

Plastic continent

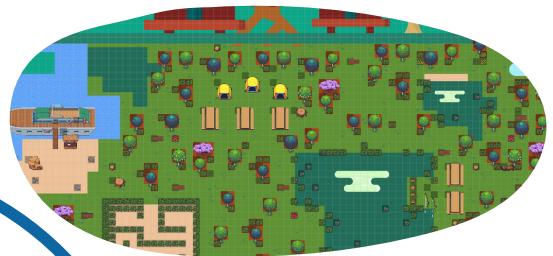


The action takes place in the middle of a plastic continent created by man's negligence. A dolphin imprisoned in its midst must make its way through the heap of mountains of garbage to get out! The Plastic Continent game raises awareness among children about plastic pollution and the negative consequences of human activity, enhancing at the same time their logical and spatial thinking.

Printable resources attached: board x 1, level x 8, pieces x 37 (dolphin x1, 1 tile garbage x 13, 2 tiles garbage x 8, 3 tiles garbage x 7, 4 tiles garbage x 4, 5 tiles garbage x 4)

Additional material needed: scissors

Territory 3 - The crazy bayou



Total Duration: 10 min.

Player count: 1

Learning objectives



Understanding natural systems and technical systems



Identifying oneself in space and time



Reasoning



Understanding the representations of the world and human activity



Adopting ethical and responsible behaviour

Linked SDGs



Game modalities

8 - 12 years old

in the classroom

indoor

work alone

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Pedagogical interest and topics targeted

Develop your logic: understand the mechanisms of level construction. Logical reasoning is the ability to "foresee" implications beyond decisions. Honing this skill promotes active learning, whereby the child would be encouraged to ask good questions that could aid his/her own learning. In the Plastic Continent game, logical reasoning is developed by challenging children to find a way for the dolphin to get out of a garbage stack, or by routing out a way of an object baring several obstacles.

Spatial orientation and thinking: visualize and plan in advance the moves necessary to pass the level. Spatial awareness is a complex cognitive skill that tells us our position relative to objects around us, and the relative position of objects to each other. It involves understanding the concepts of direction, distance, and location, and it's at the heart of learning and performing countless tasks.

Spatial thinking is also called visual thinking. Spatial thinking allows you to understand the location and dimension of objects, and how different objects are related. It also allows you to visualize and manipulate objects and shapes in your head. Not only is spatial thinking very important for everyday tasks, but new research also shows that it is essential for mathematics learning. It prepares children in processing diverse knowledge, assisting efficient processing of complex or potentially confusing information.

Ask questions/curiosity about sustainable development and sustainable consumption and production: wonder about the negative impact of Man on nature, and on the pollution of the oceans. The Plastic Continent brings the topic of plastic pollution in the world's seas and oceans, touching upon several SDGs, which could be discussed in class: 6 Clean Water and Sanitation, 13 Climate Action, 12 Responsible consumption and production, 14 Life below water. Representing a polluted plastic ocean where a dolphin suffocates in plastic trash makes children feel empathy and provokes them to reconsider their consumption patterns toward a more sustainable behaviour.





Game rules

Game narrative: In the Plastic continent, move the garbage piles on the board to free the trapped dolphin.

Role of the teacher and game organisation: Only one child can play this game at a time. We will call them a **player**. The adult in charge has no specific role except perhaps to help them understand the rules.

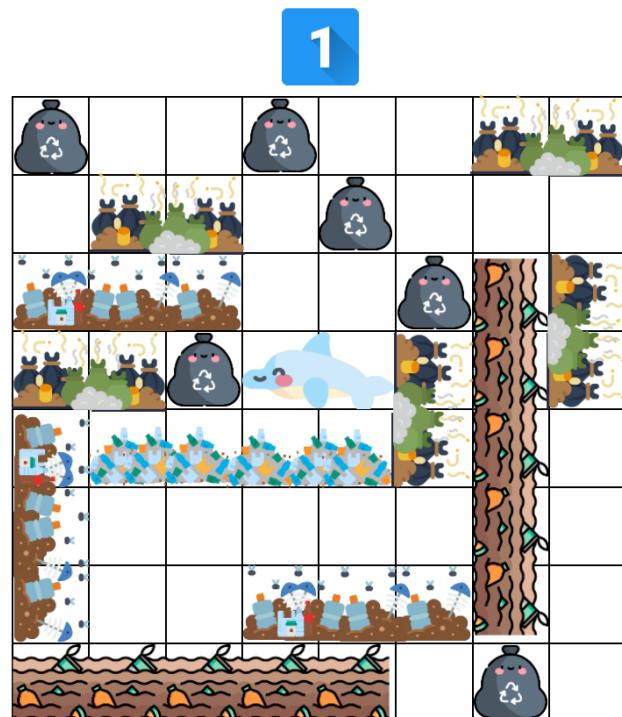
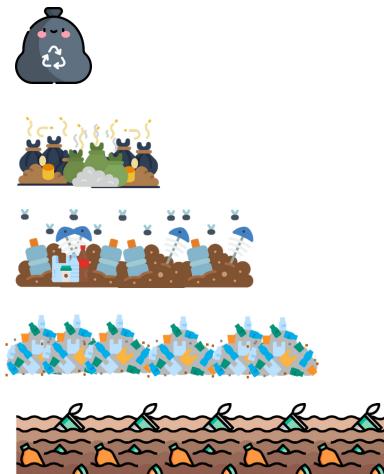
Installation: Place the **board** in the middle of the table.

