"Back to Basics" is a title that appeals to all that believe in the concept of basic maths times tables skills being taught in the 'traditional' manner. Version 1 of "Back To Basics Maths Multiplication" Ages 6-12 years has been published by Turanna Software and GMA software. The target audience appears to be students aged from six to twelve years who are required by educators or parents to learn or practise tables using a rote method.

The programme in CD-ROM format is contained within bright yellow appealing packaging in a sturdy plastic cover (A5 size) with important information clearly labelled on the front cover (Windows'95 and Macintosh compatibility and the age range for example). On the CD-ROM a file labelled "read me" exists that gives basic "set up" instructions. A "Quick start" sheet gives directions in more detail for those not as technologically literate. The language is at a level suitable for nine year-olds and above, younger students may experience difficulty comprehending the material. A small booklet is also included that contains commonly expected documentation such as "Overview", "User's and Troubleshooting Guide". However, the sheet and booklet could quite easily be separated from the software (for example in a lab situation) and it would be useful if these items were also available in electronic format on the CD-ROM.

Upon logging in, students are able to see and hear tables being recited in ascending order, then they can continue on to number sums in a written format. As they progress, they can select questions in consecutive order (represented as a whole apple), and while this is positive for students requiring repetition in a set order, in this mode answers are checked but a record is not kept. This option provides opportunity for students to progress to random order as they master their tables more successfully. If students select the random order (represented by a cut-up apple icon), answers are also checked and a record is made of their progress. An "eaten apple" icon is selected if a student wishes to practise the questions that have been recorded as incorrectly answered by them, consequently, tailored remediation can be carried out.

Students can choose to answer questions sequentially or in random order, and several options are available if they wish to have their tables assessed. The "select a test" option allows students to choose one of three tests to test themselves (a self-testing facility). The first test option is "Answer with pen and paper", which includes sound and allows students 5 seconds to answer. The second test option is "Answer on Computer", where no sound is available and students have 3 seconds to answer. The final test option is "Answer on Computer" where no sound is available and students have 5 seconds to answer. Students who are at different skill levels are catered for, and extension options are available. Different topics in the form of tables for students to select, further level options other than "mixed tables", "select 2 or more" tables, "three or five seconds" answer time, "view" or "listen" would extend the programme. For example, different difficulty levels and more time options would provide further challenging selections.

Students can make a selection from the option ___ x 0 up to ___x12 also from ___x13 to ___ x 25, or ___ X 100. Alternatively, the option "Mixed tables" can be chosen. Teachers can choose various options and devise their own work sheets for extra practice. The ability to monitor performance of individual students is excellent for the busy classroom teacher. It keeps records for an entire class, and identifies those tables that require extra practise.

The reasoning behind answers would be a welcome addition, so students could understand exactly what tables mean. For example, a section showing how "groups of" numbers make a total. Use of graphics or animations would assist with illustrating ideas in this regard. Practice sessions for students would assist those that are still at the concrete manipulation stage, before they progress to formal operations. Otherwise students could manipulate graphics so that they represent a given multiplication problem. Giving students simple visual stories and asking them to devise a multiplication sum to
solve the problem could easily have incorporated problem-solving skills. This would help to ensure that students understand what the multiplication tables really represent, thereby transferring "real world" experiences.

The programme allows students to work independently or may be used by a pair of students to encourage collaborative work. Use in a laboratory situation is possible if the appropriate CD-ROM is purchased, though the educational benefit of this is questionable. Very little positive reinforcement is provided, and some form of extrinsic motivation in the form of animations or graphics would be a welcome addition. This would also help keep the user informed about what is happening with the product. As a contrast, tables that students master are rewarded with a printed certificate, and this is a beneficial and tangible reward.

Some metaphors (a house for "home", a back arrow and printer icon) are easy to understand, though the use of an apple icon for "in order" and a cut up apple for "random order" is questionable. A menu entitled "Button Info" explains what the icons represent, though the use of "hot spots" that are activated when icons are rolled over would also be beneficial, especially for new users. An Australian child's voice as a narrator for given sums is a novel idea for children to feel that they are relating to a peer, though a more vibrant and enthused child's voice would be beneficial.

Simple, clear, and uncluttered screens are evident, some being illustrated with several inviting and attractive graphic characters. On a few screens it is difficult to exit from the programme (though on certain activities it is understandable as it disallows students from exiting an important section). The light source coming from the top left of the screen is noted, though this needs to be incorporated in a more consistent way so that all graphics and buttons have a drop shadow on the lower right.

In some sections, the option of working with or without sound is provided, and this is beneficial for a classroom environment where the use of sound may distract other students. Generally, however, the technology has been underutilised (the CD only uses 248Mb of its 650Mb capacity). A more interactive product would assist in learning and retention by students. One of the strong advantages of computers is that they can use programmes with a rich media mix, more attention to varied sounds, graphics, or non-distractive animated characters at the end of a sequence of tables would have been appealing.

Both Macintosh and Windows platforms are supported! A power Mac is recommended, though System 7.1 and later are also compatible. For Windows users, a Pentium processor is recommended though a 486 or faster are also compatible, Windows '95, 98, or NT are suitable operating systems. For single user operation both platforms require at least 8Mb of RAM. Of course the greater the number of users, the more RAM required. Costing of software for individual use is $59.95. A licence for 5 users is $159.95, licences for greater volumes are also available. The software is available from New Horizons at www.nh.com.au or by telephoning 1800 023 069.

This simple piece of software has been implemented with a consistent interface, resulting in a familiar and predictable product. The title "Back to Basics", appeals to all that believe in the concept of basic maths skills being treated in a traditional manner; of course how these basics are treated is dependent on the educational philosophy of educators and parents. The programme should not be used in isolation, but would be best used to supplement a classroom teacher's maths programme. In all, a colourful and enjoyable programme, with some deficiencies, has been produced.