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# INSULAR



Developed for the **Nintendo DS**

**Game Design Document**  
Written by Chico Queiroz

**MA Digital Games Design**  
The Surrey Institute of Art & Design,  
University College

September 2005

play music  
paint rocks  
make constellations  
create life  
shape the land

*There was a place frozen in time  
Where years and years did not pass by  
On inert land, inert stars shined  
Oceans stood still beneath the sky*

*Suddenly time came back to stay  
A weak heartbeat followed the clock  
The strangest thing was born that day  
A creature made of pale white rocks*

*Now there was life, death and decay  
And there was imminent disgrace:  
All that is made can fade away*

*To keep things living in that place  
The creature now will have to play  
The sea, earth, sky and outer space*

*(From **Insular's** opening sequence)*

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# **1 - Introduction**

## **1.1 Overall**

Insular is a game for Nintendo DS that relies on the player's creativity and nurturing. The game offers several activities designed to deliver moments of reflection and self-expression to the player.

The game is set in a fantasy world initially featuring a single small island. The player will take *mineral*, the game's only character, through the journey of populating and keeping his ocean, sky, space and lands.

## **1.2 Gameplay features**

The most distinctive gameplay features of insular are the different in-game activities where the player creates the entities that will inhabit the game environment. Such activities include:

- Terraforming
- Drawing
- Making music
- Sculpting
- Creating artificial life-forms

## **1.3 Agenda**

Once completed, Insular will offer an integrated suite of creative tools, functioning as a sort of mix between virtual cork board and virtual pet.

The main ideas behind Insular are self-expression, reflection and relaxation – qualities that players, especially casual players and new audiences, might be looking for in games.

## **1.4 USPs**

- Creativity-based game for self-expression
- Diverse range of in-game activities
- Integrated applications such as diary / contacts book

## **2 - Core Gameplay Elements**

### **2.1 Overall goals and challenges**

When starting the game, the challenge of the player will be populate Insular's empty world. After the player creates entities to inhabit that universe, he will also have to nurture and maintain those entities and try to shape the environment according to his own preferences.

### **2.2 Key gameplay mechanics**

Three main gameplay elements pervade Insular. They are:

#### **2.2.1: Creativity**

Through different in-game activities, the player will be able to create and edit entities such as paintings, sea life-forms and flowers. This mechanic is the core of the game experience and the major incentive to playing. See section Activities for details.

#### **2.2.2: Exploration**

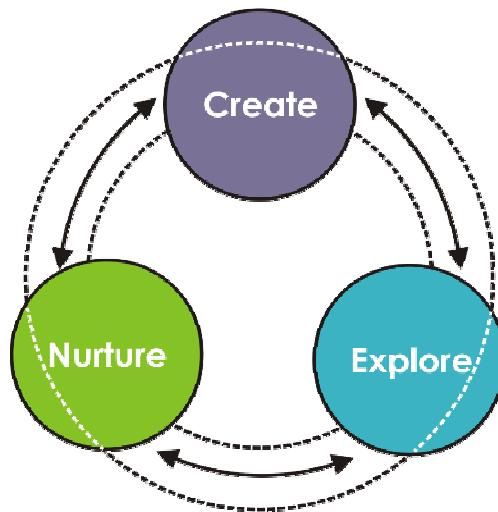
The player will be able to explore the entire environment to see how the environment is taking shape and which areas need improvement.

#### **2.2.3: Nurturing**

Once the entities are created, they should be nurtured by the player's interaction with the environment (more specifically with the weather). This interaction will help to sustain the entities that are affected by the passing of time.

### **2.3 Gameplay mechanics interaction**

The three main gameplay mechanics interact in a cyclic fashion: The player creates entities, explore the environment to learn about their status and nurture them accordingly.



## 2.4 Modes of Play

The game offers two modes of single-player gameplay: Campaign Mode and Individual Activities.

- **2.4.1 Campaign Mode**

This game mode requires the player to nurture the environment in order to keep the created entities safe.

- **2.4.2 Individual Activities**

The different in-game activities can be individually accessed quickly in this game mode, and the entities created might be saved to posterior placement in single player game mode.

## 3 – Story and Narrative

### 3.1 Synopsis

The game tells the story of Insular, a self-contained universe that comes back to life after being frozen in time. As a result, a little creature made of rocks is spawned. Its name is *mineral*, and it's its job to create and nurture the entities that will populate this universe again.

### 3.2 Story progression

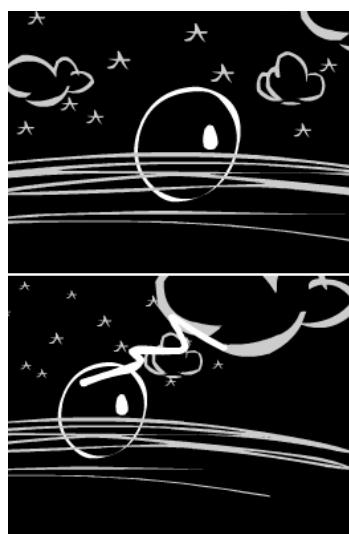
The game's back-story presented in the synopsis is all that is told to the player about the story of the game, and the opening sequence of the game the only heavy piece of narrative. Details about the behaviour of the world and how to interact with it will be showed during the tutorial stage.

### 3.3 The role of the story

The role of Insular's story is to inform the player about the nature of the game, present its setting and provide an emotional context. However, Insular is not dependent on the storyline, which does not evolve during the play.

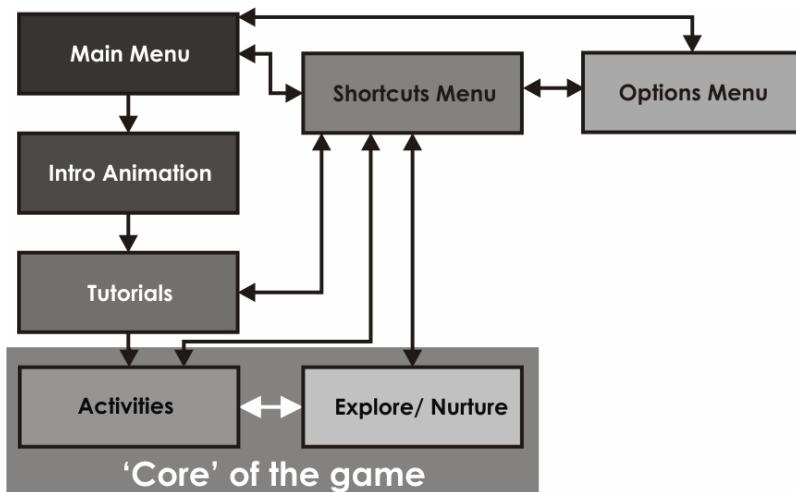
### 3.4 Opening sequence

The illustrations below serve as a storyboard for the animated opening sequence, to be accompanied by the poem on the opening page of this document. The sequence can be skipped by the player tapping the “skip” button located at the bottom screen).



## 4 – Game Progression

### 4.1 Game progression diagram



### 4.2 Tutorial stage

Once finished the animated opening sequence (see section 3.4), the tutorials for the game will begin. They will present every aspect of the game in this order:

- 0 – The bottom of the ocean
- 1 – The Zen Garden
- 1.1 – Collecting Cells and Magma
- 2 – The Sea Life Editor
- 3 – The Sea Life Behaviour (Virtual Aquarium)
- 4 – Terraforming
- 5 – Floating Rocks
- 6 – Flower's DNA
- 7 – Nurturing
- 8 – Rock Paint
- 9 – The Messenger
- 10 – Contact Manager
- 11 – Cloud Sculptor
- 12 – Constellation
- 13 – Reminder
- 14 – Diary / Journal
- 15 - Galaxy Sounds
- 16 - The Main Island

## **4.3 Game flow**

### **4.3.1 Gameplay- after the tutorials**

Completed the tutorials, the player is free to explore the environment and engage in the activities he has just learned (depending on the availability of necessary resources). That is when the cycle creation-exploration-nurturing begins.

### **4.3.2 Player progression**

In Insular, the player's progression depends only on how he creates the entities of his universe and how they compare to the one he has envisioned. Also, regarding difficulty, the more entities the player adds to the world, the longer it takes to nurture them.

### **4.3.3 Time / Environmental changes**

Entities have different life spans depending on their kind and environmental settings (time and weather). The player might have to pay attention to his creations and the effects of time and weather on them (see section Game World: Locations and Entities for details). Unless nurtured with the appropriate action, an entity will die after its lifetime expires, disappearing from the environment.

### **4.3.4 Triggering events**

Unless caused by the player's initiative, events in Insular are triggered by the passage of time. Life of entities, appearance of game elements, weather changes etc. are mostly based in a combination of player interaction and total gameplay time.

### **4.3.5 Slideshow**

After being idle for more than 10 seconds, the lower screen will present a slideshow of player created entities, which will terminate upon the press of the lower screen. This can be disabled in the options menu.

#### **4.3.6 Cutting down the exploration**

If so the player wishes, he can access the activities and extras through the Shortcuts menu instead of navigating the environment. This menu is accessible via the cave island or by pressing the button “Start”.

#### **4.4 There is no game over**

The game can virtually go forever, as there is no ending to it. If the player stops nurturing his creations, they will eventually disappear, but he will always be able to create new entities.

The player can, in the options menu, erase all data created and re-start from zero. There are also slots for two other players (see section Menus, GUI and Options).



## 5 - Character



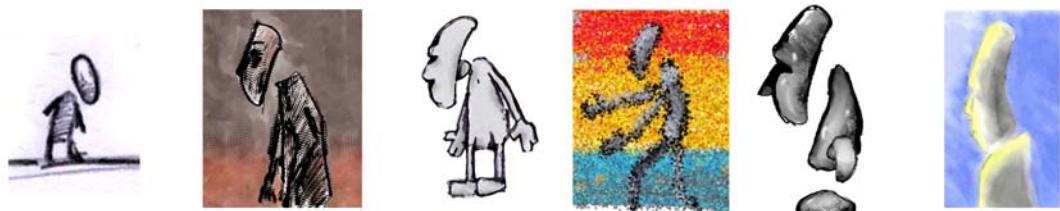
### 5.1 Story

Mineral, the creature, is made of six white rocks, and was born from broken stones of the Main Island.

### 5.2 Control Scheme

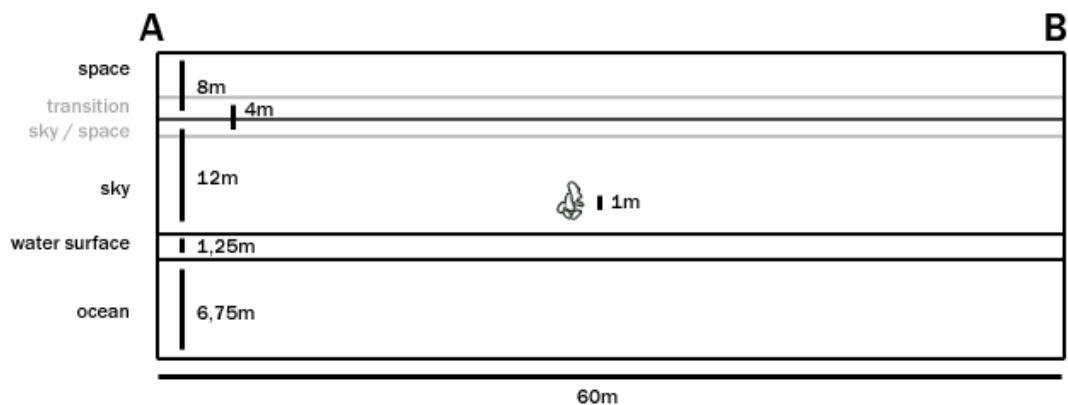
The controls for Insular's main environment are context sensitive. However, there are some general guidelines:

|              |  | Location      |                        |            |                      |
|--------------|--|---------------|------------------------|------------|----------------------|
| Key / Action |  | Ocean         | Over a rock            | Sky        | Space                |
| UP           | Go up  | Swims 2m/s    | Jumps 0,5 m over rocks | Flies 2m/s | Flies 1m/s           |
| DOWN         | Go down  | Dives 1m/s    | Climbs down rock       | Flies 2m/s | Flies 1m/s           |
| LEFT         | Go left  | Swims 1,5 m/s | Walks 1m/s             | Flies 2m/s | Flies 1m/s           |
| RIGHT        | Go right   | Swims 1,5 m/s | Walks 1m/s             | Flies 2m/s | Flies 1m/s           |
| A            | Displays entity's info   | Sea life form | Flower / painting      | Cloud      | Star / Constellation |
| B            | Plays activity   | Zen Garden    | -                      | -          | Galaxy Sound         |
| X            | Displays "Select material to manipulate – Cell / Magma" options screen |               |                        |            |                      |
| Y            | Action   | Floats        | Climbs up / down       | Freefall   | Freefall             |
| L            | Zoom out   |               |                        |            |                      |
| R            | Zoom in  |               |                        |            |                      |
| START        | Displays Shortcuts Menu  |               |                        |            |                      |
| RESET        | Displays Info: Time, date, reminder, total hours of play               |               |                        |            |                      |



## 6 – Game World: Locations and Entities

The image below explains the proportions between the several game locations. It is important to notice that, when exploring the world, reaching the left limit (A) will transport the player to the right limit (B), in a circular way. The environment should work as a 360° panoramic vision.



By breaking down the universe of the game into its locations and entities, it is possible to understand the basic game mechanisms and how the gameplay works. They are:

### 6.1 Ocean

#### 6.1.1 Pre-existing:

##### 6.1.1.1 Ocean (Location)

###### Location:

- Lower part of environment. Place where all ocean and land entities (except flowers and paintings) are located.

###### Size:

- 8m high (Including visible water surface at the top, 1,25m high). As wide as the environment.

