



# BIOWHEROES

let's save the planet!

An immersive role-playing card game about  
**professions in the bioeconomy.**

**Recommended age:** +6 years

**Number of players:** 2–6

**Game length:** 10–15 minutes

Our world is under threat from imbalance: only the bioeconomy can save it! Fortunately, there are **6 bioeconomy professions** that, if they manage to carry out all their tasks, can stop the destruction of the planet. The aim of the game is simple but crucial: be the first to help the bioeconomy professions fulfil their tasks and keep the Earth safe.

#### AUTHORS

The game was developed as part of the project funded by the European Commission, GenB *Informing and educating young people on more sustainable behaviors and choices to build a future Generation informed and interested in Bioeconomy* (G.A. 101060501)

**Created by:** AIJU, Technological Institute for children's products and leisure

**Scientific validation by:** BTG Biomass Technology Group B.V.

**Designed by:** Manuel Camacho (Agencia Magnet)

#### COPYRIGHT



#### ATTRIBUTION-NONCOMMERCIAL-SHAREALIKE 4.0. INTERNATIONAL (CC BY-NC-SA 4.0 DEED)

This document is released under the Attribution-NonCommercial-ShareAlike 4.0. International (CC BY-NC-SA 4.0 DEED) license, which allows users to distribute, remix, adapt, and build upon the material in any medium or format for non-commercial purposes only, and only so long as attribution is given to the creator. If you remix, adapt, or build upon the material, you must license the modified material under identical terms. By accessing or using this report, you acknowledge and agree to comply with the terms and conditions of the CC BY-NC-SA license. For the full text of the license, please visit: <https://creativecommons.org/licenses/by-nc-sa/4.0/legalcode.en>

# RULES

## Game modes

### GAME MODE 1

**“BioHeroes discover the tasks”**

for younger players or those new to the game.

### GAME MODE 2

**“BioHeroes get to work”**

for more experienced players or those seeking a greater challenge.

# GAME MODE 1

## "BioHeroes discover the tasks"

### Contents

The game contains **76 cards** divided into **6 profession cards**, **18 task cards** and **52 action cards**. They are divided into the following types:

PROFESSIONS	 x1	 x1	 x1	 x1	 x1	 x1
	 x1	 x1	 x1	 x1	 x1	 x1
	 x1	 x1	 x1	 x1	 x1	 x1
	 x1	 x1	 x1	 x1	 x1	 x1
	 x12	 x10	 x10	 x20		
TASKS						
ACTIONS						

## Aim of the game

The aim of the game is to match the profession cards with their three tasks by placing these cards face up. The player who completes their profession card with its task cards first is the winner.

## Setting up the game



**Sort** the cards into three piles: one for profession cards, one for task cards, and one for action cards.



**Deal** one of each profession card to each player and place them face up in a line in front of each player. Discard the remaining profession cards that are not used in the game.

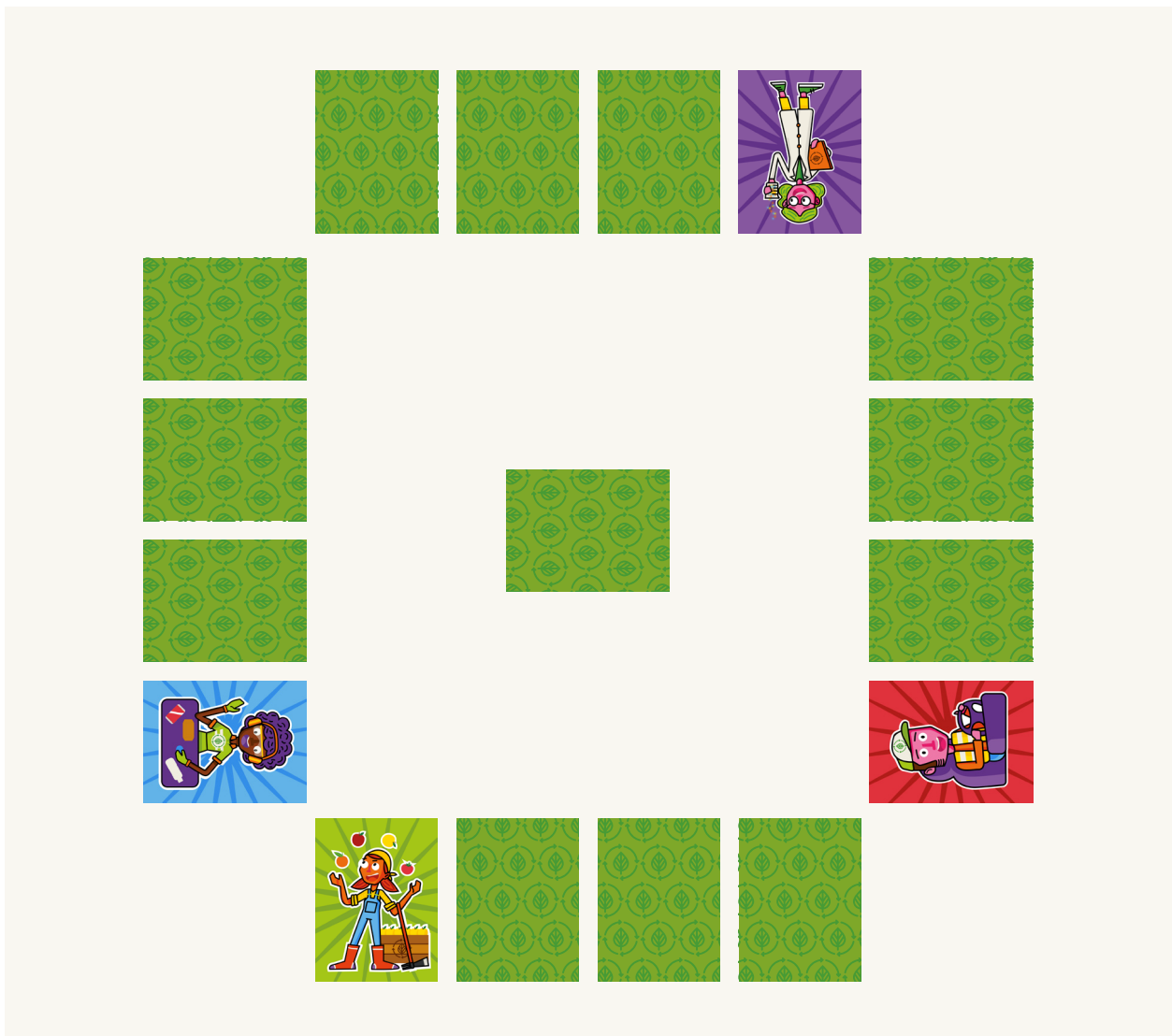


**Deal** the three task cards corresponding to their profession to each player and place them face down next to the corresponding profession card. Discard the remaining task cards that are not used in the game.



**Shuffle** the action cards, then deal three cards to each player. Place the rest of the deck face down on the table within reach of all players.

An **example** of a game set up for 4 players would be as follows:



## How to play

The game is played clockwise. The starting player is the player that last recycled something. In the event of a tie, the youngest player will start.

Each turn consists of two steps:



Draw a card from the draw deck



Look at your cards and choose one of the following two actions:

**A.**

Play an action card. Discard Tornado, Pollution or Recycling action cards onto the discard pile. If playing a Lack of Resources card, place it on another player's face-up task card.

**B.**

Discard an action card on the discard pile if you cannot or do not want to play one.

You must perform one of these two actions on your turn. After that, it is the next player's turn.

Play continues in the same way with the aim of completing the three tasks of each profession.

## Example of gameplay sequence



**Player A** (Farmer growing bio-based materials) starts their turn, draws an action card, and gets a **Recycling** card.



**Player C** (Bioeconomy researcher) draws an action card and gets a **Tornado** card.



**Player A** uses the **Recycling** action card to complete their "Use compost" task.



**Player C** plays the **Tornado** card, and all players exchange their action cards with the player to their left.



**Player B** (Recycling centre) draws an action card and gets a **Lack of Resources** card.



**Player D** (Transporter) draws an action card and gets a **Pollution** card.



**Player B** uses the **Lack of Resources** card to block Player A's "Use compost" task.



**Player D** uses the **Pollution** card to make **Player A** miss their next turn.

## End of the game

The game ends when the three task cards of one player are face up on the table.



# GAME MODE 2

## "BioHeroes get to work"

### Contents




The game contains **88 cards** divided into **18 profession cards**, **54 task cards** and **16 action cards**. They are divided into the following types:



## Aim of the game

The aim of the game is to complete a profession by placing three task cards next to the corresponding profession card. The player who completes a profession card first in front of them is the winner.

## Setting up the game

-  Shuffle the deck, then deal **3 cards to each player**.
-  Place the deck face down on the table within reach of all players.
-  The discard pile will be placed next to it, face up. If the draw deck runs out of cards, shuffle the discard pile and place it face down to form a new draw deck.

## How to play

The game is played clockwise. The starting player is the player that last recycled something. In the event of a tie, the youngest player will start.

**Each turn consists of three steps:**



Look at your cards and choose one of the following three actions:

- A.** Place a profession card or a task card next to a profession card in front of you.
- B.** Play an action card then, place it on the discard pile.
- C.** Discard as many cards as you want.



Draw as many cards as needed to complete your hand of three.



Pass the turn to the next player.

Play continues in the same way with the aim of completing the three tasks of a profession.

## End of the game

The game ends when a profession card on the table is completed. The player who completed first win.



## List of cards



# Bioeconomy researcher

## Tasks

- 01 Develop creative products
- 02 Develop novel food
- 03 Conducting experiments



# Farmer growing bio-based materials

## Tasks

- 01 Biological pest control with ladybirds
- 02 Rainwater harvesting
- 03 Use compost





## List of cards



# Transporter

---

## Tasks

- 01** Design ecological routes
- 02** Select sustainable means of transport
- 03** Use sustainable packaging

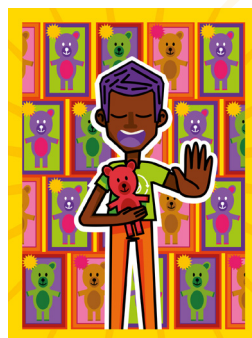


# Buyer

---

## Tasks

- 01** Enhance local consumption
- 02** Reduce, recycle and reuse
- 03** Enhance conscious consumption



## List of cards



# Seller

## Tasks

- 01 Offer bio-based, circular and recycled products
- 02 Offer products with ecological awareness labels
- 03 Use clean energy



# Recycling centre

## Tasks

- 01 Separating and sorting waste
- 02 Produce compost
- 03 Produce biogas



# List of cards

## ACTION CARDS

Action cards can change the game to help you win. Use them to your advantage or to prevent your opponents from completing their goals before you.

