



THE KODU KUP EUROPE



KODU KUP EUROPE TEACHER RESOURCE PACK

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kodu@eun.org

Contents

| | |
|--|----|
| About Kodu Game Lab..... | 2 |
| About the Competition | 3 |
| What Should be Submitted? | 3 |
| The Deadline..... | 3 |
| Game Themes..... | 3 |
| Prizes..... | 3 |
| Rules..... | 3 |
| Judging Criteria..... | 5 |
| Competition Guidance | 6 |
| Overall planning | 6 |
| Theme Guidance..... | 7 |
| Downloading and Installing Kodu Game Lab | 8 |
| Some Basic Instructions | 9 |
| Promoting the Competition..... | 10 |
| Using the Kodu Game Lab Community Site..... | 11 |
| Exporting the Games from Kodu Game Lab..... | 12 |
| Using the Game Cover Template..... | 13 |
| How to Submit your Entries | 14 |

About Kodu Game Lab

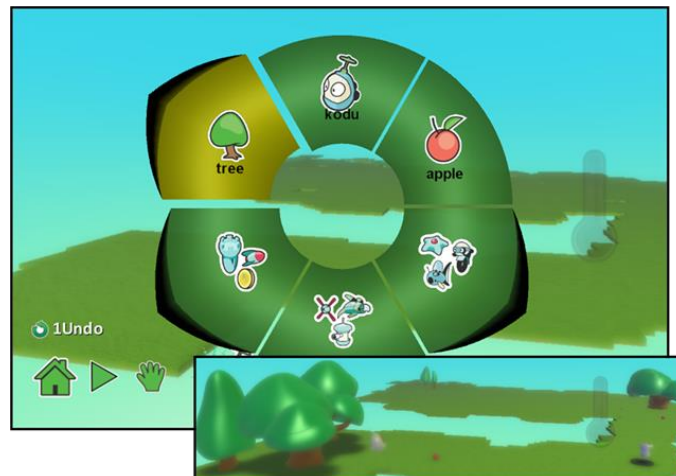
Kodu Game Lab is a visual programming language for creating games, it is accessible for children as young as 6 year olds and enjoyable for anyone.

Kodu can be controlled using an Xbox controller or a mouse and keyboard. No matter what device is being used, help relevant to the given device is displayed at all times in the top left-hand corner of the screen:



Here the help corresponds to the buttons on the Xbox controller as this is what is being used.

The Kodu Game Lab environment is very user-friendly; once the world has been created new items can be added from a circular menu as shown below:



Programming instructions are put together to form graphical scripts, by selecting conditions and actions from graphical circular menus. The following example would cause the character to eat an apple when he bumps into it:



About the Competition

The first Kodu Kup Europe is open to anyone aged between 6 and 16 from a school in one of the following countries: Belgium, Estonia, Finland, Greece, Lithuania, Norway, Portugal, UK.

Children may be entered for the competition as part of a team of up to four people.

Follow #kodukup_eu on [Twitter](#) or 'Like' us on [Facebook](#) to receive regular updates, including dates of free training sessions!

What Should be Submitted?




Teachers should enter their pupils' work using the European Schoolnet website (www.eun.org), two files will need to be submitted per team, these include the game itself along with a design for the cover of the game using the template provided.

The Deadline

The closing date for all entries is 15 September 2014

Game Themes

The games submitted must match one of the following themes:

| | |
|---|--|
|  | Retro Arcade Game Recreate an arcade game from the past with a Kodu twist! If you need some inspiration you could try taking a look at www.classicgamesarcade.com for some examples. |
|  | Water Awareness Create a game that tackles the environmental issue of water. This could be a local or school-based scenario or something more global. |
|  | Mars Exploration Use the Mars Rover character in Kodu Game Lab to create a game centred around the exploration of Mars. |

Rules

- The entry must be team's own work.
- The size of the team must not exceed four students.
- All team members must be enrolled at the same school.

- All team members must be with the 6 to 16 age group.
- Entry materials can be submitted in the competition languages (EN, GR, NL, FR)

Prizes

Entries will be rated based on the judging criteria which are listed in the next page. One finalist per country will be selected and announced at the end of September 2014. Finalists will receive an invitation to Microsoft Headquarters in Brussels where they will take part in a European Coding Camp and will be invited to present their games to a panel of judges. At the end of the day the top three teams or individuals will each receive an Xbox 360 with Kinect each and from these the final winner, receiving the Kodu Kup, will be announced.



Team-work is an important component of Kodu, helping your pupils develop new skills (ie. organisational and project management skills) they'll need for their future while showing them as creative and multidimensional coding is. Encourage your students work together through the planning process (page 6), from the selection of the theme, the mood, the landscape to the characters and stories development. The quality of the teamwork and the collaborative development of the game will be particularly important in the European final round.