###### Character Interaction:

- Character can swim on its surface or underwater at a speed of 1m/s for as long as the player wants. Waves will have an impact on his movements when swimming or floating, altering his speed and direction accordingly.

- When in contact with the bottom of the ocean, Message Field of GUI displays the message “Press B to play Zen Garden”

**Stylus interaction:**

- Rubbing visible water surface will evaporate water and form clouds. After 2 seconds, Message Field of GUI displays the message “Press B to enter Nurturing Mode” (See Nurturing section for details).

**Microphone interaction:**

- Blowing microphone with sea surface visible on screen will agitate the tide, form waves, and initiate Nurturing mode.

**Impact on the environment:**

- When agitated, moves floating rocks and main island up and down.
- When rubbed, generates clouds.

**Effects from the environment:**

- Water surface is agitated by wind.
- It is coloured by pigmentations of reefs, seaweed and vegetation (and made visible by sunlight). See Game World Behaviour for details.

**Gateway to:**

- Nurturing mode, Zen Garden

### 6.1.1.2Pebbles

**Location:**

- Bottom of the ocean

**Creation method**

- Initially, 50 spread along ocean bottom from the beginning of the game
- Fragments of destroyed land (floating rocks)

**Lifetime:**

- Infinite (unless destroyed by player)

**Development:**

- Can be created, destroyed and moved by player.

**Size:**

- From  $\frac{1}{4}$  to  $\frac{1}{2}$  of Character’s size (around 0,25m to 0,5m)

**Character Interaction:**

- Character make rocks roll at the bottom of the ocean by swimming or walking against them (using control keys)

- When near or in contact with these rocks, Message Field of GUI displays the message “Press B to play Zen Garden”

**Stylus interaction:**

- Tapping pebble once will produce a cracking sound, tapping twice quickly will break it, making it disintegrate

**Microphone interaction:**

- none

**Impact on the environment:**

- If rolled over seaweed, kills it
- If rolled over reef, breaks it

**Effects from the environment:**

- none

**Gateway to:**

- Triggers Zen Garden Activity (using “B” button)

### 6.1.1.3 Reefs

**Location:**

- Sea, rising from bottom of the ocean.

**Creation method**

- Not present at the beginning of game
- Grows in vacant places, unoccupied by pebbles or seaweed for more than ten minutes of playtime

**Lifetime:**

- Infinite (unless destroyed by player, pebbles or sea life forms)

**Development:**

- Initial branch starts around 0,5m high, growing 0,1cm every 30 minutes of playtime.
- After a branch is 2m high, new branches start to grow from it, until the whole structure is 6m – then it stops growing.

**Size:**

- From 0,5m to 6m, never emerges from the water.

### **Character Interaction:**

- If Character collides 3 times in less than 3 seconds, branch of reef is disintegrated. Add 1 collision for every sub-branch it may have. (first collisions produce cracking sound)
- Blocks way of Character when underwater.

### **Stylus interaction:**

- Tapping reef with stylus once will produce a cracking sound, twice quickly will break branch, making it disintegrate

### **Microphone interaction:**

- none

### **Impact on the environment:**

- Blocks way of sea life forms that are not strong enough to break it
- Gives red pigmentation to water (1 point of red per branch per 30 minutes of playtime). See Game World Behaviour for details.

### **Effects from the environment:**

- Can be broken by falling pebbles, strong / big sea life forms or impact of floating rocks.

### **Gateway to:**

- none

## **6.1.1.4 Seaweed**

### **Location:**

- Bottom of the ocean.

### **Creation method**

- Initially, 20 spread along ocean bottom from the beginning of the game
- Grows and spreads spontaneously from initial location to unoccupied surroundings.

### **Lifetime:**

- Infinite (unless destroyed by player, pebbles or eaten by sea life forms)

### **Development:**

- Initial branch starts around 0,5m high and 0,25m wide, growing 0,1m and widening 0,2m every 30 minutes of playtime. Growth decelerates to  $\frac{1}{2}$  if sunlight is 50% or more blocked.

- After limit size is reached, smaller seaweed is placed on its side (if unoccupied).
- Can have its colour changed by player through DNA editor (see Activities section)

**Size:**

- 0,5m to 1,5m high. 0,25m to 2,25m wide.

**Character Interaction:**

- none

**Stylus interaction:**

- Slicing seaweed will kill it, disintegrating it leaving its space vacant.

**Microphone interaction:**

- none

**Impact on the environment:**

- Feeds sea life forms (if so decided by the player).
- Gives green pigmentation to water (2 points of green per branch per 30 minutes of playtime). See Game World Behaviour for details.

**Effects from the environment:**

- Can be killed by falling or rolling pebbles and eaten by big sea life.

**Gateway to:**

- none

## 6.1.2 User Made:

### 6.1.2.1 Sea life forms

**Location:**

- Ocean.

**Size:**

- User defined. Varies from 0,25m x 0,25m to 2m x 2m

**Creation method**

- Not present at the beginning of game
- First specimens of each species created by user using the Sea life editor (See Activities section)

- Subsequent specimens breed by first ones depending on user defined characteristics (See Sea Life Behaviour in Behaviour section)

**Lifetime:**

- Species might have infinite lifetime. Specimens lifetime, on the other hand, are user defined, varying from 20 min. to 24hours of playtime ones (see Sea Life Behaviour section).

**Speed:**

- User defined. Varies from 0,25 m/s to 2m/s (see Sea Life Behaviour in Behaviour section).

**Strength:**

- User defined variable ranging from 1 to 100, multiplied by size and speed (when moving).

**Development:**

- Specimens start with  $\frac{1}{2}$  of total size and strength, increasing 10% every 1/5 of natural lifetime.
- Specimens must eat, hunting every  $\frac{1}{4}$  of lifetime for food (See Sea Life Behaviour and Activities sections).
- Specimen colours indicate health: After  $\frac{1}{2}$  lifetime passed, specimen loses colour saturation - 5% every 1/10 of remaining lifetime. (see Sea Life Behaviour section)
- Mutation: Every descendant will be slightly different from its ancestor. It might be differentiate itself from the others by any of its characteristics and for subtle changes in its colours (brightness, hue or saturation). These changes are random (see Sea Life Behaviour section).

**Character Interaction:**

- Depending on size, speed and strength of specimen, Character can block its way (and vice-versa).
- When near or in contact with specimen, Message Field of GUI displays the message “Press A to see info / edit creature”
- Pressing A will cause the bottom screen to display vital information about creature, including a link to the Sea life Editor (see section Menus, GUI and Options)

**Stylus interaction:**

- Holding specimen with stylus will prevent it to move. Dragging creature will move it. Tapping creature twice quickly will make it lose 25% of lifetime. Tapping it three times quickly will eliminate it.

**Microphone interaction:**

- none

**Impact on the environment:**

- Interacts with other species, reefs and seaweed, defining ocean environment in an emergent fashion (see Sea Life Behaviour section).

**Effects from the environment:**

- Can have their way blocked by reefs depending on strength.
- Might starve from lack of seaweed

**Gateway to:**

- Entity Info Menu, Sea life editor.

### 6.1.2.2 Message Bottles

**Location:**

- Water surface

**Creation method**

- Sent by player or received from other players.
- First one presented to the player during tutorials.

**Lifetime:**

- Drifts in the water until collection

**Development:**

- None

**Size:**

- 0,5m x 0,25m.

**Character Interaction:**

- Receiving: After contact with character bottle will disappear, and Message received will appear on bottom screen, (see section Applications - Messenger)
- Sending: can be accessed via the Messaging Application, through the Menus (see Applications section for details)

**Stylus interaction:**

- Taping bottle once will make bottle disappear, and Message received will appear on bottom screen, (see section Applications - Messenger)

**Microphone interaction:**

- Indirect: can be moved by tides and waves.

**Impact on the environment:**

- none

**Effects from the environment:**

- Can be moved by tides and waves.

**Gateway to:**

- Messenger Application

## 6.2. Land

### 6.2.1 Pre-existing:

#### 6.2.1.1 Main Island

**Location:**

- Floating on the water, half submersed.

**Size:**

- 1,5 m of diameter.

**Creation method**

- Present at the beginning of game

**Lifetime:**

- Infinite.

**Strength:**

- Mass: 100kg.

**Development:**

- none

**Character Interaction:**

- Depending on speed, Character collision can cause island to drift or submerge, emerging afterwards.
- When near or in contact with island, Message Field of GUI displays the message “Press B to go to shortcuts menu”

**Stylus interaction:**

- Holding and dragging island will move and relocate it. Can also be submerged or dropped from above to fall in the sea, emerging after stylus is released. All these movements are naturally constrained by the area displayed at the bottom screen

**Microphone interaction:**

- Indirect: can be moved by strong winds

**Impact on the environment:**

- Impact of submersed Main Island may break reefs, move pebbles and kill seaweed, damaging sea specimen's health or blocking their way.

**Effects from the environment:**

- It is moved by wind, tides and waves.

**Gateway to:**

- Shortcuts Menu.

## 6.2.2 User Made:

### 6.2.2.1 Floating Rocks

**Location:**

- Ocean.

**Size:**

- User defined. Varies from 0,75m x 0,75 to 5m x 5m. See Activities – Terraforming for details.

**Creation method**

- Not present at the beginning of game
- Created using the Terraforming activity depending on availability of material (see Activities section)
- Also spawned by breaking down previously made floating rocks.

**Lifetime:**

- Infinite.

**Strength:**

- User defined Mass. Varies from 10kg to 1000kg.

**Development:**

- Can be broken down by user interaction, lighting bolts, or impact against other floating rocks and main island.
- Colour changes: Starts with colour as set by player at Terraforming Activity, fades to 1% white every 45 minutes, as it cools down and has its colours eroded.

- Can be painted by the player (see Rock Painting Activity for details).
- Can grow vegetation if nurtured with water by the player
- Nurturing with water for more than five seconds makes vegetation appear on rock's surface.
- Vegetation has to be nurtured regularly to survive (once every twenty minutes of playtime). After 20 minutes of last time nurtured, loses 5% of opacity every remaining minute, recovering after nurtured again.
- If vegetation has 70%+ of opacity, flowers can be grown on rock's top (see Entities – Flowers). Once creature stands on the top of the rock, Message Field of GUI displays the message “Press B to Create Flower” (see Activities section).

#### **Character Interaction:**

- Depending on speed, Character collision can cause rock to drift or submerge, emerging afterwards.
- When near or in contact with rock, Message Field of GUI displays the message “Press A to see info / edit this painting - Press Y to climb it”. If Y is pressed, Character stands on the top of the rock. Pressing A will cause the bottom screen to display vital information about the painting, including a link to Rock Paint activity (see section Menus, GUI and Options).
- Once standing over it, pressing up will make character jump on the floating rock, using them as a trampoline to reach other rocks and dislocating them around the sea. Pressing Y again will make it climb down the rock.

#### **Stylus interaction:**

- Holding and dragging rock will move and relocate it. Can also be submerged or dropped from above to fall in the sea, emerging after stylus is released.

#### **Microphone interaction:**

- Indirect: can be moved by strong winds

#### **Impact on the environment:**

- Impact of submersed rock may break reefs, move pebbles and kill seaweed, damaging sea specimen's health or blocking their way.
- Sea colouration: In the presence of vegetation, gives yellow pigmentation to water. Amount depends on rock's width. Up to 1 meter = 1 point of yellow, up to 3 meters = 2 points, up to 5 meters = 3 points of yellow (per 30 minutes of playtime). Points cut to half if vegetation's opacity equals to 50% or less. See Game World Behaviour for details.

### **Effects from the environment:**

- It is moved by wind, tides and waves.
- It can be broken down by lightning bolts (each bolt disintegrates rocks up to 10 kg, breaks rocks up to 500 kg into four pieces and rocks up to 1000kg into two pieces).
- Rain nurtures vegetation.

### **Gateway to:**

- Rock Paint and Flower DNA activities.

### **6.2.2.2 Flowers**

#### **Location:**

- Land (Floating Rocks).

#### **Size:**

- User defined. Varies from 0,50 m to 1,5m diameter

#### **Creation method**

- Not present at the beginning of game
- Created using the DNA Editor activity, depending on presence of vegetation. (see Activities section)
- Grows and spreads from initial location to unoccupied surroundings.

#### **Lifetime:**

- Infinite, but must be nurtured with water and protected from the wind.

#### **Strength:**

- Depends on size. Resistance against wind calculated multiplying it's diameter in centimetres Resistance points ranging from 1 to 10 defined through DNA activity. If result is more than wind's speed in km/h, flower is not taken away from the soil. If less, one petal is lost every 2 seconds of wind. If all petals are lost, flower is dead.

#### **Development:**

- First, the flower characteristics are defined by the player using the DNA editor. Flower's characteristics are: Number of crowns of petals (up to 2); Number of petals (from 2 to 32); Colour, shape and size of petals (each flower has up to four different kinds of petal); Size and colour of flower's button; Flower's strength.
- Development: During the first 10 seconds of life, it is only possible to see the flower's button. For the next minute, it is possible to see 1/2 of the biggest

petals. For the five next minutes, it is possible to see  $\frac{3}{4}$  of the external crown and  $\frac{1}{4}$  of the internal one. Only after 10 more minutes the flower is completely represented.

- Nurturing: Flowers have to be nurtured with water for 6-12 seconds every 20 minutes of playtime, or they start losing their petals. First, they will lose  $\frac{1}{4}$  of their petals. Another  $\frac{1}{4}$  will be lost every two minutes after that. To recover the petals, the flower must be nurtured for 1 second more per petal. After all petals are gone, the flower button disintegrates.

If nurtured for more than 12 seconds, flower will have their strength reduced in one point every three seconds. By keeping the flower dry, those points are recovered 1 per minute.

