Phase A (Years 1 and 2) – Working Mathematically

Problem Solving

Reasoning – Draw conclusions - talks about findings by referring to own work

Uses 'guess and check' strategy to solve unfamiliar problems

Application – Plan an approach and implement it - tries different approaches and finds ways of overcoming difficulties when solving problems – sometimes with support

Application – Represent and communicate - begins to develop own ways of recording *e.g. uses and interprets **familiar** mathematical symbols and diagrams*

Draws simple pictures or diagrams

Application – Represent and communicate - describes a problem in their own words e.g. *acts it out or represents the problem pictorially or with concrete resources*

Reasoning – Draw conclusions - predicts an answer or outcome *e.g. numbers in an extended sequence*

Reasoning – Make connections - poses 'What if?' questions during practical problem solving opportunities

Begins to look for patterns in results while working and uses them to find other possible outcomes

Application – Represent and communicate - discusses their mathematical work and begins to explain their thinking using appropriate mathematical vocabulary

Reasoning – Generalise - begins to describe a pattern or sequence in words or using concrete resources or own representation

Reasoning – Draw conclusions - begins to make simple inferences when referring to own work

Application – Plan an approach and implement it - uses familiar strategies and operations to solve problems within known mathematical concepts and procedures

Application – Ideas, questions and enquiry - asks simple questions relevant to the problem and begins to suggest ways of exploring

Application – Ideas, questions and enquiry - selects the mathematics they use in an increasing range of classroom activities

Application – Ideas, questions and enquiry - chooses equipment appropriate to the task with support

Reasoning – Make connections - begins to use familiar elements of knowledge to tackle problems that are less familiar or complex

Finds a starting point

Reasoning – Make connections - recognises similarities to previous work through classroom

Application – Plan an approach and implements it - understands and uses known facts and procedures to solve simple problems

Application – Computational complexity - solves problems with one or a small number of steps, where all steps are simple

Sorts information

Application – Represent and communicate - begins to organise work and check results *e.g. shows evidence of methods in responses*

Reasoning – Generalise - Understands a general statement by finding a particular example that match it

Gives examples to match statements and ones that do not

Reasoning – Justify - provides simple reasons for opinions

Reasoning –Draw conclusions - explains why an answer is correct

Reasoning – Evaluate - reviews their work by explaining why they have done something

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