Draft criteria for a maths INGOT

My First Maths INGOT (Bronze 1)

I can count to ten without any pauses

I can add together all the numbers from 1 to 5

I can subtract all the numbers less than 5 from all the numbers up to 10 bigger than 5

I can compare sizes of objects using their lengths, widths and heights

I can compare objects using their weights saying which is heaviest and which is lightest

I can tell someone where to find an object using distances and directions

I can choose the right coins and notes to pay for something if I am told the price

I can name shapes such as triangles, rectangles, circles, squares, spheres, cones and cubes

I can sort shapes into groups based on the number of sides, the size of the shape or the colour of the shape

I know that some events are more likely to happen than others

Bronze 2 (Mathematics INGOT)

I can count, reliably, the number of items in groups of up to 20

I can understand and use whole numbers up to 100

I can add and subtract whole numbers where all the numbers involved are less than 100

I can count in twos, fives and tens and recite the 2, 5 and ten times tables

I can identify even and odd numbers and put missing numbers into a simple sequence

I can divide groups and objects into halves and quarters and put halves and quarters together to make whole objects

I can read simple scales on everyday measuring instruments such as rulers, thermometers, scales and clocks to the nearest labelled division

I can fit simple shapes together to build objects such as a house from bricks or a pattern from different shaped tiles

I can identify items on a list giving their positions in the list and communicate these positions to other people

I record my results on paper or on a computer and check my answers to see if they are sensible

I can use the knowledge and skills above to tackle practical problems in my every day life including telling the time and dealing with money

Bronze 3 (Mathematics INGOT)

I can understand and use whole numbers up to 1000

I can add and subtract whole numbers where all the numbers involved are less than 1000

I can calculate the results adding, subtracting and multiplying numbers where all the numbers are less than 100, using paper and pencil

I can recite the 2, 3, 4, 5 and ten times tables

I round numbers to the nearest 10 or 100

I can divide groups and objects into a range of simple fractions and understand dividing things into fair shares and how to combine these shares to make new fractions

I can understand and use decimals to two decimal places in practical situations

I can recognise and describe simple number patterns filling in missing numbers in the pattern

I show I understand length, area, volume/capacity, weight and temperature by making estimates, measuring and comparing the sizes of measurements and estimates

I can do simple calculations about money and measures in my head

I can name and draw triangles, squares, rectangles, circles, cubes, cones, cuboids and spheres

I can use feet, inches, yards, miles, millimetres, centimetres, metres, kilometres, pints, gallons, litres, millilitres, pounds, kilogrammes, seconds, minutes, hours, days, weeks, months, years, centigrade/Celsius

I can find information that I need in lists, tables, simple charts and graphs, make comparisons of information and present my findings so other people can understand them

I record my results on paper or on a computer and check my answers to see if they are sensible

I can use the knowledge and skills above to tackle practical problems in my every day life checking that my results are sensible and that other people can understand them

Silver (Mathematics INGOT)

I can understand and use whole numbers and recognise negative numbers in every day situations.

I can do simple sums in my head using adding, subtracting, multiplying and dividing, for example, multiplying and dividing whole numbers by 10 and 100.

I can change fractions to decimals and decimals to fractions for halves, thirds, quarters, fifths, tenths and hundredths.

I can add and subtract decimals up to two decimal places in practical situations.

I understand the word ratio and I can solve simple problems involving ratio, where one of the two numbers being compared is a whole multiple of the other.

I know that a formula is a way of describing a mathematical relationship and I can use simple formulae expressed in words for one or two-step mathematical operations

I can calculate the answers to simple problems about money, temperature, weight, time, length, perimeter, area and capacity (volume) and explain my working.

I can convert units of measure in the same system eg kilometres to metres, stones to pounds and

gallons to pints

I can construct models and draw shapes, measuring and drawing angles and identifying lines of symmetry

I can extract and interpret information from tables, diagrams, charts and graphs

I can collect and record discrete data and organise and represent information in different ways

I can find the mean and range for a set of data

I can use probability to show that some events are more likely to occur than others

I check my results to be sure they are sensible as I go along and I can explain what my results mean.

I can identify problems that can be solved using the mathematical skills and knowledge above, finding the information I need and explaining my methods.

Gold (Mathematics INGOT)

I understand and can use numbers of any size including positive and negative numbers in everyday calculations.

I understand how to use ratios to make calculations in problems of scale and proportion.

I can convert between fractions, decimals and percentages in every day calculations.

I can do calculations that require adding and subtracting fractions and adding, subtracting, multiplying and dividing decimals to a given number of decimal places

I understand and can use simple equations formulae involving one or two-step operations in everyday situations.

I can recognise and use 2D drawings of 3D objects

I can find the area, perimeter and volume of common shapes

I can work with metric and imperial measures in practical situations that require use and conversion between units.

I can collect data, both discrete and continuous measures, represent the data in tables, charts, diagrams and graphs and interpret data presented in these ways.

I can use and interpret statistical measures such as mean, mode and median for discrete and continuous data and use statistical methods to investigate situations.

I can use a numerical scale from 0 to 1 to express and compare probabilities.

I can use ICT appropriately in all my work in mathematics.

I can use the skills and knowledge above to identify and develop solutions to problems, in familiar and unfamiliar situations, checking and explaining my methods and communicating my solutions and conclusions.

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