- Spreading: If there is enough space, a new flower, identical to the original one, will spawn by its side after 12 hours of playtime. Also every 12 hours, the flower's button will glow, and the pollen will be taken by winds over 30 km/h up to 100 meters, reaching suitable floating rock (if available). The new flower will bloom 2 minutes after the action of the wind. This event is perceived by the player by a stream of particles coloured as the flower's button from the flower to abroad.
- Mutating: Flowers can mutate by (a) having their DNA individually changed using the DNA editor, (b) by a single random change in the DNA structure of their descendants (every two hours of playtime) or (c) by the cross-over of pollen of different species fecundating in same ground.

### **Character Interaction:**

- When near or in contact with specimen, Message Field of GUI displays the message “Press A to see info / edit flower”
- Pressing A will cause the bottom screen to display vital information about the flower, including a link to DNA editor (see section Menus, GUI and Options)

### **Stylus interaction:**

- Slicing flower will cut it out of the soil. Taping it will make it close (as in first step of development).

### **Microphone interaction:**

- Indirect: can have pollen spread by wind and petals damaged if too strong.

### **Impact on the environment:**

- The colours available at Rock Paint activity are the ones available from the flowers petals at that specific time.

**Effects from the environment:**

- Wind spread pollen and / or kills it.
- Rain nurtures it, but can also damage. Sunlight is necessary for development and recovering of damages, if not, speed of recovering is cut to half.
- If floating rock in which it stands is destroyed flower is destroyed too.

**Gateway to:**

- Entity Info Menu, Flower DNA activity.

### 6.2.2.3 Paintings

**Location:**

- Floating Rocks.

**Size:**

- Paintings are equal the size of floating rock used as canvas.

**Creation method**

- Not present at the beginning of game
- Created using the Rock Paint activity (see Activities section)

**Lifetime:**

- Potentially infinite, depends on action of rain.

**Strength:**

- none

**Development:**

- Created by player through Rock Paint Activity, accessed via Shortcuts Menu or Floating Rock.
- Must be kept away from rain.
- Can be changed / retouched by the player (also using Rock Painting Activity).

**Character Interaction:**

- When near or in contact with rock that serves as canvas, Message Field of GUI displays the message “Press A to see info / edit this painting”.

- Pressing A will cause the bottom screen to display vital information about the painting, including a link to Rock Paint activity (see section Menus, GUI and Options).

**Stylus interaction:**

- none

**Microphone interaction:**

- none

**Impact on the environment:**

- none

**Effects from the environment:**

- Rain causes paint to fade away (adds 1% of transparency every 10 seconds of rain).

**Gateway to:**

- Entity Info Menu, Rock Paint activity.

## 6.3. Sky

### 6.3.1 Pre-existing:

#### 6.3.1.1 Sky (Location)

**Location:**

- Intermediate part of environment. Place where sky entities (clouds) are located.

**Size:**

- 12m high. As wide as the environment.

**Character Interaction:**

- Character can fly at a speed of 2m/s for as long as the player wants, or stand floating. Can also float, standing still in the sky for unlimited time.

**Stylus interaction:**

- none

**Microphone interaction:**

- Blowing microphone with sky visible on screen will make player initiate / interact with the wind. After 2 seconds, Message Field of GUI displays the message “Press B to enter Nurturing Mode” (See Nurturing section for details).

**Impact on the environment:**

- none.

**Effects from the environment:**

- Its colours are influenced by Sunlight and hour of the day

**Gateway to:**

- Nurturing mode

### **6.3.1.2 Sunlight**

**Location:**

- n/a.

**Size:**

- n/a

**Character Interaction:**

- none

**Stylus interaction:**

- none

**Microphone interaction:**

- none

**Impact on the environment:**

- Low levels of sunlight affect development of flowers (their growth decelerates to  $\frac{1}{2}$  if sunlight is 50% or more blocked).
- Affects colour of the sky and ocean (see Game World Behaviour section for details).

**Effects from the environment:**

- Its intensity is influenced by two factors:

- 1 – Presence of clouds
- 2 – Hour of the day

See Game World Behaviour section for details

### **Gateway to:**

- none

## **6.3.2 User Made:**

### **6.3.2.1 Clouds**

#### **Location:**

- Sky
- Horizontal position depending on place of spawn and action of the wind,  
Vertical position depending on factors size and density.

#### **Size:**

- User defined. Varies from 1m x 1m to 7m (width) x 3,5m (height). Initial sizes from x 1m to 3,5m (width) x 1,75m (height)

#### **Density:**

- Depends on the action of player and winds. When cloud is created, density has a value of 100%. A value of 200% will result in rain.
- Values up to 150% will result in a white cloud. From 151 to 200%, increase 1,6% of black for every extra 1% of density.

#### **Creation method**

- Not present at the beginning of game
- Created by rubbing stylus on the water surface and sculpted using the Cloud Sculptor activity (see Activities section).

#### **Lifetime:**

- Potentially infinite, but must be maintained with water vapour, kept safe from strong winds and not transformed into rain (see Game World Behaviour section).

#### **Strength:**

- Depends on size. Resistance against wind calculated multiplying it's width by 20. If result is more than wind's speed in km/h, cloud is not dissipated, but moved by wind. If wind Resistance is more than double of wind speed, cloud's density increases 10% every second of wind. When achieving a density of 200%, it starts to precipitate, resulting in rain.

#### **Development:**

- After created with by rubbing water surface, Message Field of GUI displays the message "Press A to see info / sculpt cloud".

- Rubbing the water surface area right beneath a cloud will not create a new one, but increase the size of the previously made, adding 1m<sup>2</sup> of area to every 2 seconds of rubbing.
- After its size has doubled from the original, its density increases 10% every 3 seconds of rubbing, up to twice its original value.
- If there is no rain and sunlight is higher than 60%, density will decrease 1% every minute of playtime.

### **Character Interaction:**

- When near or in contact with cloud, Message Field of GUI displays the message “Press A to see info / sculpt cloud”
- Pressing A will cause the bottom screen to display vital information about the cloud, including a link to Cloud Sculptor (see section Menus, GUI and Options).

### **Stylus interaction:**

- Rubbing a cloud will transform it into rain and start Nurturing mode.
- Tapping a cloud twice will produce a lightning bolt.

### **Microphone interaction:**

- Indirect: wind can move, dissipate or transform clouds into rain.

### **Impact on the environment:**

- Clouds influence the colours of the environment by partially blocking sunlight
- Also, Clouds are used by the player to generate the rain used to nurture the environment.

### **Effects from the environment:**

- Wind can dissipate, move or make it precipitate, causing rain.

### **Gateway to:**

- Entity Info Menu, Cloud Sculptor activity, Nurturing mode.

### **6.3.2.2 Rain**

#### **Location:**

- Emanated from Clouds, from Sky to Land and water surface.

#### **Size:**

- Depends on size of cloud emanating it. Varies from 1m x 1m to 7m (width) x 3,5m (height).

#### **Creation method**

- Not present at the beginning of game
- Can be initiated on purpose by player rubbing a Cloud in Nurturing mode (see Nurturing section) or generated spontaneously, according to available Clouds and Wind (see Game World Behaviour section).

#### **Lifetime:**

- Depends on size and number of clouds originating it and its strength. Can take from 5 seconds to 1 hour (see Game World Behaviour for details).

#### **Strength:**

- Depends on size and number of clouds, action of the wind, player's input using stylus. Is also increased if there was contact between two or more clouds.

#### **Development:**

- After initiated (by player or environmental conditions), rain lasts accordingly to its size and wind, having its strength dictated by conditions listed above.
- Rain goes from its cloud to the soil, having its direction affected by strength and direction of the wind.

#### **Character Interaction:**

- none

#### **Stylus interaction:**

- Rubbing a cloud repeatedly will increase rain's strength. Tapping it twice quickly will generate lightning bolt (to be unloaded on the water surface or floating rocks, if closer than 2m to it).

#### **Microphone interaction:**

- Indirect: wind alters rain strength and influences clouds originating it.

**Impact on the environment:**

- Nurtures flowers. Can also kill them in very high doses.
- Nurtures vegetation.
- Washes out paintings.

**Effects from the environment:**

- Rain's behaviour is influenced by the wind and clouds originating it (see section Game World Behaviour for details)

**Gateway to:**

- none

### **6.3.2.3 Wind**

**Location:**

- Sky, also reflected on the water surface.

**Size:**

- n/a

**Creation method**

- Constantly in the game, the wind has its strength (in km/h, from 0 to 200) and direction (from left to right or vice versa) assigned by chance every hour of play time.
- Can be initiated on purpose by player blowing the microphone (see Game World Behaviour section).

**Lifetime:**

- Changes every 30 minutes (see Game World Behaviour for details).

**Strength:**

- From 0 to 200 km/h.

**Development:**

- After initiated (by player or environmental conditions), wind keeps blowing for its lifetime.
- Action of the player can change its strength and direction.

**Character Interaction:**

- Winds will have an impact on his movements when flying, altering his speed and direction accordingly.

**Stylus interaction:**

- none.

**Microphone interaction:**

- Blowing the microphone increases the wind strength temporarily. After blowing for more than 3 seconds, Message Field of GUI displays the message “Press B to enter Nurturing Mode”. Blowing it while in Nurturing Mode gradually increases wind’s strength in the direction indicated using control pad

**Control pad interaction:**

- Pressing left and right arrows during Nurturing Mode will increase wind’s strength to the selected side, the intensity being controlled by microphone input.

**Impact on the environment:**

- Agitates the tide.
- Moves Main Island and Floating rocks depending on the strength of wind and size of rocks (see Game World Behaviour section).
- Spreads flowers’ pollen.
- Might kill flowers, taking out their petals.
- Moves, dissipates and increases density of clouds.
- Influence strength and direction of the rain.

**Effects from the environment:**

- Wind gains random strength every 30 minutes (see Game World Behaviour for details).

**Gateway to:**

- Nurturing Mode (if activated by the player using microphone)

## **6.4. Space**

### **6.4.1 Pre-existing:**

#### **6.4.1.1 Space (Location)**

##### **Location:**

- Higher part of environment. Place where space entities are located, along with the sky.

##### **Size:**

- 6m high. As wide as the environment.

##### **Character Interaction:**

- Character can fly at a horizontal speed of 1m/s for as long as the player wants, or stand floating. Can also float, standing still in the space for unlimited time. Wind will not affect the character speed in space.
- When approaching the vertical limits of space, character's speed is reduced, not being able to fly beyond its limit.
- When the character is located at the upper half of space (final 3 meters), Message Field of GUI displays the message "Press B to play Galaxy Sounds"

##### **Stylus interaction:**

- none

##### **Microphone interaction:**

- none

##### **Impact on the environment:**

- Positions and movement of the stars on space and sky will indicate the passage of time. In this case, the space and its elements work as a clock for the rest of the game (see Game World Behaviour).

##### **Effects from the environment:**

- Visibility of space entities might be influenced by weather conditions (see Game World Behaviour).

##### **Gateway to:**

- Galaxy Sounds.

#### **6.4.1.2 Moon**

##### **Location:**

- Sky and Space

- Position depends on time of day (see Game World Behaviour section)

**Size:**

- Depends on time of the day. Varies between 1,6m to 3,2m (see Game World Behaviour section)

**Creation method**

- Present at the beginning of game

**Lifetime:**

- infinite

**Development:**

- The Moon follows a 29 days cycle. If played in real time mode, it will imitate the real lunar phase, based on the DS system's calendar.
- During the day, the moon's position will follow an arch (see Game World Behaviour section).

**Character Interaction:**

- When near or in contact with moon, Message Field of GUI displays the message "Press A to enter Diary / Reminder mode"
- Pressing A will cause the bottom screen to display Diary / Reminder activity (see section Applications – Diary Reminder).

**Stylus interaction:**

- Tapping the moon will cause the bottom screen to display Diary / Reminder activity (see section Applications – Diary Reminder).

**Microphone interaction:**

- none

**Impact on the environment:**

- none

**Effects from the environment:**

- Visibility of moon might be influenced by weather conditions (see Game World Behaviour).
- Size and phase influenced by sunlight, time of the day and time of the year (see Game World Behaviour).

**Gateway to:**

- Diary Application.

### **6.4.1.3 Stars**

#### **Location:**

- Sky and space. Exact position of stars depends on time of year and time of day. See Game World Locations for a map with approximate initial positioning.

#### **Creation method**

- Already present. 82 spread along sky and space (see Game World Behaviour section)

#### **Lifetime:**

- Infinite

#### **Development:**

- Stars move according to time of the year.

#### **Size:**

- From 0,3m to 0,6m each.

#### **Character Interaction:**

- When near or in contact with star, Message Field of GUI displays the message “Press A to see /edit (name of star) info or B to edit Constellation”.
- Pressing A will cause the bottom screen to display vital information about star, including a link to the Constellation activity (see section Menus, GUI and Options)
- Pressing B will start Constellation activity (see Activities section)

#### **Stylus interaction:**

- Tapping star once will cause the bottom screen to display vital information about star, including a link to the Constellation activity and Diary / Reminder Application (see section Menus, GUI and Options)

#### **Microphone interaction:**

- none

#### **Impact on the environment:**

- Informs time of year

### **Effects from the environment:**

- Visibility of stars might be influenced by weather conditions and sunlight (see Game World Behaviour).

### **Gateway to:**

- Entity Info Menu, Constellation activity, Diary / Reminder application

## **6.4.2 User Made:**

### **6.4.2.1 Constellation**

#### **Location:**

- Space / Sky

#### **Size:**

- Depends on the disposition of incorporated stars

#### **Creation method**

- Not present at the beginning of game
- Created using the Constellation activity (see Activities section)

#### **Lifetime:**

- Infinite, unless deleted by player.

#### **Development:**

- Created by player through Constellation Activity, accessed via Shortcuts Menu or stars that define it.
- Can be edited / deleted by the player (using appropriated Entity Info Menu).

