

<b>Evaluation's ID ref number</b>	04-067
<b>Product title</b>	Kinesthetic Interactive Teaching system (KIT)
<b>Publisher, content provider</b>	MMM Group Ltd
<b>Cost of product</b> Retail	(excl VAT) educational package £3,995
<b>Location</b> eg URL, ISBN	www.kinesthetic.co.uk
<b>Product type</b>	Other
<b>Teacher, school and geographical information</b>	The educational features were used with a class of 28 mixed ability Year 7 science students, in a girl's school in inner London. The entertainment features were used for extra-curricular activities with Year 8 students.
<b>Describe how you used this product with the students</b>	KS2 quizzes were used at the beginning of the QCA modules on forces and circuits to help students review their prior knowledge. Then the KS3 questions supplied were used to consolidate new learning at the end of each of these topics.
<b>Subject(s)</b> that this product was used to support	Science
<b>Key stage(s)</b> that this product was used with in the evaluation	Key stage 3
<b>Schemes of work</b> for which you used this product	The QCA scheme of work, supported by learning resources from Heinemann's Catalyst Science scheme
<b>Topic(s)</b> that you used it to cover	QCA modules 7K and 7J (forces and electrical circuits)
<b>Special Needs categories</b> G&T <sup>1</sup> and SEN <sup>2</sup> pupils who were accommodated when using this product	The classes contained no students with special needs but the nature of the product would make it easy to tailor the content to suit specific groups of students.
<b>Ability range and number of the students who took part in the classroom evaluation</b>	The 28 girls involved in the evaluation of the educational content had key stage 3 target levels between 4 and 7 and most were achieving level 5 in end of module tests.
<b>Evaluation period</b> For how long, how often and how regularly did you use the product during the evaluation process?	We used the educational resources for 15-minute starter or plenary sessions over seven weeks. The games and music were used for sessions of up to an hour at a time.
<b>Machine</b> Give details of machines and/or network type used during evaluation	Mac or PC? _____ Other (please specify) _____ Networked or stand-alone? _____ Processor speed or type _____ Connection speed (dial-up, broadband) _____ RAM _____ Operating system (OS) _____ Type of sound/graphics card used? _____ <div style="border: 1px solid black; padding: 2px; display: inline-block; color: red; font-weight: bold;">Editor: spec TBC</div>
<b>Any additional hardware or software used during the evaluation</b>	The equipment does not need to be used with a computer. We used a Promethean interactive whiteboard with associated speakers as the output device. It could be used with a portable data projector or TV and the public address system supplied.

<sup>1</sup> Gifted and Talented

<sup>2</sup> Special Educational Needs

## **A. Context**

The girls involved in the evaluation had key stage 3 target levels between 4 and 7 and most were working at levels 5. The students were in a mixed ability class, but had no SEN students. A range of ethnic groups was represented. Those with English as a second language had a high level of literacy. No support staff were present.

## **B. Technical information**

The equipment was delivered by an expert user who installed everything and spent an hour demonstrating its most popular features. Very few users would need this much help and reassurance. KIT was very easy to set up. A video lead connected the hardware to the normal interactive whiteboard video input socket, audio leads connected it to the amplifier that fed the speakers and a single plug connected everything to the mains supply. The handsets connect wirelessly to the central box and were detected as soon as it was switched on. A 6V battery powered each group of 5 handsets and none needed to be replaced during the trial. After the first session, the hardware could be connected and set up in less than a minute. It usually took a few minutes to get the software to the selected screen so we did this before the lesson. We then used the whiteboard as normal for the rest of the lesson and just switched to video input to display the output from KIT when it was needed.