More details on how to enter and prepare the competition are provided to you in the following chapter: Competition Guidance.

Judging Criteria

The following mark-scheme will be used to judge each submission. Each area will be graded on a scale of 1-3 (3 = Exceeds expectations, 2 = Meets expectations, 1 = Fails to meet expectations)

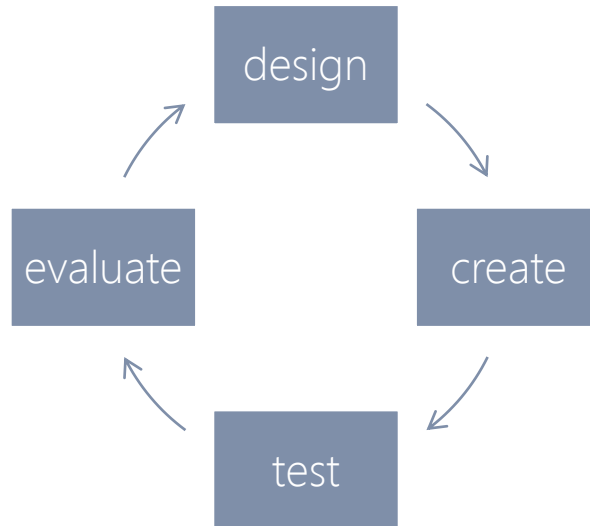
| Design Aspect | | Grade (1-3) |
|---------------------------|---|-------------|
| Game Cover | Front of cover is eye-catching and well presented. | |
| | Game-blurb provides clear information about the context of the game. | |
| | Cover includes key details (age, theme, number of players etc.) | |
| | TOTAL (Game Cover) | |
| Game Play Experience | Clear and helpful instructions are used at the beginning and throughout the game. | |
| | The theme and storyline for the game are clear. | |
| | Helpful feedback is provided when the player advances or fails to advance through the game. | |
| | Navigation is simple and the game is intuitive to use. | |
| | TOTAL (Game Play Experience) | |
| Game Complexity | Game includes at least 3 objects that have received Kode. | |
| | World settings are configured properly to make sure the game functions correctly. | |
| | Game has an objective with "win" and "lose" conditions. | |
| | Game Kode functions correctly in all areas with all sprites. | |
| | TOTAL (Game Complexity) | |
| Design of the Environment | Visual design of the world is creative and reflects the concept of the game. | |
| | Sound effects/music have been used to enhance gameplay. | |
| | TOTAL (Design of the Environment) | |
| TOTAL | | |

Mark-scheme created in reference to **Studio K** (www.eriainteractive.com/pdfs/Kodu_CurriculumDoc.pdf)

Competition Guidance

Overall planning

The process of creating a game should follow the systems lifecycle:



Design

It is important to know what is to be included in the game, how it will look, the storyline and how it can be won or lost. Planning out the content should be encouraged before pupils begin to create their games. As a teacher it also makes it easier to provide help as you can use these designs to get a clearer idea of what the pupils are aiming towards.

Create

Most of the pupils' time should be spent on creating their game by following their designs, although they may wish to make amendments along the way. It may be advantageous for pupils to work through the built-in tutorials before they begin creating their own games.

Test

Before submitting the game for the competition it is a good idea for pupils to test their game to ensure it functions in the way they expect. They should also test this on their peers by uploading their games to the Kodu Game Lab community website (www.kodugamelab.com), they will then be able to easily share their game with others and view ratings and comments about their game.

Evaluate

Once testing is complete pupils should be encouraged to think about ways in which their game could be improved, some of these points may relate to those raised at the testing stage. If there is time they should then embed some of these improvements into their final game.

Theme Guidance

As a school you may wish to focus on just one theme or allow the children to choose a theme themselves from the list. Whichever way is preferred, it may be advisable to carry-out a mind-mapping activity with your pupils before they begin so they fully understand the theme(s). Some ideas and resources to help you get started are listed below:



→ Retro Arcade Game

Some examples of well-known, retro, arcade games include:

- Pacman
- Space invaders
- Tron
- Pitfall
- Frogger
- Galaga
- Pong
- Breakout

The website, www.classicgamesarcade.com, contains lots of examples for children to try before they design their own remake. Looking at these games could also spark discussions on the ways in which games have changed over time and potential reasons for this.



→ Water Awareness

This environmental issue could be a local or school-based scenario or something more global. More information can be found within the Eco-Schools programme (<http://www.eco-schools.org/>).

Children should have an understanding of both local and global issues regarding water and the environment. Global information can be collected from WaterAid (www.wateraid.org).

There is a variety of water-based creatures and vehicles available in Kodu Game Lab that can be utilised within this topic.



→ Mars Exploration

Kodu Game Lab now features the Mars rover and in this theme children should base the game around this character and its exploration of Mars.

This topic would give children the opportunity to understand the different types of rocks found on Mars along with the conditions on the planet.

