‘Working Mathematically’: Key Stage 1 (‘Phase A’)

Application	
Ideas, questions and lines of enquiry	• selects the mathematics they use in an increasing range of classroom activities - *adopts a suggested model or systematic approach* - *makes connections and applies knowledge to similar situations* • chooses equipment appropriate to the task with support • asks simple questions relevant to the problem and begins to suggest ways of exploring
Represent and communicate	• describes a problem in their own words e.g. - *acts it out; - represents the problem pictorially or with concrete resources* • begins to develop own ways of recording - *uses and interprets **familiar** mathematical symbols and diagrams* • begins to organise work and check results - *shows evidence of method in responses* • discusses their mathematical work and begins to explain their thinking using appropriate mathematical vocabulary
Plan an approach and implement it	• understands and uses known facts and procedures to solve simple problems • uses familiar strategies and operations to solve problems within known mathematical concepts and procedures • tries different approaches and finds ways of overcoming difficulties when solving problems – sometimes with support
Computational complexity (Within the range of number facts known)	• solves problems with one or a small number of steps, where all steps are simple

Reasoning	
Make connections	• recognises similarities to previous work through classroom discussion • begins to use familiar elements of knowledge to tackle problems that are more unfamiliar or complex • poses ‘What if?’ questions during practical problem solving opportunities
Evaluate	• reviews their work by explaining why they have done something
Draw conclusions	• predicts an answer or outcome *e.g. numbers in an extended sequence* • talks about findings by referring to own work • explains why an answer is correct • begins to make simple inferences when referring to own work
Generalise	• understands a general statement by finding a particular example that match it • begins to describe a pattern or sequence in words or using concrete resources or own representation
Justify	• provides simple reasons for opinions

Problem solving strategies
• sorts information • uses ‘guess and check’ strategy to solve unfamiliar problems • begins to look for patterns in results while working and uses them to find other possible outcomes • draws simple pictures or diagrams • gives examples to match statements and ones that do not • finds a starting point

PA Plus

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