
SILVA

Pitch/Intentions

PITCH:
Play the role of a forest ranger fighting to protect and preserve forests. You've been assigned to a new forest, a protected area where the ecosystem is no longer self-sufficient. Your goal is to make it self-sufficient again, by repairing the mistakes made by your peers.

INTENTIONS:

- Raising awareness of how a forest functions and its precarious balance
- Learning about forest preservation
- Making an educational game fun

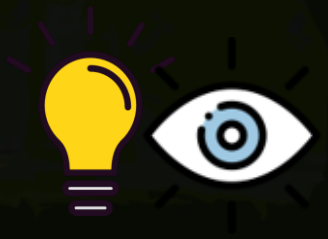
Data sheet

Serious Game

Middle/High school students

Solo

VR



Observation/ Adaptation

Forest preservation

General references

Plasticity - 2019

- Raising ecological awareness about pollution and waste disposal

- Popularization of the repercussions of pollution without any real action

Working with Water - 2020

-Educational awareness-raising for high-school students

-Popularization → suitable for middle/high school

-Tools for kids (4th → 7th grade)

-Ecology awareness (Water Management)

Firewatch - 2016

-Play a forest ranger

-Nature reserve (inspired by Yosemite National Park)

-Managing forest fires (ecology)

-(small) Open World → exploration

Artistic references

Foliage

Genshin Impact - 2020

Breath of the Wild - 2017

Alba - 2020

Cartoon style (vr game inspiration)

