Learning How To Make Video Games With Kodu Game Lab

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# Summary

Students will use Kodu Game Lab to create their own video games while also learning about computer programming. They can make their own games, play other students’ games, and share their games with others. This can be done in an unstructured way where the student can explore or it can be done in a structure way by following a 10 session curriculum.

# Engineering Connection

Video games are a major industry, and one that many young people want to get into. Learning how to program video games is a good way to focus their interest in video games into something they can use later in life. Even if they do not want to be a game programmer, the programming skills they learn with Kodu Game Lab can be applied to programming in many other areas where computer programming is used. Computer programming is common not just in Computer Science, but also in other fields of engineering, such as mechanical engineering. In its simpler forms, it may be just writing some macros to help with calculations in Microsoft Excel or creating an application in Visual Studio to display sensor data. Even outsides engineering in the sciences, scientists use Matlab and Biologists specifically commonly use the R programming language.

# Grade Level

Ages 8+

# Duration

No set duration, this lesson can be open-ended, allowing students to explore. However, if you want the students to have more structured learning, you can use the 10 lesson Kodu Curriculum. The sessions appear to be an hour in length but I am not 100% sure.

# Cost Per Group

$0

# Materials List

* One computer with Internet access per student
* Kodu Game Lab software (Only available for Windows). [Installation Instructions](http://csamarktng.vo.msecnd.net/kodu/pdf/kodu_curriculum_getting_started_keyboard_and_mouse.pdf).

# Learning Objectives

* Work with a technology design
* Apply their understanding about science and technology
* Demonstrate abilities of a technological design
* Use troubleshooting as a problem-solving method used to identify the cause of a malfunction in a technological system.
* Use information provided in manuals, protocols, or by experienced people to see and understand how things work.

# Procedure

1. You can have Kodu Game Lab be a one-time event or do it regularly. The students can also go at their own pace, focusing on what is interesting to them or you can use the 10 lesson Kodu Curiculum (<http://csamarktng.vo.msecnd.net/kodu/pdf/kodu_curriculum_keyboard_mouse.pdf>) to give more structure to their learning. The getting started guide (<http://csamarktng.vo.msecnd.net/kodu/pdf/kodu_curriculum_getting_started_keyboard_and_mouse.pdf>) will be helpful in either case.