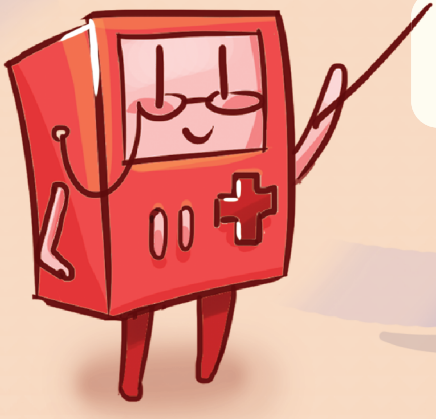
GAME DEV 101

BY GIRLS MAKE GAMES

"I'm RED. That stands for Red Entertainment Device."



"Ready for a quick lesson on game development?"

WHAT ARE GAMES?

Games are fun activities that we play! They challenge us and make us cooperate and compete to reach the goal. Some games you play to get the highest score, while others you play to experience a story.

In this booklet, we're going to learn how to make a digital game. From start to finish, you will learn about **design**, **programming**, and **testing** your game!

TYPES OF GAMES

Games come in all sorts of **dimensions** and **genres.**

DIMENSIONS

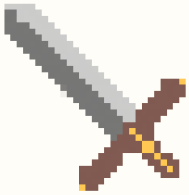
2D

3D

GENRES

Platformer (Mario)

Puzzle (Tetris)



Adventure (Zelda)

...AND MORE!

ROLES IN GAME DEVELOPMENT

Every game project has **writing**, **art**, **programming**, **sound**, and **design**. If the game is being made by a group of people, or a team, the work will be split up!

Some of the professional roles in gamedev are: **Writer**, **Designer**, **Programmer**, **Artist**, and **Musician**. Each job is super important to making the game fun!

RETRO GAME STYLES

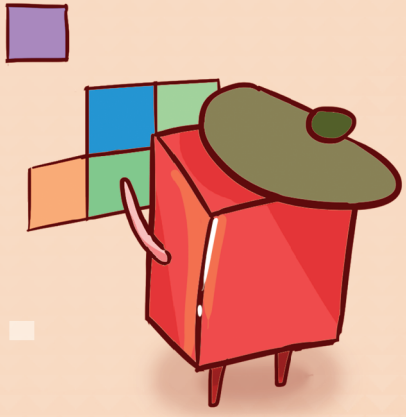
Pixel Art - An art style where the picture is drawn pixel by pixel on a grid.

Chiptune - Electronic sound produced by a computer chip, classically used in older computers and arcade machines.

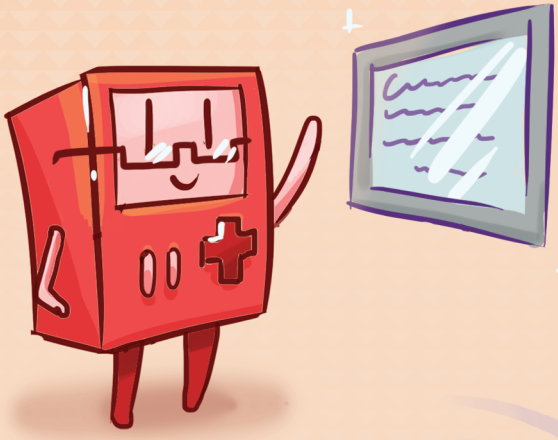
ROLES IN GAME DEV

The Writer plots out a compelling story and gives characters exciting and emotional words to say. She is in charge of dialogue, naming characters, fixing plot-holes, and more.

The Artist draws colorful environments, characters, and costumes. They then animate the characters to bring it to life.



The Designer creates challenging levels and puzzles for the players to solve.



The Programmer writes code and connects together all the work of the team.

The Musician composes the musical themes and creates sound effects.

The Tester tries to play the game in unconventional ways, double checking to make sure everything is working as intended.

THE GAME DEV PROCESS

PLANNING (A.K.A PRE-PRODUCTION)

Brainstorming for unique game ideas. Deciding on the characters and the story that will take place in your game.

PRODUCTION

Once you have an idea of what your game is going to be about, go into production mode and start creating!

TESTING

QA (Quality Assurance) teams playtest games to find and squash bugs, which are unintentional errors!

PUBLISHING

The Publishing team packages your game for retail and digital stores, making sure to market and advertise so that more people hear about it!

CREATIVE ACTIVITY

Which area of game development are you interested in?

1) **Writing:** What is the journey that the Heroine will go on? Does the world in your story have a history?

2) **Art:** Draw a sketch of the characters and world of the game.

3) **Design:** What skills or powers will your character have. How can the player use these abilities to overcome the enemies?

4) **Programming:** Write the rules to the game in a clear fashion. Will a computer understand your rules?

5) **Music/Sound:** Grab a microphone and record some real sound effects!

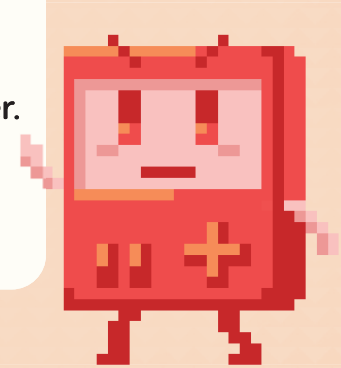
WHAT MAKES A GAME?

Let's break down a game into its atomic parts. Each game needs:

- **Rules**
- **Goals**
- **Player Hero/Heroine**
- **Obstacles/Enemies**

EXAMPLES:

Rule: RED jumps when Space is pressed.
Rule: RED can shoot sparkles.
Goal: Collect all the coins.
Goal: Open the Locked Door
Heroine: RED is the player-controlled character.
Obstacles: The level has difficult jumps
Enemies: Robot Cats



HOW DO I MAKE A GAME?

In order to make your own game, you will need a computer, some imagination, and hard work!

STEPS TO PREPARE FOR GAME DEVELOPMENT:

Beginners, put your programmer cap on, and start your game-dev adventure here:
www.girlsmakegames.com/stencyl-tutorials

Intermediate and Advanced coders, check out the Unity tutorials here:
www.girlsmakegames.com/unity-tutorials

Bonus: Port your game on Android phone + Publish on Google Play! www.girlsmakegames.com/publish-gp

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