

Game Maker Extension Project

This is the outline of an idea for a cross-curricular project based on creating games with Game Maker. It involves teams of pupils working in several subject areas to produce a product that could be marketed and actually sold in an enterprise setting.

A suitable outlet for this project could be the 'Young Enterprise' scheme and it would need to take place over an extended period of time e.g. half a term. It would be particularly suitable as a set of extra-curricular activities for gifted and talented pupils.

The main subject areas and production teams which could be involved are:

- English – designing each game's storyline or scenario with detailed character descriptions and writing the inserts and user guides for the game packaging
- Art and Design – creating the games sprites and background graphics
- Design Technology – creating the game CD packaging and inserts
- Music – creating background music and sound effects for each of the games
- Business / Enterprise Studies – marketing and costing the production of games – deciding on game price points for 1, 2 and 4 game packages
- Computing / ICT – programming and developing four different games

Some school departments might be able or might need to cover more than one of these aspects.

The development of the games would need to be led by a project management team who would coordinate and sequence the tasks needing to be done by each production team. The management team needs to ensure that each stage in the project is ready for the next. Each production team could have representatives to meet with the project management team and report back on how things are going. It would be useful to set agendas and keep minutes at these meetings.

The programming production team will first need to decide on up to four game genres which they are able to create using Game Maker, e.g.

1. Maze
2. Space Shooter
3. Side Scroller
4. Puzzle
5. Platform
6. Driving game

The scenario for each game will then need to be devised and agreed and a specification given to each of the other production teams so they can implement their part of the project.

The idea of having four games is so that a range of games packages can be devised – e.g. a single game package with one game on the disc, a double game package with two games on the disc and a four game package etc. The more games there are on the disc, the cheaper the cost per game.

The only aspect which needs precise sequencing is the work of teams producing the game resources. The sprites and background graphics need developing fairly early on in the process so the programming team can use them in developing the game. The music can be added later. The programmers can use temporary sprite and music files whilst the real ones are in development.

Once the full games have been finished, burnt to CD and packaged with inserts and user guides, they are ready for selling. By now the Marketing team should have been advertising the

games in various paper or electronic ways around school and they should have cost the materials needed to produce them to calculate a suitable price that will make a profit. It will be a delicate balance between covering costs, not being too expensive whilst trying to make a profit if possible. Any profit made from the sale of the games should be spent on something which benefits everyone involved.

Some of the skills covered in this project are:

- Teamwork and management
- Meetings with a chairperson, agendas and minutes
- Project management – perhaps planned using Gantt chart software
- Object oriented and event driven programming techniques
- Art and music - designing for a theme
- Packaging design and production
- Advertising and marketing – target audience
- Break even analysis – costing
- Blurb, précis and summary writing
- Problem-solving and troubleshooting

In a Young Enterprise setting, this project could produce one of the few real products which is entirely created by the pupils themselves from scratch, without relying on bought materials that need to be assembled to make the goods being sold. The product really is created entirely by the pupils themselves from start to finish.

Other software which could be used in this project includes:

- Word or another word processor - writing game scenarios and packaging inserts
- [Audacity](#) - recording sound effects or background music
- Publisher or Page Plus - creating packaging and poster adverts
- Excel - doing break even analysis, costing, balance sheets, Gantt charts
- Fireworks, DrawPlus, Photoshop, Paintshop Pro or [IrfanView](#) - creating game sprites and backgrounds
- PowerPoint - making presentations for the marketing and advertising campaign
- Fireworks or Flash - creating animated web page adverts
- E-jay, Cubase or Sibelius - creating background music for the games
- [IrfanView](#) - making a desktop icon for each game
- Microsoft Project or [Gantt Project](#) - aiding project management

Where possible, open source or free software has been suggested and linked. No doubt there is a whole range of other stuff that would be suitable too!