**In game mode 1 “BioHeroes discover the tasks”,** you play these cards as soon as you draw them from the deck.

**In game mode 2 “BioHeroes get to work”,** you can play these cards as soon as you draw them from the deck or discard pile, or choose to wait until it suits you.



### Tornado

#### Game mode 1 & mode 2

When this card is played, all players pass their hand to the player on their left.



### Lack of resources

#### Game mode 1

The player can choose another player of their choice to block a task played face up by another player. The player places it on another player's face-up task card. Only one card may be placed. card has not been completed.

#### Game mode 2

The player can take a task card placed on a profession card by another player.



### Pollution

#### Game mode 1 & mode 2

The player can choose another player of their choice to miss a turn.



### Recycling






#### Game mode 1

The player can place their own task card face up, or unblock a previously blocked task card by removing the Lack of Resources task.

#### Game mode 2

The player can block a profession card or a task card by placing this card on top of it.

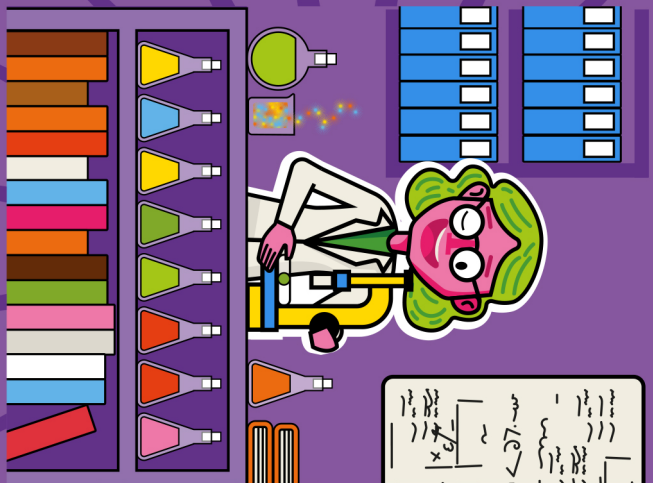
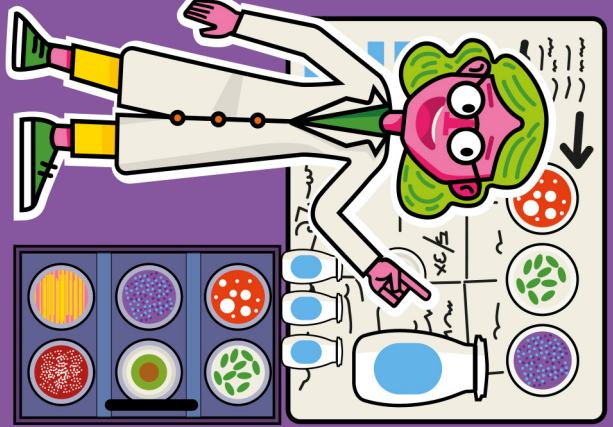
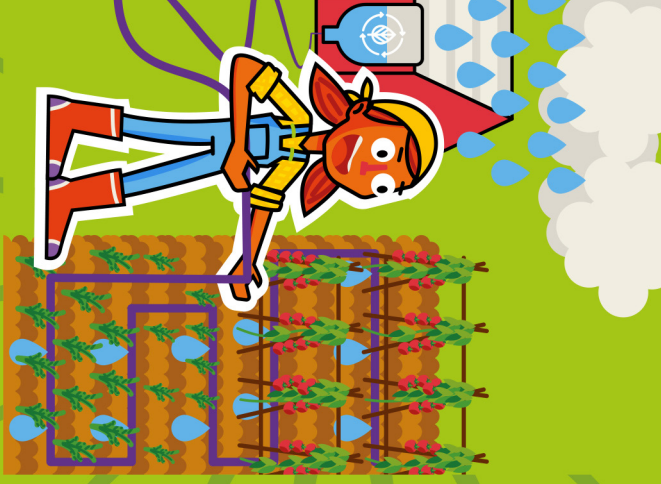
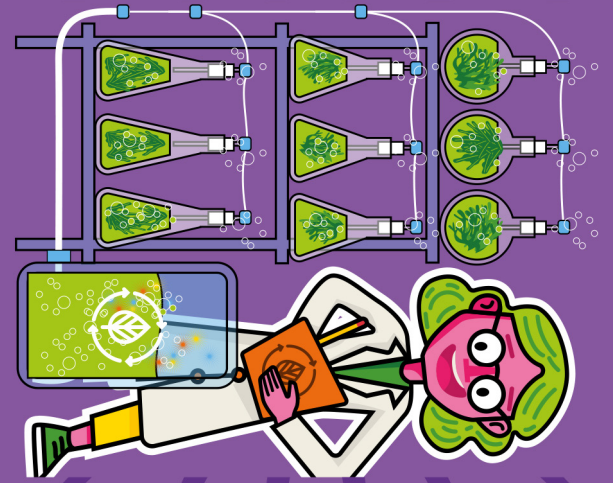
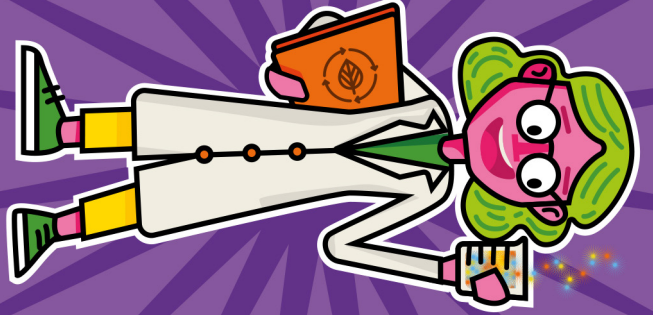
# PRINT

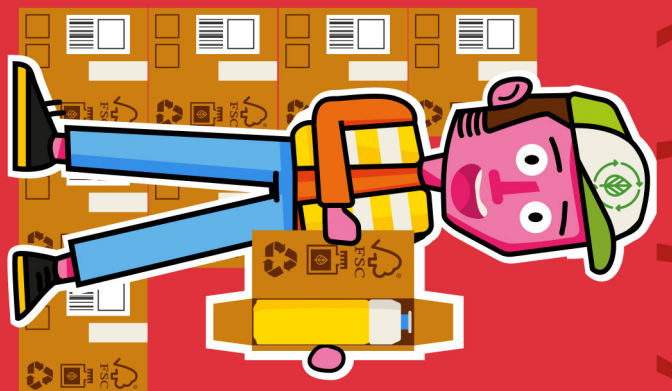
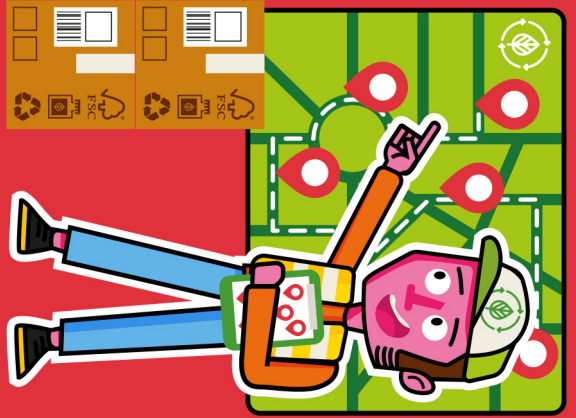
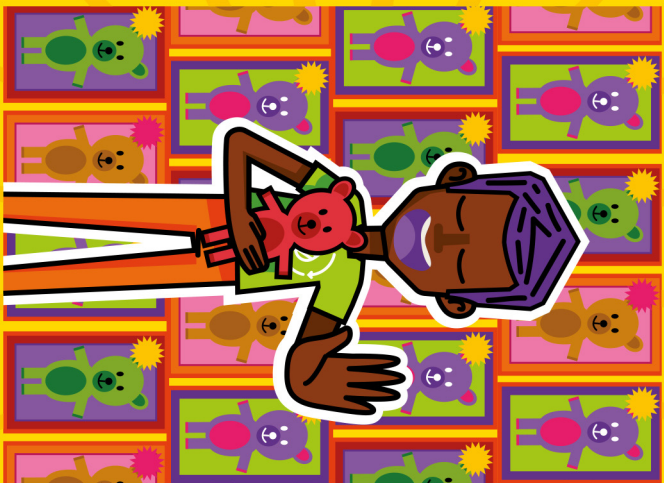
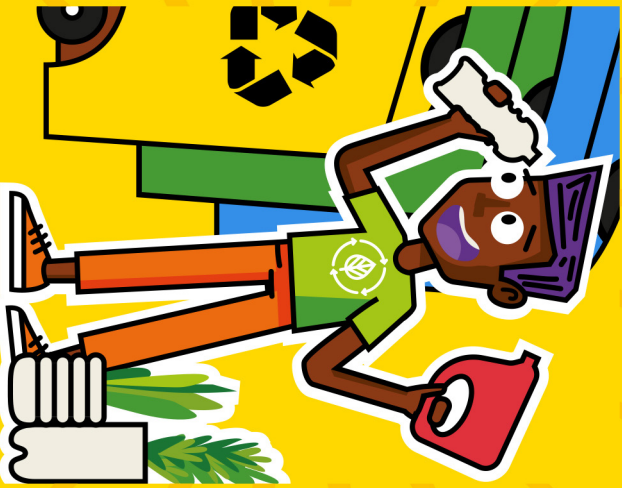
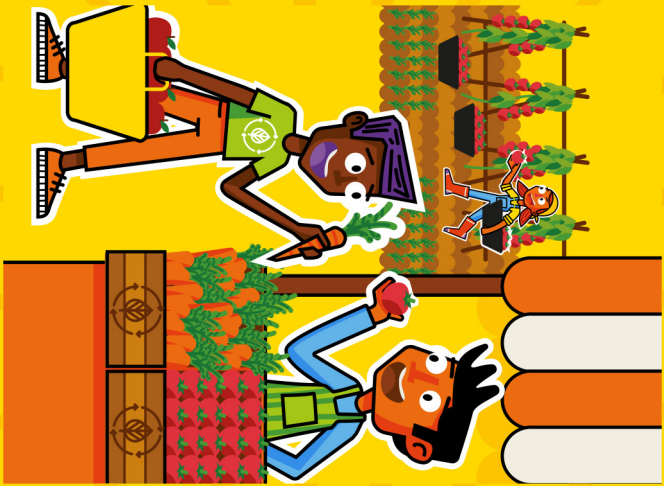
-  Print the pages on A4 sheet of paper.
-  Print as many card backs as you need.
-  Glue the card fronts and backs onto cardboard.
-  Cut around the edges.
-  Enjoy playing!

