

An Introduction to Computer Game Design Using Game Maker

Learning to program computer games is a very worthwhile exercise on many levels. It develops planning, thinking skills, problem-solving and troubleshooting skills. It also draws on a wide range of disciplines including maths, physics, art and design, music and computing.

The aim of this resource is to introduce pupils to designing and creating computer games using a 2D games engine called Game Maker by Mark Overmars. The 'Lite' version of the software is freely downloadable from

www.yoyogames.com, and I have included a copy in the **Resources** section. For a small fee the 'Professional' version with extra features may be purchased. and there is also an option for a site licence for schools.



The five lessons show pupils the basics of creating games using Game Maker. A single game is developed over the first three lessons illustrating the essential techniques common to all Game Maker games. The last two lessons show some of the program's more advanced features in the development of a more complex game. I have included links to relevant websites which are useful for getting further information and resources about computer games programming with Game Maker.

The content of this resource can be used in a variety of settings in the **National Curriculum** at KS3, KS4 and KS5 and quite specifically in the **OCR iMedia** course which has Level 1 and Level 2 units on 2D games design. The materials cover several aspects of computer control and graphic design and there is even scope for links with music and business studies. If the finished games were packaged and marketed by a Young Enterprise company, these materials could easily be used as the basis for a company product in an enterprise setting. An outline for this idea is suggested in the **Extension** section.

I hope you enjoy using these materials and would appreciate any feedback on how to improve them. If you'd like to leave some positive comments or constructive criticism, please e-mail me or use my new **Game Maker blog**.

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These resources are best viewed at a resolution of **1024 x 768 pixels** (standard on most laptops) and if possible pupils should work in pairs on two computers, with one computer being used to display the resources and the other for creating the games in Game Maker. Alternatively, the **PDF** versions of the web page tutorials in the **Resources** section can be printed out.

To view the individual pages **full screen** without the top title and menu frame, **right click** on any of the Lesson links and choose **'Open in New Window'**. The display window should always be maximised for the best effect.