with that multiple of 10 scores a point. The winner is the first player to reach 8.

NP1.9b I can round numbers up or down – Nearest 100

Digit rounding Ask children to use the digits from their phone number and to write as many 3-digit numbers as they can. They round each of these numbers to the nearest 100 and record them like this: 486 → 500.

NP1.9b I can round numbers up or down – Nearest 100

Round and about Ask children to write 300 in the centre of a sheet of paper. From magazines, newspapers and leaflets, they cut out numbers and prices that round up to 300 when rounded to the nearest 100 and stick them down.