

Handout 2

Mathematical themes and assessment approaches in the Wave 3 materials

The following are fundamental to the approach in these Primary National Strategy materials.

- Using and applying mathematics has been integrated. Often there are several opportunities for problem solving within one activity, but in each, one particular opportunity has been highlighted. Aspects such as the following are incorporated:
 - encouraging children to discuss and explain in order to support development of their mathematical reasoning;
 - opportunities for children to make choices are woven into the activities, for example selecting numbers and devising calculations;
 - encouraging children's own recording to communicate mathematical thinking, focusing on efficiency;
 - opportunities for evaluating the efficiency of methods of calculation.
- Development is emphasised and key vocabulary is listed in each activity. It is important for adults to use correct mathematical language. To facilitate this, examples are given in words, for example, 725×3 is accompanied by what the adult could say to the child: 'Seven hundred and twenty-five *multiplied by 3*'.
- There is a focus on progression in counting from the earliest stages through to Year 6 to support the development of secure counting skills.
- Throughout the materials, there is emphasis on the process of estimating first, then calculating and then checking. This is denoted by the following icon: 
- Decimals are addressed within meaningful contexts, for example via displays on a calculator and as a part of measure.
- Structured equipment and everyday materials are used to model mathematical concepts, supporting children's mathematical thinking and development of mental imagery. Some links to ICT resources such as the Primary National Strategy Interactive Teaching Programs (ITPs) are included.
- A wide range of resources is used in the teaching sessions. Teachers' selection of these to suit the needs of their children is an important part of adapting the materials.

The materials reflect best practice in assessment for learning as a key tool for raising achievement through:

- use of questions to elicit information about children's understanding;
- sharing the purpose of the activity with the learners;
- encouraging children's reflection on their learning and identification for themselves of possible next steps.