Sword Reverie - 2022

Mechanical references

Winds & Leaves - 2021

Forest management:
- Soil (groundwater)
- Trees
- Planting

Gameplay:
- Simple actions
- Climbing
- Interacting with objects

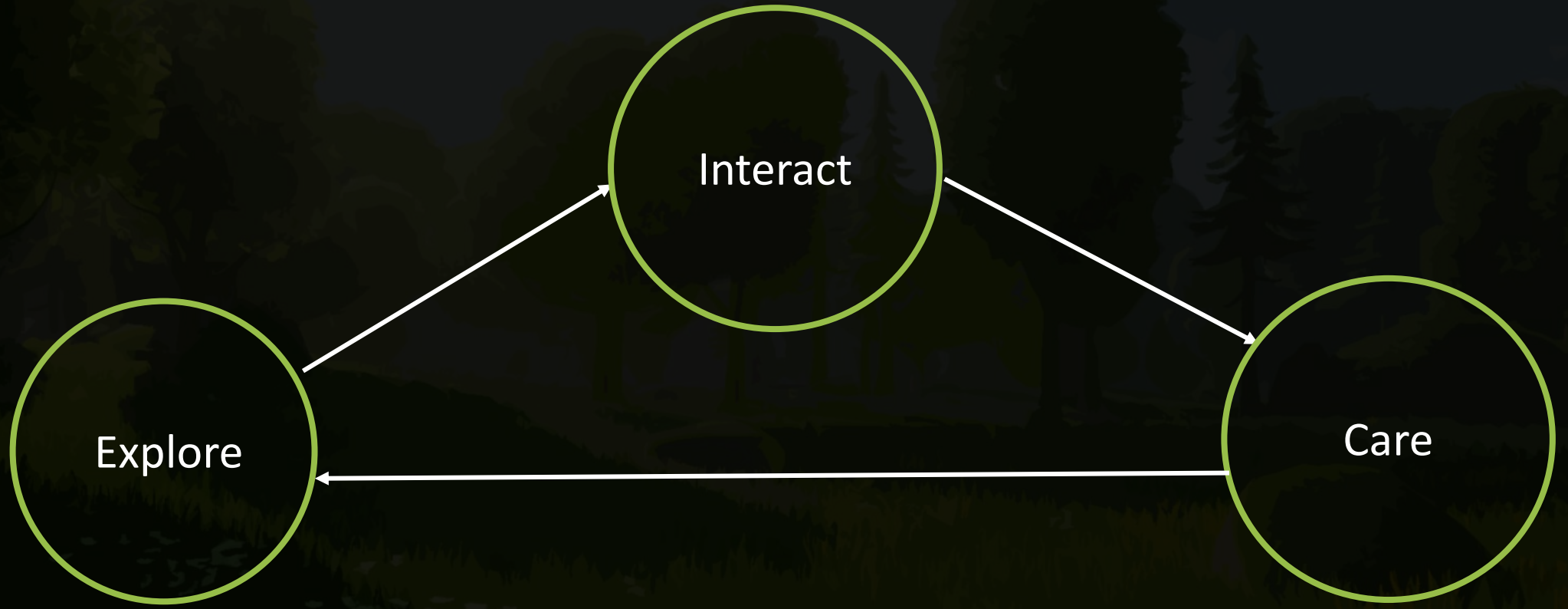
The Climb - 2016

Gameplay:
- Climb

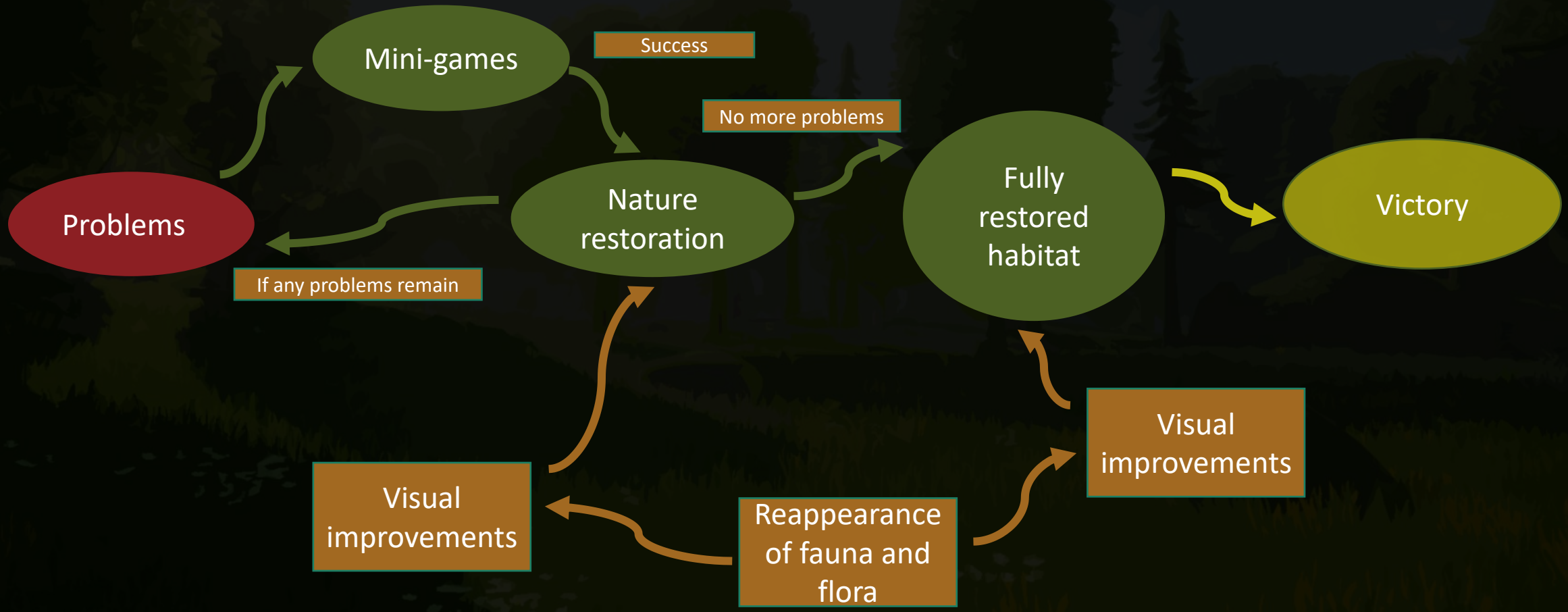
Rythm of the Universe - 2021

Gameplay:
- Simple actions
- Climbing
- Interacting with objects

Boucle de Gameplay



Game flow

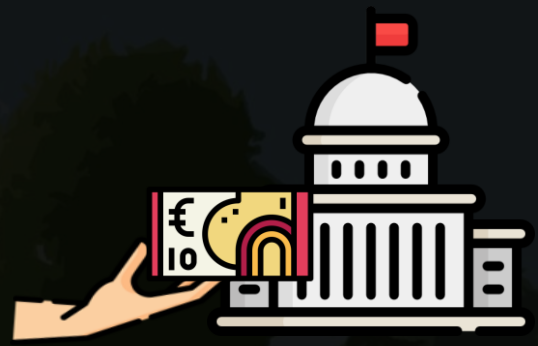

Mini-games
Success
No more problems
Problems
Nature restoration
Fully restored habitat
Victory
If any problems remain
Visual improvements
Visual improvements
Reappearance of fauna and flora

Business

- Sale of games for the state to raise awareness

- Target middle and high schools through awareness-raising campaigns

- Contact the ONF (association) for funding and to find more extensive means of distribution.



UNESCO

Office National des Forêts

SILVA

Game mechanics

- Climbing trees

- Reattach a fallen beehive

- Throw/lay an egg on the nest

- Cleaning bark with beeswax

- Soil sanitation by fungi

- Waste collection

- Day/night cycle

- InfoBubbles

Climbing trees

Why allow the player to climb?

The ability to climb gives the player freedom, vision over his playground and the possibility of new interactions with his environment to complete his objectives.

Reattach fallen beehives

Why bees and not other pollinating species?

Bees are an endangered species, heavily affected by human exploitation and pesticides. They have been maintained at this level thanks to the efforts of a number of NGOs and associations, as well as public awareness campaigns. Bees play an important role in the proper functioning of the plant reproduction cycle. The reappearance of flowers near watercourses attracts insects, feeding fish and birds alike.

Throw/lay an egg in its nest

Why put eggs back in their nests? The benefits of having bird species?

Saving animals in decline to maintain the fauna present in the forest biosphere. Bird species regulate insect species. They also serve to spread seeds in their droppings, dispersing future seeds and preventing them from growing in the same place as their progenitors.

Clean bark with beeswax

Why protect trees and their bark?