#### **Character Interaction:**

- When near or in contact with constellation, Message Field of GUI displays the message “Press A to see info / edit (name of the constellation)”. Also, if constellation is set to “show only in contact”, constellation will be unhidden.
- Pressing A will cause the bottom screen to display vital information about the constellation, including a link to Constellation activity. Constellations can have their display settings changed (show lines, show illustration, show lines and illustration, show only when in contact, show only at night) on their Info menu.

**Stylus interaction:**

- none

**Microphone interaction:**

- none

**Impact on the environment:**

- none

**Effects from the environment:**

- Its visibility is made possible by visibility of its stars – all of them should be 70% or more visible.

**Gateway to:**

- Entity Info Menu, Constellation activity.

### **6.4.2.2 Reminder / Meteorite**

**Location:**

- Travels from Space to point of character's location

**Creation method**

- Set by player using Diary / Reminder application.
- First one presented to the player during tutorials.

**Lifetime:**

- Object representing reminder (a meteorite coming from space to disintegrate at the point character is in) is displayed and animated for 1 second. Message attached to it is displayed on bottom screen until closed by player (see Applications – Diary / Reminder section)

**Development:**

- None

**Size:**

- 0,5m x 0,25m.

**Character Interaction:**

- none

**Stylus interaction:**

- None (with meteorite), can interact with bottom screen (see Applications – Diary / Reminder section)

**Microphone interaction:**

- none

**Impact on the environment:**

- none

**Effects from the environment:**

- none

**Gateway to:**

- Diary / Reminder Application

## **7 – Game World: Behaviour**

### **7.1 Introduction**

The behaviour of the world of Insular is based on several basic factors that, when combined, orchestrate its functioning. Those basic factors influence each other and, sometimes, can be influenced by the player's actions.

Factors include: Time, Weather and the action of Entities over the environment.

If a specific entity is not listed here, refer to the section Game World: Location and Entities.

### **7.2 Time**

Game's events and environmental behaviour are often time based, so there are changes the game's universe even if the player is not performing any actions.

#### **7.2.1 Real-time correspondence**

The player can choose to play in real-time or change the Time Scale, selecting the proportion of in-game days / real-time hours. The default (real-time) is 1/24. This can be changed to 2, 3, 4, 6, 8, 12, 18, 24, 36, 48, 72 and 96/24 - the last one resulting in a new in-game day every 15 minutes.

The game calendar, however, will not be influenced by this choice, remaining real-time.

## 7.2.2 Sunlight

The amount of sunlight at any given moment is calculated by taking the default value for the time of the day and subtracting the appropriated value depending on the horizontal area occupied by clouds.

**Time of the day x Sunlight**

|            |            |
|------------|------------|
| 10pm – 5am | 0% – 10%   |
| 5am – 9 am | 10% - 100% |
| 9am – 5pm  | 100%       |
| 5pm – 10pm | 100% - 0%  |

**Horizontal area of clouds x Shade**

|          |          |
|----------|----------|
| 0m – 60m | 0% – 90% |
|----------|----------|

For instance, to calculate the sunlight of the universe at 7am with 15m area of clouds, we would have:

$$\text{Total Sunlight} = \text{Sunlight} - \text{Shade}$$

$$\text{Sunlight} = 55\% \text{ (midpoint between 10 and 100\%)}$$

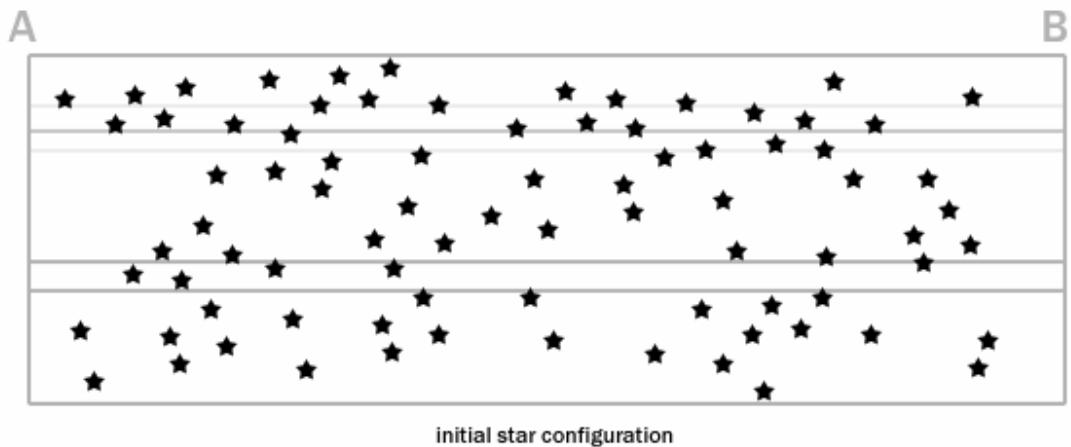
$$\text{Shade} = 22,5\% \text{ (1/4 of total possible)}$$

$$\text{Total Sunlight} = 32,5\%$$

## 7.2.3 Stars

### 7.2.3.1 Position

Stars position in the sky is set by the time of the year. From their initial position (following image), they move up and left 0,1m every in-game day. When reaching beyond horizontal or vertical limits, the star starts reappearing in the opposite extremity.



### 7.2.3.2 Visibility

Stars are 100% visible in Space. In the Sky and transitional area, visibility is affected by time of the day and clouds. Clouds will stand in front of the stars, making them invisible. As for the time of the day, follow the tale below:

#### Time of the day x Star visibility

|            |            |
|------------|------------|
| 10pm – 5am | 100% – 10% |
| 5am – 9 am | 10% - 0%   |
| 9am – 5pm  | 0%         |
| 5pm – 10pm | 0% - 100%  |

### 7.2.4 The Moon

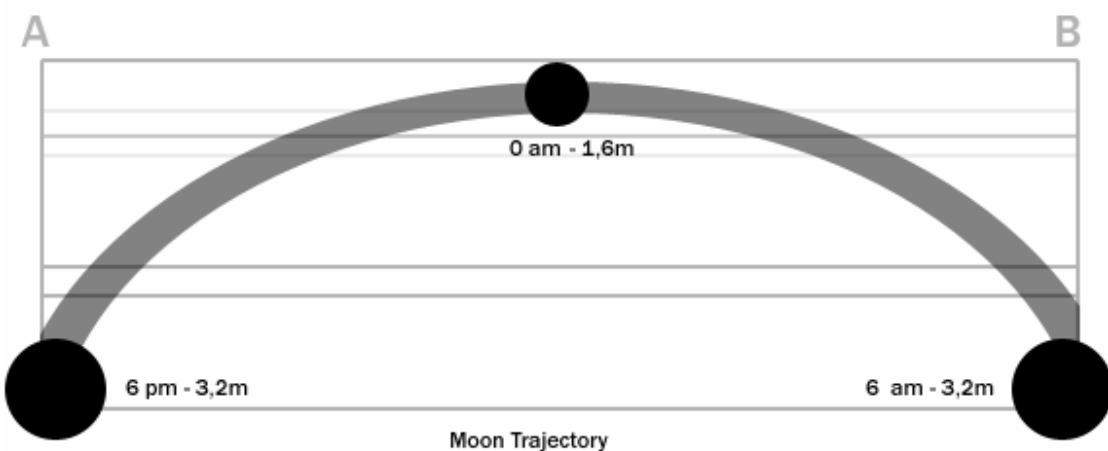
#### 7.2.3.1 Phase

The Moon follows a 29 days cycle, imitating the real lunar phase.



### 7.2.3.2 Position and size

The Moon position and size are set by the time of day (see image below).



### 7.2.3.3 Visibility

Similar to stars. As for the time of the day, follow the tale below:

#### Time of the day x Star visibility

|            |            |
|------------|------------|
| 10pm – 5am | 100% – 30% |
| 5am – 9 am | 30% - 10%  |
| 9am – 5pm  | 10%-30%    |
| 5pm – 10pm | 30% - 100% |

## 7.3 Weather

The game's Weather is based in three elements: wind, clouds and rain. They can all be directly created by the player in nurturing mode (see Nurturing section), but also result from the combination of clouds (created by the player) and wind (created by the game system or the player).

### 7.3.1 Clouds

Clouds behave as explained in the section Game World: Location and Entities, and are created according to the steps explained at the Nurturing section. They can also have their shape changed by the player, as described in the section Activities – Cloud Sculptor

### 7.3.2 Wind

Wind can be created by player in Nurturing mode or spontaneously generated by the game.

Every 30 minutes of playtime the wind will change direction (left or right) and strength randomly. The new speed of the wind will be calculated by multiplying the current speed by a random number between 0 and 2, with maximum value of 200 km/h.

### 7.3.3 Rain

Rain will start every time a cloud reaches a density of 200% percent, dissolving the cloud 1m<sup>2</sup> every 10 seconds.

To reach this level of density, cloud must be nurtured by player (see Nurturing section) or affected by the wind as described in the entities section.

If two clouds collide, a thunder will be heard. Also, if the player nurtures the wind by blowing in the microphone during rain, it will get stronger.

#### Transforming the clouds into rain (see also section Game World: Locations and Entities)

1. a new cloud is made  
(density 100% - width = 3m - Resistance = 60)



2. cloud affected by wind speed of...



> Resistance  
(cloud dissipated)



< Resistance  
(cloud moves to  
wind direction)



< Resistance /2  
(cloud's density increases,  
After reaching 200% density,  
rain starts)

## 7.4 The Sky

### 7.4.1 Brightness and Colour of the sky

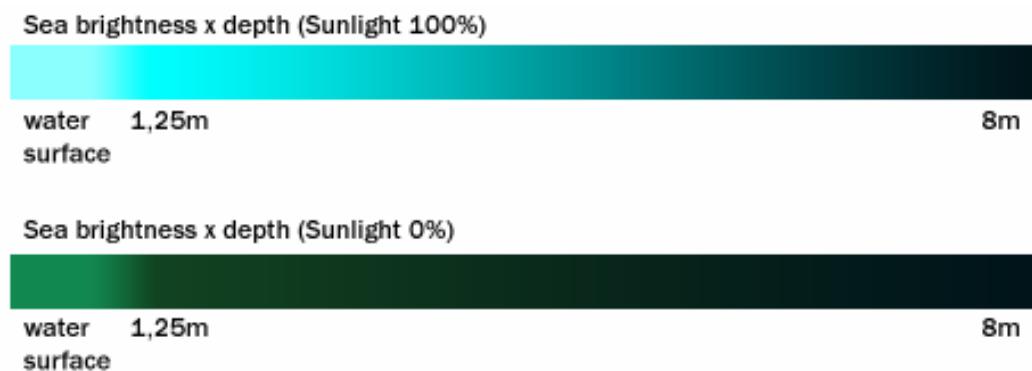
The brightness and colour of the sky depend on the level of sunlight and time of the day.



## 7.5 Ocean

### 7.5.1 Colour and Brightness

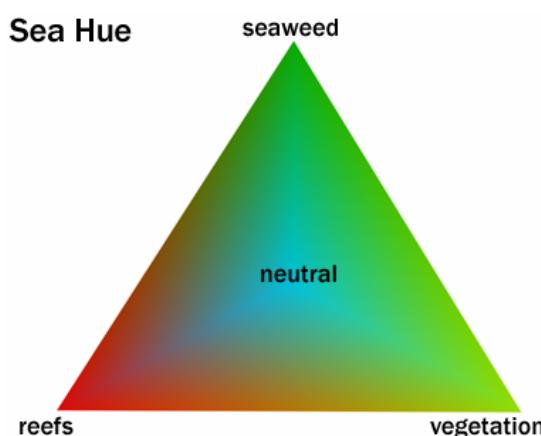
The ocean's colour is influenced by the pigmentation of reefs, seaweed and vegetation. Its brightness depends on the sunlight.



- Reefs give red pigmentation to water (1 point of red per branch per 30 minutes of playtime)

- Seaweeds give green pigmentation to water (2 points of its colour per branch per 30 minutes of playtime).
- Floating rocks vegetation (if nurtured) gives yellow pigmentation to water (1, 2 or 3 points of yellow per rock per 30 minutes of playtime)

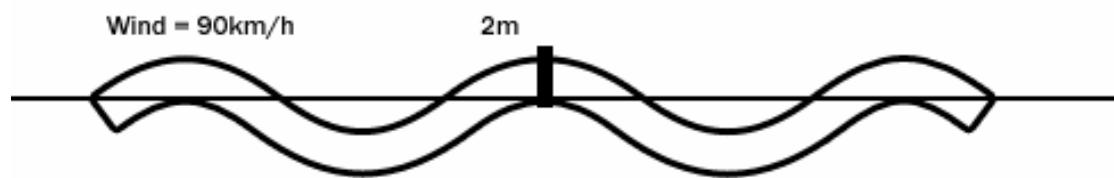
The graphic below gives an idea of the influence of each one over time (colour of water at 1,25m).



### 7.5.2 Waves

Winds affect the ocean, agitating the water surface. Winds faster than 80km/h will make the water surface undulate, with the highest point of the wave reaching 0,1m per wind's km/h.

### Making waves



### 7.5.3 Pebbles, reefs and seaweed

The behaviour of pebbles reefs and seaweed are explained in the entities section.

## **7.6 Flowers and vegetation**

### **7.6.1 Vegetation**

Vegetation is created on top of floating rocks (with density of 100%) by nurturing the rock with water for more than 5 seconds. After 20 minutes of last time nurtured or created, Vegetation will loose 5% of density every minute (recovering if nurtured again).

### **7.6.2 Flowers**

#### **7.6.2.1 Creating and Maintaining**

To learn how to create and maintain a new flower species, see sections Game World: Locations and Entities and Nurturing, respectively.

#### **7.6.2.2 Flower's life cycle**

See description of flower's development in the section Game World: Locations and Entities.

