

Game Design Activity #5

Programming activities

Use the tutorials in games engines such as Scratch and Gamemaker to get started with coding a game.

Youth work outcomes

Outcome 7 Young people develop their perspectives through new experiences and learning. (Outcomes 3,4 and 6 of the [National Outcomes and Skills Framework](#) are also relevant to this activity.)

Youth work skills

teamwork, problem solving

Set-up

Download and become familiar with the software in advance of the session.

If you are leading a group, try out the exercises yourself first and/or identify if there is expertise within the group for peer-to-peer support.

Length of session

60 minutes, flexible

About programming

Programming starts from learning about the fundamentals of code: understanding how it works, how it is processed, and how it translates to content on a screen. With the increased democratisation of game engines and toolkits, there are many tutorials and exercises to follow that walk users through the creation of a game. You can do this without being an expert.

Get to know a games engine

In groups (of between 2-4), encourage young people to work with tutorials to create their own (first) game. There are a variety of game engines that can be used which are accompanied by entry-level tutorials, such as:

- **Scratch:** a universally-recognised entry-level game engine with drag-and-drop coding (visual scripting) that can be accessed through web browsers - tutorials include getting started, creating sprites and animation, and creating conditions for behaviours to occur;
- **Bitsy:** a small grid-based game engine that focuses on 2D sprites and simple interactions for telling stories and creating puzzles - tutorials for Bitsy are community-created and can be found through a Google search;
- **GameMaker:** a more sophisticated game engine that focuses on 2D development with the option of drag-and-drop coding (visual scripting) or programming using GameMaker Language - tutorials include making an asteroid-shooting game or platformer game in 15 minutes.