A variety of resources to get started can be found on Nasa's website: <http://marsrovers.jpl.nasa.gov>.

Downloading and Installing Kodu Game Lab

Kodu Game Lab is free and can be downloaded from www.kodugamelab.com. The system requirements are as follows:

Supported operating systems: Windows 8, Windows 7, Windows Vista, Windows XP
A graphics card that supports DirectX 9.0c and Shader Model 2.0 or higher is required.
.NET Framework 3.5 or higher is required. XNA Framework 3.1 Redistributable is required.

Built-in Tutorials

There are many built-in tutorials found in Kodu Game Lab. It would be advisable for both the teacher and pupils involved in the competition to work through these before they start. This will give them a greater understanding of the functionality of the software.

Tutorials

A series of video tutorials, developed by the 'Queen of Kodu' can be found on YouTube. Typing Kodu Game Lab into a search on YouTube will bring up the full range of tutorials.

Scheme of Work

A full scheme of work and resources for teaching with Kodu Game Lab (from an ICT context) can be downloaded from the following address:

→ http://www.interactiveclassroom.net/?page_id=189

Some Basic Instructions

As a reference guide, some basic, commonly used instructions found within Kodu Game Lab, have been listed below.

Controlling a Character



These scripts can be used to control the movement of the characters:

1. Allows the player to be controlled using the Xbox controller.
2. Allows the player to be controlled with the computer keyboard.

Collecting Objects



This script will cause the character to eat apples when they are bumped into.

Following Paths



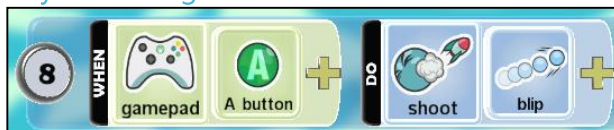
This character will always follow a set path around the world.

Enemy Shooting



This script will cause the enemy to shoot blips at the Kodu character.

Player Shooting



This script will enable the player to shoot by using the A button on the gamepad.

Scoring Points



This script will cause the score to increase by one when a player bumps into a coin.

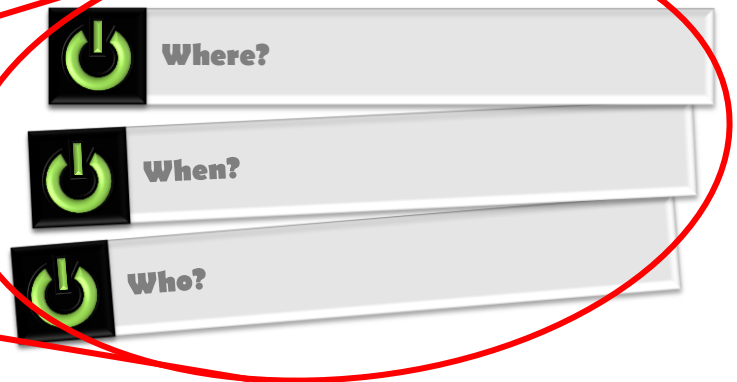
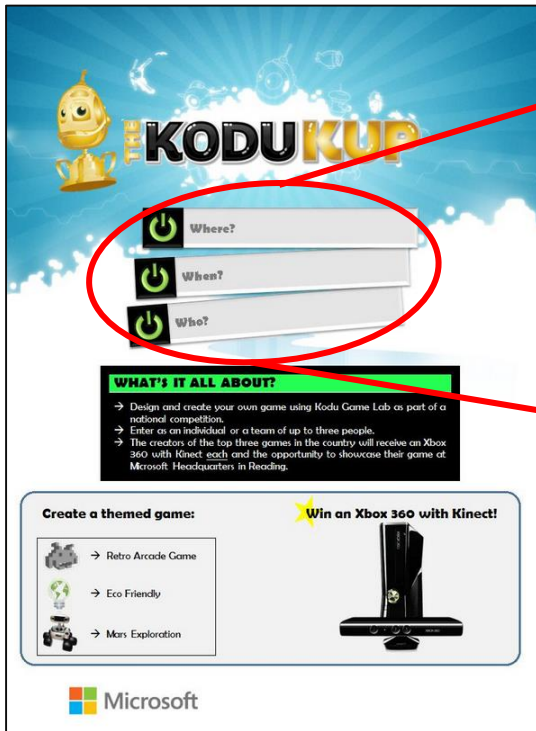
Health and Damage



This script will cause the player to receive damage to their health every time they bump into the Cycle character.

Promoting the Competition

A variety of flyers and posters are available on www.kodukup-europe.org to be displayed in school. Each poster contains blank boxes, as shown below for the teacher to complete, indicating how pupils can participate in the competition. Examples are given below.



Different delivery methods



Example if competition is running as a lunchtime club.



Example, if competition is being run during lessons.