Choose a **level**.

Add the pieces on the board - the **dolphin** and **garbage piles**, shown on the level card.

There are five kinds of garbage, defined by the number of tiles covered:

- 1 tile garbage
- 2 tiles garbage
- 3 tiles garbage
- 4 tiles garbage
- 5 tiles garbage





Game modes

Movements

Pieces are moved by **dragging them on the board**. Pieces are called the different tiles of garbage and the dolphin itself.

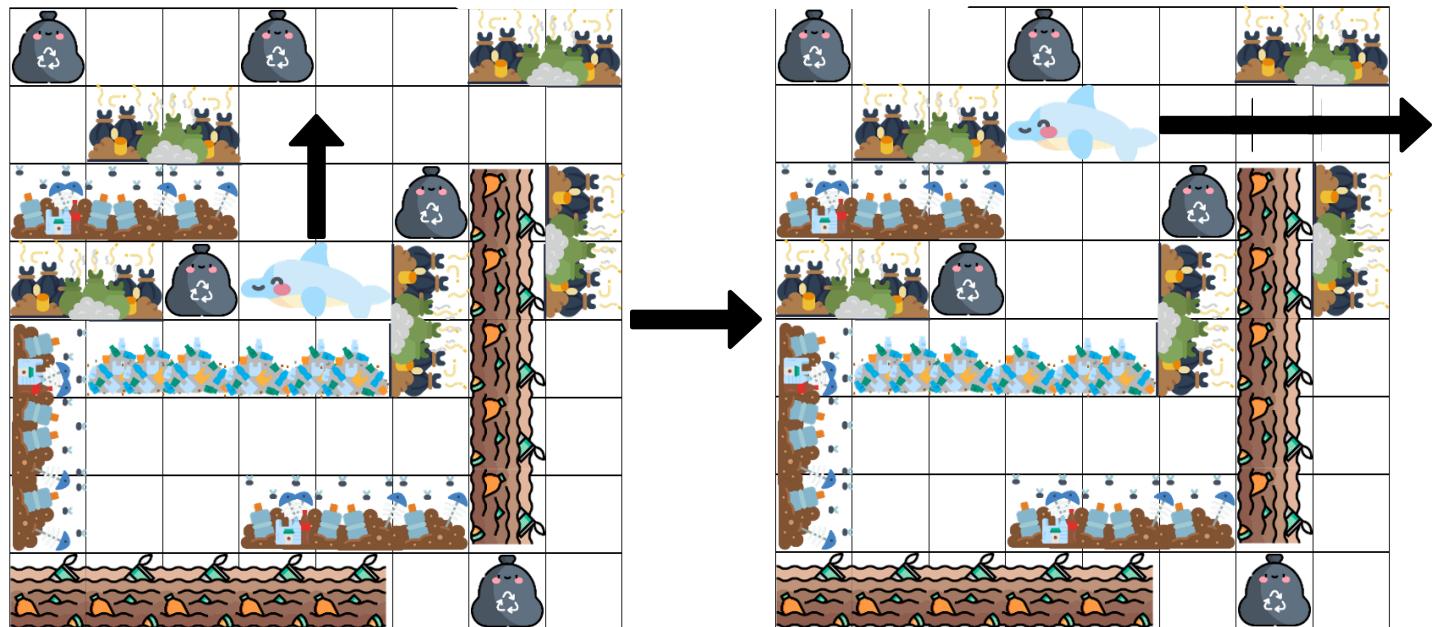
The pieces **are never lifted, never turned over, and never overlap**, even partially, with any other piece.

The player can move any piece which allows it. **Only one piece could be moved at a time**.

Moves can be made up, down, left or right.

A move should be made following a **straight line until an edge of the board or another piece is reached**. A move cannot be voluntarily interrupted unless the above two conditions are accomplished.

If the moving piece is the dolphin and an edge of the board is reached with it, the player wins the game.