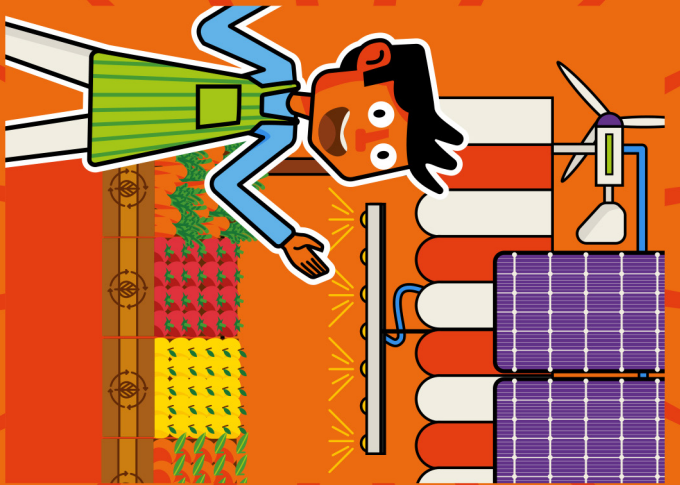
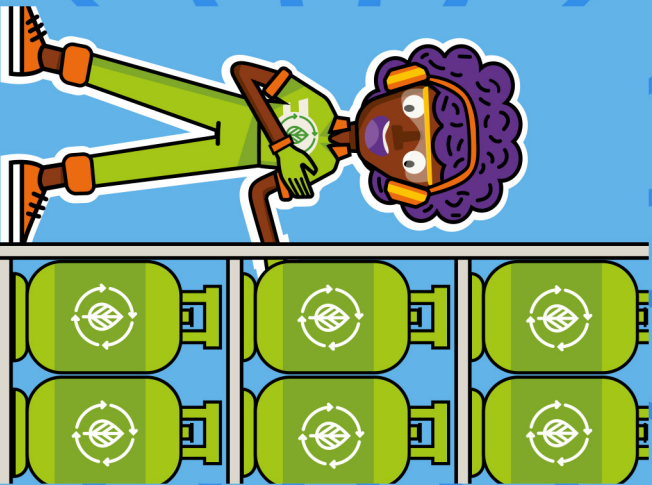
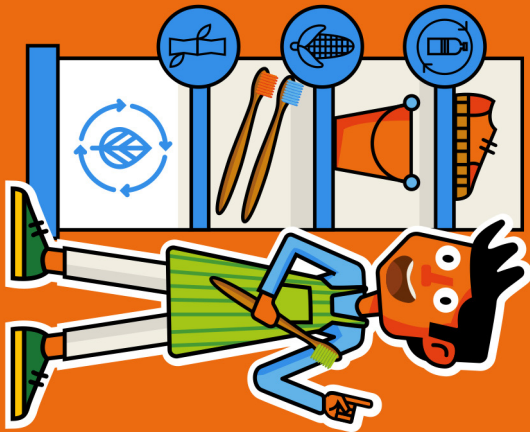
Example



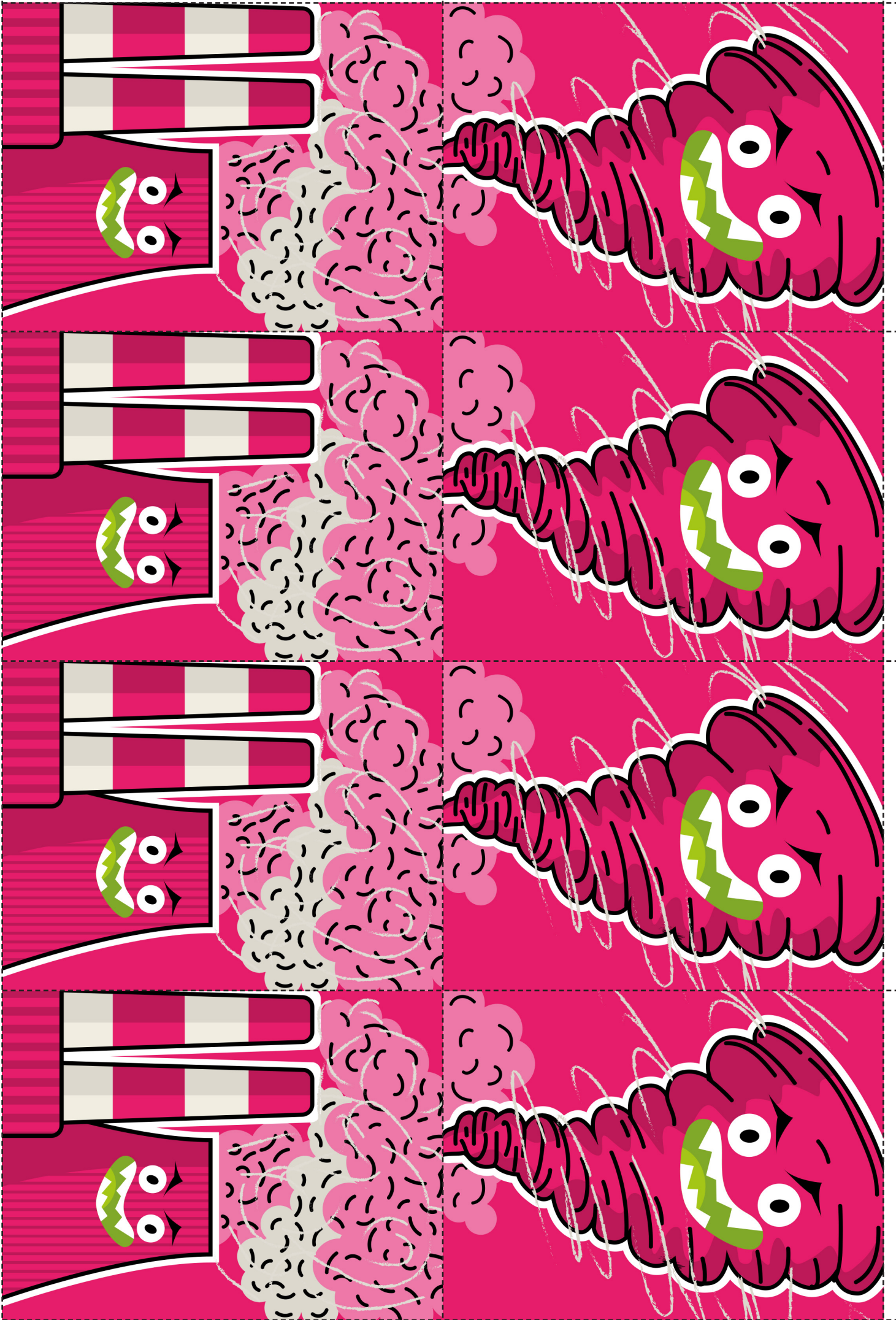
**GAME MODE 1**  
**"BioHeroes discover the tasks"**

