

# This Little Piggy went to the Tool Shed



53-471 Final Assignment

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## 2 INTRODUCTION

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### 2.1 OVERVIEW

*This Little Piggy went to the Tool Shed* is a survival adventure game with roguelike elements for the PC. Players play as one of the 3 little pigs from *The Three Little Pigs* and attempt to survive as long as possible against the wolves of the forest. The game consists of a day/night cycle in which players gather supplies and resources during the day, and survive against the wolves at night.

### 2.2 TARGET AUDIENCE

The target audience of *This Little Piggy went to the Tool Shed* are players aged 15-25, who enjoy survival games and are familiar with the fairy tale, *The Three Little Pigs*. *This Little Piggy went to the Tool Shed* is seeking an ESRB rating of E10 or Teen due to its theme and violence.

### 2.3 PLATFORM

*This Little Piggy went to the Tool Shed* is being developed for the PC.

### 2.4 COMPETITORS

*This Little Piggy went to the Tool Shed* will occupy the same game space as *Don't Starve* by Klei Entertainment. *This Little Piggy went to the Tool Shed* will have similar collecting/crafting/scavenging elements as well as a day/night cycle. *This Little Piggy went to the Tool Shed* will largely differ in its survival elements. The experience of nighttime is influenced by Techland's *Dying Light*. Unlike *Don't Starve*, players will be motivated to explore the game world at night with resources and supplies that can be only collected at night. Additionally, players will have a fighting chance of surviving the night. The night cycle should invoke feelings of tension and terror in the player without being near impossible to survive.

### 2.5 INTENDED EXPERIENCE

Players of *This Little Piggy went to the Tool Shed* are thrown into an unforgiving world where survival is difficult. The goal of the game is to survive as long as possible. Unique playthroughs and the desire to survive longer than previously should add replay value to the game and motivate the player. The night phase of the game should be scary and thrilling for the player.

## 3 GAME

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### 3.1 SUMMARY

*This Little Piggy went to the Tool Shed* is a survival adventure game, where the player plays as one of the 3 little pigs from the famous fairy tale.

The game contains a day/night cycle. During the day, the player's main objective is to collect resources that spawn randomly throughout the map and use those resources to build items and a house. At night,

the wolves come out and roam the map. If the wolves see the pig wandering outside at night, they will attack the pig. The player can hide in his/her house for safety.

If the player stays in the house, wolves will attack the house. Wolf attacks reduce the health of the house. Once the house's health drops to zero, the houses collapses and the player is forced outside.

There are different types of houses that can be built, and each requiring different materials. Players can also upgrade a house to increase the house's hit points and resistance to attacks.

Different regions of the maps contain various types of resources. The player must explore the game world to obtain the resources needed to build better houses and items. Houses can be built by the player at any time, but require time to be constructed.

To incentivize the player to explore at night, and not remain indoors, there are some resources that can only be obtained at night. Special fairies appear that can be captured by the player. These fairies give players bonuses. For example, one fairy allows players to construct items with fewer resources. Only one fairy can be carried at any one time. But beware, the fairies glow very brightly so if the player is carrying a fairy, it is very easy for wolves to see him/her. In addition to fairies, other resources can only be obtained at night.

The objective of this game is to survive for as long as possible. The wolves will grow stronger and increase in number throughout the game. Additionally special boss wolves can also appear. The game ends when the player dies.

## 3.2 STORY

### 3.2.1 Narrative

A pack of wolves has invaded the home forest of the 3 little pigs. Choose your favorite pig and help it build itself a home to prepare for the wolf attack at night!

### 3.2.2 Playable Character

The player can choose to play as one of the 3 little pigs. Each of the pigs provides the player a different in-game bonus.

Playing as the straw, wood, or brick pig increases the strength of the house built out of the pig's material. For example, the straw pig can build better straw houses. Each pig builds their respective house type for fewer resources than are usually required.

The players explore the world, scavenge items, craft items, and build/improve houses. The pigs are defensive characters and have no offensive combat capabilities. Pigs cannot physically harm the wolves, but they can attempt to hide from wolves.

### 3.2.3 Enemies

The main enemies are the normal wolves. Wolves spawn randomly at night and disappear during the day. Normal wolves scale proportionally in strength and number as the game progresses.

In addition to normal wolves, "boss" wolves may be introduced. These wolves would have better stats than normal wolves and possess special abilities.

### 3.2.4 Environment

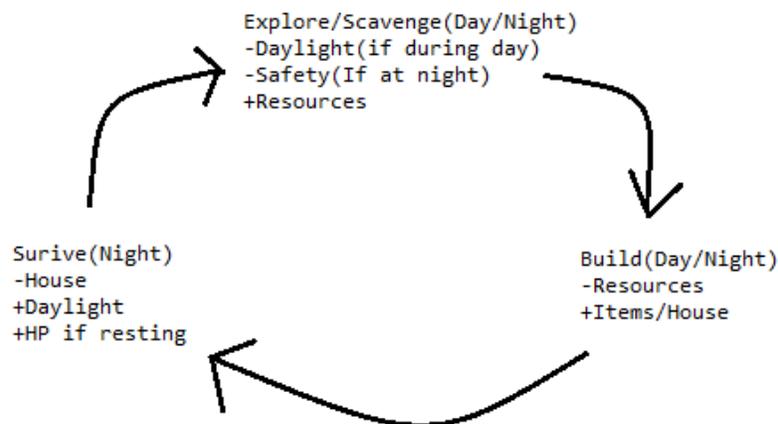
The map is a flat and outdoor natural environment. It will have trees, rocks, and bushes to use as cover. The map will also have different regions containing unique resources. Players will only be able to collect region specific resources in the appropriate region. General resources are available throughout the world.

