

Numeracy strands– More than just numbers

Being numerate is being able to use maths to make sense of information in order to solve problems and make informed decisions. Most decisions are in some way based on numbers. This area includes **Reasoning, Problem Solving** and **Decision Making**. After these skills, Numeracy does still deal with operations and calculations, Data handling, numbers and the number system and shape, space and measure.

Reasoning

This is looking for patterns and relationships and then using general rules to help us find answers.

Reasoning Skill		Coverage
Reasoning 1	Being systematic	
Reasoning 2	Searching for patterns	
Reasoning 3	Developing logical thinking	
Reasoning 4	Identifying structures	

Problem Solving

A problem is a question that needs a solution. First we understand a problem by looking at the information carefully, deciding which parts are important, and then we choose the best approach.

Problem Solving Skill		Coverage
Problem solving 1	Identifying information needed to carry out the task	
Problem solving 2	Breaking down a problem or task into smaller parts	
Problem solving 3	Interpreting solutions in the context of a problem	
Problem solving 4	Making mental estimates to check reasonableness of answers.	

Decision Making

Decision making starts with understanding information, deciding which parts are relevant and finding more details is needed. We use reasoning to make choices and predict the likely outcome so that we can check results and see if we have made the best decisions.

Decision making skill		Coverage
Decision making 1	Choosing appropriate strategies	
Decision making 2	Identifying relevant information	
Decision making 3	Choosing tools and equipment	
Decision making 4	Predicting and checking	

Mathematical content

Mathematical knowledge		Coverage
Mathematical content 1	Number e.g. Percentages Fractions Decimals – Money calculations, food tech pricing meals, MFL ordering at a café Four operations Negative numbers – Geography temperature differences	
Mathematical content 2	Ratio and Proportion e.g. Technology recipes Chemistry experiments	

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Mathematical content 3	Algebra e.g. Substitution – PE BMI calculations, Science velocity, speed calculations Re-arranging formula – Science physics formulas Equations	
Mathematical content 4	Geometry and Measures e.g. Area and volume Measuring – Technology measuring jugs in food, rulers in practical woodwork Angles - PE orienteering Transformations – Art creating patterns, enlarging shapes Shapes	
Mathematical content 5	Data Handling e.g. Graphs and Charts – Geography rainfall, temperature Averages – English, comparing two poems by looking at sentence length.	
Mathematical content 6	Probability	