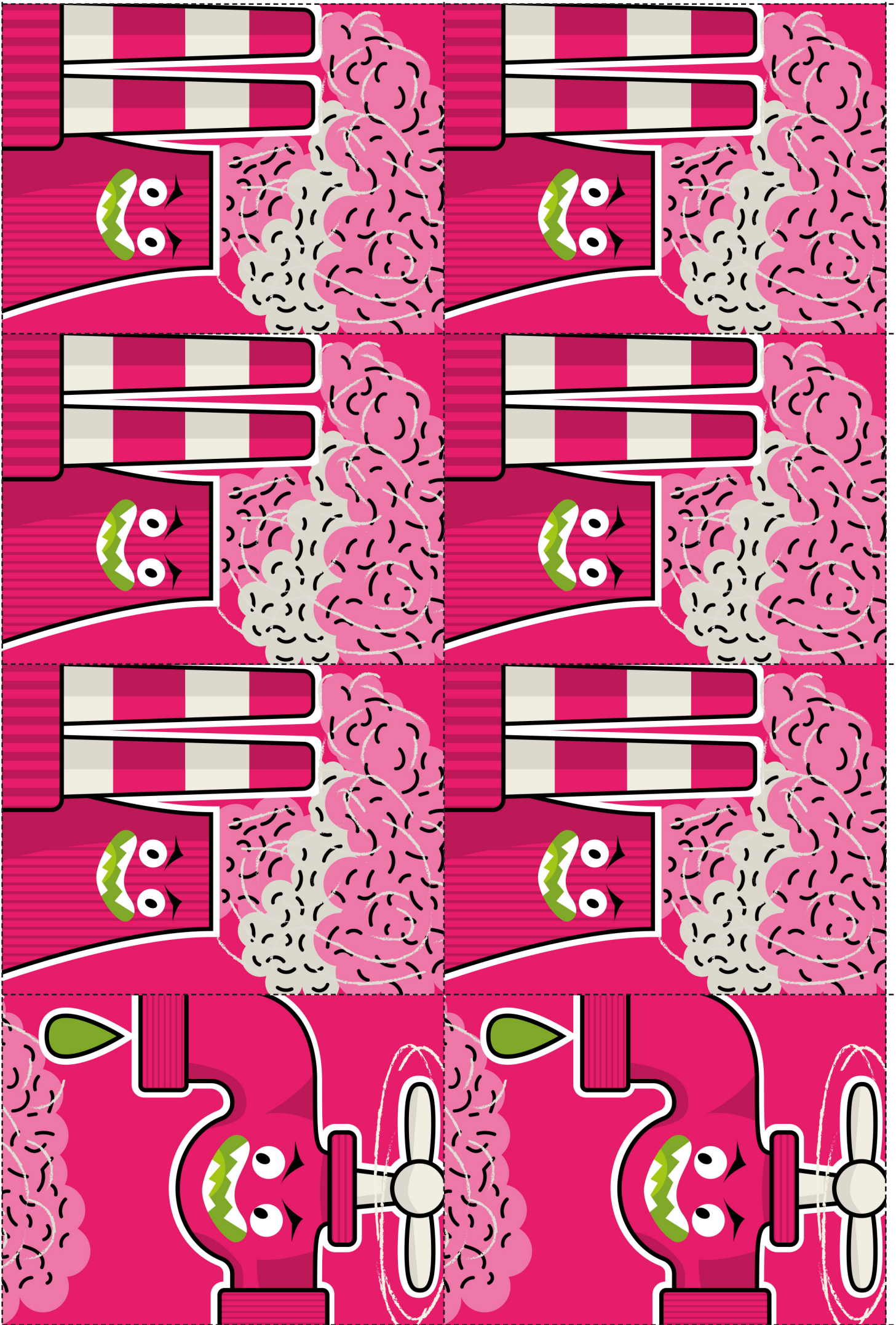


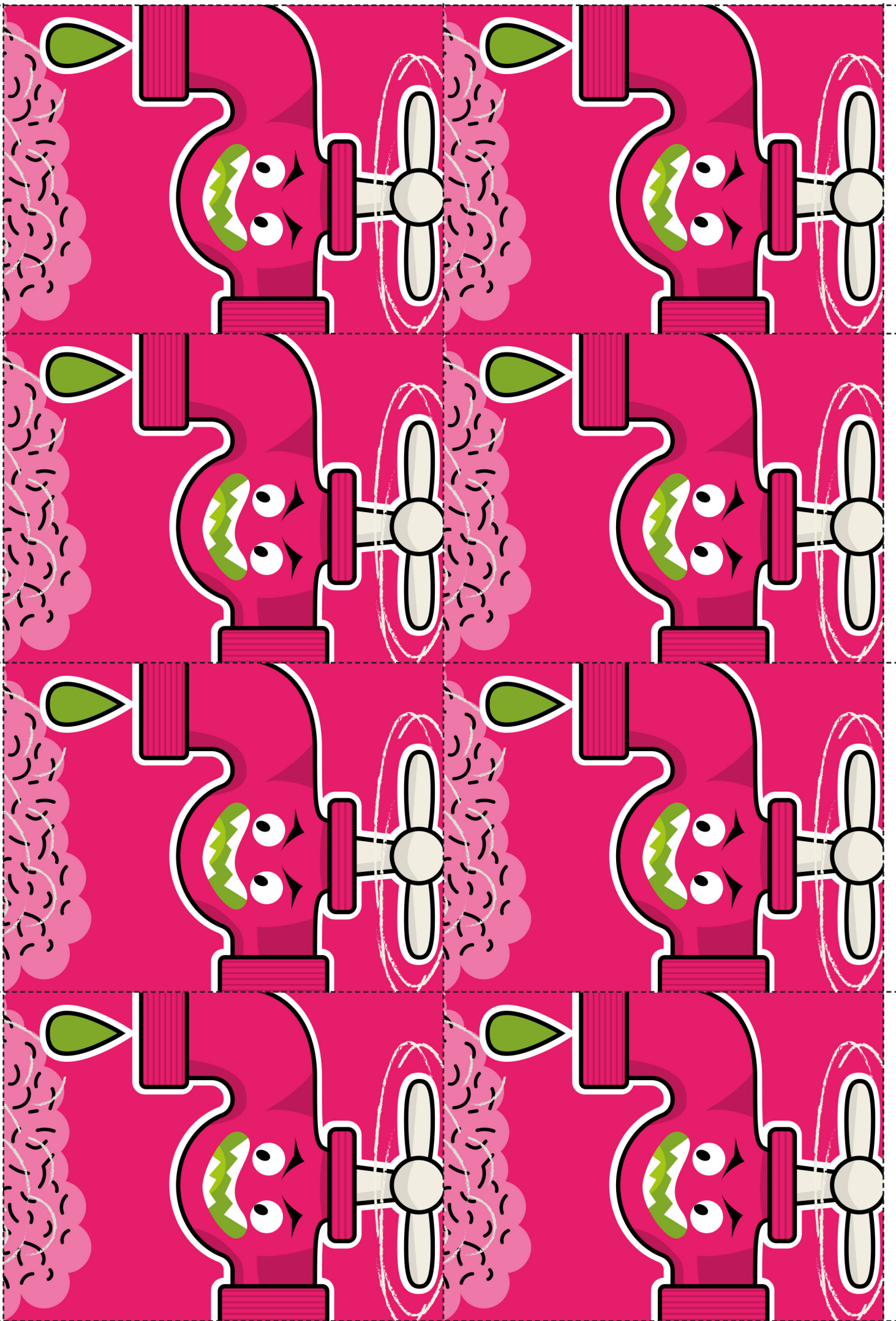






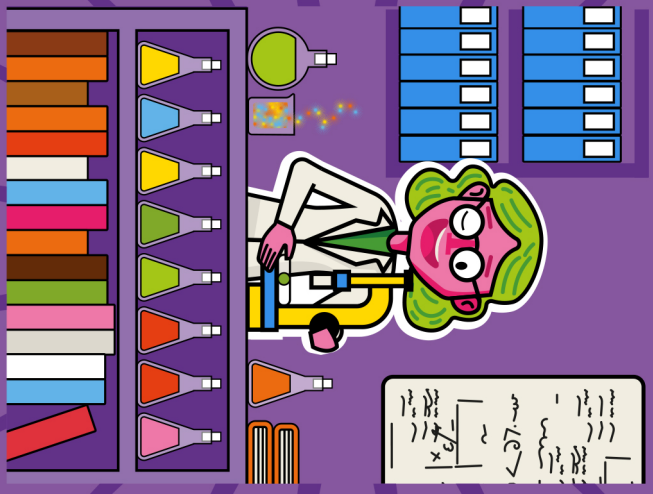
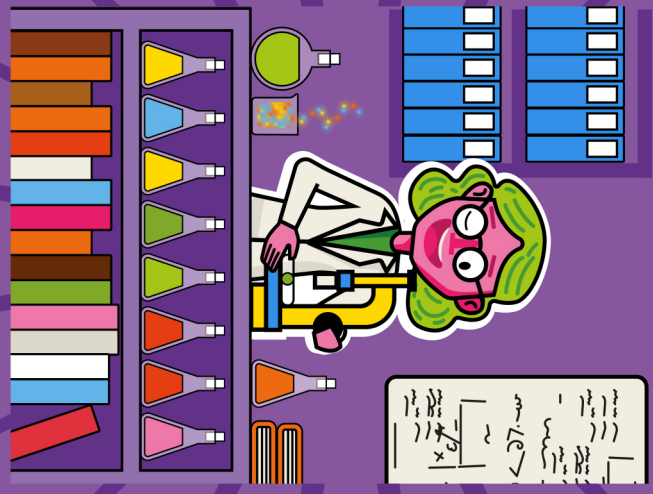
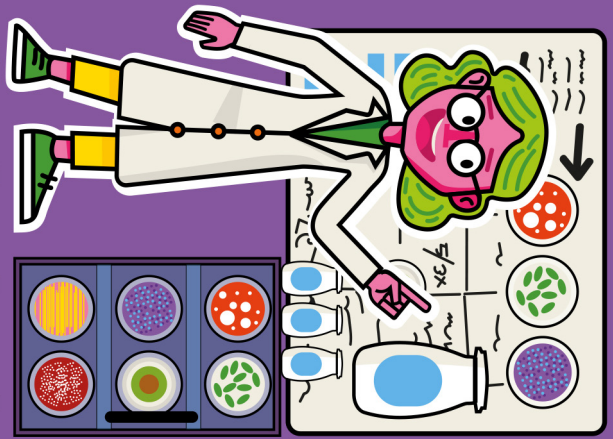
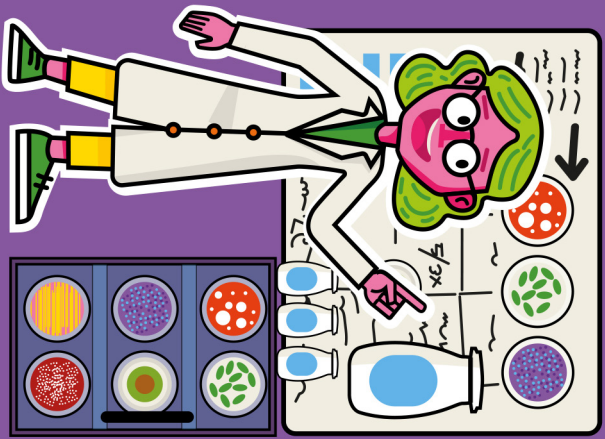
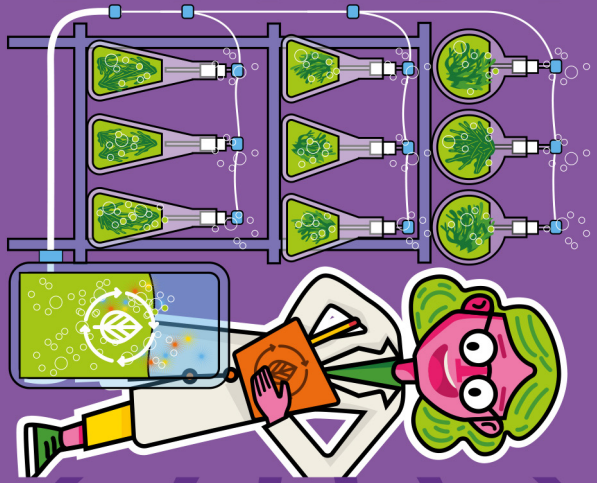
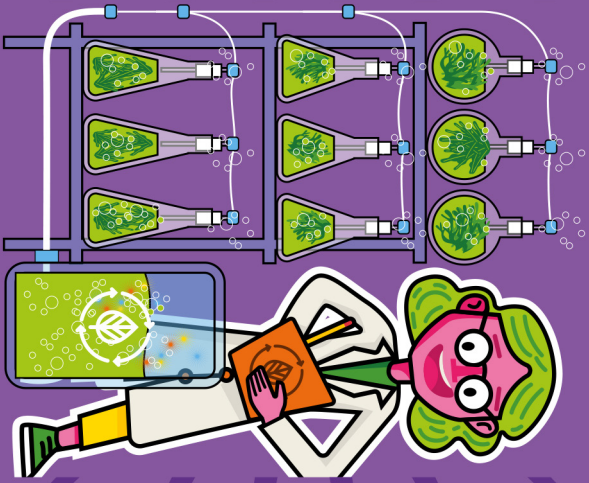
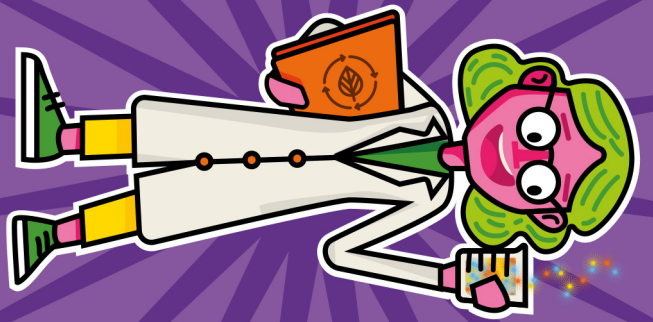
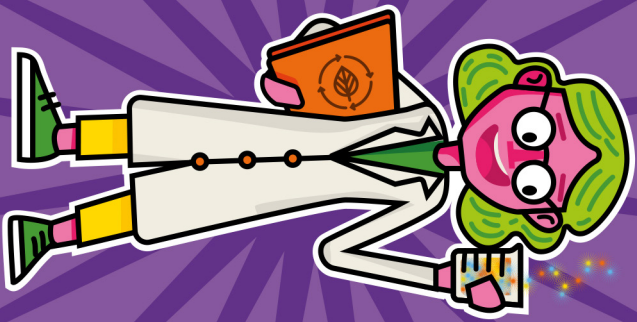