Movements

The rules are the same in the difficult mode but the **1-tile garbage pieces cannot be moved**.



Going further



Topic 1 - Logical reasoning

To further develop logical reasoning you may wish to refer to other Unplugged games, among which: **Memory**, **Good ways**, **Farm in the City**, **Peace Magic Grid**, **PotLuck March**, **Reroute a better world**, **Dr. Hanoi**, etc.

To read more about logical reasoning you may see <https://criticalthinkingsecrets.com/what-is-logical-thinking/>



Topic 2 - Spatial orientation, Spatial thinking

To further develop logical reasoning you may wish to refer to other Unplugged games, among which: **Good ways**, **Farm in the City**, **PotLuck March**, **Reroute a better world**, etc.

To read more about the importance of enhancing spatial/visual thinking skills you may see different resources such as:

- <http://www.xplaner.com/visual-thinking-school/>
- <https://kids.frontiersin.org/articles/10.3389/frym.2020.00050>
- <https://babysparks.com/2019/02/20/what-is-spatial-awareness-how-does-it-develop/>



Topic 3 - Societal Development Goals

To become acquainted with the Social Development Goals and actions you may wish to see: <https://bit.ly/3llzknl>

To see other games introducing the SDGs, you may wish to open:

- <https://go-goals.org/>
- <https://culpeer-for-change.eu/quiz/en>



Printables



Grids

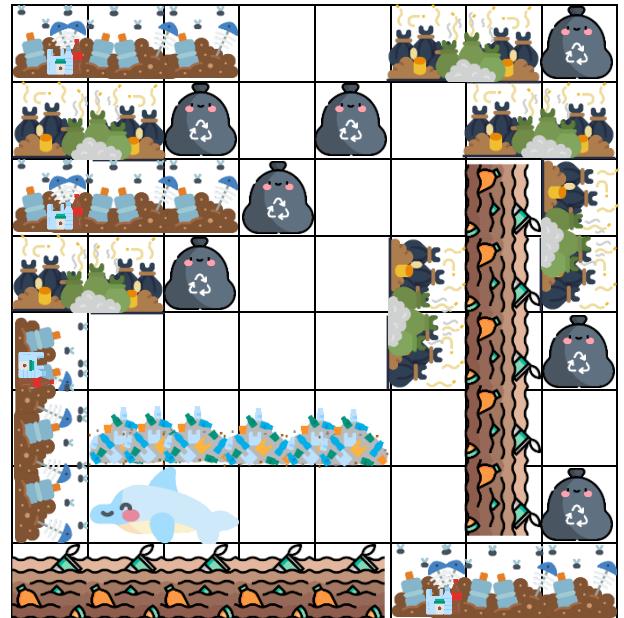
Printables - Examples of arrangements



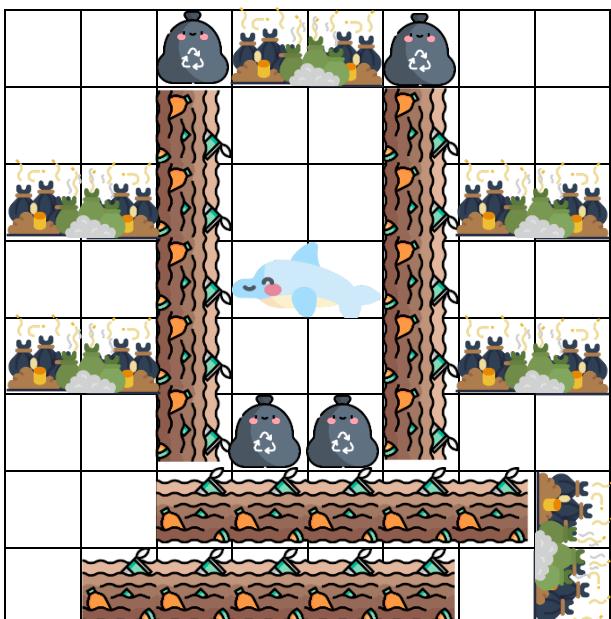
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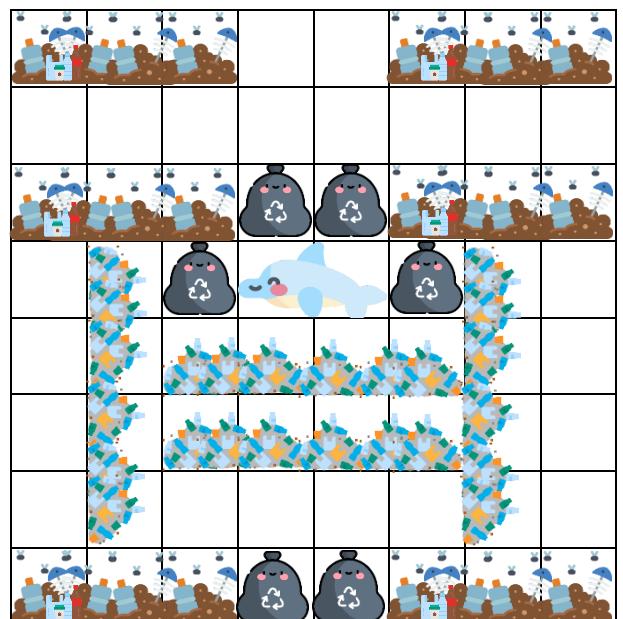
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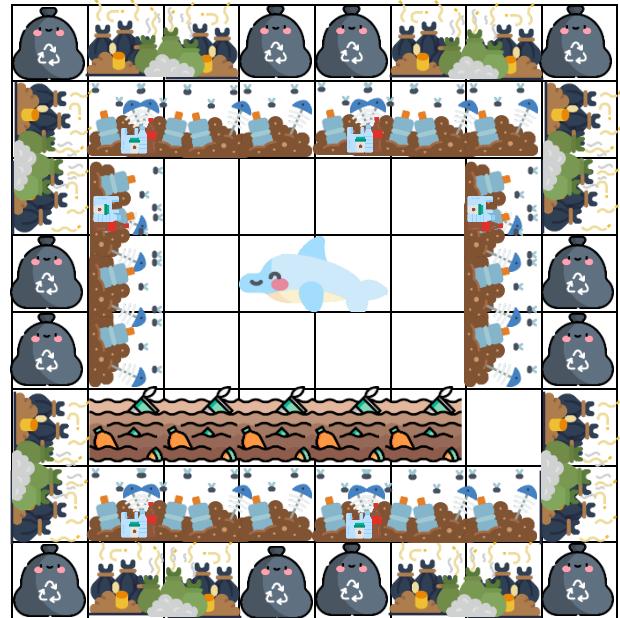
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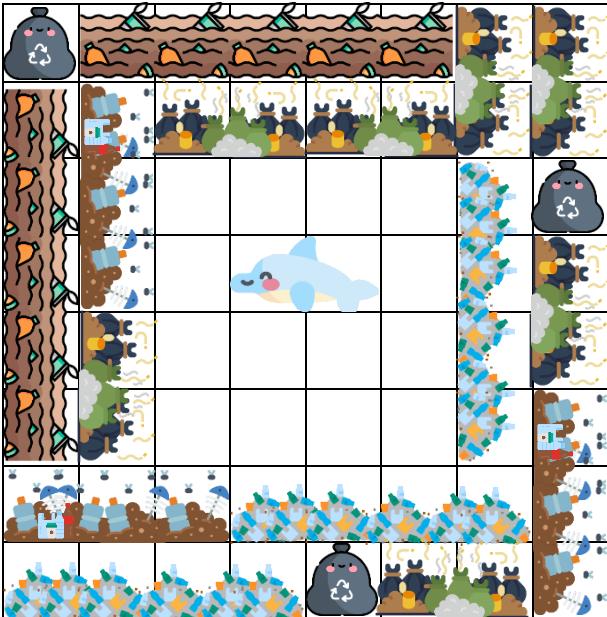
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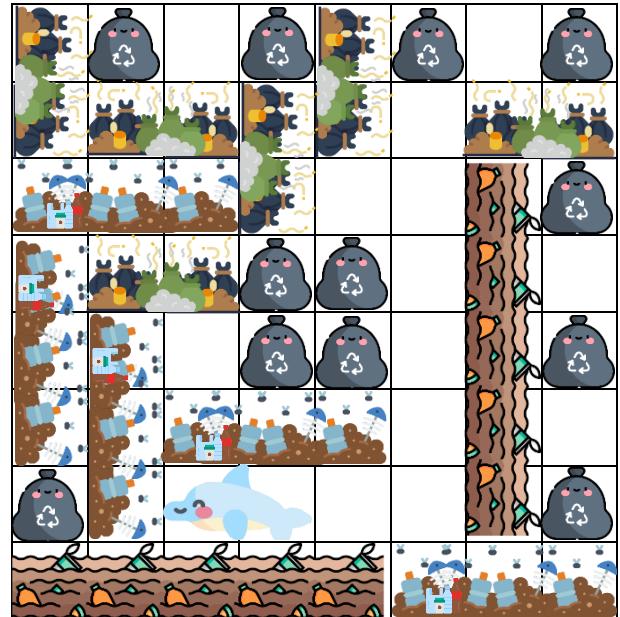
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Printables - Garbage Tiles