Some regions of the map will only be accessible at night due to barriers that block them during the day. Other resources are only collectable at night. Additionally, the player can collect fairies at night. These fairies will grant the player bonuses. However, the fairies glow brightly. Once a player picks up a fairy, wolves can more easily detect the player's presence.

## 3.3 GAMEPLAY

### 3.3.1 Gameflow

The player determines at a predetermined location in the forest, and is able to walk around and explore his/her environment. Resources near the player can be used to low level items and dwellings. Gameplay is split into day and night phases. Gameplay will follow the below game loop:



**Figure 1: Base gameplay loop for *This Little Piggy went to the Tool Shed***

During the day, players gather resources and build items and build/improve houses. At night, players attempt to survive against the wolves.

### 3.3.2 Mechanics

#### 3.3.2.1 Day/Night Cycle

The day/night cycle divides the game into two distinct sections. The day portion of the cycle focuses on gathering and building, while the night portion focuses on surviving against the wolves. Daytime lasts longer than nighttime, due to the importance of gathering resources. A day is 10 minutes long.

#### Day

During the day, players are free to scavenge and build. Few hazards exist for the player during the day. As the night nears, day will turn to dusk, indicating that players should go indoors or construct a house if they do not have one.

## Night

Night gameplay consists of two primary components. The primary component, experienced by all players is survival. If a player is outdoors at night or his/her house is destroyed, he/she will run away from the wolves and attempt to survive until the following morning. Optionally, players can venture out at night to collect resources and bonuses only available during the night. An example of this is the fairies that give players bonuses, which are only available at night

### 3.3.2.2 Scavenging

Scavenging is the player's primary method of collecting resources. Objects near the player will be highlighted for easy identification and pickup. The mini-map will alert player's to resources that are in their general location. Many different resources will be available for the player to collect. Examples of resources are.

- Straw/Grass
- Wood
- Stones/Rocks
- Clay

Resources will randomly spawn throughout the map and regrow throughout the game if appropriate.

### 3.3.2.3 Crafting

Crafting is the primary method player's will use to obtain items and build houses. Player's will use resources gathered by scavenging for crafting.

## Inventory

Players can carry a limited number of resources. The inventory is divided into a limited number of item slots that can be filled with items. A certain number of each item can be carried in each slot.

## Items

The player can craft a number of usable items and higher quality materials to craft other items. Usable items will allow the player to construct new items and scavenge higher quality resources. For example, an ax allows a player to gather logs instead of branches. Additionally, an example of higher quality materials that can be constructed is logs that are turned into wooden planks.

## Houses

The player will be able to construct a variety of houses using various materials. Based on the fairy tale, straw, wood, and brick will be among the materials players are able to construct houses out of. Each house type can be upgraded to increase its ability to withstand the attacks of the wolves.

### 3.3.2.4 Survival

Players have two means of surviving against the wolves at night. Houses provide safe haven against the wolves at night. Wolves attack houses that the player occupies. If the house's hit points reach zero, the house collapses, and the player will need to flee the wolves.

If the player is not in a house at night, he/she can attempt to avoid wolves using stealth. If the wolves detect the player, he/she will have no choice but to run until the next day starts or the wolves lose track of the player.

### 3.3.3 Controls

*This Little Piggy went to the Tool Shed* is a 3<sup>rd</sup> person game. The character is controlled using a mouse and keyboard.

- Run : WASD
- Look/turn : Mouse
- Pickup item/interact with environment : f/z
- Access Inventory : i
- Access Crafting : c
- Hide/Stealth(near cover) : Ctrl

When the inventory and crafting menus are open, players use the mouse to interact with the menu.

### 3.3.4 World Design and Generation

One large static world. In the game, each part of the world map will be generated additively as the player nears the area. Resources will be spawned randomly however. So will the fairies and the wolves. The player will start in the same set position every playthrough.

### 3.3.5 Win Conditions

There are no win conditions. The player attempts to survive as long as possible.

## 4 ART & VISUAL STYLE

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### 4.1 AESTHETIC

3D models from a 3rd person perspective. Visual style is undecided.

## 5 MUSIC & SOUNDS

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### 5.1 MUSIC

Music plays when wolves are chasing the player.

### 5.2 SOUND EFFECTS

Sound effects are used for the following purposes:

- Ambient background noise(differ between night and day)
- Noises to build tension at night
- Sound effects for various actions

## 6 REACH GOALS

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The following are features that will be added to the game time permitting:

- Additional player constraints(i.e. hunger)
- Natural disasters
- Neutral force
- Allow pigs to set up movement-slowing traps for wolves during the day
- Further customization of houses
- Procedural map generation