Tree bark is increasingly falling off due to pollution. This is due to the actions of man and his equipment (pruning a tree, carving with a knife...). They fall prey to diseases, parasites, insects, fungi... This creates the risk of their problems spreading to other trees. Beeswax is a solution to this problem, thanks to its waterproofing and healing properties, due in part to the propolis it contains.

Soil remediation by fungi

Why sanitize soils, and why use fungi to do it?

It's important to clean up the soil so that the forest doesn't bathe in its own waste or that caused by human activity, so the decomposition of humus plays an important role. To facilitate this process, research has been carried out and a company (Biopterre) has set up a range of techniques, known as myco-remediation, to heal soils with the help of fungi (e.g. oyster mushrooms).

Waste collection

Forest litter not only pollutes the natural habitat visually and can harm its flora and fauna but is also a real problem for the environment. The main problem stems from their decomposition by microorganisms, creating particles such as microplastics. Once in this state, they can enter the food chain through ingestion by worms, or pollute soil and groundwater, causing serious damage to the ecosystem. By disposing of and sorting waste, we can help preserve this threatened habitat.

Day/night cycle

The day/night cycle shows the player that preserving a forest is a daily struggle, not a one-day job.

InfoBubbles

Wax/Tree:
Beeswax can be used as a healing putty. It provides an excellent seal and sufficient protection to allow grafting. To prepare this putty, simply knead beeswax until it becomes malleable enough to be easily applied directly to the lesion. In addition to being waterproof, beeswax contains a small amount of propolis, a resinous substance known to promote healing in plants.

Beehive:
Bees are fundamental to the pollination of all flowering plants. Better than most pollinators, they have a range of several kilometers and are not specialized on certain flowers. For the good health of the forest, bees collect honeydew, thus preventing the development of mildew and rust on tree leaves and needles. It is therefore necessary to design beehives so that they can perform much better than solitary bees.

