

**Exposing and
discussing
common
misconceptions**

**Developing
effective
questioning**

**Building on
the knowledge
pupils bring to
lessons**

**Using
cooperative
small group work**

Secondary mathematics planning toolkit

**Emphasising
methods rather
than answers**

**Using technology
in appropriate
ways**

**Using rich
collaborative
tasks**

**Creating
connections
between
mathematical
topics**

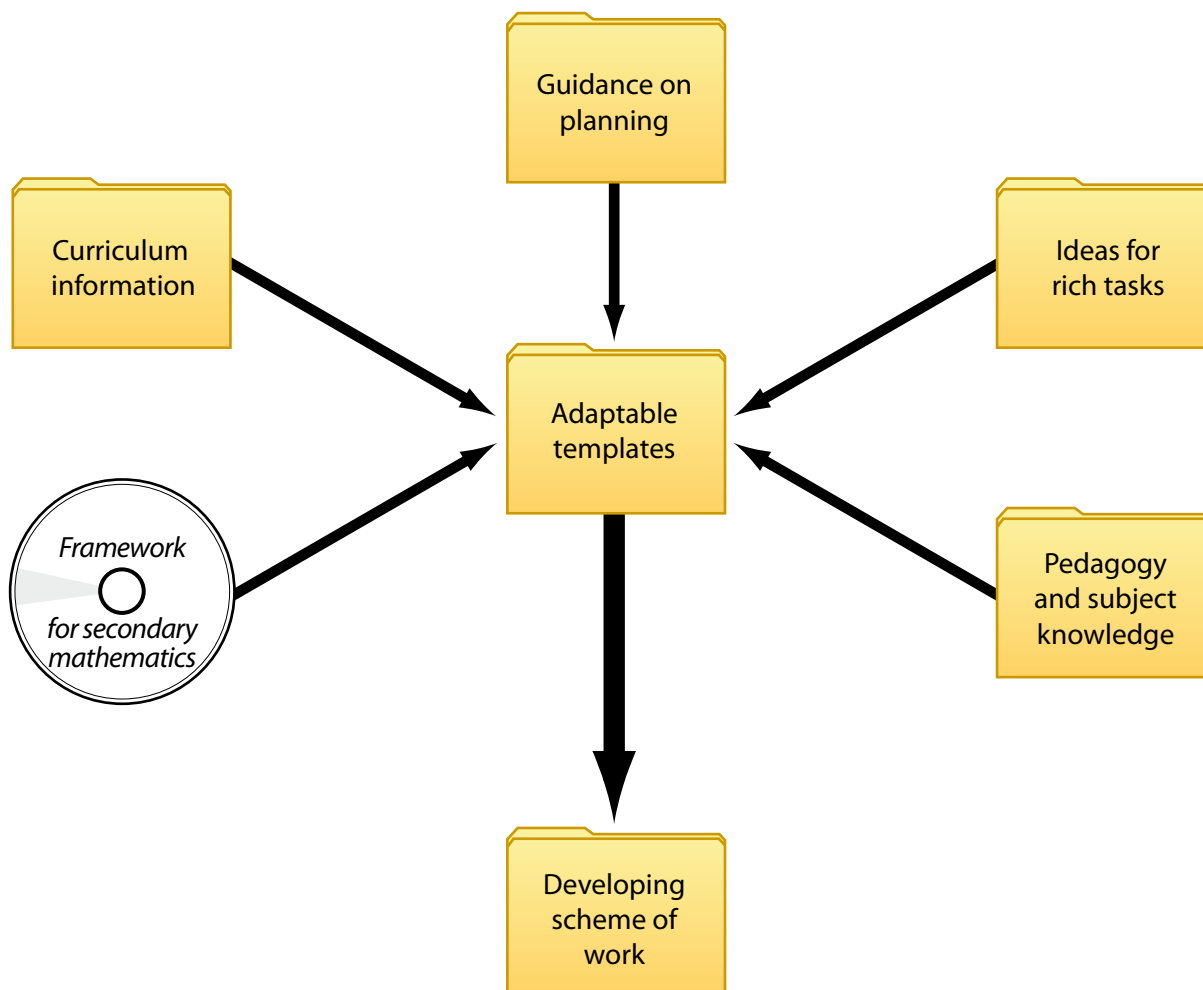
Introduction to the planning toolkit

The *Secondary mathematics planning toolkit*, which draws on the *Framework for secondary mathematics*, is designed to support subject leaders as they work with their departments to develop an effective scheme of work in mathematics. This version (summer 2008) supports planning to implement the new Key Stage 3 programmes of study over the period 2008–11. It also incorporates the *Mathematics planning toolkit: Key Stage 4* as a support for planning for the higher tier of the two-tier GCSE. (It is anticipated that the Key Stage 4 element of the toolkit will be updated to support implementation of the new Key Stage 4 programmes of study from 2010.)