Using the Kodu Game Lab Community Site

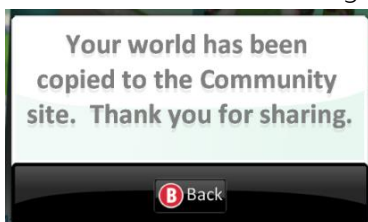
Invite your pupils to further develop their marketing skills by presenting their game to the Kodu Game Lab Community site (www.kodugamelab.com). Other people will then be able to play and 'like' their games and also give feedback; this will enable any peer assessment to be carried out and will also mean the pupils can show their parents at home. Ideally pupils will upload their games to this site prior to submitting their competition entry to enable them to respond to any feedback received and make improvements to their games.

To upload a game to the Kodu Game Lab Community Site follow the steps below (alternatively you can view a tutorial video demonstrating this here: bit.ly/KoduUpload)

1. Once the game has been saved select 'Load world' from the menu and find the game you wish to upload.
2. Select the game and a menu will appear, as shown below; select the 'Share' option.



3. You will then be prompted to sign-in. This site uses a Microsoft ID to login, you are not *required* to login to upload a game but it is advisable. This may be dependent on the restrictions on the school network.
4. You will receive the following confirmation when the world has been uploaded:



There are two ways to access games that have been saved to the community site. You can either select 'Community' from the home screen of Kodu Game Lab (shown on the right) or go to the 'Worlds' section on the Kodu Game Lab Community website (www.kodugamelab.com).



Exporting the Games from Kodu Game Lab

Before you can submit the games they will need to be exported from Kodu Game Lab, this is a very simple process, the steps to follow are given below (alternatively you can watch a tutorial video here: bit.ly/KoduExport).

1. Once the game has been saved select 'Load' world from the menu and find the game you wish to export.
2. Select the game and a menu will appear, as shown below; select the 'Export' option.



3. You will then be prompted to select a location in which to save the game; this could be in the pupils individual work area or could be saved to a memory stick, enabling you to collect all games in the same place ready to submit the entries.

Using the Game Cover Template

A template has been provided for the pupils to create a cover to go with their game. The template is a Microsoft Publisher file as shown below. Children are free to add to this but the components indicated must remain intact.

It is advisable to save this as a .pdf file before uploading to ensure any additional fonts used look as expected when the judging process is carried out.

These areas should remain intact with a white background as shown.

On the back you need to write a blurb to explain exactly what the game is about along with screenshots highlighting gameplay. You may also wish to include gameplay instructions and number of players here.

The front of the cover should be eye-catching, with the name of the game and relevant pictures.

Ensure the details entered here are correct to make it easier to contact you.

Please leave the Microsoft and UKIE logos in place.

The game should be given a PEGI rating, use the guide below to decide on a suitable rating (as below)

Guide to Using PEGI Ratings

| | |
|----|--|
| 3 | <i>Suitable for all age groups. Some violence in a comical context is acceptable. The child should not be able to associate the character on the screen with real life characters, they should be totally fantasy. The game should not contain any sounds or pictures that are likely to scare or frighten young children. No bad language should be used.</i> |
| 7 | <i>Any game that would normally be rated at 3 but contains some possibly frightening scenes or sounds may be considered suitable in this category.</i> |
| 12 | <i>Videogames that show violence of a slightly more graphic nature towards fantasy character and/or non-graphic violence towards human-looking characters or recognisable animals. Any bad language in this category must be mild and fall short of sexual expletives.</i> |

Guidelines taken from www.pegi.info. Age ratings of 16 and 18 have not been listed as they would not be appropriate for the competition.

How to Submit your Entries

- Visit the page www.kodukup-europe.org where you can access all information to participate
- Contact the Kodu Kup Europe teacher ambassador in your country for any requests or inform her/him of your intention to join the competition
- Enter the submission page where you will be requested to
 - o upload two files: your game (.Kodu) and the competition cover (.pdf)
 - o provide your contact details, so that we can inform you if you are the national finalist invited to Brussels
- Stay in touch: follow us on social media and join the Kodu Game Lab community to share experiences, get latest news!

Quick Reference Guide

What do I need to do and when? Follow the guide below to help plan your time. This has been colour-coded with teacher actions in orange and pupil actions in green.

Like and follow KoduKup on Twitter and Facebook for regular updates.

• May 2014



Familiarise yourself with Kodu Game Lab and begin to introduce this in school.

• May 2014



Promote the Kodu Kup competition in school.

• May 2014



Pupils design, develop and test their games.

• May 2014



Pupils upload games to Kodu Game Lab community and promote their game in school.

• Summer 2014



Pupils create a cover for their game.

• Summer 2014



Upload completed games and covers to the competition website.

• By 15 September 2014



Winners invited to Microsoft HQ in Brussels to receive their prizes and attend workshops.

• Autumn 2014