## **7.7 Sea Life Behaviour**

### **7.7.1 Introduction**

After created, user-made sea life should behave like a virtual aquarium – a miniaturized ecosystem.

The following table helps to better understand the behaviour of every individual specimen based on its characteristics.

| Characteristic | Variation | Result (variation)   |
|----------------|-----------|--|
| Size           | 1 -100    | Specimen size: Adult = 0,25m to 2m; Child = 0,12m to 1m                    |
| Lifetime       | 1 -100    | 20 minutes to 24h playtime.  |
| Strength       | 1 -100    | 0-100 (to be used in combat mode)  |
| Senses         | 1 -100    | 0m to 10m radius (to be used in combat mode)                               |
| Breed          | 1 -100    | 1 new descendent every 1 to 0.05 x lifetime (starting 1/5 lifetime passed) |
| Speed          | 1 -100    | Adult = 0,25m/s to 2m/s; Child = 0,12m/s to 1m/s                           |

### 7.7.2 Specimen's "to do list"

#### 1. Check if predator species are attacking

If predators enter area inside specimen's radius of senses, combat mode starts

#### 2. Check if it is time to breed

If so, look for similar specimens and mate (descendants born after contact with other specimen is made)

#### 3. Check if it is time to eat

If so, hunt for preys described by user in the Sea Life Editor and engage in Combat mode when found.

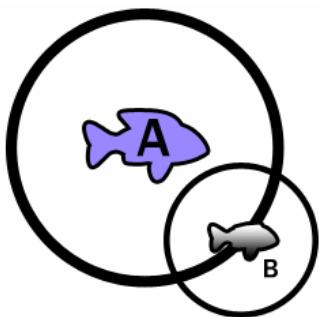
The specimen must eat  $\frac{1}{2}$  of its size in food. For instance, a fish of 2m have to eat 4 fishes of 0,25m each. If fails to eat after 15 seconds of hunt, have lifetime reduced in 1/20 of original length and stops hunting until next turn.

#### 4. Swim around

Specimen will swim around. Finding one or more specimens of his kind, specimen will follow them, in triangle formation (columns of 1-2-3-n specimens). Specimen will abandon formation to hunt, breed, die or run away from other species

### 7.7.3 Combat Mode

Combat Mode starts when a specimen hunts for food. First, it has to find and approach its prey. In the same way, preys can sense an approaching predator (see illustration).



In the illustration's example, the fish A is able to see fish B and attack him. Fish B, however, will have to wait until fish A is inside its area of senses to see it and try to escape.

Then, if the predator's Size x Strength is bigger than the prey's Size xStrength, predator successfully eats the prey

### 7.7.4 Mutating

As described in the Game World: Location and Entities section, every descendant will be slightly different from its ancestor. It might be differentiate itself from the others by any of its characteristics and for subtle changes in its colours (brightness, hue or saturation).

The rules for the changes are:

1- One random characteristic (Strength, Size, Breed, Senses, Speed or Lifetime) is taken, and its value randomly reduced or increased in ten to twenty points (but never reaching lower or higher than original value)

2- From the specimen's illustration, a group of ten or more pixels of the same colour are taken and have their brightness, hue or saturation randomly increased or decreased in 1 to 10 points.

### 7.7.5 The need for balance

If any, the challenge presented to the player is to balance the species to make them all survive on the environment. This point of equilibrium might be hard to find, but should be interesting to play with the possibilities allowed.

## **8 – Nurturing**

### **8.1 Introduction**

In Insular, Nurturing is the group of actions the player can perform to alter the state of the weather to better suit his entities and environment.

There is not a “right” way to nurture the environment. To see specific consequences, see the section Game World: Locations and Entities. The final result depends on the effect of the actions over individual entities.

### **8.2 Nurturing Mode**

When the player starts engaging in one of these activities, the Message Field of GUI displays the message “Press B to enter Nurturing Mode”. By pressing B, the player stops controlling the character with the directional pad, and will start controlling the wind instead. Message Field of GUI will then display the message “Press B to quit Nurturing Mode”.

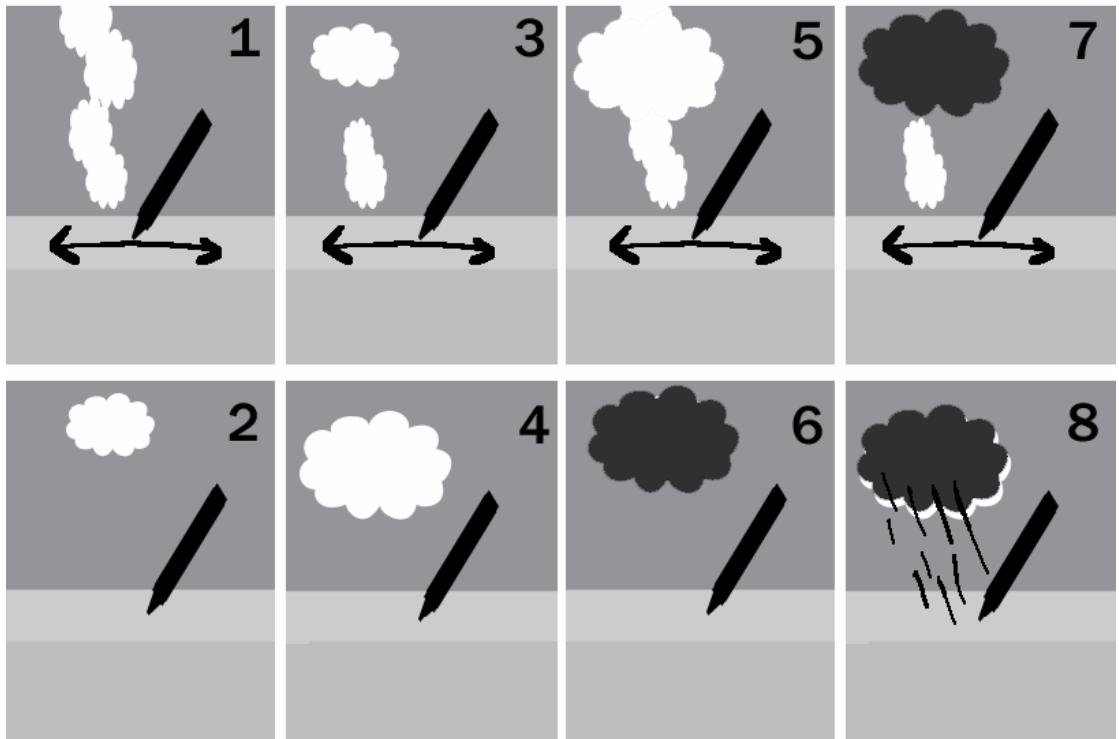
### **8.3 Possible actions and consequences**

#### **8.3.1 Rubbing water surface with stylus**

##### **- Creates and increases clouds.**

Evaporates water and form clouds. After 2 seconds of rubbing, a cloud will be created and the Message Field of GUI displays the message “Press B to enter Nurturing Mode”. The evaporation will be made visible to the user by a stream of smoke-like particles.

Rubbing the water surface area right beneath a cloud will not create a new one, but increase the size of the previously made, adding 1m<sup>2</sup> of area to every 2 seconds of rubbing. After its size has doubled from the original, its density increases 10% every 3 seconds of rubbing, up to twice its original value – then it rains.



### 8.3.2 Blowing the microphone

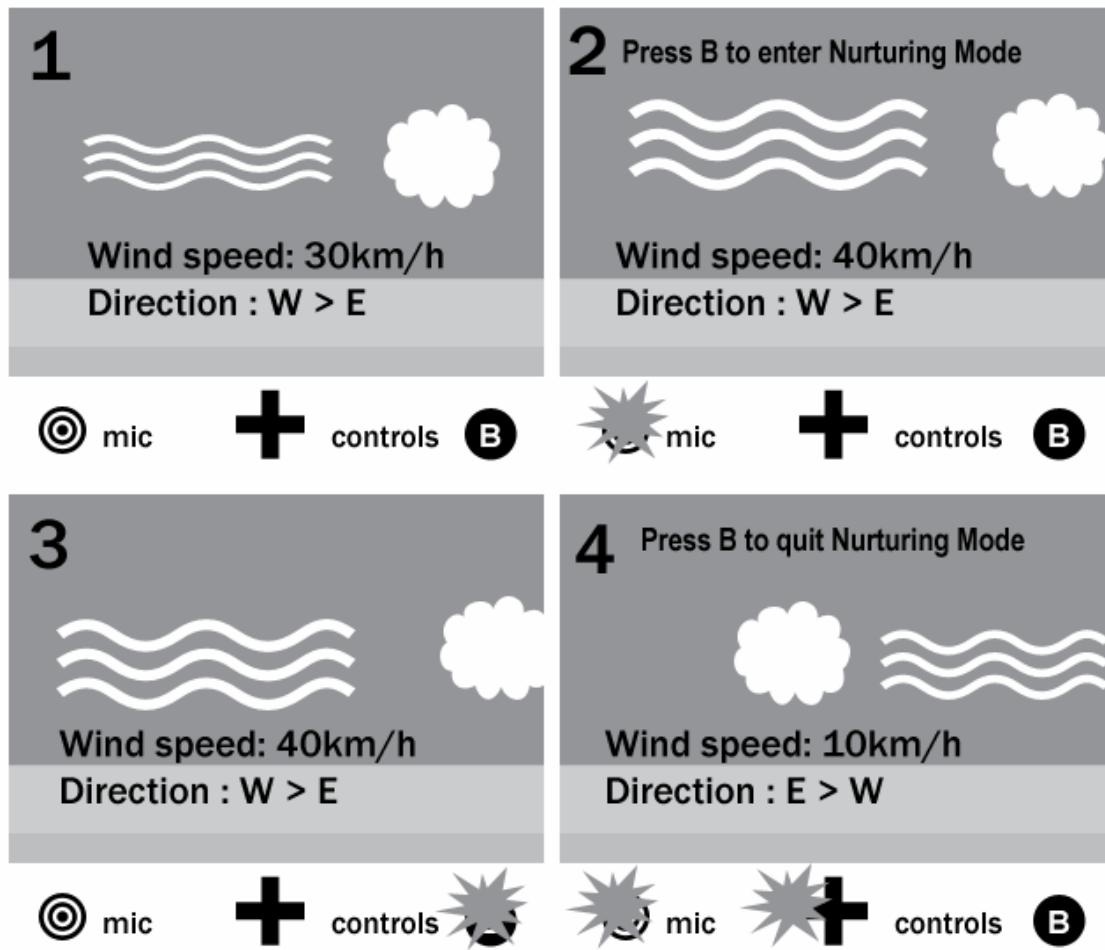
- Creates and increases wind.

Increases and decreases the wind, according to the volume captured by the microphone. After 2 seconds, Message Field of GUI displays the message “Press B to enter Nurturing Mode”.

### 8.3.3 Controlling the wind

- Changes direction and strength of wind.

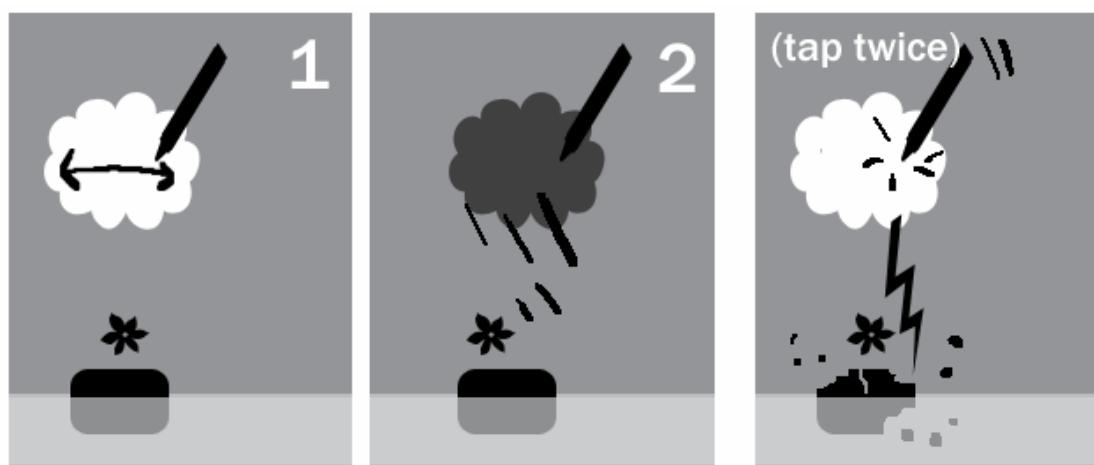
After blowing microphone for more than 3 seconds, Message Field of GUI displays the message “Press B to enter Nurturing Mode”. Blowing it while in Nurturing Mode gradually increases wind’s strength in the direction indicated using control pad. The user will then influence the original characteristics of the wind.



#### 8.3.4 Rubbing clouds

- Transforms cloud into rain

Rubbing a cloud will transform it into rain and start Nurturing mode. Rain will be beneficial to flowers, vegetation (depending on the amount) and make paintings fade away. Tapping a cloud will produce a lightning bolt that will hit any floating rock (not the main island) right beneath the cloud originating it..



## 9 – Camera and Display

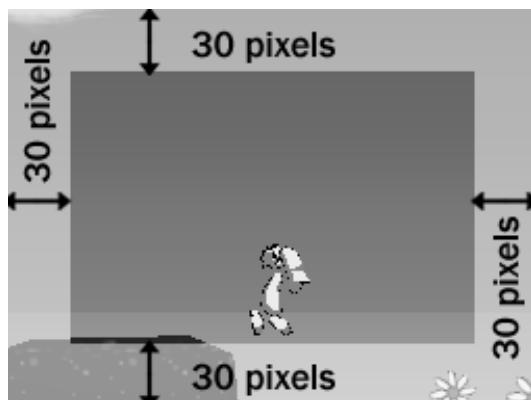
### 9.1 Top and bottom screen

Unless specified by individual activities and applications, the top screen will display the character, and the bottom screen will be a continuity of the camera.