Egg:
Due to the large number of bird species, each has important roles to play in the ecosystem. Many bird species regulate insect species, others maintain the habitats of other animals, and some species also pollinate flowers. Birds therefore play an important role in the biosphere. It is therefore important to return the eggs to their nests, so that they can develop efficiently and benefit the forest.

Waste:
Waste sorting is the act of separating and recovering waste according to its nature, at source, to avoid contact and soiling. This gives them a second life, avoiding their destruction by incineration or landfill, and thus reducing the ecological footprint of waste. Waste is sorted by category: glass, plastic, paper.

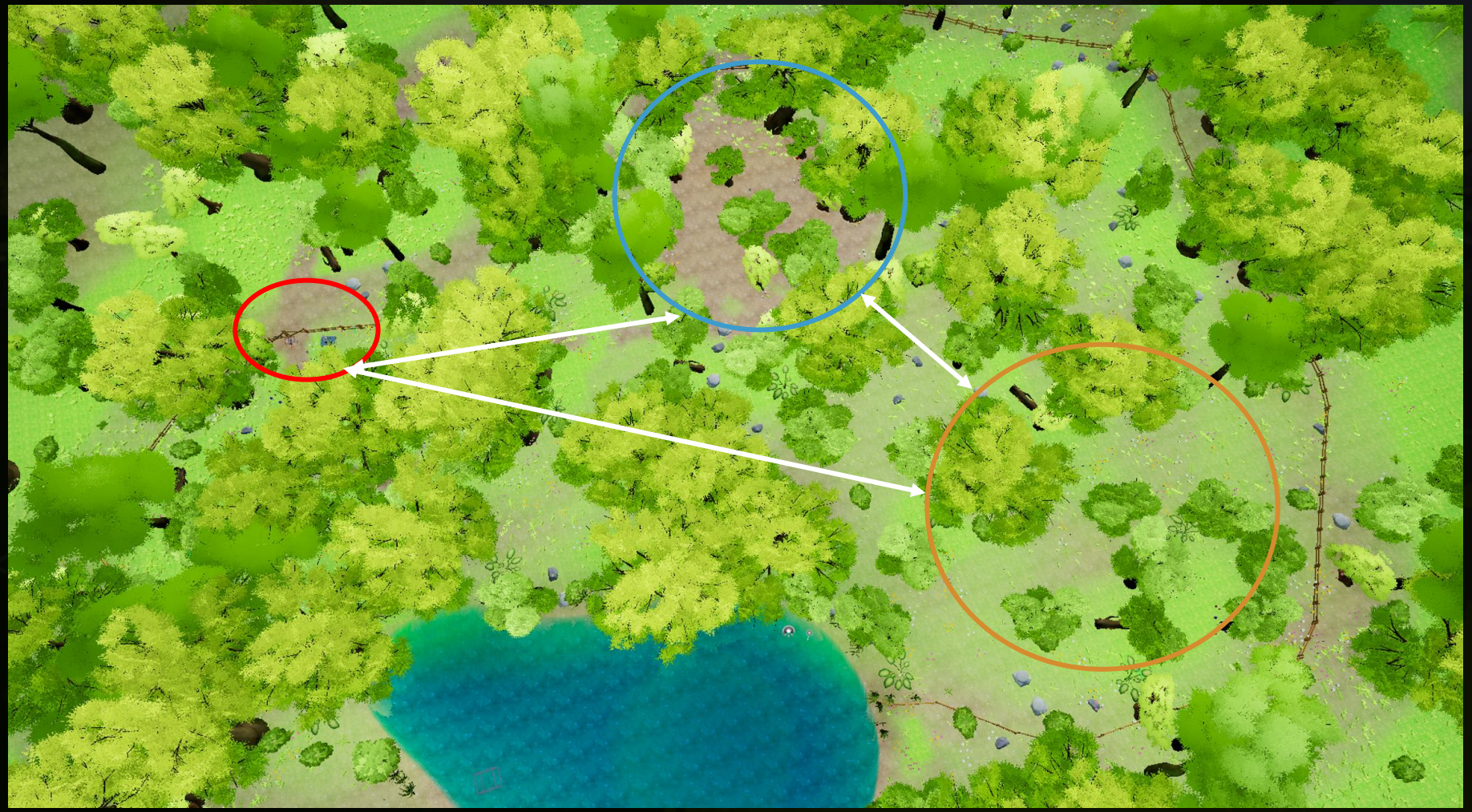
Fungis:
Soil mycoremediation involves taking advantage of the ability of certain strains of fungi to secrete substances to digest substrates. The chemical structure of many organic pollutants is similar to that of these substrates.

