



BIOAMBIENTE

THE ENVIRONMENTAL EDUCATION GAME



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BioAmbiente

It is an educational product produced in the Professional Master's Program in Teaching Health Sciences and the Environment, by master student Amanda Imbuzeiro de Sá Quintela, professor Dr. André Barbosa Vargas and professor Dr. Paulo Roberto de Amoretty, in the format of a game.

It aims to expand the knowledge of Elementary School II students about Environmental Education, aspiring to bring this relevant subject to society and preservation of the planet, in a playful way in the school environment.

The Game History

In the city of Águas Claras, in the interior of the state of Rio de Janeiro, there is a textile industry that uses cotton to produce its clothing items (clothes), and its raw material (cotton) is the result of a vast plantation of 20 hectares in the rural area of the municipality.

The big problem is that this type of plantation is the one that most demands the use of toxic substances in the world that cause a great impact on soil and water.

In addition to this industry, which causes atmospheric pollution, the air in the city of Águas Claras is loaded with pollutants.

In addition to these polluting sources, untreated sewage and improperly dumped into rivers and streams pollute the city.

In the game, you are characters from that city and participate in combats based on the concepts of environmental education, to make the city more sustainable.

Characteres

- ❖ Thiago, the Industry Manager
- ❖ Chico, the Farmer;
- ❖ Paula, the Biologist;
- ❖ Manuel, the Resident;
- ❖ Solange, the Mayor;



How to play?

The class will be divided into 5 groups, who will choose between the five characters and will listen to the story. That way whoever rolls the highest number on the dice starts the game. To go around the board, a 4-sided die will be used, so players will follow the actions of the squares they land on each turn.

As for the cards, they should be shuffled face down and placed next to the board.

After organizing the game, each group will receive its character letter, which will contain its characteristics (attack approaches) and a brief description.

You can only use 1 feature at a time, so your choice of attack should be well thought out so that your score is not wasted.

To perform the actions of the cards, the dice are rolled:

- Attack:

Die number value + attack approach

The attack is successful when the number is greater than the defense.

- Defense:

Die number value + attack approach

The defense is successful when the number is greater than or equal to the attack.

Character analysis

ATTACK APPROACH

THIAGO

(Industry manager)

SMARTENESS



SUSTAINABLE
ATTITUDES



POWER



INFLUENCE



SEARCH



Works in the textile industry for over 10 years, has a good relationship with its employees. However, there are disagreements with environmental professionals due to the pollution caused by the industry.

ATTACK APPROACH

CHICO (Farmer)

SMARTENESS



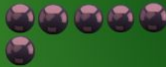
SUSTAINABLE
ATTITUDES



POWER



INFLUENCE



SEARCH



At first he had a small cotton plantation, with the arrival of the big industry to the city, his production increased, but he did not seek knowledge about the plantation and the environment. As a result, he receives environmental fines and criticism from the population.

ATTACK APPROACH

SMARTENESS



SUSTAINABLE
ATTITUDES



POWER



INFLUENCE



SEARCH



PAULA (Biologist)



Monitors air, water and soil pollution in the city of Águas Claras. Seeks solutions to improve the environment, wants to make the city more sustainable.

ATTACK APPROACH

SMARTENESS 

SUSTAINABLE ATTITUDES 

POWER 

INFLUENCE 

SEARCH 

MANUEL (Resident)



It carries out environmental projects in the city, bringing ideas about environmental education and preservation to schools and the population.

ATTACK APPROACH

SOLANGE (Mayor)

SMARTENESS 

SUSTAINABLE
ATTITUDES 

POWER 

INFLUENCE 

SEARCH 



She is in his 3rd year in office, and she is unable to resolve the “clash” over the environment in the city of Águas Claras. She no longer has the support of the biologist or the residents who defend the environment.

Defense and Attack cards

INCREASE IN DEFORESTATION AREA AND WATER, SOIL AND AIR POLLUTION INDEX DUE TO LACK OF INSPECTION IN THE SURROUNDINGS OF THE COTTON INDUSTRY AND FARM.

ATTACK PAULA THE BIOLOGIST!

IF IT'S PAULA, ATTACK SOLANGE, THE MAYOR, FOR LACK OF BUDGET FOR ENVIRONMENTAL INSPECTION.