### 9.2 Camera Movement - Translation

The camera will translate vertically and horizontally once the character approaches the margins of 30 pixels from the screen limits, as in the illustration:



### 9.3 Camera Movement - Zoom

The camera zoom is not only influenced by player's input (buttons L and R – see the section Character), but also by the location of the character in the world. The following table specifies the maximum, minimum and default levels of camera proximity (in terms of character's size in pixels). It is important to notice that, while travelling vertically, the camera zoom is calculated by the interpolation of the given values.

| Location       | Min Zoom  | Default   | Max Zoom   |
|----------------|-----------|-----------|------------|
| Space (top)    | 13 pixels | 25 pixels | 50 pixels  |
| Sky (middle)   | 20 pixels | 40 pixels | 80 pixels  |
| Land (rocks)   | 25 pixels | 50 pixels | 100 pixels |
| Ocean (bottom) | 13 pixels | 25 pixels | 50 pixels  |

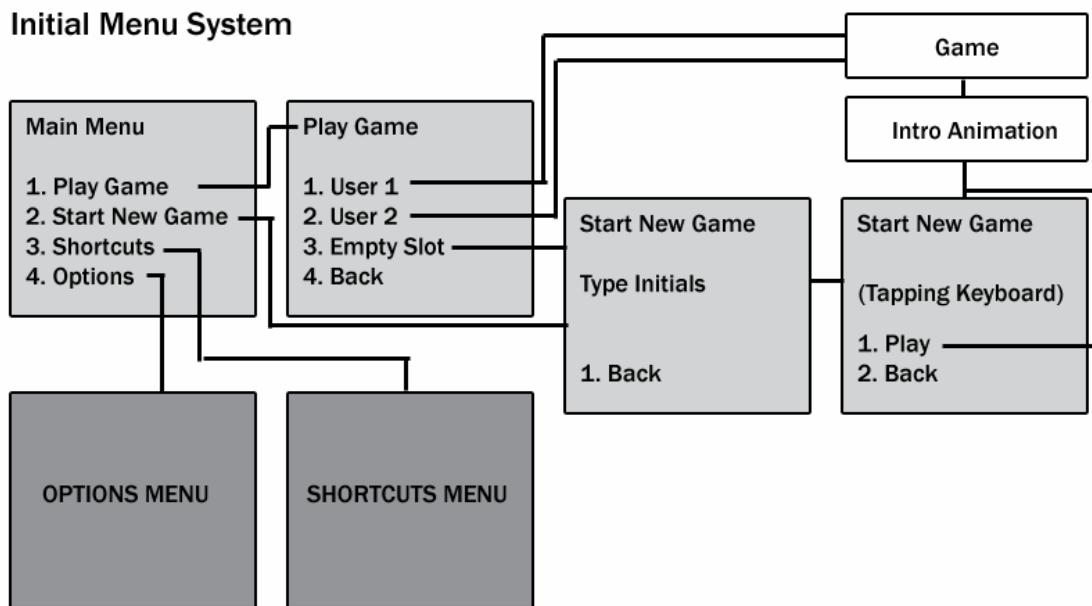
# 10 – Menus, GUI and Options

## 10.1 Menus

Menus are located at the bottom screen, and can be interacted with via stylus or alternating choices using the directional pad and the X button.

### 10.1.1 Initial Menu System

From the Initial menus you can start a new game, load a previously created one, go to the Options menu or go to the Shortcuts menu.



### 10.1.2 Options Menu

The options menu lets the player change the following parameters:

**1- Slideshow (On/Off)** – Default: On. By setting this Off, the player will not have to see a slideshow of pictures of his creations after game is idle for more than 10 seconds.

**2- Time Scale (1-96)** - Default: (real-time) 1/24. This can be changed to 2, 3, 4, 6, 8, 12, 18, 24, 36, 48, 72 and 96/24.

### 10.1.3 Shortcuts Menu

The Shortcuts Menu (also available from the Main Island) allows the player to quickly go to a selected activity or application (depending on its availability or requirements).



As a general rule, Activities and Applications are made available as soon as its tutorial is completed. The exceptions are Sea Life Editor and Terraforming, which require Cells and Magma respectively (to be collected at the Zen Garden).

The shortcuts will be icons located at the bottom screen that need to be double-clicked to be activated. Clicking it once will display information about that activity / application on the top screen.

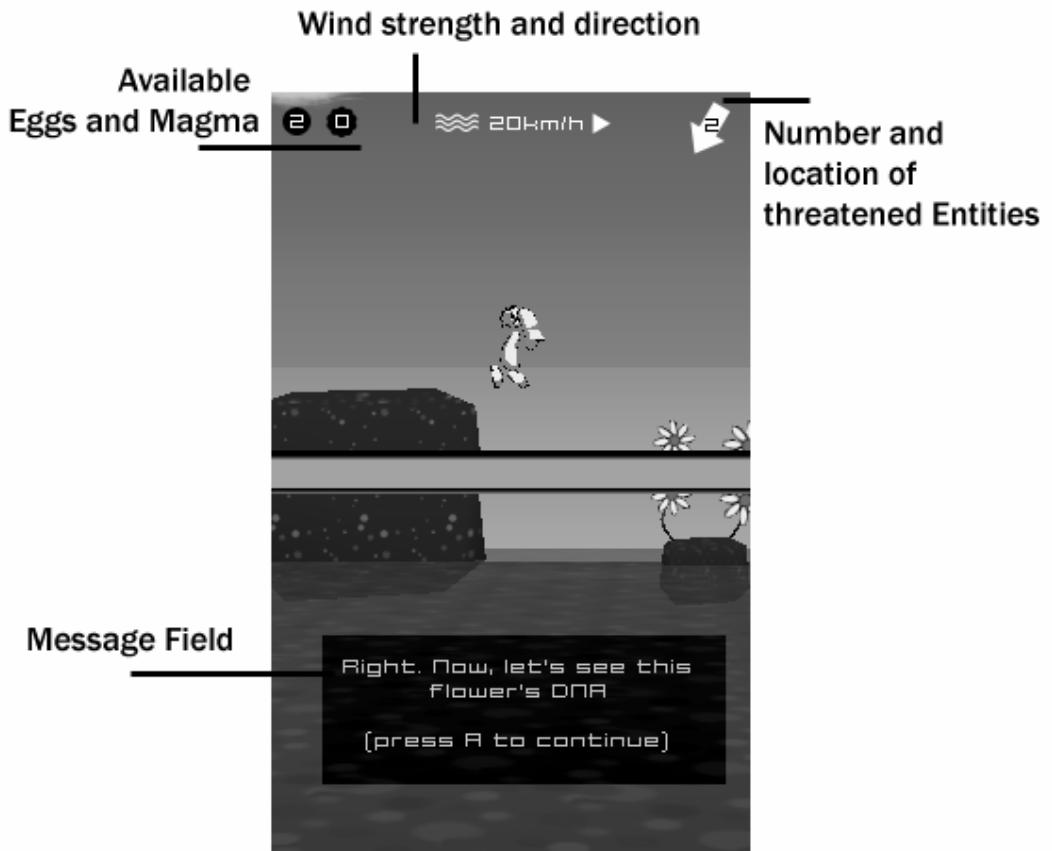
The available options at the Shortcut Menu are:

| Shortcuts Menu |                 |                  |
|----------------|-----------------|------------------|
| Options        | Zen Garden      | Diary / Reminder |
| Main Menu      | Terraforming    | Contact Manager  |
| Back           | Sea life editor | Messenger        |
|                | Flower's DNA    |                  |
|                | Rock Paint      |                  |
|                | Cloud Sculpting |                  |
|                | Constellation   |                  |
|                | Galaxy Sound    |                  |

## 10.2 GUI

### 10.2.1 On-Screen Display

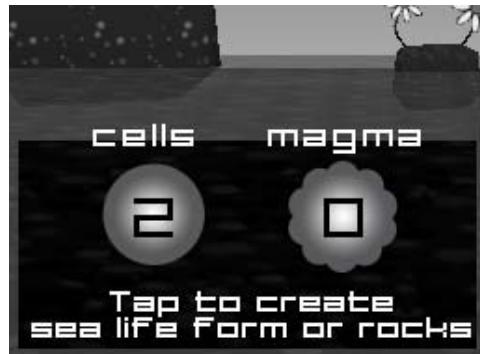
Basic information will be displayed at the screens, as described in the following illustration:



- **Message Field:** Important information will be displayed on this area
- **Available Cells and Magma:** Number of Cells and Magma (respectively) collected in the Zen Garden and available to initiate Sea Life editor and Terraforming.
- **Wind Strength and Location:** Informs wind's condition
- **Number of threatened Entities:** When entities such as flowers, paintings and clouds have less than 30% of estimated lifetime left, an arrow pointing to it, along with the number of entities in that situation, will be displayed.

### 10.2.2 Select Material Menu

Pressing Y at any moment (while exploring the environment) will bring select material menu to the bottom screen. The user will have to tap one of the icons to initiate activity or press Y to close the Select Material Menu.



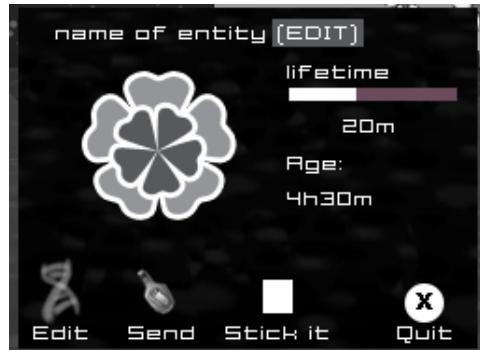
### 10.2.3 Info Display

Pressing Select will bring the Info display to the bottom screen (pressing Select again will deactivate it). The information displayed includes: Date, hour, Moon phase, Messages (total / unread) and Reminder settings. Clicking on the moon will take the player to the Diary / Reminder application. Clicking on the bottle will take player to Messenger application. Clicking on the comet will take player to Diary / Reminder application (on Set Reminder screen).



### 10.2.4 Vital Information Menu

Pressing A in contact with some entities will bring the Vital Information Menu to the bottom screen. Constellation have their visibility settings defined in this screen as well.



- **Name of entity** (and a link to change it on a tap-into keyboard)
- **Remaining lifetime** (if entity is not nurtured)
- **Age** (real-time)
- **Edit** (link to appropriate tool: Sea life editor / Flower's DNA, etc)
- **Send** (as a message to another player – opens Messaging application)
- **Stick it** (To Diary or Contact Manager entry)

## 11 – Activities

### 11.1 Zen Garden

Designed for relaxation, this activity consists of interacting with pebbles found on the bottom of the ocean. Using the stylus, you can drag, drop and throw those elements around. The Zen Garden takes place at the bottom screen only.



The Zen Garden will start as left by the user in his last session.

**Initial number or pebbles:** 50. Player can add up to 50 new pebbles(totalizing 100 max. pebbles). Then, player can only add pebbles if less than 100 are being displayed.

**Size and weight of individual pebbles:** Random, between 0,25m to 1m diameter / 2,5kg to 10kg.

**Colour of individual pebbles:** Random shade of grey, between 0% and 100% black.

**GUI elements:** Finish button (to exit), Cells button (display number of collected cells and links to the Sea Life Editor), Magma button (display number of collected magma and links to the Terraforming activity)

#### Controls:

|               |   |              |   |
|---------------|---|--------------|---|
| <b>UP</b>     | Adds pebble                               | <b>X</b>     | Adds pebble   |
| <b>DOWN</b>   | -   | <b>B</b>     | -   |
| <b>LEFT</b>   | -   | <b>Y</b>     | -   |
| <b>RIGHT</b>  | -   | <b>A</b>     | -   |
| <b>L</b>      | -   | <b>RESET</b> | Displays Info: Time, date, reminder, total hours of play    |
| <b>R</b>      | -   | <b>START</b> | Displays Shortcuts Menu                                     |
| <b>STYLUS</b> | Drags and drops pebbles, activate buttons | <b>MIC</b>   | (Blowing) makes rocks gently roll as influenced by a stream |

**Collecting Cells and Magma:** During the first three sessions, a Cell (required to make Sea Life forms) will be available among the pebbles. When tapping the Cell, the player receives the message “You have collected a Cell. To transform it into a creature, go to the Sea Life form editor”. The player will receive an extra Cell every two hours of playtime, until a total of 10 different species made in the Sea Life editor are present in the game”. If this number is reduced, a Cell will be available the next time the user starts the Zen Garden.

In a similar way, the player can find Magma spheres, used to activate the Terraforming activity. The user will find two Magma spheres every 15 minutes of gameplay, until floating rocks occupy a total horizontal area of 30 meters.

The number of Cells and Magma are displayed on their respective GUI buttons.

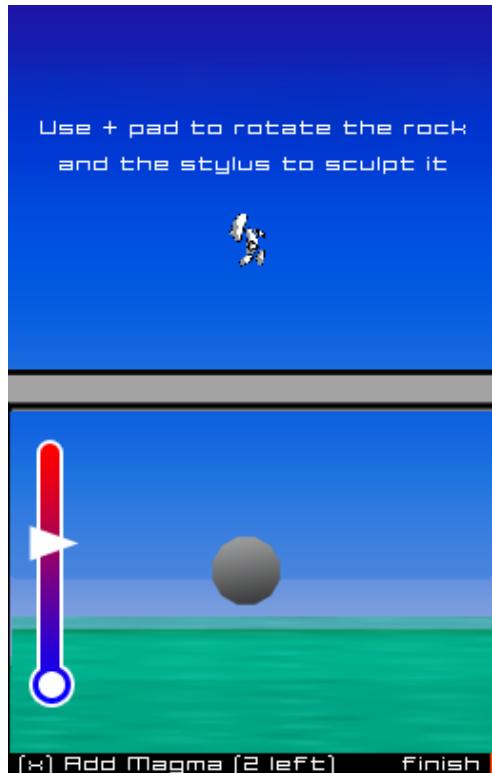
## 11.2 Terraforming

The player will make his floating rocks using this activity, similar to virtual pottery.