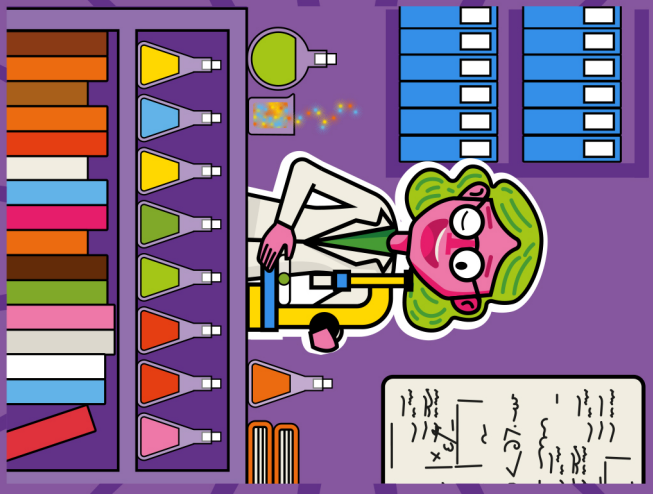
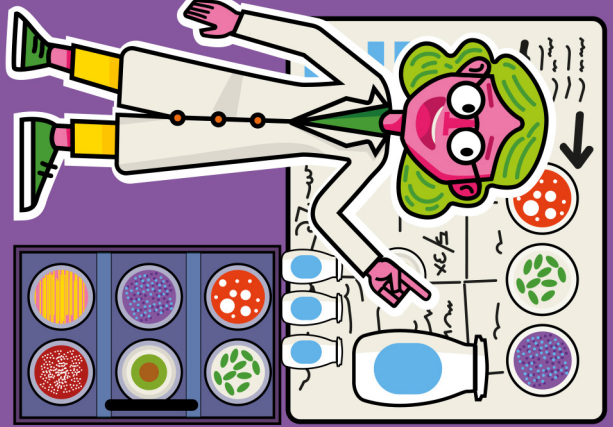
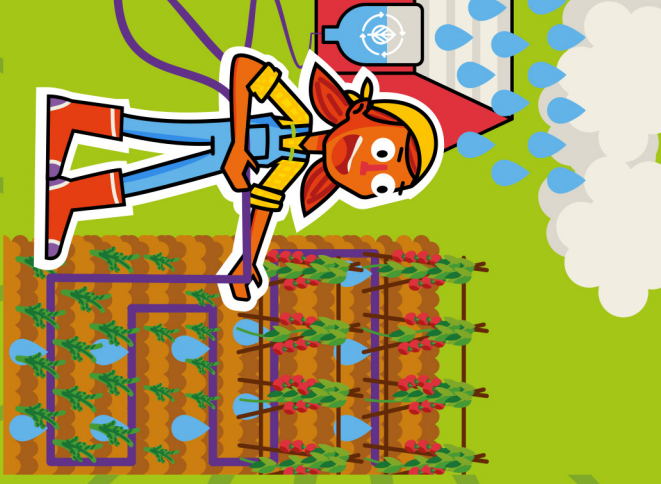
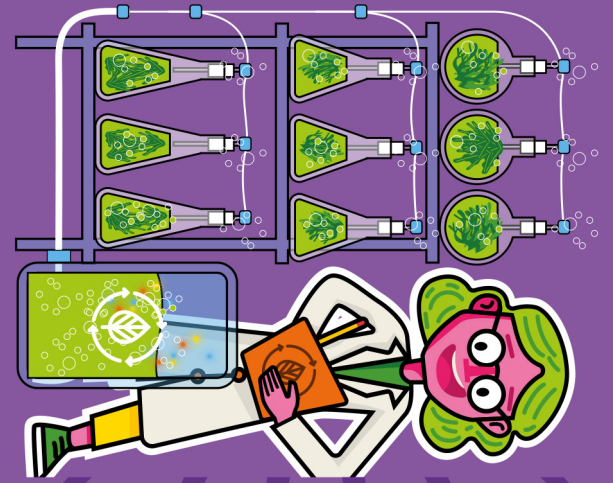
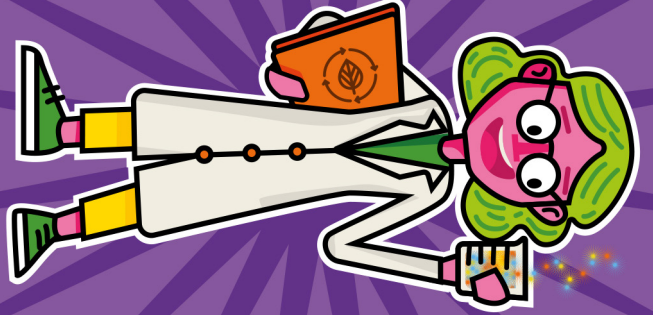
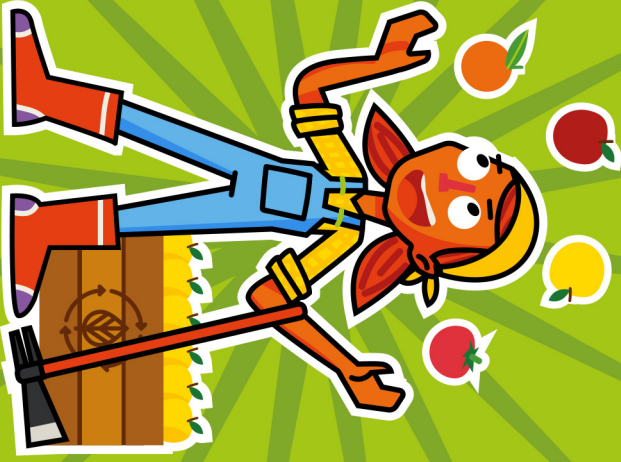


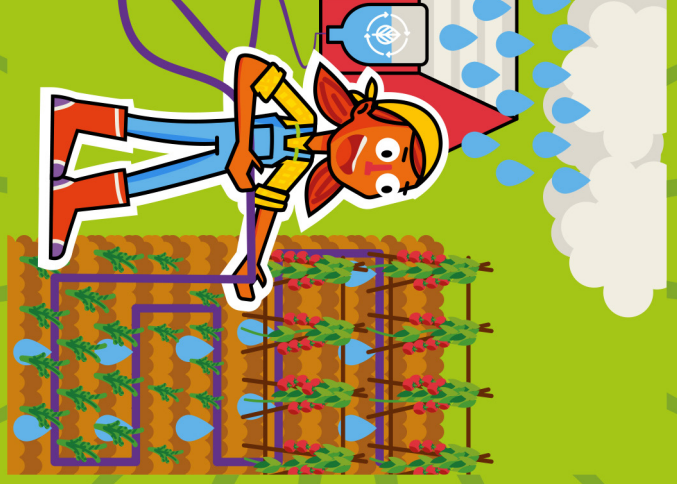
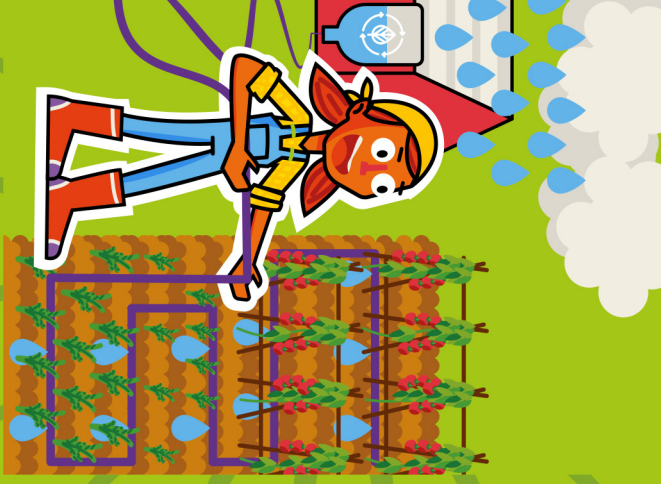
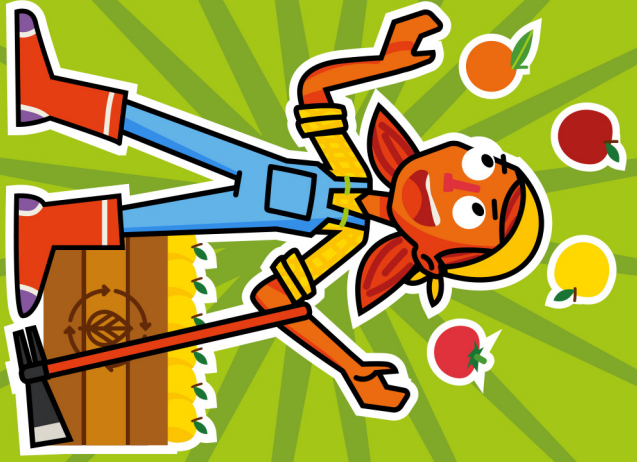