Contents of the toolkit

The toolkit comprises a set of documents organised in six main folders, to be used alongside the *Framework for secondary mathematics*. Sub-folders and documents within each folder are listed in the document 'Contents of planning toolkit folders'.

The diagram below shows the relationship between the main six folders.



Guidance on planning

This folder includes the two planning handbooks, one for *Key Stage 3 (2008)* and one for *Key Stage 4 (2007)*. Each handbook comprises a collection of tasks, linked to folders in the toolkit, to help subject leaders prioritise, plan and implement a manageable development programme.

Adaptable templates

This folder includes blank templates and examples of curriculum maps, calendars and unit plans. Teaching and learning review templates and key process maps are also included. Teachers can select a suitable template and complete it by copying and pasting text and drawing ideas from other folders.

Developing scheme of work

This is a suggested filing system, initially a set of empty folders, for storing completed unit plans and associated resources, curriculum map and calendar.

Curriculum information

This folder includes the National Curriculum programmes of study. For Key Stage 3 objectives it directly references the *Framework for teaching mathematics* website or disk but also includes a copy of the *2001 Framework Supplement of examples*, which remains valid as a support for planning. For Key Stage 4, it includes objectives organised to help pupils progress from level 5 to grade C, level 6 to grade B and level 7 to grade A/A*. Schools may wish to add exam board specifications and information to the Key Stage 4 sub-folder.

Copy of *Framework for secondary mathematics* website (on a separate disk)

A copy of the *Framework for secondary mathematics* is provided on CD-ROM. The *Framework* includes objectives and guidance on planning for the new curriculum in the form of screens and downloads. The intention is that, as the *Framework* evolves, other resources will migrate to the website. In the meantime, the toolkit ensures that a range of resources are readily accessible.

Ideas for rich tasks

This folder includes a large collection of Strategy and Standards Unit materials that are sources of rich activities for the classroom.

Pedagogy and subject knowledge



This folder includes Strategy and Standards Unit materials that support the professional development of teachers in both generic and subject-specific areas.

Note: Assessment

There is no folder of assessment guidance. Assessment criteria for Key Stage 3 levels are linked to the *Framework*. Guidance from *Assessing Pupils' Progress (APP)* will also be linked to the *Framework* as part of the next phase of developments (spring 2009). In the meantime, the APP mathematics materials remain a rich and useful source of support and are available as downloads from the Standards site:

www.standards.dcsf.gov.uk/secondary/keystage3/subjects/maths/focus/asses_maths/ma_app_handbook/


Saving and managing your files





It is envisaged that, when creating your scheme of work, you will choose a template from  **Adaptable templates**. As it is not possible to save documents to the CD-ROM, you are advised to work on your hard drive. For example, completed templates can be saved in a copy of  **Developing scheme of work** on your computer, using the 'Save as' option on the 'File' menu. You will be able to develop your own file structure for your scheme of work in this folder and add your own material to other folders.

Care should be taken, especially when running the toolkit on a network, to ensure that work is not accidentally lost by files being overwritten. It is recommended that one person should manage the files, with version numbers. Work can also be password-protected by means of the 'Tools' menu, choosing the 'Protect document' option.

You will need Adobe Acrobat Reader and Flash Player 7 to read some files.

Important note to users of the *Mathematics planning toolkit: Key Stage 4*

The *Secondary mathematics planning toolkit* incorporates the Key Stage 4 toolkit. However, it is important not to lose any files that you have already added to the Key Stage 4 toolkit, especially  **Developing scheme of work**. Any sub-folders that contain such files need to be copied across to the Secondary toolkit. Likely folders are:

-  **Developing scheme of work**, sub-folder 'KS4 scheme of work';
-  **Curriculum information**, sub-folder 'Exam board specifications';
-  **Ideas for rich tasks**, subfolder 'School folder of ideas for rich tasks';
-  **Pedagogy & subject knowledge**, sub-folder 'School folder of pedagogy materials'.