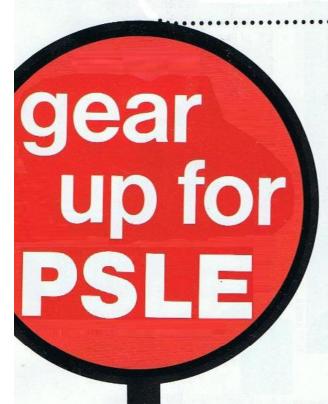
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February 2011



Teach the processes, not purely have them memorise facts

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Having a good understanding of concepts is essential so that your child is able to use and apply the knowledge during examinations. Mr Cedric Chai, Master Trainer for Science Heuristics, advises that a child must first be taught the various processes and skills listed in the MOE's Assessment Guidelines to effectively tackle the questions in a PSLE Science paper. However, this set of skills must be reinforced through application.

He says: "Many parents mistakenly think that facts are knowledge and make their children memorise or read through thick science guidebooks or encyclopaedias. Nothing could be further from the truth. Knowledge is concepts acquired through understanding of how the concepts work through hands-on, detailed explanations or examples provided."

Parents should ask the child questions and lead them through the whole process, advises Mr Sunny Tan, Master Trainer for Maths Heuristics. He says: "This helps child to develop their critical thinking skills, enable the child to judge information and to using extract the relevant criteria such as its accuracy, relevance, reliability, consistency and bias."

To solve difficult Maths questions, adopt a thinking framework

Says Mr Sunny Tan: "What practice does is to expose students to different scenarios but they rely on familiarity rather than thinking skills. However, the PSLE curriculum requires students to use higher order thinking skills to solve unfamiliar problems, so practising without a proper thinking framework may not get the student top grades." Heuristics, for example, aims to equip the child with such higher order thinking framework.

It advocates problem-solving based on a step-by-step critical thinking process – understanding the problem, planning and executing the model to solve the problem and reflecting on other methods to solve the problem.

First, help the child understand the problem by asking the child to read the question. Next, help the child to think about how he would like to solve the problem by asking what methods he learnt in school. Refrain from telling the child the steps to draw the model but instead guide them to the key points like asking which of the sentence seems the most helpful in drawing the model.