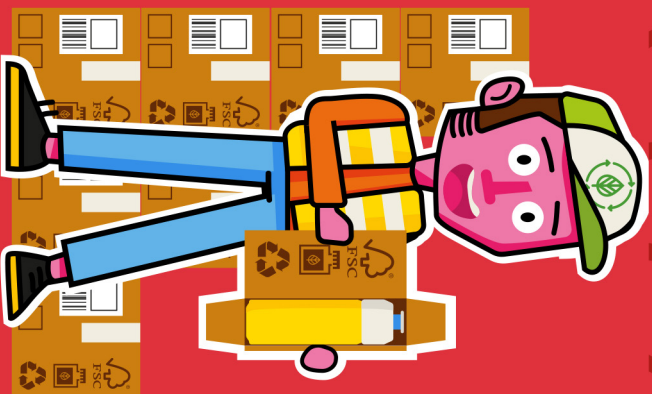
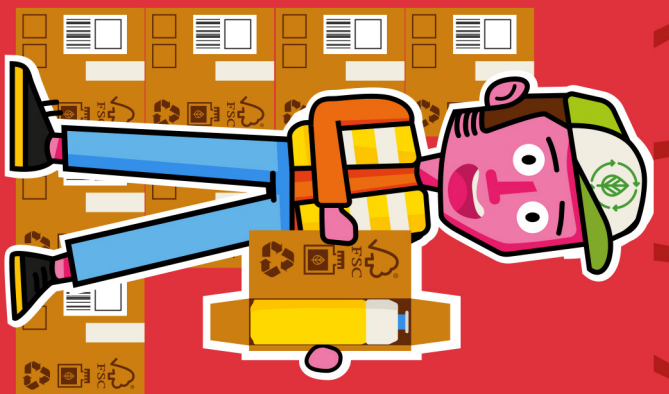
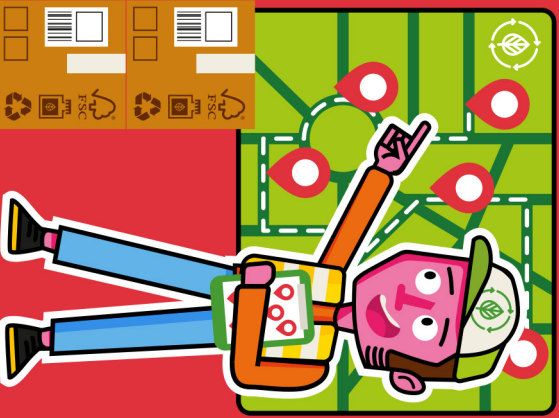
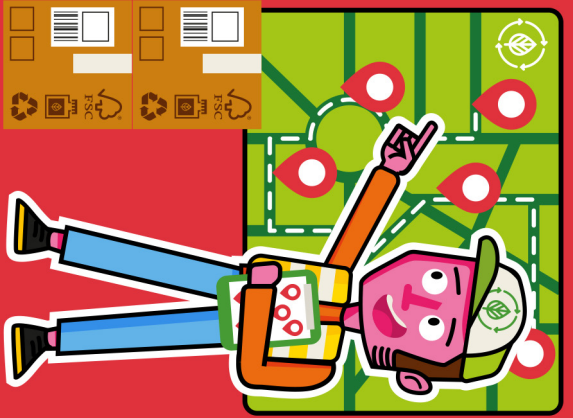
**GAME MODE 2**  
**"BioHeroes get to work"**

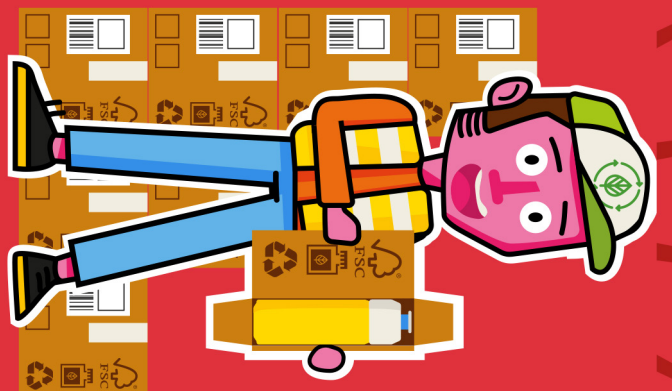
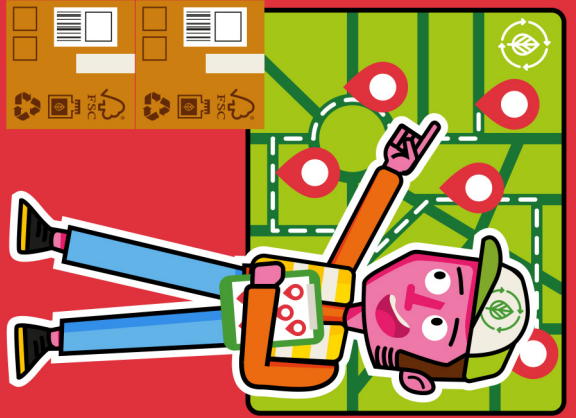
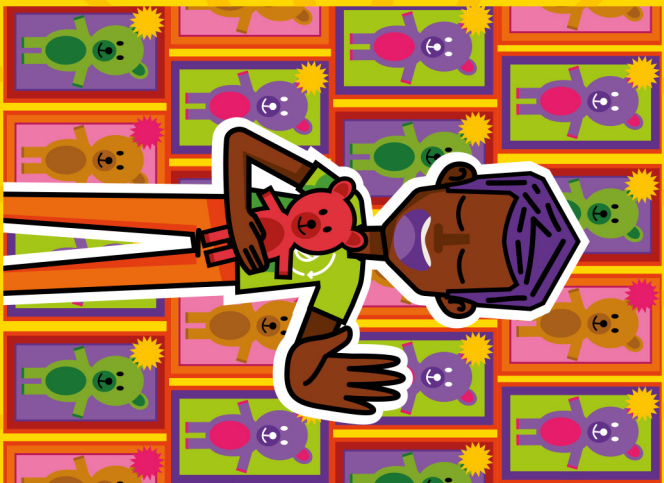
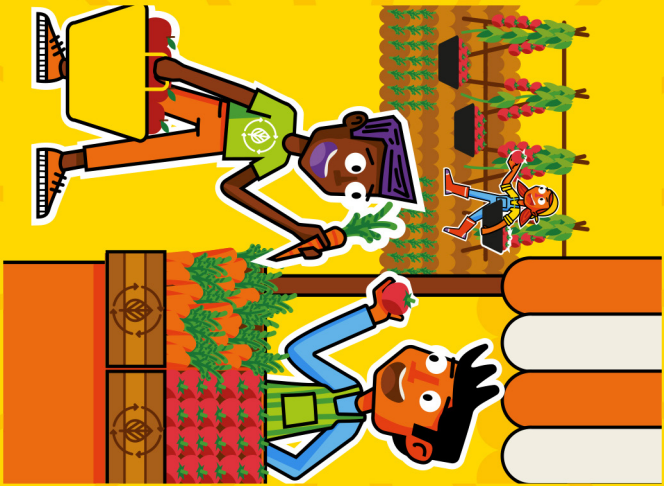


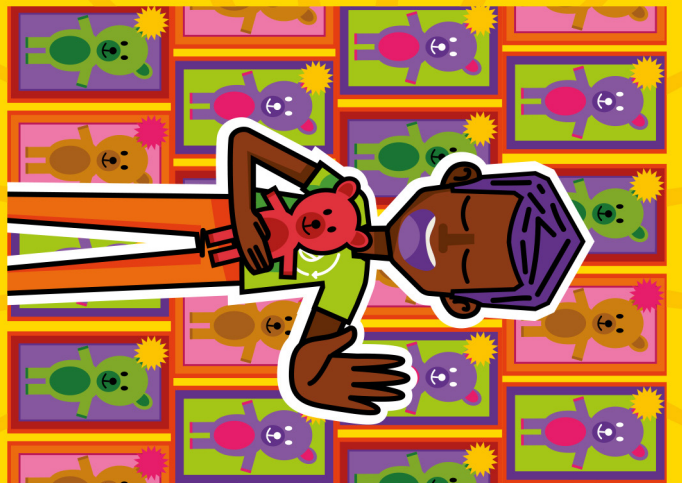
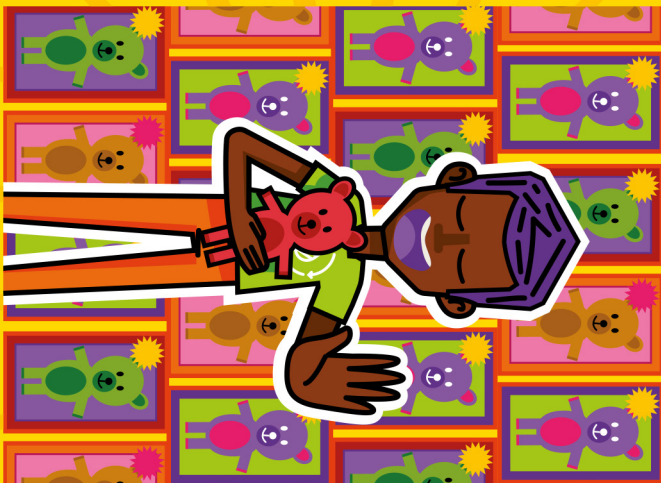
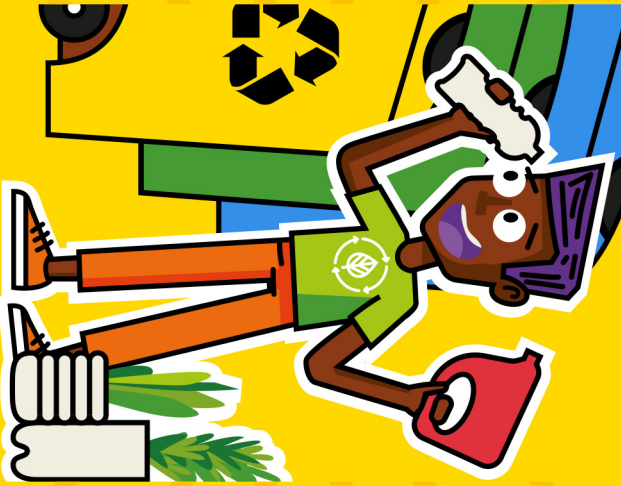
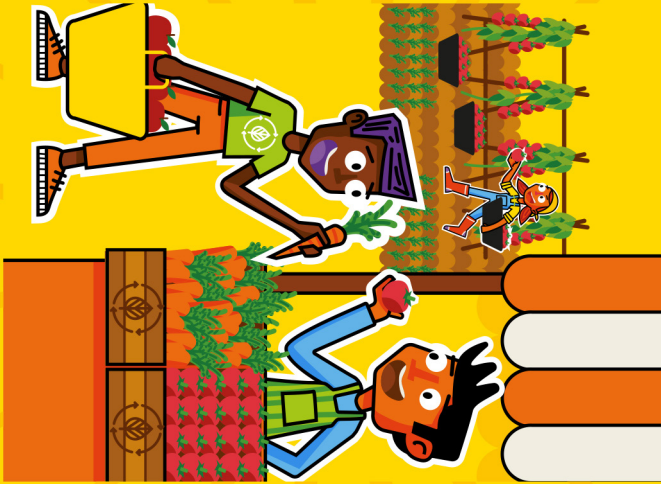