InfoBubbles

Tooltips appear once a task has been completed, so you don't have to complete the entire task to get the information.

Level design

Map top view



Start zone

Sick zone

Healthy zone

Paths available to the player

Level design

View player

Start zone

The table is the element where the player has all his equipment, as he learns in the game's tutorial.

Level design

View player

Arriving in a sick zone

Areas devoid of greenery, signalling problems to be solved. Once in this zone, the player will have to seek out and find the area's problems, from soil revitalization to the application of beeswax and more.

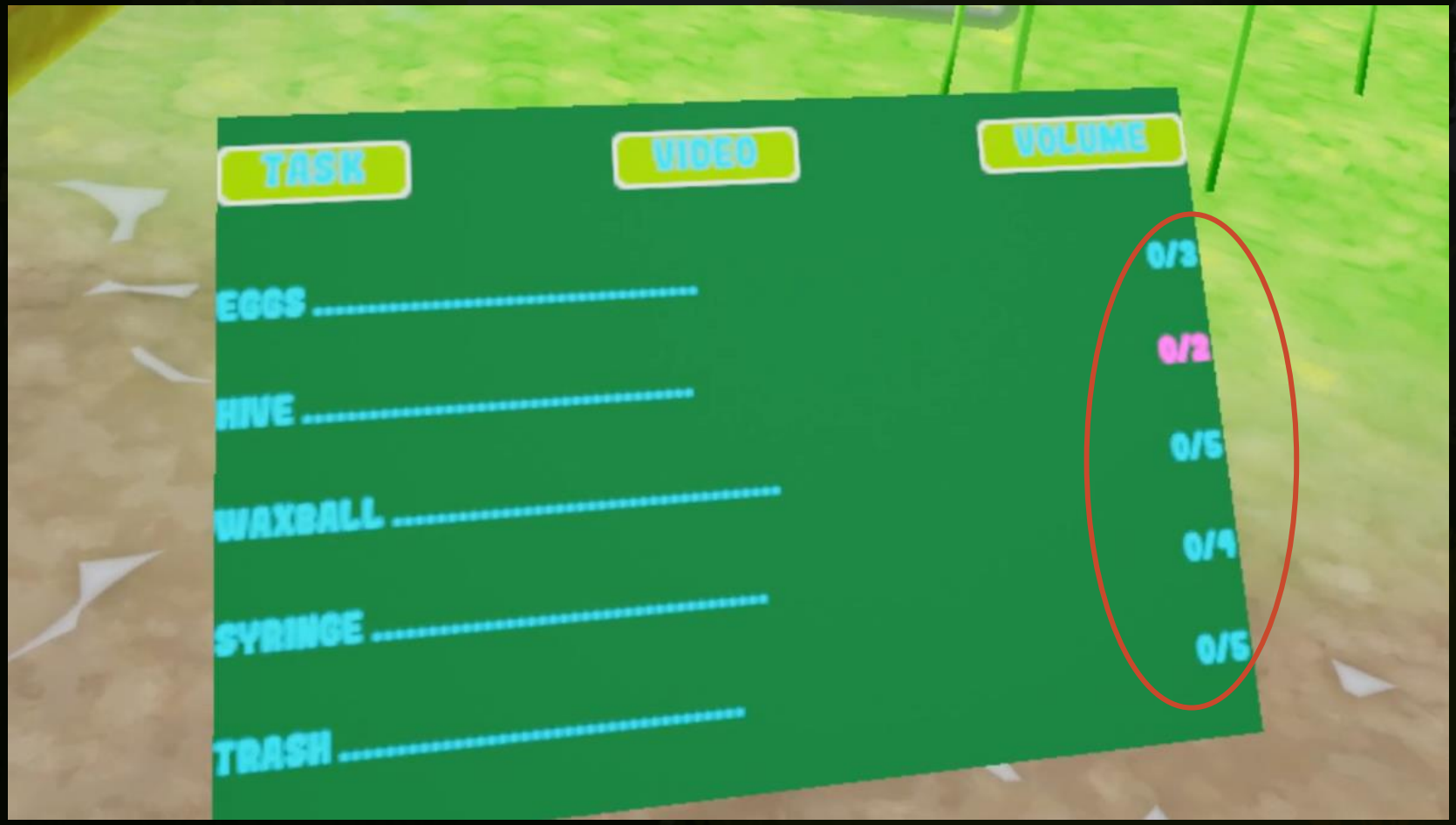
