National Mathematics Day Activities that you can try anytime!

Early Childhood Tasks

Changing Shapes*: This task explores flipping and turning shapes to make patterns. It addresses key ideas in the algebra, function and pattern and space strand.*

Making Ten: This task focuses on tens facts and the use of a tens frame to build visual images of combinations to ten. This is a key idea in number for the early years.

Changing Triangles: This task explores triangles on a geoboard. It focuses on changing shapes and the attributes of triangles, which are important ideas in the space strand.

Changing Ages: This task focuses on variation in data. A pictograph is presented for students to interpret and make predictions about how it may change over time. The idea of variation is a key aspect of the chance and data strand.

Number Machine - Changing the Number!: This task presents students with a number machine and asks them to conjecture as to what is happening in the machine. It focuses on functions which are part of the algebra, function and pattern strand.

Change a Shape!: This task encourages students to explore how shapes (in this case, a rectangle) can be folded, cut or have lines drawn on them to make other shapes. This is a focus on the space strand.

Changing the Number Line: This task focuses on ordering numbers to ten and encourages students to re-order a muddled set of numerals on a number line. Ordering numbers is a foundational idea in number in the early years of schooling.

How Have You Changed?: This task relates to measurement and encourages students to explore how they have changed over their lives and make predicitons about how body measurements have changed.

Primary Tasks

Number splitting challenge (Years 1 - 4): *This task focuses on place value, addition and subtraction and multiplication and division.*

Two minute counting challenge (Prep - Year 3):This is a rich task to help children notice effective ways of counting.

What's the biggest number you know? (K - Year 4): This task focuses on place value. In particular interpreting the quantity, the symbol and the number word.

Who are taller: people with blue eyes or people with brown eyes? (Prep - Year 2): This task focuses on problem solving, working mathematically, probability, length measurement and data gathering, representation and interpretation.

Teddy Tubes (Prep - Year 2): This task focuses on problem solving, working mathematically and capacity.

Three in a Row (Prep to Grade 6)

This task focuses on place value, the relative position of numbers along the number line, estimation, ordering of numbers from smallest to largest, combinations and an element of chance.

Number Your Name (Grades 1-4)

This task focuses on counting, addition, estimating, reading, writing and ordering numbers.

Picture Book Task (Grade 4-6)

On Our Way to the Beach: The journey the family takes provides an engaging context for students to explore concepts related to time and the passage of time. Mapping the journey and planning other journeys would extend the use of the book to developing an understanding of coordinate geometry and scale.

Twice My Size' Picture Book Activities (Grades 4-6)

The basic concept of doubling and halving can be explored using the book. There is also the potential for the book to be used to develop measurement outcomes. Concepts related to 2-D and 3-D measures can be developed by investigating how the doubling of a 2-D attribute such as height influences volume. This can be extended to exploring the relationship between surface area and volume.

Middle School (Years 5 – 8)

Reflecting on reflections

This practical task questions notions of symmetry and explores everyday experiences from a geometrical perspective.

String Polyhedra

A fun task for groups of students in which polyhedra are constructed from loops of string. Note to teachers: try it yourself (with friends) to make sure you are clear about the instructions before you introduce it to students.

The Number Bracelets Game

This is a fun and popular game to play. You only need to be able to add whole numbers to play it, but there are interesting variations and extensions for those who like to think about mathematical patterns:

number bracelets extension

Secondary (Years 7 – 10)

If The World Were a Village' Book Activities (Grade 6-12)

'If the World Were a Village' is contemporary picture book that contains a collection of statistics about the population of a village. The village is an imaginary place with 100 residents and each resident represents 64 million people from the real world. The statistics in the book provide data that can be used to develop learning outcomes in History & Geography as well as Mathematics, particularly in statistical literacy.

Rows or Columns

This task is strictly numerical and explores the underlying structure of numerical arrays. Note to teachers: make sure you have a solution ready!

Prime Numbers Task

This task explores prime numbers as they are related to birth dates, the day, month and year.

Trigonometry Task

This is a measurement task that requires students to use right-angled trigonometry and/or scale drawings to understand road signs and investigate steepness of roads. It highlights the use of digital photography as a source of problems.