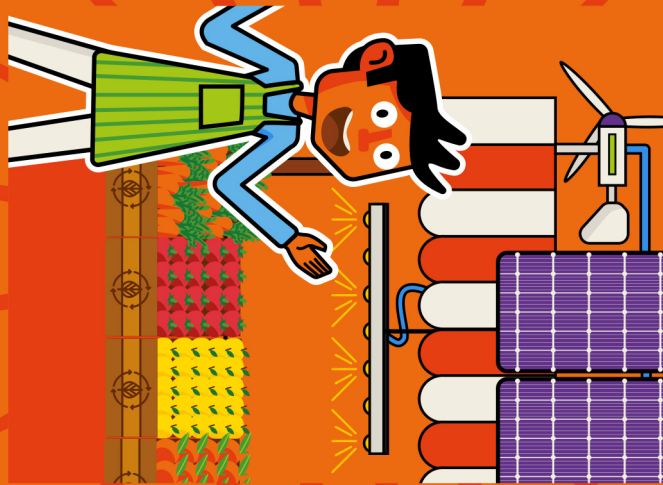
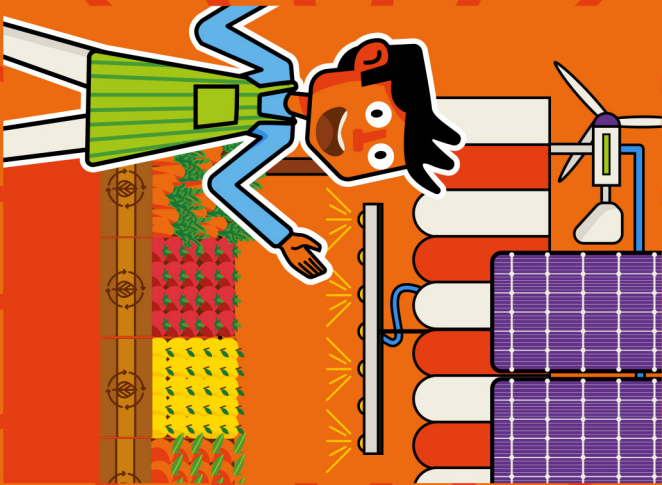
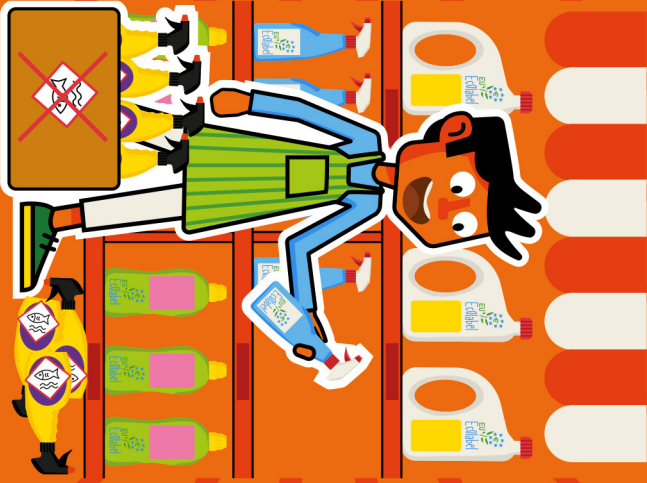
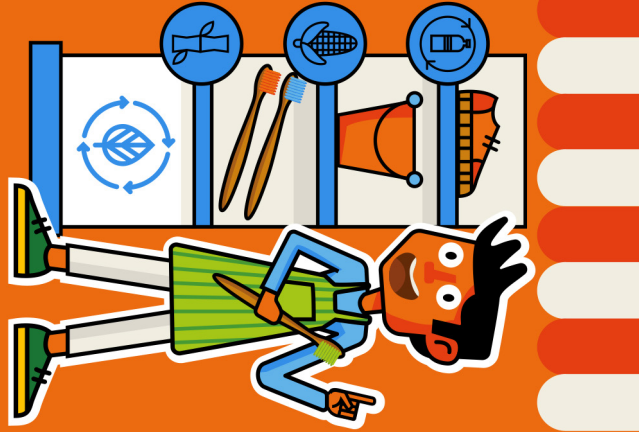
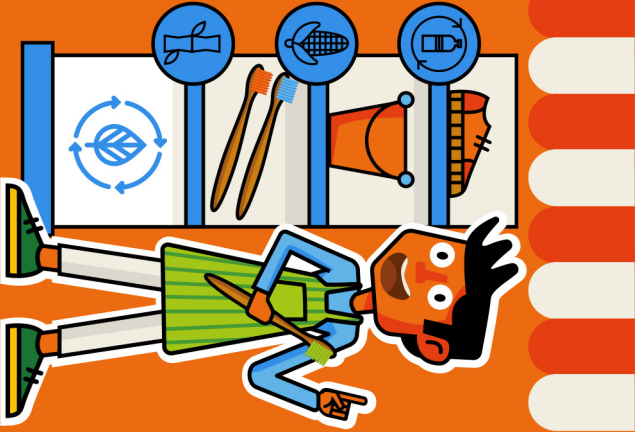


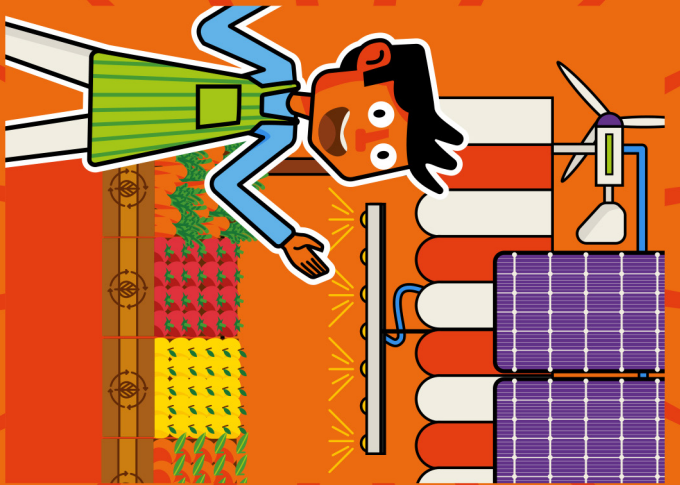
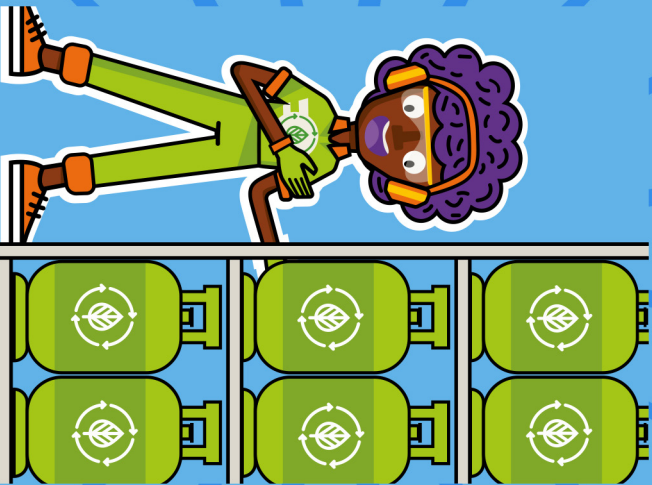
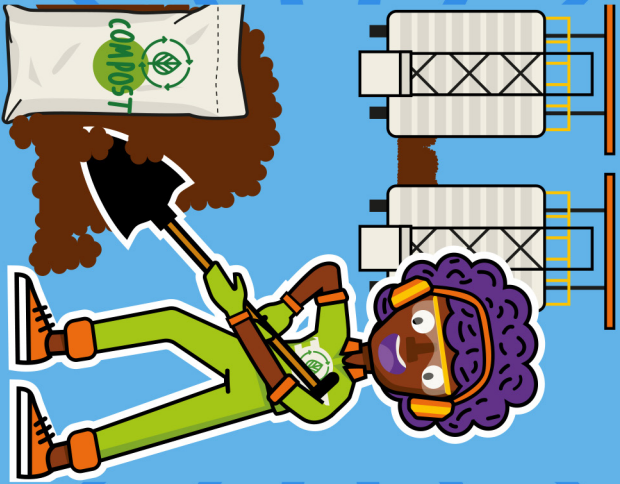
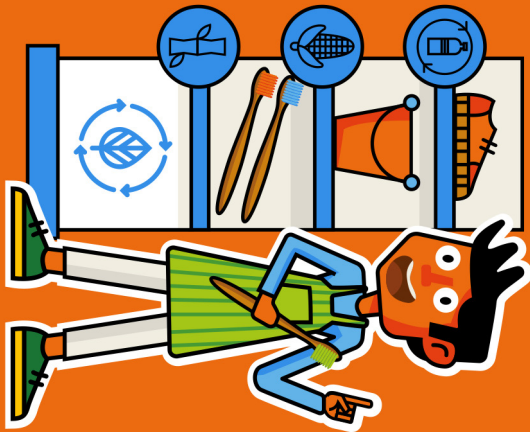