Interface

Main Menu

Color differentiation to show what the player selects.

Interface

Task menu



The task menu changes when the player successfully completes a task.

Feedback on successful tasks

Feedback

Soil remediation by fungi

Before

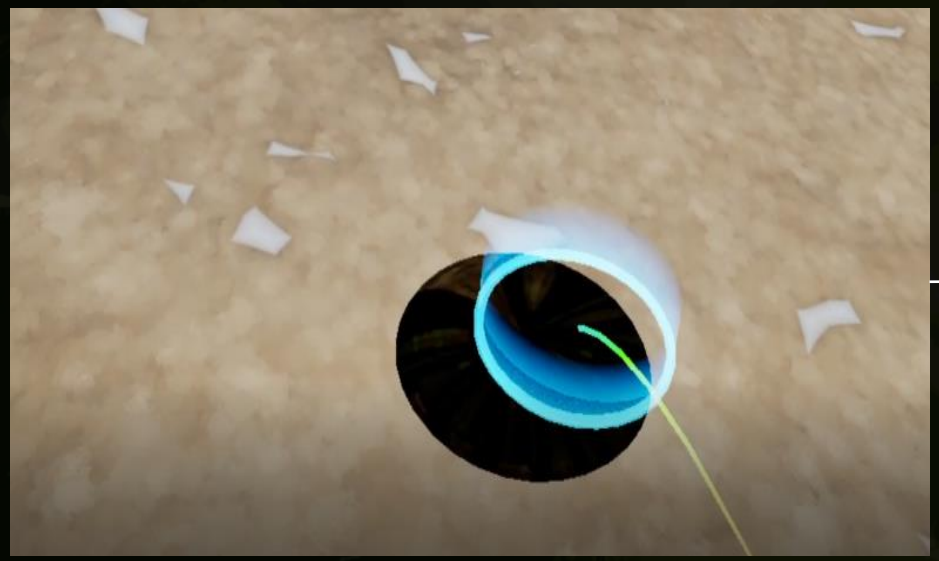
After

When the syringe is in the player's hands, it opens so that the player can put the green capsule inside. Once this has been done, the syringe charges and changes color from red to green.

Feedback

Soil remediation by fungi

Before



No plants around.

After

Plants appear to show that the soil is improving.

Feedback

Throw/lay an egg in its nest

Before

No foliage on the tree.

