

10-minute numeracy starters

Some schools are opting to use school-wide lesson starters to help improve the overall literacy and numeracy skill development of students. Consistent lesson starters provide regular opportunities for students to practise and build literacy and numeracy skills in manageable ways. The activities below are designed as quick “Do Now” tasks that can be used across subjects to establish routine, activate thinking, and support ongoing skill development.

- The following are examples of the types of starters that schools may choose to use. Each one can be delivered at the start of any class and last no longer than 10 minutes.
- We wish to acknowledge the following weblinks where these starters were sourced: [Maths Starters - a great start to your maths lesson](#), [Maths starters and games | Curriculum Design NZ](#), [Solving Real-world Maths Problems – One minute limit](#), [Don't Break the Bank! - Math For Love](#).

Math Bingo

- Create bingo cards with 2-digit numbers, fractions, shapes etc. Give one card to each pair.
- Decide the Bingo rules you will play by e.g. first to get a line and/or first to finish their card. Explain to students.
- Provide teachers with a list of questions that require students to calculate an answer.
- Play until Bingo is called. Check the winning card to ensure they are correct. Swap cards and play again.
- An alternative to producing the cards is asking students to create their own 4 x 4 grid with their own choice of numbers. This has more risk of numbers not being called so you may wish to limit choices eg use numbers between 1-36 and ensure all the numbers are present within the range of answers.

Minute estimations

- Put students into groups of 3-4.
 - Teachers and/or students will require a stopwatch.
 - Choose an activity that can be done several times within one minute e.g. claps, jumps, counting
 - Each student in the group estimates how many times they think they can do the chosen activity in a minute and write it down. (The amount is not actually important it is more about the estimate.
 - Each student takes turns to do the activity while a person times and others count. Record their result.
 - Calculate the difference between what was estimated as a group and what the actual result was.
 - Extension: This task could be graphed showing the estimations and results.
-

Make 100

- The aim of the task is to land on or get as close to 100 as possible without going over.
 - The teacher rolls the dice and students must quickly decide whether to add, subtract, multiply or divide the number rolled. (to add complexity for older students you could include square, square root and cubed).
 - Students should write down their calculations so they can be checked at the end.
- An alternative is to give each student/pair one dice and they do their own throws and calculations.
-

Money matters

- Give students a recipe with a list of the ingredients cost. Ensure all the ingredients costs are for different weights from the recipe for example, give the cost of 1-kilo of chicken when the recipe requires 400g. It would pay to choose a recipe without small things like a pinch of salt. Do not worry if you cannot actually buy 300g of flour, that does not effect the task.
 - Ask students to calculate the overall cost of cooking the meal.
 - You could use other money problems and replace the recipe with building a tree hut, for example.
-

Quick 10

- Choose a mathematical topic e.g. multiplication, fractions, triangles.
 - Prepare 10 questions relating to the topic.
 - Ask students each question in a reasonably quick fashion, allowing enough time to calculate and write their answers.
 - Go over the answers, providing explanation if necessary.
-

Number of the day

- Decide on a number for the day e.g. 256
 - Ask ten questions that all relate to this number in some way. For example:
 - What is the square root of 256?
 - What is 256 minus 93?
 - What is 256 rounded to the nearest hundred?
 - Go over answers asking students to explain the strategy they used to get to their answer.
-

Don't break the bank

- Students draw a 3 x 3 grid. Teachers roll a dice and students must place the number in one of the nine boxes on the grid until the dice is rolled nine times and the grids are complete.
 - Students then add the three numbers they have created together. So, a throw of 4, 3, and 6 if placed next to each other in the top boxes of the grid would become 436 which would be added to the other two numbers below.
 - The closest to 999 without going over wins.
-

As close to as you can

- Give students four numbers. Using addition, subtraction, multiplication and division ask them to use those four numbers in any order to calculate an answer that is a certain number. For example, use 23, 14, 3 and 4 to get as close to 97 as you can.
 - Not all students most start with the same numbers. You could make it random, for example choose a number between 1-10, choose a multiple of 5 that is less than 100, choose a number between 35-50 and choose a number that is the square root of another number. Students then have four numbers that are different to one another and must use their four numbers to attempt to get as close to the number the same number.
-

Matching shapes

- Students will need a ruler to complete this activity.
 - Teacher draws a random shape. It can include shapes within shapes or attached to other shapes. It should be straight lines only for this task. i.e.no circles as they require extra equipment.
 - Write down the exact instructions to create the shape. For example, locate the exact middle of your page and put a dot. From that dot draw a 3cm line to the right that is 180 degrees. From that point draw a 5cm line up that creates a 45 degree angle. Continue the instructions until the shape is described.
 - Students receive the instructions and do their best to recreate the shape without seeing it first. (Teachers can read instructions or put them on the board or provide a handout).
 - At the end reveal the shape and students see if their shape is exactly the same.
-

- Each of these starter activities can be used again by changing numbers or in some cases leaving it up to a dice throw.
- For more starter ideas see the resources here: [NCEA Numeracy Resource Bank](#)