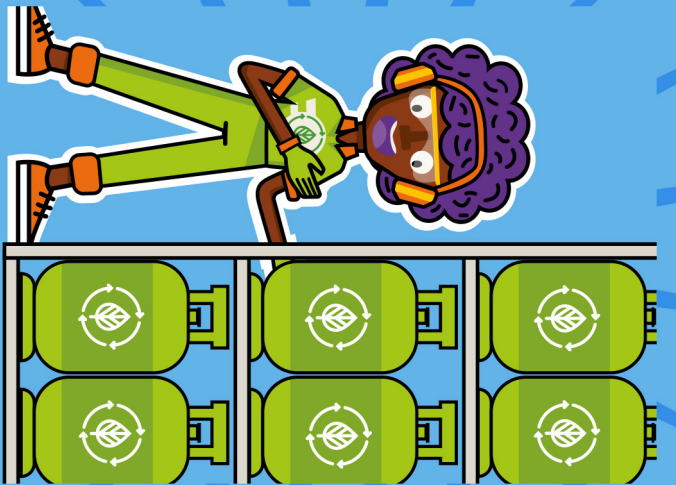
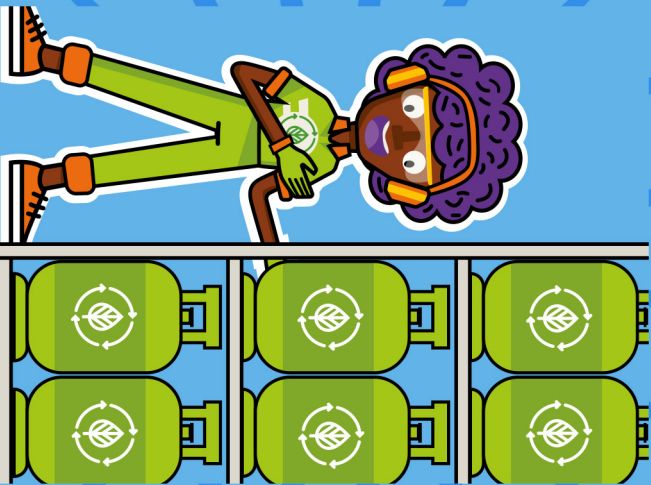


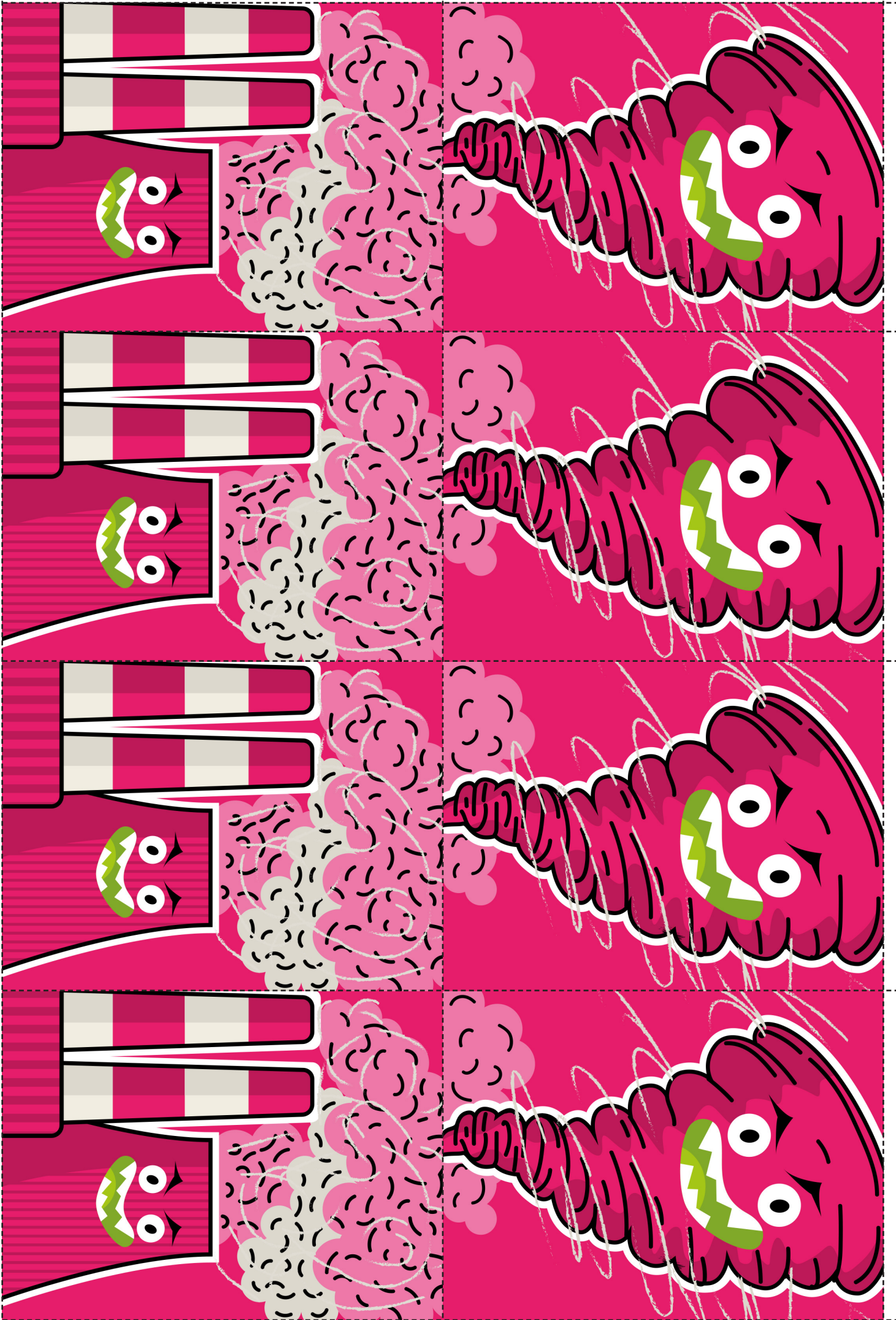


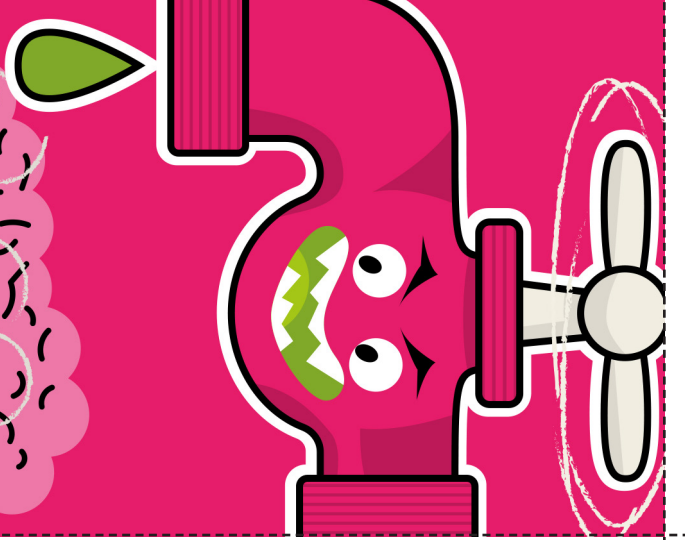
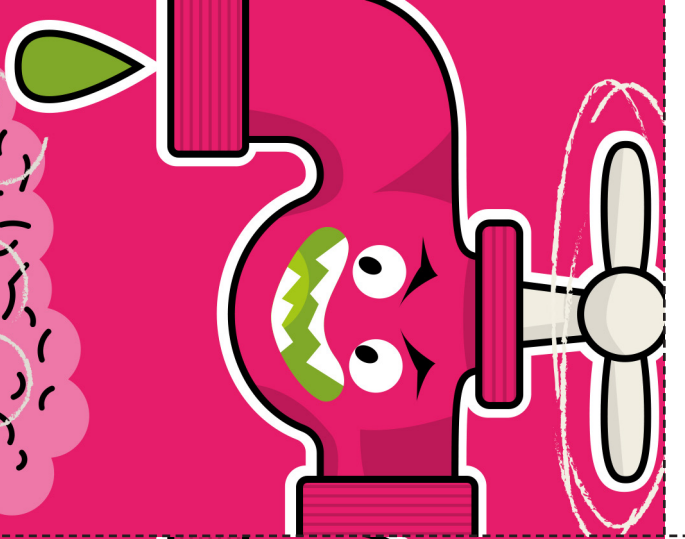
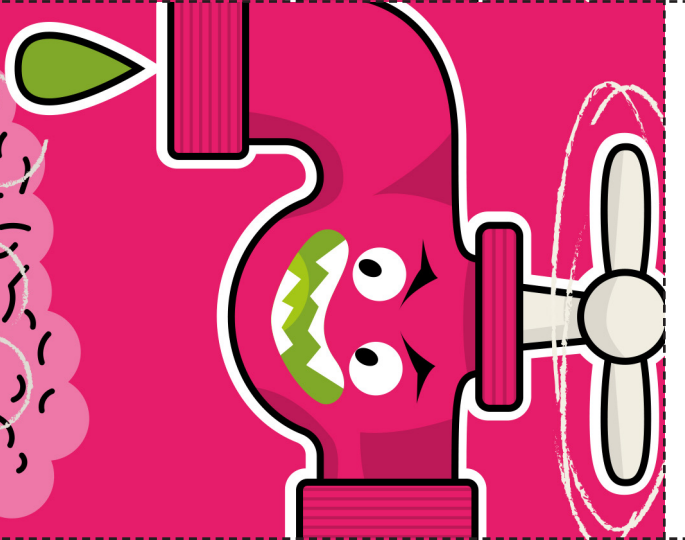
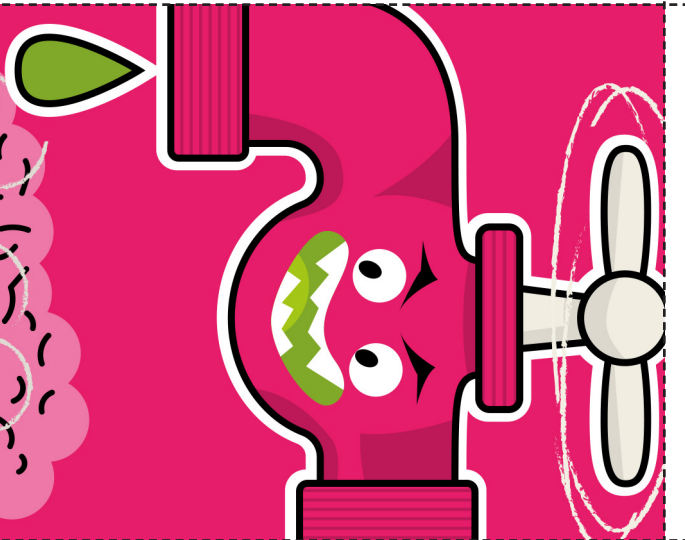
















# GEN

## OUR CONSORTIUM



Funded by  
the European Union

[www.genb-project.eu](http://www.genb-project.eu)

[info@genb-project.eu](mailto:info@genb-project.eu)