In practical terms, that means manipulating a 3D sphere model.

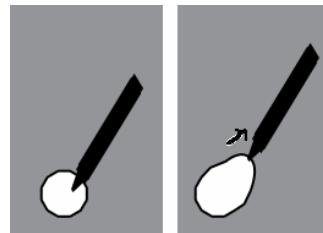
**Step 1/3- Add Magma:** By pressing X or tapping the button “(x) Add Magma (n left)”, the player will add 3D sphere of 0,5m x 0,5m.

The thermometer will start from its higher position, dropping 5% every second. When reaching the bottom, is no longer possible to sculpt the rock.

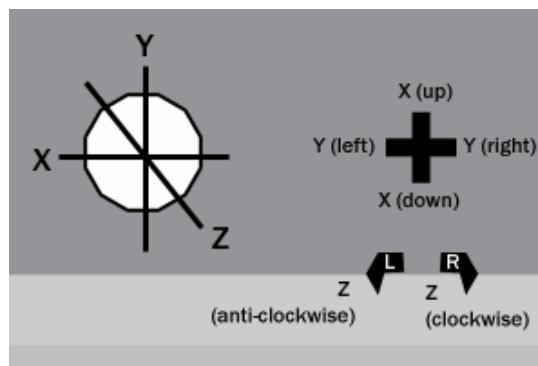


The player can always add more magma. That will increase the size of the 3D object in 0,5m x 0,5m (keeping shape done by player), and increase the temperature back to the top of the thermometer.

**Step 2/3- Drag model's vertex and polygons:** Using the stylus, the player can move individual vertex and polygons of the model, shaping it to his taste. The model will behave as if using the 3DS Max “soft-selection” transformer, smoothing the areas around the selected vertex of polygon. Vertex and polygons stop being dragged after dislocated 0,5m from original position (the user can, then, start dragging it again).



**Step 3/3- Rotate the model:** Using the directional pad and L and R buttons, the player can rotate the model on the X, Y or Z axis.



Go back to any step: As long as the thermometer runs out and there is no more Magma to add.

Once the player finishes his sculpture, the 3D model is converted to a 2D image that can be moved around the environment.

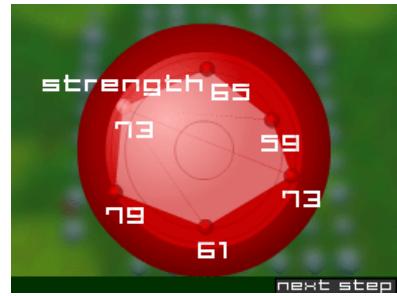
### **Controls:**

|               |                           |              |   |
|---------------|---------------------------|--------------|---|
| <b>UP</b>     | Rotates model             | <b>X</b>     | Adds Magma  |
| <b>DOWN</b>   | Rotates model             | <b>B</b>     | -   |
| <b>LEFT</b>   | Rotates model             | <b>Y</b>     | -   |
| <b>RIGHT</b>  | Rotates model             | <b>A</b>     | -   |
| <b>L</b>      | Rotates model             | <b>RESET</b> | Displays Info: Time, date, reminder,<br>total hours of play |
| <b>R</b>      | Rotates model             | <b>START</b> | Displays Shortcuts Menu                                     |
| <b>STYLUS</b> | Drags vertex and polygons | <b>MIC</b>   | -   |

### 11.3 Sea Life editor

This is where the player creates the Sea life forms.  
It requires a Cell to be accessed.

**Step 1/4- Define Characteristics:** By dragging the small spheres inside the cell (see illustration), the player creates a diagram that displays the species characteristics. The closer to the edge, the higher is the value (from 1-100) attributed to the selected characteristic. The player should tap the “Next Step” button when done.



**Step 2/4- Draw specimen:** The player is taken to a drawing board, with several tools. The size of the canvas is 128 x 128 pixels, and the tools include:

- Pencil (1,2,4 and 8 pixels size)
- Eraser (1,2,4 and 8 pixels size)
- Paint Bucket tool (to fill regions with colour)
- Rectangular shape drawing tool
- Spherical shape drawing tool
- Undo and Redo (1 level of undo)
- Palette (256 colours, accessible by dragging the colours inside its box with the stylus)

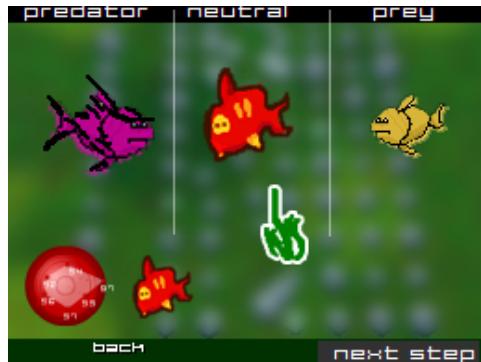


The player also specifies which direction his creature is facing in the drawing (Left, Centre or Right), selecting the appropriated button.

There is also a button to the next step and the characteristics diagram, which serves as a button and takes the player back to step 1.

### Step 3/4- Build his food chain

By dragging and dropping icons representing the available creatures and seaweed, the player defines the relationship between the pre-existing creatures and the new one.



There are also links to the next step and the previous ones (diagram and fish drawing on illustration's left bottom corner).

### Step 4/4- Give it a name

Tapping on the virtual keyboard including letters from A-Z, numbers from 0-9, Space, Backspace and Clear. There are also links to the previous sections and a “Finish” button.



**Screen:** The activity takes place in the bottom screen. The top screen shows the creature being created, according to its Speed and Size settings. After activity is finished, a couple of specimens will be placed in the ocean.

**Controls:** All the interaction is done using the stylus pen.

## 11.4 Flower's DNA

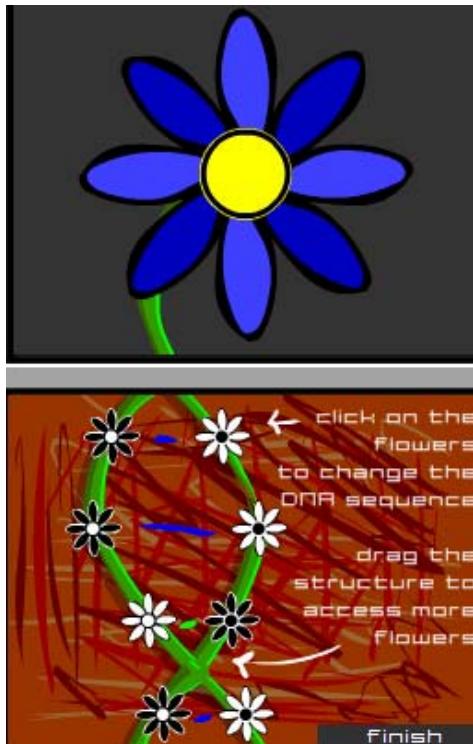
Using this activity, the player will design the environment's flowers.

The top screen will display the image of the flower, changed by the interaction of the player with the DNA structure on the bottom screen, comprising 46 pairs of DNA bases.

The player interacts with the structure in two ways:

1- Tapping the small flowers representing the DNA bases (Cytosine, Guanine, Adenine, Thymine) will alternate the 4 possible combinations.

2 – Dragging the helix-like structure will reveal more pairs of DNA bases to be tapped.



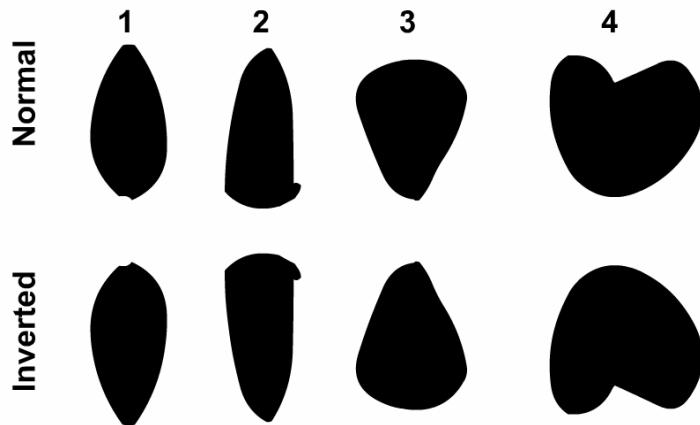
### Characteristics:

The flower's characteristics to be affected by their DNA structure are:

- **Strength** (1, 2, 5 or 10)  
**Size of button** (0,1m, 0,2m, 0,4m or 0,5m diameter)
- **Colour of button** (#RGB)
- **Number of crown of petals** (1 or 2)
- **Number of different types of petals on crowns** (1 or 2)
- **Total number of petals on crown 1** (from 3 to 16)
- **Total number of petals on crown 2** (from 3 to 16)
- **Size of petals type 1 – crown 1** (from 0,2 to 0,5m)
- **Size of petals type 2 – crown 1** (from 0,2 to 0,5m)
- **Size of petals type 1 – crown 2** (from 0,2 to 0,5m)
- **Size of petals type 2 – crown 2** (from 0,2 to 0,5m)
- **Shape of petals type 1 – crown 1** (see Petal Shapes table)
- **Shape of petals type 2 – crown 1** (see Petal Shapes illustration)
- **Shape of petals type 1 – crown 2** (see Petal Shapes illustration)
- **Shape of petals type 2 – crown 2** (see Petal Shapes illustration)
- **Colour of petals type 1 – crown 1** (#RGB)
- **Colour of petals type 2 – crown 1** (#RGB)
- **Colour of petals type 1 – crown 2** (#RGB)

- Colour of petals type 2 – crown 2 (#RGB)

### Petal Shapes



### Pairs of bases and the flower's attributes

| Pair | Combination  |       |       |       |
|------|--|-------|-------|-------|
|      | a  | b     | c     | d     |
| A    | 1  | 2     | 5     | 10    |
| B    | 0,1m   | 0,2m  | 0,3m  | 0,5m  |
|      | Flower strength = A<br>Button's size = B   |       |       |       |
| C    | 1  | 2     | 1     | 2     |
| D    | 1 ; 1  | 1 ; 2 | 2 ; 2 | 2 ; 1 |
|      | Number of crowns = C<br>Different types of petals = D ( main crown ; internal crown) |       |       |       |
| E    | 3  | 4     | 5     | 6     |
| F    | 0  | 1     | 3     | 4     |
|      | Number of petals (main crown ; internal crown) = D x E + F                           |       |       |       |
| G    | 0,2m   | 0,3m  | 0,4m  | 0,5m  |
| H    | 0,2m   | 0,3m  | 0,4m  | 0,5m  |
| I    | 0,2m   | 0,3m  | 0,4m  | 0,5m  |
| J    | 0,2m   | 0,3m  | 0,4m  | 0,5m  |
|      | Size of petals (main 1; main 2; int. 1; int. 2) = G;H;I;J                            |       |       |       |

|               |   |        |        |                  |
|---------------|---|--------|--------|------------------|
| K             | 1   | 2      | 3      | 4                |
| L             | 1   | 2      | 3      | 4                |
| M             | 1   | 2      | 3      | 4                |
| N             | 1   | 2      | 3      | 4                |
| O             | None  | main 1 | main 2 | main 1,main 2    |
| P             | None  | Int 1  | Int 2  | Int 1, Int2      |
|               | Shape of petals:<br>main 1 = K , main 2 = L, int. 1 = M, int. 2 = N<br>Invert shapes of = O, P. |        |        |                  |
| Q             | FF  | CC     | 99     | USE 'R'          |
| R             | 66  | 33     | 00     | FF               |
| S             | FF  | CC     | 99     | USE 'T'          |
| T             | 66  | 33     | 00     | FF               |
| U             | FF  | CC     | 99     | USE 'V'          |
| V             | 66  | 33     | 00     | FF               |
|               | Colour of button = RGB (Q, S, U)  |        |        |                  |
| W             | FF  | CC     | 99     | USE 'X'          |
| X             | 66  | 33     | 00     | FF               |
| Y             | FF  | CC     | 99     | USE 'Z'          |
| Z             | 66  | 33     | 00     | FF               |
| $\alpha$      | FF  | CC     | 99     | USE ' $\beta$ '  |
| $\beta$       | 66  | 33     | 00     | FF               |
|               | Colour of petal main1 = RGB (W, Y, $\alpha$ )   |        |        |                  |
| $\gamma$      | FF  | CC     | 99     | USE ' $\delta$ ' |
| $\delta$      | 66  | 33     | 00     | FF               |
| $\varepsilon$ | FF  | CC     | 99     | USE ' $\zeta$ '  |
| $\zeta$       | 66  | 33     | 00     | FF               |
| $\eta$        | FF  | CC     | 99     | USE ' $\theta$ ' |
| $\theta$      | 66  | 33     | 00     | FF               |
|               | Colour of petal main2 = RGB ( $\gamma$ , $\varepsilon$ , $\eta$ )                               |        |        |                  |
| $\iota$       | FF  | CC     | 99     | USE ' $\kappa$ ' |
| $\kappa$      | 66  | 33     | 00     | FF               |
| $\lambda$     | FF  | CC     | 99     | USE ' $\mu$ '    |
| $\mu$         | 66  | 33     | 00     | FF               |
| $\nu$         | FF  | CC     | 99     | USE ' $\xi$ '    |
| $\xi$         | 66  | 33     | 00     | FF               |

|             |   |    |    |                 |
|-------------|---|----|----|-----------------|
|             | Colour of petal int. 1 = RGB ( $\iota, \lambda, v$ )    |    |    |                 |
| $\alpha$    | FF  | CC | 99 | USE ' $\pi$ '   |
| $\pi$       | 66  | 33 | 00 | FF              |
| $\rho$      | FF  | CC | 99 | USE ' $\zeta$ ' |
| $\varsigma$ | 66  | 33 | 00 | FF              |
| $\sigma$    | FF  | CC | 99 | USE ' $\tau$ '  |
| $\tau$      | 66  | 33 | 00 | FF              |
|             | Colour of petal int. 1 = RGB ( $\alpha, \rho, \sigma$ ) |    |    |                 |

Default setting for every Pair: Combination “a”

**Controls:** All the interaction is done using the stylus pen.

## 11.5 Rock Painting

The Rock Painting activity is a drawing board with several tools. The size of the canvas is 256 x 128 pixels, and the tools include:

- Pencil (1,2,4 and 8 pixels size)
- Scratching tool (makes scratches on the rock surface)
- Brush tool (4, 8, 12 and 16 pixels)
- Water brush tool (washes away portion of image in 10%, and can be utilized to erase it completely)
- Undo and Redo (1 level of undo)

The Palette is made of illustrations of the flowers available in the environment. Clicking the flower works as an eyedropper tool (clicking on a white petal selects the white colour, etc). The player can browse the flowers using the arrow buttons.