## **C. Content**

The entertainment resources are very comprehensive. KIT can be used as a disco jukebox, a karaoke machine, a primary sing-along prompt and a supply of fund-raising games for PTA events. It includes a public address system and can be operated from a single mains lead. The educational content is a collection of interactive games and quizzes that allow up to 30 students at a time to submit answers using wirelessly linked handsets. There is a wealth of material for KS1 and KS2. For KS3 science there were 700 multiple-choice questions at the time of the trial; some are illustrated. The questions are divided into subsets and can be selected to cover different year groups, topics and levels of challenge. Teachers can also add their own questions. The space available on the screen limits the length of the questions so they need to be concisely phrased.

### **Curriculum coverage**

KIT's versatility means that it could be used at any key stage and in any subject. The database of questions is being expanded all the time and a dedicated website allows users to upload their own questions. These need to be typed into Excel spreadsheets, which you then upload to the website for conversion and download back to a USB key as dat files. The question files are stored on a USB key which simply plugs into the back of the main KIT box. The interactive quizzes proved to be powerful motivators. I used them to check prior knowledge at the start of each QCA module and review the new concepts and terminology learned.

### **Learning outcomes**

The quiz questions used were similar to those used in paper-based multiple-choice quizzes. The main advantage was that both students and teacher could see at a glance which handsets displayed the right answer, and which were quickest to respond. This proved a powerful motivator and some students did get very excited about their performance. The software can be set to display students in rank order at specified intervals during each quiz. Allocating handsets to students in register order it made it easier for the teacher to identify pupils from the handset number as each question was tackled, without having their names displayed.

#### **D. Design and navigation**

The hardware is very robust, well designed and easy to transport. There are three parts. The main box needs to be positioned close to the video socket of the whiteboard or data projector displaying the output. Its front cover hides jukebox and karaoke controls. It can be left on when the educational resources are being used. The back cover hides the connecting leads and a USB storage device that holds the quiz questions. The menu is navigated using an infrared remote control. Anyone who has operated a DVD remotely would find navigation intuitive. 30 PlayStation-style handsets are used to submit student answers. Each set of five handsets connects to a single battery inside a plastic toolbox. They are very robust and it is easy to coil up the leads and fit the handsets tidily away. A convenient holdall makes the toolboxes easier to store and transport.

#### **E. Classroom use**

The most popular functions are demonstrated when the unit is delivered and it comes with comprehensive instruction manuals and a useful Quick Start guide. It usually took me a few minutes to get a quiz set up. Students begin by keying in their names. They can all do this simultaneously, so it only takes a minute. Most have used this type of handset at home and don't need instructions. As questions are presented, students key one of four coloured buttons to choose their answer. They can work alone or discuss possible answers in small groups before they submit them. There are no opportunities for differentiation, or supporting students with SEN, but the level of difficulty can be chosen when the question set is being selected. The correct answers can be displayed immediately or at the end of a quiz. The software can be set to show the number of correct answers for each student after any number of questions. However, no records are kept.

#### **ICT**

The product did not contribute to any of the school's ICT objectives.

#### **Student response**

Students made most use of the interactive voting system. The curriculum focused quizzes were used more than the games. The classes that took part in the trial were very competitive and excitable when they used the equipment for the first time. In later sessions, pupils were encouraged to collaborate and their rankings were not displayed. The students worked more calmly and took more time to think about their answers. Their overall success rate and speed of response could then be used to judge how much time to spend discussing their answers.

#### **F. Summary**

KIT is a novel multifunctional resource. Departments and year teams would need to share it to realise its full potential. There are music tracks for school discos and karaoke sessions, and quizzes and games for fundraising events. The educational content includes a range of interactive quizzes with questions grouped by key stage, year, subject, topic and level of difficulty. The bulk of these are for key stages 1 and 2. However, there is a growing number of question banks for key stages 3 and 4. Pupils submit their answers using wirelessly linked handsets, and are motivated by the instant feedback they receive. Teachers can add their own questions, so the size and quality of the existing question banks need not limit its long-term educational value. Teachers can add questions: this is quick and easy for multiple choice-questions with no illustrations, more time-consuming where illustrations are involved.