(If you lose, go back one house)

FLOODING THROUGHOUT THE CITY DUE TO CLOGGING DRAINAGES, EXCESS OF GARBAGE THROWN ON THE STREETS!!

Stay a round without playing!!

But if you have sustainable activity greater than or equal to 6, you are sustainable and this penalty does not apply to you!

AFTER THE FLOODS, A LARGE AMOUNT OF GARBAGE WAS FOUND ON THE STREETS. THESE, WHICH COULD HAVE BEEN RECYCLED AND DESTINED IN THE DUMP.

ATTACK MANUEL, the Resident!

IF IT IS MANUEL ATTACK SOLANGE, the Mayor!

(If you lose, go back one house)

(If you win, advance two spaces)

THE SOIL IS VERY DAMAGED BY
DEFORESTATION AND THE
IRRESPONSIBLE USE OF INSECTICIDES
AND FERTILIZERS IN THE COTTON
PLANTING.

ATTACK CHICO the Farmer!

IF IT IS CHICO ATAQUE SOLANGE, the
Mayor, FOR NOT DECREING LAWS ON THE
CORRECT USE OF CHEMICAL PRODUCTS
AND DEFORESTATION.

(If you win choose which character will
not play the next round)

**TO INCREASE THE PLANTING AREA, A
LARGE BURNING WAS STARTED, WHICH
SPREAD THROUGHOUT THE CITY DUE
TO THE DROUGHT, DUE TO THE LACK
OF RAIN!**

**(Do not leave the house, stay a round
without playing)**

**WATER POLLUTION DUE TO ILLEGAL
SEWAGE DISPOSAL IN RIVERS, DUE TO
LACK OF INVESTMENT BY PUBLIC
AUTHORITIES.**

ATTACK SOLANGE, the Mayor!

**IF IT'S SOLANGE, ATTACK MANUEL, the
Resident FOR NOT COVERING AN
INVESTMENT!!**

**(If you win, advance one space)
(If you lose, go back one house)**

**THE ATMOSPHERIC POLLUTION INDEX
IS INCREASING DUE TO THE INDUSTRY'S
FAILURE TO PROPERLY USE FILTERS IN
THE CHIMNEYS.**

ATTACK THIAGO, the Industry Manager!

**IF IT'S THIAGO, ATTACK CHICO, the
Farmer, FOR THE INCREASE IN
DEFORESTATION BY FIRE!**

(If you win, advance three spaces)

(If you lose, go back one house)

**THE CITY'S FAUNA AND FLORA ARE
DEGRADED DUE TO ENVIRONMENTAL
IRRESPONSIBILITY.**

**ATTACK CHICO, the Farmer, BY BURNING
AND EXAGGERATED USE OF
FERTILIZERS.**

**IF IT'S CHICO, ATTACK THIAGO, the
Industry Manager FOR IRREGULAR
DISPOSAL OF REMAINS OF INDUSTRIAL
PRODUCTION IN THE ENVIRONMENT.**

(If you win, advance two spaces)

(If you lose, go back one house)

**THE EXCESSIVE WASTE ENDED UP
GENERATING A SHORTAGE OF WATER
IN THE CITY.**

**ATTACK MANUEL, the Resident FOR NOT
SAVING WATER.**

**IF IT IS MANUEL, ATTACK SOLANGE, the
Mayor FOR NOT ENCOURAGING
CAMPAIGNS TO REDUCED WATER
CONSUMPTION.**

(If you lose, go back two spaces)

THE CITY IS HOLDING MEETINGS WITH THE PURPOSE OF MAKING IT MORE ECOLOGICAL, THROUGH STUDIES ON SUSTAINABLE DEVELOPMENT.

Stay one round without playing.

If you have research greater than or equal to 6, you are contributing to meetings, so this penalty doesn't apply

Game Board

BIOAMBIENTE



Start

1

2

3

Take a card

Take a card

7

6

5

4

Take a card

Advance one unit

8

Take a card

9

Take a card

10

11

Take a card

12

END

Go one unit backwards

15

Take a card

14

13

Links

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Here are the links to the cards and the game board in PDF format ready for printing.

- <https://drive.google.com/file/d/1MPzR-jrjaWv-R8Bcd18uYODcD6JusKDA/view?usp=sharing> → For file access with the game board
- https://drive.google.com/file/d/1fMMETUkszm2k6pRJJ2vRv18MYK1R-Bdr/view?usp=drive_link → To access the file with the cards