The painting made in the bottom screen is projected into the floating rock, and visible from the top screen.

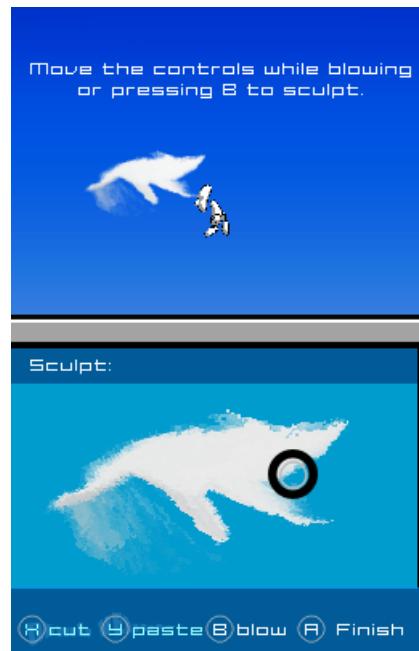
**Controls:** All the interaction is done using the stylus pen.



## 11.6 Cloud Sculpting

In this activity, taking place in the bottom screen, the player changes the shape of the clouds by distorting their image. To do so, he must:

- 1- Move the cursor using the directional pad.
- 2- Blow the microphone or press the B button to generate wind (this wind will not affect the environment).
- 3- The wind will distort the image in the direction selected by the player using the directional pad, affecting the pixels within and around the cursor.



To cut and paste a section of the clouds, the player should press the buttons X (to cut the selection below the cursor) and Y (to place it in the new cursor position).

The cloud made in the bottom screen is visible from the top screen.

### Controls:

|        |              |       |  |
|--------|--------------|-------|--|
| UP     | Moves cursor | X     | Cuts selection   |
| DOWN   | Moves cursor | B     | Blows wind   |
| LEFT   | Moves cursor | Y     | Paste Selection  |
| RIGHT  | Moves cursor | A     | -  |
| L      | -            | RESET | Displays Info: Time, date, reminder, total hours of play |
| R      | -            | START | Displays Shortcuts Menu                                  |
| STYLUS | -            | MIC   | Blows wind   |

## 11.7 Constellation

The player is taken to the constellation activity by pressing B next to a star.

**Step 1 - linking:** On the bottom screen, a sky map of surrounding area will appear. The player can build and delete links between the stars by dragging and dropping a star on another. After linking the stars, the player can proceed to the next step.



The links will also be seen in the environment, displayed on the top screen.

**Step 2 - drawing:** The bottom screen will now feature a drawing tool, so the player can illustrate the constellation (256 x 128 pixels image). The player will draw over the image of the stars and links, so he has a reference. Tools include Pencil (sizes 2 and 4), Eraser (sizes 2 and 4) Undo and Redo buttons (1 level of undo).



**Observation:** if selecting a star that already belongs to a constellation, the player will receive the message

- “Star already present in another constellation. Please, select another”.

**Step 3 – Giving it a name:** Tapping on the virtual keyboard including letters from A-Z, numbers from 0-9, Space, Backspace and Clear. There are also links to the previous sections and a “Finish” button.

**Step 4 – Visibility settings:** The player will then choose how the constellation will be displayed. The player has only to tick boxes to define it. The options are:

Show (select as appropriate):

- Lines
- Illustration
- At night only
- When in contact only
- From space only

**Controls:** All the interaction is done using the stylus pen.

## 11.8 Galaxy Sound

This is the music-making activity of Insular. The actions the player can perform are:

- 1- Play music using the control pad and buttons
- 2- Choose one from 5 different instruments to play with
- 3- Adjust the settings of chosen instrument (brightness,
- 4- Create rhythm track
- 5- Record music (up to 4 songs – 1 minute each)

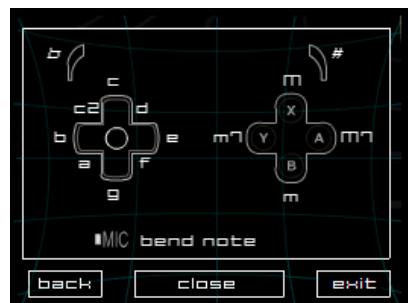


**Step 1 – The opening screen:** Possible actions for the player are:

- 1 - Click “How to Play” and see the instructions for playing the musical instrument.
- 2 - Click one of the planets to choose instrument and adjust its settings
- 3 - Click Sun to create a rhythm track
- 4 - Click REC button to record song (starting as soon as he presses the directional pad)

**Step 2 – “How to Play” screen:** This screen shows the control scheme for the instruments.

**Controls:**



|                  |                                       |                   |  |
|------------------|---------------------------------------|-------------------|--|
| <b>UP</b>        | Plays C                               | <b>X</b>          | Makes Major chord  |
| <b>DOWN</b>      | Plays G                               | <b>B</b>          | Makes Minor chord  |
| <b>LEFT</b>      | Plays B                               | <b>Y</b>          | Makes Major7 chord                                       |
| <b>RIGHT</b>     | Plays E                               | <b>A</b>          | Makes Minor7 chord                                       |
| <b>UP+LEFT</b>   | Plays C (octave up)                   | <b>UP+RIGHT</b>   | Plays D  |
| <b>DOWN+LEFT</b> | Plays A                               | <b>DOWN+RIGHT</b> | Plays F  |
| <b>L</b>         | (b): Shifts down 1 semitone           | <b>RESET</b>      | Displays Info: Time, date, reminder, total hours of play |
| <b>R</b>         | (#): Shifts up 1 semitone             | <b>START</b>      | Displays Shortcuts Menu                                  |
| <b>STYLUS</b>    | Interacts with bottom screen elements | <b>MIC</b>        | Bends note   |

### Step 3 – Selecting and changing Instrument:

The five instruments are: Synthesiser, Piano, Bass, Electric Guitar and Strings. By tapping the correspondent planet (the name of the instrument is displayed next to it), the player selects it.



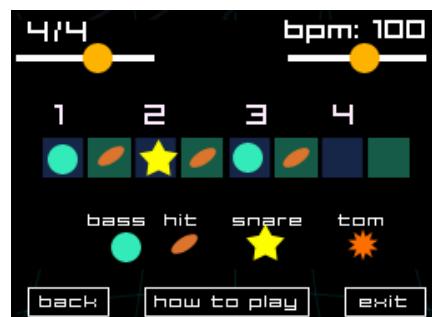
By tapping it again, he is taken to the Instrument Parameters screen, where he uses the stylus to change the instrument's brightness and length by dragging the moons around the planet. The values (0-100) should be visible once the stylus is pressing the “moon”.

### Step 4 – Creating rhythm track:

By tapping the sun from the opening screen, the user is taken to the rhythm screen, where he can choose the tempo, rhythm (2/4, 3/4, 5/4) and volume of the rhythm track that he is going to create.



There are four different sounds for creating the rhythm track: snare, bass, hat and tom. These are placed on the track by dragging and dropping the icons representing them.



### Step 5 – Recording:

All the player needs to do is tap the REC button on the activities opening screen. As soon as he starts playing in the directional pad, a progress bar shows the time left (1 minute total). The player can also stop the recording by tapping the REC button again. The player is then asked if in what slot he would like to save the song (of 4 possible slots) and name it using the virtual keyboard, specifying if the song should be used as one of the layers of the soundtrack (see Sound & Music section).

## 12 – Applications

### 12.1 Diary / Reminder

Accessing the Diary / Reminder the player will be able to see add notes for each day of the year (from one year *before* to one year *after* the current date). He can also add stickers to these notes (using the entities of the game) and set the alarm to be reminded of something.

The top screen will show the date and a projection of the stars at the specified day. The bottom screen will display slots for the notes, alarms and stickers. By tapping in one slot, the player can edit it, writing with the virtual keyboard. The player can also use the Up, Down and Add buttons to create new slots and browse them.

To advance days, the player should press the up and down arrows in the directional pad. To advance the months, left and right arrows.



#### Reminder:

If a reminder is set, a Meteorite will come down at the specified date and time (see Entities section). The message will then be displayed. To set a reminder, all the player needs to do is to add an entry to the diary and click the Reminder / Meteorite button.

## 12.2 Contact Manager

Accessible from the shortcuts menu, the contact manager helps the player to organize his list of contacts.

The player input is similar to the Diary, made using the stylus and virtual keyboard. The player can also add stickers and reminders to the person's birthday. The fields available are:



- Name
- Phone
- Mobile
- Email
- Date of Birth
- Quick note (50 characters)
- Sticker (to be shown at the top screen)

To advance letters, the player should press the up and down arrows in the directional pad or tap the icon at the bottom screen.

## 12.3 Messenger

The messenger is only activated when two persons using the Nintendo DS are playing next to each other. When detecting another player through the wireless network, a message bottle will be displayed at the bottom screen with the message "Another player found", and the options "Hide Me" and "Send Message".

If a message is sent to the player, a bottle will float on the water surface next to the main island, and he will only be able to read the message if his character is closer than 6m to the bottle.

If the player positions his character next to the Main Island, the messages will be automatically displayed as soon as they arrive.

Creating a message is similar to adding an entry to the diary – but with a “Send” button instead of the “Reminder” one and a “Read Previous” button instead of “Close Entry”.



## 13 –Art & Animation

### 13.1 Overall style

The concept art presented in this document is the best way to describe the visual style intended for Insular. Bright, solid colours should be used. It should also have an organic quality.

As the game serves as a blank canvas to the player, who will add his own drawings to the environment, the visual should be as neutral as possible – without being aseptic.

### 13.2 2D elements, 3D character.

Insular is a hybrid of 2D and 3D game. All game elements will be 2D, except for the character. The Zen Garden activity is also in 3D.



### 13.3 References

- **Andy Warhol, *Flowers*.** - Solid colours. Flower's DNA Activity.
- **Georges Seurat, *Seascape at Port-en-Bessin, Normandy*.** – Organic quality. Environment (specially clouds)
- **Karel Appel, *Dieren*.** – Colours, graphic elements.
- **Joan Miro, *Character*.** – Character design.
- **Francis Bacon, *Crucifixion*** – Nocturnal lights / colours.
- **Tim Burton, *The Melancholy Death of Oyster Boy*** – Character design.
- **Nintendo, *Paper Mario*.** – Juxtaposition 2D x 3D.
- **Terry Gillian's works** – Animation of 2D elements, cut-out technique.

## 14 – Sound & Music

### 14.1 The role of sound and music

Music and sound effects in Insular should be designed to suit the introspective, relaxing mood of the game. Soundtrack is intended to be at a low tempo, light and not very melodic - *ambience music* is a style to look at.

### 14.2 Soundtrack structure

The soundtrack will be composed of several “layers” of instruments, which have their volume changed accordingly to the actions of the player and his coordinates in the environment.

Each part of the environment is represented by a suite of instruments:

- **Space:** Synthesizers
- **Sky:** Brass and woods
- **Land:** Keyboards
- **Ocean:** Bass

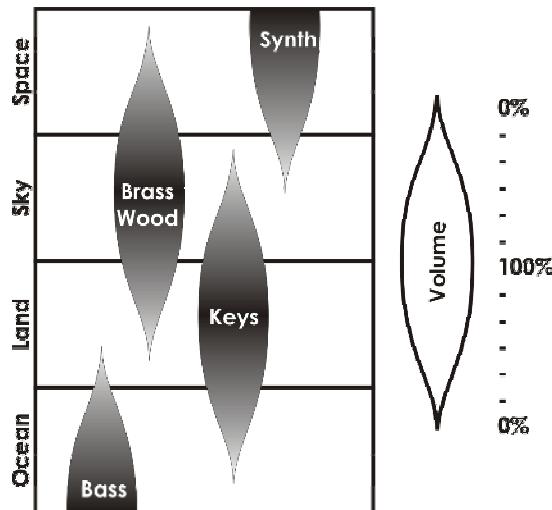
Special layer:

- **Nurturing:** Percussion

### 14.3 Soundtrack transformations

The volumes of the instruments are increased when the character is next to the correspondent environment.

### Sound Layers Volume X Player's Coordinates



When in the ocean, other sound layers are transformed to sound slightly muted and fuzzy as if under water.

When undertaking the musical activity (see [activities](#) section), the soundtrack goes off. It is good to remember that the player can use this activity to compose his own soundtrack.

When nurturing the environment, the environment-oriented sound layers have their volumes turned down, and the percussion is turned up.

Finally, if the player stands idle for more than 15 seconds, the sound layers with lower volumes of soundtrack have their volume increasingly turned up until they are all at the same level (a transition that should take around 10 seconds).