After

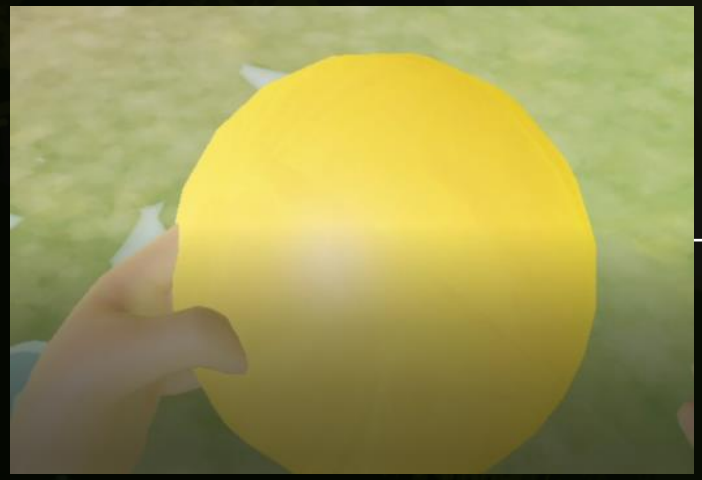
Appearance of foliage and bird sounds when the egg is laid.

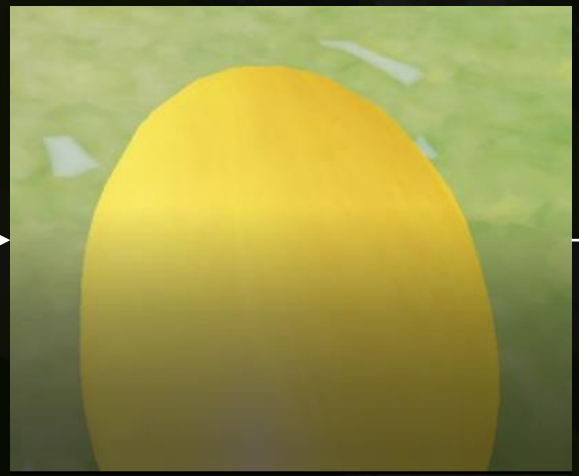
Feedback

Clean bark with beeswax

Before

After





After kneading, the wax becomes larger so that it can be applied to the tree.

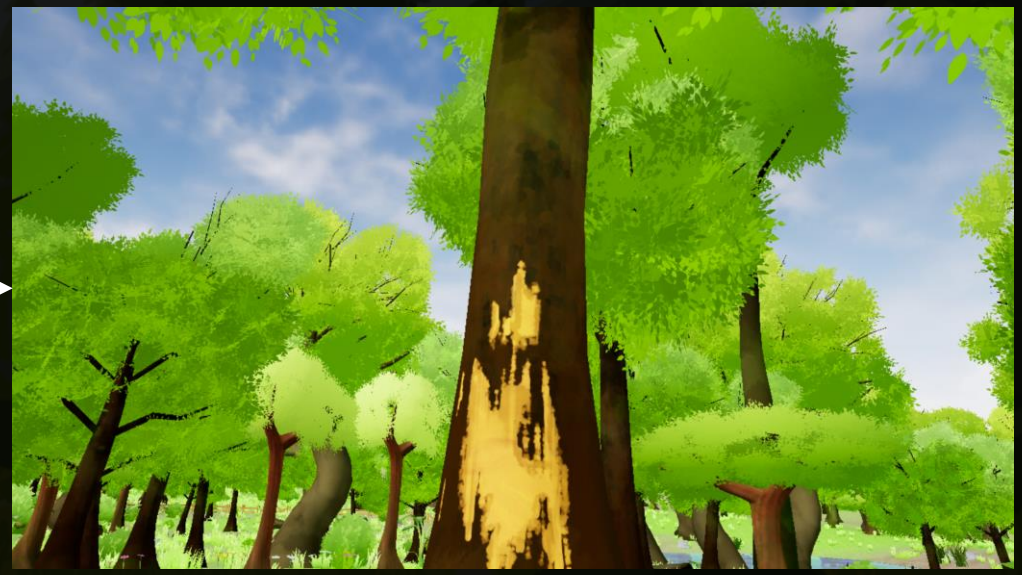
Feedback

Clean bark with beeswax

Before

Black tree bark

After



Wax application: the area turns yellow to show that the wax has been properly applied.

Feedback

Reattach fallen beehives

Before

No foliage on the tree.

After

Appearance of foliage and sound of bees with appearance of bees around the nest.